

STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY AND FIRE PROTECTION
SOQUEL DEMONSTRATION STATE FOREST

TIMBER SALE AGREEMENT
FERN GULCH TIMBER SALE

THIS AGREEMENT, made this {date} day of {month} 2012, at Sacramento, County of Sacramento, State of California, by and between the State of California, through its duly appointed, qualified Director of the California Department of Forestry and Fire Protection, hereinafter called the STATE, and {purchaser's name} hereinafter called the PURCHASER.

WITNESSETH, that for and in consideration of the covenants, conditions, agreements, and stipulations hereinafter set forth, the parties hereto agree as follows:

TIMBER SALE LOCATION

1. The STATE agrees to sell to the PURCHASER, and the PURCHASER agrees to purchase from the STATE all designated dead timber, standing or down, and all the live timber designated for cutting by the State's Timber Sale Officer and merchantable as hereinafter defined, on an area of about 201 acres, in the Northwest portion of the Shoquel Augmentation. This area is within projected Sections 1 and 12, Township 10S, Range 1W, Mt. Diablo Baseline and Meridian. The location of this timber sale is approximately seven miles Northeast of Soquel, in Santa Cruz County, California, and as designated on the attached maps, Exhibit A, which hereby is made part of this Agreement, at the rates and in strict conformity with the requirements and conditions hereinafter set forth for saw logs and other merchantable material; the PURCHASER further agrees to do other work as herein specified.

2. The species, estimated net merchantable amounts by the Revised Scribner Log Rule to be cut under the methods of marking hereinafter set forth and demonstrated by marking, the rate of payment per thousand board feet, as well as total estimated value are as follows:

Species	Estimated Volume (MBF) (net)	Rate per MBF	Estimated Value
Redwood	2,500 MBF	\$	\$
Douglas-fir	73 MBF	\$	\$
Totals	2,573 MBF		\$

Cull logs or conifer species not merchantable as defined in the Agreement, shall be paid for by the PURCHASER at the rate of \$5.00 per ton, or at \$25.00 per thousand board feet gross scale, if scaled. Hardwood logs removed from the sale area shall be paid for at the rate of \$5.00 per ton.

BID DEPOSIT/ADVANCE PAYMENT

3. A minimum deposit in the sum of forty thousand dollars (\$40,000) shall be submitted with the bid for this timber sale. The deposit shall be held by the STATE as a guarantee that all periodic payments as called for by the Timber Sale Officer shall be made in advance of cutting of timber referable thereto and for the satisfactory performance by the PURCHASER of all the terms and conditions hereof. This deposit shall be applied by the STATE to the final payment called for by the Timber Sale Officer upon completion of faithful performance by the PURCHASER. No cutting shall proceed on any trees for which payments have not been made. During active operations, the Timber Sale Officer shall establish a payment schedule based on the estimated rate of cutting. Periodic payments will be required in increments of not less than the value of two weeks of cutting. Payments shall be made when requested by the STATE. If payment is not received by date requested, STATE may suspend PURCHASER'S operations until payment is received.

If legal action by a third party prevents the initiation of timber harvesting activities within 90 days of STATE approval of this Agreement, the PURCHASER may request and the STATE will approve the termination of the Agreement without prejudice, and the STATE will return the PURCHASER's performance security and bid deposit(s), not including any accrued interest. The PURCHASER's written request for termination must be submitted within the 90-day period and must reference this condition of the Agreement.

4. This contract includes work to be done as mitigation for the effects of timber operations. This work can include activities in direct mitigation, off site mitigation, or compensation for the impacts of timber operations. It includes treatment of logging slash, site preparation of logging units, roadwork such as building seasonal roads, road abandonment, rocking, reshaping, creating rolling dips, maintenance work, and watercourse crossing installation; all such work is required to ensure that timber operations do not result in a significant effect on the environment. This work is outlined in Exhibit C of this agreement.

Once timber operations have commenced, the PURCHASER agrees to continue operations at a normal production level until all contractual provisions are completed unless shutdowns are required by wet soil conditions, hazardous fire conditions, or are otherwise approved by the Timber Sale Officer.

5. This agreement shall become effective on the date that all required State approvals are obtained. PURCHASER shall begin felling logs from the sale area no earlier than May 1, 2012 and no later than June 15, 2012. The Forest Manager will determine when harvesting operations may begin and will base this decision on timber harvesting plan requirements, soil moisture and road hauling conditions. All merchantable timber designated for cutting shall be paid for, cut and delivered by October 15, 2013. Unless a written extension of time is granted by the Director of the California Department of Forestry and Fire Protection, all requirements of this agreement shall be complied with before May 15, 2014. This date may be extended or the required volume may be adjusted mutually by the STATE and the PURCHASER due to unforeseen circumstances.

The PURCHASER agrees to provide the STATE, within 30 days of signing this timber sale agreement, a production schedule detailing the projected cutting and removal of timber and the construction of roads and improvements by time, amount, and rate. The production schedule will be based upon harvesting at least 100 MBF/week. The Soquel Demonstration State Forest Manager must approve any changes in the production schedule in writing.

The STATE may grant an extension of operating time, upon written request of the PURCHASER and upon the terms and conditions as specified by the STATE. The extension, if granted, shall be contingent upon advance extension payment of 1.88 percent simple interest per annum, prorated for the time granted, on the unpaid portion of the timber value of the contract. The unpaid portion of the contract shall be determined by subtracting the sum of timber payments received as of the original contract termination date from the total contract value based on the timber inventory estimate. Upon completion of log removal, the extension payment due will be recalculated and adjusted by the STATE based on the actual unpaid monthly balance beginning with the original termination date and each month thereafter. The unpaid monthly balance shall be determined by subtracting the sum of all stumpage payments received, on or before the 15th of each month, from the final value of all forest products removed. Operating time extensions granted under this provision shall not alter the scheduled progress payments required above. Operating time extensions shall not be granted if said scheduled progress payments have not been received by STATE or if any other contractual requirements have not been met by PURCHASER.

6. The boundaries of the sale area have been marked with pink flagging that has printed on it "TIMBER HARVEST BOUNDARY", and as depicted on the attached maps (Exhibit A), and has been examined by the PURCHASER. The PURCHASER shall cut all coniferous trees within the timber sale boundary marked with Blue or Yellow paint. Note that old blue paint may be visible on some trees. The obviously older blue paint shall be ignored. The PURCHASER agrees to log the timber designated for cutting as described herein. The STATE does not guarantee the amount of timber named in the estimate.

The PURCHASER understands that the primary objective of the STATE in entering into this Agreement to log the sale area, which is a part of Soquel Demonstration State Forest, an experimental forest of the State of California, is to provide a research and demonstration area and to determine the facts and data concerning the timber sale area and the treatment thereof through the actions of the PURCHASER under this Agreement.

All logs produced from trees cut on John Fairweather's property shall be skidded, decked and in all manners handled separately from SDSF logs at all times. These logs shall be 100% branded with a "F" and the brand shall be highlighted in YELLOW Paint. These logs shall remain the property of John Fairweather.

The STATE intends to conduct two projects in Soquel Creek adjacent to the Timber Harvesting Plan area that will require logs and rootwads with specific dimensions. The first project will utilize logs and rootwads to stabilize a segment of Soquel Creek streambank adjacent to Hihn's Mill Road at MP 1.36. The second project will involve placement of logs and rootwads in Soquel Creek for aquatic habitat improvement. The PURCHASER shall be responsible for producing and delivering only those logs and rootwads described in Exhibit C. Delivery of these materials is critical to the success of those projects and therefore shall be a priority for the PURCHASER. The specified logs and rootwads shall be delivered prior to August 15, 2012. Failure to produce these materials by the agreed-upon dates may result in a charge to the PURCHASER at the rate of \$500.00 per day. Such payments shall be regarded as liquidated damages in view of the difficulty of determining the actual damage to the STATE through costs to acquire permits, grant funding and contractors for a narrow environmental and climactic window of opportunity.

The PURCHASER agrees to keep records and furnish the STATE logging cost data with respect to this operation. Required data shall include person-hours and equipment-hours spent falling, bucking, yarding, skidding, loading, trucking, constructing roads, and skid trails, maintaining roads and applicable rates for employees, machines, supervision, and administration. The provisions of this paragraph apply equally to the PURCHASER and any subcontractor hired by the PURCHASER to perform any part of this contract. This data will be furnished to the STATE before the performance bond is released, unless otherwise agreed upon in writing. An example of a logging and road construction cost reporting form is provided in Exhibit E.

The PURCHASER agrees to keep records and furnish the STATE cost data associated with producing the rootwads with butt logs attached as listed in Exhibit C. Required data shall include person-hours and equipment-hours spent climbing, topping, excavating, bucking, skidding, loading, and transporting these rootwads to the designated locations. The provisions of this paragraph apply equally to the PURCHASER and any subcontractor hired by the PURCHASER to perform any part of this contract. This data will be furnished to the STATE before the performance bond is released, unless otherwise agreed upon in writing. An example of a rootwad extraction and delivery cost reporting form is provided in Exhibit E.

The PURCHASER understands that the protection of research and experimental values, the maintenance of low fire hazards, the prevention of injury to trees not designated for cutting, the creation of conditions favorable to the regeneration of the State owned forests, and other provisions of this Agreement are for fulfillment of the research and demonstration purposes and the provisions of this Agreement will be strictly enforced to that end.

7. The PURCHASER agrees that, pursuant to Section 4650.1, Public Resources Code, timber from Soquel Demonstration State Forest shall not be sold to any primary manufacturer or to any person for resale to a primary manufacturer, who makes use of such timber at any plant not located within the United States unless it is sawn on four sides to dimensions not greater than 4 inches by 12 inches.

The PURCHASER agrees not to sell unprocessed timber harvested from private timberlands and to export it into foreign commerce from California within one year prior to the bid date and to refrain from that activity for one year after contract termination.

The PURCHASER agrees that pursuant to Sections 1515-1521, Title 14, California Code of Regulations, timber in this sale shall not be substituted for timber exported by PURCHASER obtained from other sources. The PURCHASER further agrees, pursuant to Section 1517, Title 14, California Code of Regulations, to give written notice to the STATE of any or all locations where said timber will be processed until such time as the timber has been sawn to dimensions of 4 inches by 12 inches or less.

If PURCHASER sells, exchanges, or otherwise disposes of said timber before it has received domestic processing, PURCHASER agrees to require each buyer, exchange, or recipient to execute an agreement, which shall:

- a. Specify domestic processing for the timber involved pursuant to Section 4650.1, Public Resources Code.
- b. Require the execution of said agreement between the parties to any subsequent transactions involving said timber.

The failure of any party, to a transaction involving said timber to execute the required agreement shall constitute noncompliance on the part of PURCHASER with the terms of this provision.

PURCHASER shall file with STATE a copy of any such agreement and shall retain for three years from the date of each transaction the records of all sales, exchanges, or dispositions of such designated timber. Upon request, such records shall be made available to the STATE.

Any PURCHASER of timber from a State Forest who makes or permits use of said timber in violation of Section 4650.1 Public Resources Code or Sections 1510-1521, Title 14, California Code of Regulations, shall be prohibited from purchasing State Forest timber for a period of five years and may have his/her license suspended for a period of up to six months.

8. All timber removed by reason of this timber sale agreement shall be 100% (roll-out) measured and scaled by a Log Scaler certified by a recognized Scaling Bureau or third party scaling organization approved by the STATE.

Logs shall be scaled as presented and results of said scales shall be conclusive and binding upon PURCHASER and STATE unless otherwise contested through check scale procedures. A Scaler's Information Sheet, designated as Exhibit B and attached hereto, shall be provided to the scaler(s) prior to commencement of log hauling.

The PURCHASER, as required by the Timber Sale Officer, shall identify State logs by making a mark with the brand "CDF" in a conspicuous place on one end of the logs, with a minimum of eighty percent of the logs branded prior to removal from the sale area. State timber will be highlighted with GREEN paint to facilitate location and identification of brand by the scaler. Prior approval must be obtained in writing from the Timber Sale Officer regarding any changes in the brand or branding procedure. PURCHASER will provide paint to be used for branding identification. Branding hammers will become property of Soquel Demonstration State Forest at the completion of the timber sale.

John Fairweather's timber shall be branded with a "F" and the brand shall be highlighted in YELLOW Paint.

Procedures required by the STATE for determining log scale shall be as follows:

- a. All Logs shall be scaled in accordance with the 2006 edition of the "National Forest Log Scaling Handbook" and Region 5 Supplements. Unless expressly prohibited in the aforementioned publications:
 - diameters shall be measured to the nearest inch;
 - logs over 20 feet in length shall be scaled as two or more segments;
 - logs shall be scaled in one-foot multiples (excluding trim);
 - logs shall be scaled using Taper Table 3;
- b. Payment for scaling and reporting services performed by the scaling organization shall be made by the PURCHASER of the State Forest timber and the STATE assumes no responsibility in this regard.
- c. All loads must be scaled at the first unloading point and within three working days from the date of removal from the Soquel Demonstration State Forest.
- d. The PURCHASER shall notify the Timber Sale Officer or his/her representative of all scaler rotations of two weeks or more so that the STATE may obtain adequate check scales.
- e. The PURCHASER shall be required to make a copy of the scale tickets available to the STATE on those loads being check scaled by the STATE.
- f. Scalers shall perform the following services:

- Record log species, diameter, length, type, amount of defect, and gross and net scale on the scale tickets and mail such documents to the scaling organization on the day of scaling.
- Scale all logs in a load at the same location and time.
- Immediately notify the STATE when it is known by scaler that a load has been bypassed or picked up from the designated scaling location before being scaled. In the event of a missed (non-scaled) load, the PURCHASER shall within five working days account for the load by the following process:
 - (1) Average the gross volumes and net volumes of four loads hauled immediately prior to and four loads hauled immediately after the missed load. The ticket numbers of the loads used for calculating the averages shall be provided to the STATE for audit purposes.
 - (2) Find a representative existing scaled load that has a gross volume within one percent of the calculated average gross load volume and a net volume within three percent of the calculated average net load volume. The gross and net volumes of the selected load must be equal to or more than the calculated averages. If no representative load can be found then a log load scale ticket must be created which meets these specifications. The STATE retains the right of approval on load selection.
 - (3) Using the trip ticket number of the missed load, insert the scale ticket data of the representative or created load into the scale reporting system. The load shall be included in the 15 day summary covering the time period when the data was inserted into the system. The STATE shall be notified when this occurs.
- g. The scaling organization shall notify the STATE of any change on a scale ticket that affects the volume of the original scale after the copy has been mailed to the STATE.
- h. The scaling organization shall process scale tickets of all STATE loads daily and mail at its expense, copies of daily scale certificates and log listings to the Timber Sale Officer. Also required are semi-monthly scaled volume summaries as of the 15th and the last day of the month. When adjustments are required to compensate for omissions or errors in daily scaled column summaries, the STATE may request the scaling organization to issue an adjusted summary report for those specified time periods. The PURCHASER shall also be notified by the STATE when such an adjustment has been made.

- i. When requested by the STATE, up to three loads per day that have been scaled shall be left rolled out in the mill yard to facilitate check scaling.
- j. All delivered logs shall be subject to check scale by a STATE representative to assure that the scaling of STATE logs is being conducted within allowable limits. The following standards shall be used to determine the proficiency of individual scalers; for gross scale, a variance of 2 percent is the satisfactory standard, unless otherwise justified by abnormal amounts of pieces with sloughed sap rot , fire damage or chunks. For net scale, the following standards shall apply:

Check Scaler's % Defect in Logs	Scalers allowable variance
0 – 10%	2%
Over 10%	0.2 x % of defect to a maximum of 5%

The PURCHASER's scaler shall have a minimum of one routine check scale per month during the operating season. Check scale standards shall be taken from Chapter 60 of the 2006 National Forest Log Scaling Handbook. Copies of such check scales shall be furnished to the STATE within ten days of completion of said check scales. The STATE reserves the right to check scale PURCHASER's scalers at intervals determined by the STATE.

- k. If, through STATE check scales, it is found that a scaler's work is unacceptable, the STATE will notify the PURCHASER and request an additional check scale to be submitted to the STATE within ten working days. Should remedial action fail to achieve correction, the STATE may immediately terminate the acceptance of the scaler's work until his/her competence is mutually certified by all concerned parties. PURCHASER scaling complaints shall be jointly and promptly investigated by the STATE and an independent scaling organization. The STATE may disallow use of the PURCHASER's scaler(s) and instead require a third party scaling organization if scale or records are unacceptable to the STATE.
- l. The STATE shall provide the PURCHASER with a sufficient supply of five-part load receipts to identify each load of forest products removed. The white copy shall be retained in the load receipt booklet and returned to the Timber Sale Officer by the operator after use of the last receipt. The green and blue copies shall go to the PURCHASER and logger respectively. The yellow (trucker) copy and hard (attach to load) copy shall be affixed to the load; one part being returned to the STATE with scale certificates; the other to stay with the load until decked.

- m. To facilitate monitoring of periodic sale volume harvested, the PURCHASER shall provide a weekly report of feller days and estimated volume felled. Weekly falling information is to be available for collection by the Timber Sale Officer or delivered to the State Forest headquarters no later than the following Tuesday.

9. Timber operations will not be permitted on weekends or State holidays except as provided in the THP. Timber operations on non-holiday weekdays shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Timber Harvesting Plan 1-09-096-SCR allows timber operations to be conducted on one Saturday per month during the operating season. This is an exception to 14 CCR 926.9(a). The purpose of this workday is to allow SDSF staff an opportunity to provide guided educational tours of an active timber operation to the public. The STATE shall schedule timber operation tours with the PURCHASER at least 5 days in advance of any tour. The State and the PURCHASER shall meet to discuss and mutually approve tour itinerary.

10. The PURCHASER shall cut all and only those trees designated for cutting. No timber shall be removed from the State Forest until released by the Timber Sale Officer.

11. The PURCHASER agrees to utilize all felled trees to the fullest extent practicable. The following utilization standards and tree felling practices apply to all trees designated for harvest:

- a. Any log shall be scaled as merchantable, which has a net merchantable volume of 10 board feet and provided that logs have a net merchantable scale of at least 25 percent of the total volume. The minimum log length shall be 8 feet for scaling purposes and the minimum diameter for scaling purposes shall be 6 inches inside bark. Maximum log length, including trim, shall be 41 feet unless longer lengths are approved in writing by the STATE. All material shipped to the mill shall be scaled.

Only that merchantable downed timber that is designated by the Timber Sale Officer shall be removed, and it shall be scaled the same as timber felled under this Agreement. Other downed timber, whether merchantable or not, shall be left in place, except where it occurs within the clearing limits for construction of truck roads and landings.

- b. Cull logs or conifer species not merchantable as defined in the Agreement, removed in separate truck loads from the sale area at the request of the PURCHASER and with the prior written approval of the STATE, shall be paid for at the rate described in Section 2.

- c. Hardwood trees felled, knocked down or damaged by logging operations may be removed by the PURCHASER under conditions prescribed by the STATE. Hardwood trees shall be bucked, limbed and lopped at the time of felling. The minimum dimensions of hardwood logs for the purposes of this paragraph are 20 feet in length and 6 inches on the small end diameter. To be considered merchantable, hardwood logs shall be at least 50% sound; and sweep, as measured by the departure from an end-to-end straight line at the midpoint of the log, shall be less than 24 inches for each 20-foot or shorter log segment.
- d. All trees felled or knocked down by logging operations that will not be removed shall be completely limbed from tip to butt and bucked into lengths not to exceed 20 feet.
- e. Snags shall be left standing unless they must be felled for road or landing construction, for cable corridors, for safety reasons, or for fire protection purposes as designated in the Timber Harvesting Plan or by the Sale Officer.
- f. Stumps shall be cut as low as possible and in no case shall be over 12 inches on the uphill side except where more height is needed to save timber or insure safe working conditions. Stumps which are not cut in accordance herewith and which should have been so cut in the judgment of the Timber Sale Officer shall be either re-cut to 12 inches or less, if redwood, paid for at the rate of \$50.00 each. Such payments shall be regarded as liquidated damages in view of the difficulty of determining the actual damage to the STATE through wastage of the quantity and quality of the material involved.
- g. The PURCHASER shall make every effort to conduct the felling operations to prevent careless or unnecessary breakage of timber. Fallers shall be equipped with falling wedges. The use of hydraulic felling jacks or comparable devices is encouraged to control direction of tree fall and reduce breakage. Cable tree-pulling methods shall be used where necessary to prevent excessive breakage to all trees having volumes in excess of 1,500 board feet, to prevent felling of trees into or across watercourses, or to control felling direction near utility lines, public roads and property lines. Where poor volume recovery is expected because of anticipated breakage, the Timber Sale Officer may specify that individual trees otherwise designated for cutting shall be left standing.
- h. All felled trees shall be utilized to the fullest extent practicable. Log lengths shall be varied so as to secure the greatest possible utilization of merchantable material.

- i. Designated trees shall only be felled on land owned or controlled by Soquel Demonstration State Forest or John Fairweather as authorized in Timber Harvesting Plan number 1-09-096-SCR.
- j. Trees felled on steep hillsides may be yarded as long logs when the downhill roll of a bucked log will result in damage to the residual stand.
- k. When topography, lean of tree, regeneration and residual timber, location of roads, landings, watercourses, utility lines and buildings permit, all trees shall be felled in line with skidding direction.
- l. Stage felling may be required by the Timber Sale Officer in gulch bottoms and areas of heavy timber in order to minimize breakage. During falling and skidding. These areas shall be designated prior to commencement of felling operations. Leave trees severely damaged in logging and designated by the Timber Sale Officer shall be cut and removed.
- m. Each tree that is felled shall be limbed to the tip at the time of felling.
- n. Slash from all trees and reproduction felled or knocked down by timber operations shall be lopped and scattered in the following manner;
 - Slash within 100 feet of a seasonal road shall be lopped to within 18 inches of the ground. This area shall be lopped within 30 days of creation.
 - Slash beyond 100 feet of a seasonal road shall be lopped to within 30 inches of the ground. This area shall be lopped prior to April 1st of the year following creation.
 - Slash created between 100-200 feet of permanently located structures maintained for human habitation shall be lopped to within 12 inches of the ground. This area shall be lopped within 30 days of creation.

12. The California Forest Practice Rules for Santa Cruz County, the Southern Sub-district of the Coast Forest District, and Timber Harvesting Plan 1-09-096-SCR (including subsequent amendments) are hereby made a part of this Agreement, and the PURCHASER agrees to comply with each and all of the terms thereof in the same manner as if said Timber Harvesting Plan and Rules and each thereof were set forth at length in this Agreement. Special attention shall be given to Amendment #1 of Timber Harvesting Plan 1-09-096-SCR because of its significant change to the Timber Harvesting Plan as approved. Page one of Timber Harvesting Plan 1-09-096-SCR is attached below as Exhibit D. The entire Timber Harvesting Plan and any approved amendments thereto are available at: ftp://thp.fire.ca.gov/THPLibrary/North_Coast_Region/THPs2009/1-09-096SCR/.

All applicable rules and regulations which become effective during the term of this Agreement, and any amendments to the Timber Harvesting Plan, shall be adhered to by the PURCHASER to the extent required by law.

Operating conditions and specifications shall be modified as required to comply with changes in the legal status of, or in the laws pertaining to protection measures for, any species under the federal Endangered Species Act.

The THP contains operational requirements to reduce the possibility of transporting regulated host material outside of a designated zone of infestation. The PURCHASER shall conform to any newer regulations or forestry guidelines adopted by the California Department of Food and Agriculture to control sudden oak death.

A Licensed Timber Operator shall conduct timber operations required under this Agreement. On completion of timber operations, satisfactory to the Timber Sale Officer, on that portion of the Timber Harvesting Plan area for which the Licensed Timber Operator is responsible, the Licensed Timber Operator shall certify by letter to the STATE that all operations are complete and that they comply with the Forest Practice Rules and the Timber Harvesting Plan. The STATE may prepare annual partial completion reports when it is in the STATE's interest to do so.

Forest Practices and operational procedures in addition to those set forth in the said Rules and Timber Harvesting Plan shall be required as follows:

- a. A pre-work conference to be attended by representatives of the STATE, the PURCHASER, and all timber operations subcontractors is required before any timber harvesting activities may begin. A detailed logging plan for the sale area shall be prepared and submitted by the PURCHASER to the Timber Sale Officer for approval at least two working days prior to the pre-work conference. The logging plan shall include the locations of any proposed new landings and roads not anticipated in the Timber Harvesting Plan; a schedule of road construction, felling, logging, cleanup, and other operations within the sale area; and the number, types and special requirements of the equipment to be used in the sale area. Timber Sale Officer's approval will be required prior to construction of new landings. Licensed Timber Operator will use existing landings wherever feasible.

The PURCHASER shall notify the Timber Sale Officer of any changes in the numbers or types of logging equipment or personnel assigned to the sale area that may affect productivity.

- b. All logging operations shall be by natural logging areas and in an efficient, orderly, and progressive manner which considers road construction schedules. The STATE may designate the sequence in which the units are to be logged.

Logs meeting the listed requirements may be obtained from any tree designated for harvest within the timber sale area. Rootwads with attached butt logs that meet the listed requirements shall only be obtained from the specific road construction right-of-way trees listed. Any substitutions shall be approved by the Timber Sale Officer.

- c. In the sale area designated for tractor yarding, any method of yarding other than by means of crawler tractor or rubber-tired skidder shall require the approval of the Timber Sale Officer, and under such conditions and restrictions as may be required. All requirements for ground-based yarding shall also apply to animal yarding.
- d. Equipment used for skidding logs shall be equipped with winches and fair-leads. Grapple skidding equipment may be used only with the advance approval of the Sale Officer.
- e. The width of tractors or other equipment used shall not exceed eleven feet without written permission of the Timber Sale Officer. The Licensed Timber Operator shall have the capabilities of end lining up to 100 feet.
- f. The locations of all existing skid trails to be reused and new skid trails to be constructed shall be flagged by the Licensed Timber Operator and must be approved by the Timber Sale Officer at least three days prior to intended use. If timber felling substantially obliterates skid trail flagging, the Licensed Timber Operator shall reflag the locations of approved skid trails prior to their construction or reuse. Heavy equipment shall not be operated within cable areas, equipment exclusion zones, or equipment limitation zones unless their use is in compliance with the Timber Harvesting Plan and approved by the Timber Sale Officer.
- g. Minimum distance permitted between new skid trails will be 100 feet measured along the surface of the ground unless specifically waived in each case by the Sale Officer.
- h. Timber harvested with a mechanical harvester shall be felled and placed where ground based skidding equipment can yard the timber without leaving constructed skid trails.
- i. No unnecessary yarding damage shall be done to regeneration, hardwoods, and leave trees. To the greatest extent feasible, leave trees greater than 12 inches DBH shall not have bark torn back from the bole of the tree by logging practices. Designated rub trees or high stumps shall be cut upon completion of use. Severely damaged merchantable leave trees shall be cut and paid for, if so required by the Timber Sale Officer.
- j. Trees specifically marked for leave such as wildlife trees or old growth trees, and all unmarked trees in watercourse and lake protection zones, shall be protected to the fullest extent possible.
- k. The Timber Sale Officer may suspend timber operations in whole or in part when environmental damage may result from the operation of equipment in logging or hauling the timber included in this Agreement. Operations shall not resume until approval is given by the Sale Officer.

- i. The PURCHASER shall provide a tree climber to limb and top eleven Douglas-fir trees identified in the Timber Harvesting Plan as snags to be created. These trees shall be topped at a height where the outside bole diameter is 18 to 24 inches.

- m. Timber to be harvested in the cable portion of the tractor/cable area shall utilize either a selective yield yarding system (SYYS) or a swing yarder using a standing, live or running skyline system which meets the requirements listed below or a:
 - (1) Holds the skyline carriage stationary until logs are yarded laterally to the skyline corridor.
 - (2) Can yard laterally a distance of at least 100 feet perpendicular to the skyline corridor.
 - (3) Supports logs clear of the ground as the carriage moves along the skyline when logs are above Class I or II watercourses and, to the greatest extent feasible, within Class I or II Watercourse Lake Protection Zones to avoid unnecessary damage to riparian soil and vegetation. In other locations, logs shall be yarded with at least one end suspended, provided logs follow directly behind the skyline carriage.
 - (4) Is capable of yarding for a slope distance of approximately 800 feet from the landing, and which can reach a slope distance of approximately 1,000 feet to the tailhold.
 - (5) Can be used to pull trees against their lean.

- n. At any time that cable lines cross any Forest road, including roads within the sale area, the PURCHASER shall place warning signs to notify traffic of the location of the lines, and shall block the road or shall have a person stationed on the road to control traffic when lines are being raised or lowered, or when cable road changes are being made.

- o. The practice of tight-lining to move yarder lines to their next position shall not be used.

- p. Any use of tractors in the area designated for Cable/Tractor yarding shall have prior written approval of the Sale Officer, and must be provided for in the Timber Harvesting Plan.

- q. The locations of all cable corridors shall be flagged by the Licensed Timber Operator for approval by the Timber Sale Officer prior to rigging. The distance between corridors shall not be less than 200 feet at the back of the cable road without approval of the Timber Sale Officer. Except in the Watercourse and Lake Protection Zone, unmarked trees within approved yarder cable corridors may be felled before rigging and yarding,

but not to exceed a pre-cut corridor width of 10 feet as determined by the centerline of the entire corridor from the yarder location to the tailhold, or wider if approved in advance in each case by the Sale Officer. Unmarked trees may not be cut within a WLPZ of a Class I watercourse unless approved in advance in each case by the Sale Officer. The Sale Officer may specify that such corridor trees felled within the WLPZ be left on the ground, and if provided for in the Timber Harvesting Plan, that they be felled towards or across the watercourse. Trees leaning into or over the corridor may be felled only if they jeopardize the safety of the operation. Unmarked trees removed from the yarder cable corridors shall be logged and paid for at the same rate as marked timber. Trees pulled over during cable logging operations shall be bucked to log lengths, with the roots and top removed, before yarding.

- r. All rigging shall be slung on stumps as far as practical. With the advance approval of the Sale Officer, leave trees may be used as spar trees or felled to provide suitable stumps for rigging purposes, provided that the merchantable timber in such trees shall be paid for by the PURCHASER in full at the rate set forth in Section 1. Spar trees shall be felled following their use as spar trees except where not required by the Sale Officer. With advance approval, the PURCHASER may utilize fabric straps on standing trees in lieu of cable straps for tail hold, guy anchor, or spar tree rigging, where such use of standing trees is in compliance with applicable safety regulations.
- s. The PURCHASER may be required to rig tail trees or lift trees to overcome difficult deflection situations.
- t. Animal yarding shall be used in two portions of the harvest area; one to be operated in 2012 and the other in 2013 provided that a suitable contractor is available. Each annual operational area shall be between 4 and 12 acres. The PURCHASER shall notify the STATE prior to beginning each operating season on the availability of a horse logging contractor.
- u. Animals used for skidding shall comply with all requirements for ground based yarding systems.
- v. Livestock feed shall be certified to not contain any invasive, non-native seed.
- w. To reduce fire hazard, concentrations of slash and logging debris created by timber operations around landings or located within the sale area shall be spread over skid trails to reduce erosion, crushed, chipped or piled for burning, as required by the Timber Sale Officer. Logging wastes on landings shall be separated between large materials which can be utilized by woodcutters from other material. For the purposes of this section, material at least 8 inches in diameter and 6 feet in length shall be considered suitable for firewood. On completion of use of each landing,

firewood material shall be placed in a stable position where it can be reasonably utilized by firewood cutters.

- x. Slash and logging debris pushed off a landing during operations shall not become incorporated into the landing fill. All mounds of dirt created by timber operations in the vicinity of landings shall be smoothed out to the natural contour of the ground.
- y. Where slash is piled for later burning, burn piles shall be compacted and as free of soil as practical. Burn piles shall also be free of any garbage, petroleum products, and any logging debris greater than 10 inches in diameter. Each pile shall have a fireline constructed around the pile as specified by the Timber Sale Officer. The PURCHASER shall place a sufficient quantity of 80 lb water-resistant kraft paper on the center of each pile to cover a minimum 10-foot by 10-foot area. The paper shall be adequately weighted in place to remain in place through windy weather.
- z. The PURCHASER's Licensed Timber Operator shall be responsible for maintenance of erosion controls on all skid trails and truck roads used by that Operator until the work completion report for the Timber Harvesting Plan has been approved by the Director of the Department of Forestry and Fire Protection.
- aa. At all times of the year, erosion control structures shall be installed on all skid trails and temporary or seasonal truck roads within 30 days of completion of their use, or at the end of the day if the U. S. Weather Service forecast is a "chance" (30 percent probability or more) of rain before the next working day, or at any time that the equipment needed to install such structures leaves the sale area.
- bb. The PURCHASER shall provide and apply straw, slash, mulch or other erosion control materials as required by the Timber Harvesting Plan or by a Department of Fish and Game Lake and Streambed Alteration Agreement. Adequate amounts of this material shall be staged and available on-site for immediate use as necessary. SDSF staff may provide small quantities of commercially available erosion control products for the PURCHASER'S use where ground cover is needed. Some restrictions do apply at watercourse crossings to protect herpofauna.
- cc. Any flagging, paint or stakes used by the PURCHASER in the sale area shall correspond to those specified in the Timber Harvesting Plan, or shall otherwise be approved by the Timber Sale Officer.

13. It is agreed that because of the effect upon the Soquel Demonstration State Forest as a whole and upon its future productivity and because of the nature of the case, it will be extremely difficult and impractical to fix the actual injury to the STATE by the following type of breaches of this Agreement by the PURCHASER:

- a. The failure to remove all merchantable material designated for cutting as agreed herein; and
- b. The loss of merchantable timber from fire, or from other injury caused by the PURCHASER or which the PURCHASER might have prevented and by the terms of this Agreement the PURCHASER is required to prevent; and
- c. The cutting or severely damaging by logging of leave trees as agreed herein;

And it is further agreed, that by reason of such extreme difficulty and impracticability, the PURCHASER shall pay to the STATE for such merchantable material the PURCHASER so fails to remove and for merchantable materials so lost or damaged, at double the rate herein before set forth as the sell price of the particular species so not removed or lost or damaged provided, that such payments shall not release the PURCHASER from liability for any damage suffered by the STATE in addition to the value of said trees so not removed or lost or cut or damaged as aforesaid shall be regarded as liquidated damages. In cases of occasional injury as described above and involving small amounts of material only, the Timber Sale Officer will use his/her discretion and judgment in determining whether any breach of contract has occurred within the meaning of this paragraph

Timber wasted in tops, wasted by careless or improper bucking, broken in careless felling, and any timber merchantable according to the terms of this Agreement which is cut and not removed from any portion of the cutting area when operations on such portions are completed, or before this Agreement expires or is otherwise terminated, unless such wastage or non-removal involves small amounts, and in the judgment of the Timber Sale Officer, is justified by existing conditions, shall be paid for at the stumpage price in this Agreement. The amounts herein specified shall be regarded as liquidated damages as it will be impractical or extremely difficult to fix the actual damage. Unless extension of time is granted by the Director of the California Department of Forestry and Fire Protection, the right, title and interest to any timber for which payment has been made under the provisions of this section shall revert to the STATE without compensation unless it shall have been removed from any portion of the sale area accepted by the Timber Sale Officer prior to the date of that acceptance as designated in accordance with provision hereunder.

14. All telephone lines, ditches, pipelines, water developments, power lines, fences, picnic tables, signs, and any other structure or improvement located within or outside the exterior boundaries of the sale area, shall be protected so far as possible in logging operations, and if damaged, shall be repaired immediately by the PURCHASER at PURCHASER's expense; and the Timber Sale Officer may, when it is necessary, require the PURCHASER to move or cause to have moved, any such structure or improvement from one location to another if practical.

Section corners, quarter section corners, witness corners or other survey monuments, old growth tree tags, forest inventory markers, and research study site monumentation shall not be destroyed, defaced, removed, or moved to another place, nor shall any witness trees be cut or scarred.

Where the Timber Sale Officer has set construction stakes or marked trees or placed flagging to establish road centerlines and grades or cut and fill markers for road work, culverts, erosion control or other necessary structures, these markers shall constitute the field control by and in accordance with which the PURCHASER shall govern and execute the road or other work as portrayed on such road plans, profiles, or specifications furnished to the PURCHASER.

Roads and designated trails shall, at all times, be kept free of logs, slash and debris resulting from the PURCHASER'S operations hereunder, and any road or trail used by the PURCHASER in connection with this sale that is damaged beyond ordinary wear and tear through such use shall promptly be restored by PURCHASER to its original or better condition at PURCHASER's expense.

15. Logging roads, skid trails, bridges, watercourse crossings, and landings shall be constructed in a manner consistent with the goals of good forest management. Operations in or near sensitive or critical areas will be reviewed and approved by the Timber Sale Officer. The Timber Sale Officer will use whatever means are necessary to insure that operations conform to the approved specifications.

- a. Roads and landings to be constructed or reconstructed by the PURCHASER shall be built and maintained in accordance with applicable Forest Practice rules, except where more specific instructions are given in the Timber Harvesting Plan or this Agreement.
- b. Approximately 0.23 miles of new seasonal roads and approximately 1.52 miles of temporary roads are proposed. In addition, 0.49 miles of existing road are planned for reconstruction. 18 new landings are proposed and 2 for reconstruction. NOTE: Amendment #1 to Timber Harvesting Plan 1-09-096-SCR specifies significant changes to the road construction requirements from the original THP.
- c. All road construction and reconstruction shall be performed consistent with "SDSF's General Road and Landing Construction Standards" and the site specific road construction requirements. Both of these standards are included in the Timber Harvesting Plan.
- d. One temporary bridge at Crossing "a" must be installed to provide access to the harvest area. Details of work necessary for this bridge are contained in Exhibit C.

- e. Three temporary watercourse crossings (q, r, and t) shall require a “Spittler” crossing. A high density polypropylene (HDPE) culvert with a minimum diameter of 18 inches shall be included in this structure.
- f. Seven temporary ford crossings (m, n, o, p, s, u and v) shall be required on Fern Gulch Road.
- g. A permanent rock ford crossing with a “burrito” sub-surface drain shall be constructed on the seasonal road at Crossing b. The Timber harvesting plan has a typical drawing for rock fords and burrito drains.
- h. All seasonal appurtenant roads within a Watercourse and Lake Protection Zone shall maintain a rock running surface as described in the Timber Harvesting Plan.
- i. Pioneer road construction shall be performed with an excavator to 1) limit sidecast, 2) construct a keyway and compact fill where specified, 3) excavate and “re-plant” right-of-way stumps, and excavate and load rootwad/ buttlog combinations as a forest product. The excavator shall include a “thumb” and be of sufficient size to perform these tasks in a timely manner.
- j. The STATE shall provide for a Project Geologist to perform the duties described in the Timber Harvesting Plan including:
 - To be onsite to inspect and approve all specific sites described in the Timber Harvesting Plan.
 - To be onsite to inspect any un-anticipated situations involving groundwater drainage and to authorize a design change prior to backfilling.
 - To provide guidance to the Licensed Timber Operator when requested.
 - To conduct an evaluation of all road construction completed during the preceding operating season as described in the Timber Harvesting Plan.
 - To prepare a final grading/construction report with appropriate as-built maps and photographs at each location specifically described in the Timber Harvesting Plan.
- k. Archaeological sites within the harvest area shall be protected as described in the Timber Harvesting Plan. Site locations and protection measures shall be discussed during the pre-work meeting. The PURCHASER shall insure that its Licensed Timber Operator report to the STATE any new archaeological feature or artifact and any protected plant or animal occurrence found within the logging area as provided in the Timber Harvesting Plan.

16. All Forest roads and landings which are used by the PURCHASER for decking, loading or hauling logs or for other operations conducted under this Agreement, including roads used by timber fallers or rigging crew, and roads used for hauling rock or water for use on the sale area, shall be maintained by the PURCHASER in serviceable condition during and immediately following periods of use at the PURCHASER's expense.

When logging traffic is unusually light or heavy or when natural precipitation affects the condition of the road surface, the Timber Sale Officer at his/her discretion may direct deviations from the foregoing standards.

- a. The primary designated haul roads for use by the PURCHASER for removal of timber or other forest products from this sale is Hihn's Mill Road from milepost 1.71 West to Olive Springs Road.
- b. The secondary haul road is Hihn's Mill Road from milepost 1.59 East to Highland Way at milepost 6.60. The secondary route shall only be used when the primary route is unavailable due to roadway failure or active streambank repair work adjacent to Hihn's Mill Road at milepost 1.36. Streambank repair work is anticipated to take up to two weeks to complete. The STATE shall notify the PURCHASER 10 days in advance of any planned primary haul road closure.
- c. PURCHASER or PURCHASER'S agents may post temporary signs in order to display onsite messages (e.g. trucker mileposts, CB channel, etc.). Signs shall be removed once their function is completed, and in all cases before the term of this Agreement. No messages are to be painted on any tree, rock, stump, or other permanent feature.
- d. The PURCHASER shall provide access at all times through all log landings and along all roads in the harvest area for emergencies and fire protection.
- e. Road or landing use shall be discontinued if firm, stable road and landing surfaces acceptable to the Timber Sale Officer cannot be maintained, or if trucks cannot operate under their own power and the PURCHASER shall take measures necessary to improve the condition of the road or landing. The Timber Sale Officer will approve any stabilization measures, prior to its implementation.
- f. The PURCHASER shall protect existing watercourse crossing structures on State Forest land from any damage that might be caused by PURCHASER's equipment and/or loads in the performance of this Agreement. Any bridge or culvert used by the PURCHASER on State Forest land in connection with this sale that is damaged or injured through such use shall promptly be restored by the PURCHASER to its original condition at the PURCHASER's expense. STATE bridges and culverts are designed for highway loads unless load signs are posted.

- g. PURCHASER will be required to grade and water all haul roads as part of timber harvesting operations. Sufficient water or other dust palliatives will be applied to insure that road fines are not displaced when logging trucks pass over the road surface.

Dust palliatives other than water shall be approved by the Timber Sale Officer prior to use. Application must be done in accordance with manufacturer's specifications and reapplied as necessary to maintain a dust-free environment. Any ruts or chuck holes that develop on said roads after surfacing shall be immediately removed by grading or patching. If the PURCHASER is unable to maintain a good road surface by this method, the Sale Officer by written notice may require the PURCHASER to perform dust abatement with water.

- h. All inlets and outlets of existing and installed culverts on any roads used or built by the PURCHASER shall be kept open at all times. PURCHASER shall replace or repair any culverts, downspouts, trash racks, or culvert location stakes that are lost, damaged, or destroyed by PURCHASER'S operations.
- i. Maintenance work shall also be done within 15 days of the end of hauling operations on all roads and immediately on completion of hauling on any road after October 15. Maintenance shall include a final watering and grading to remove ruts and other irregularities that would prevent adequate drainage of the road surface; redefine existing outsloping or installation or improvement of waterbars, rolling dips, or other road surface drainage facilities as specified by the Sale Officer; removal or breaching of berms; and a final clearing of drainage ditches and culvert inlets and outlets as necessary to insure proper functioning of the road drainage system. Final maintenance will be preformed to the satisfaction of the Timber Sale Officer.
- j. The PURCHASER shall coordinate and share road maintenance responsibilities in an equitable manner with the contractor(s) involved with the instream projects adjacent to the timber harvest area. The Timber Sale Officer shall approve of the arrangement.
- k. Purchaser is required to obtain, at their expense, any and all use permits or easements for hauling and use of roads that the State does not have easement to utilize.
- l. If the secondary haul road is used, the PURCHASER shall coordinate and share road maintenance responsibilities in an equitable manner with the purchaser of the Rim Timber Sale. The Timber Sale Officer shall approve of the arrangement.

- m. Water necessary for dust abatement, fire protection and for soil moisture conditioning to achieve desired soil compaction standards, shall be obtained from the sources identified in the Timber Harvesting Plan. The PURCHASER shall be responsible for establishing an arrangement with Olive Springs Quarry.
- n. All road maintenance shall be performed consistent with the specifications found in "SDSF's General Road and Landing Construction Standards" found in the Timber Harvesting Plan.
- o. The PURCHASER shall provide warning signs at all roads and trails entering the Timber Harvesting Plan area to notify the public of timber operations and any access restrictions. The STATE shall assist by disseminating public notices and periodically patrolling the area. The PURCHASER shall provide lookouts when conducting hazardous activities such a tree falling and skidding occur upon a road where the public could encroach.

17. No permanent structures shall be allowed on State land. Temporary structures shall be kept to a minimum necessary for the logging operation and shall be maintained at PURCHASER'S expense. They shall be located, built to standards, and operated as may be required by the Timber Sale Officer to prevent the pollution of the water in any stream. Outhouses, toilets, and horse paddocks shall be constructed and maintained so as to prevent the breeding of flies or the development of unsanitary conditions. The PURCHASER shall abide by all Health and Safety Laws of the STATE. All structures shall be removed prior to termination of this timber sale and the grounds cleaned up to the satisfaction of the Timber Sale Officer.

Temporary horse paddocks shall be located and constructed in a manner that will not allow damage to residual trees or adversely impact water quality. All fencing, water pipes, tanks, and related improvements shall be removed upon completion of skidding operations. Waste piles and berms shall be spread out evenly across the ground and the area treated for erosion control.

The PURCHASER, his/her employees, agents, contractors, subcontractors, and employees of contractors and subcontractors desiring temporary living quarters on the Forest may be allowed to camp on the Forest with written permission from the Forest Manager. Campsites shall be limited to areas designated by the Timber Sale Officer. Failure to maintain the campsite to the satisfaction of the Timber Sale Officer shall result in the termination of the use of the campground for temporary living quarters.

PURCHASER shall provide and use trash cans for papers, cans, oil filters and other debris. Broken chokers, wire rope and other debris shall be removed and all trash will be disposed of at a public disposal facility. Trash cans shall not be placed within a designated watercourse and lake protection zones.

The PURCHASER shall provide an adequate number of chemical toilets to accommodate all its contractors and work areas or as otherwise directed by the Timber Sale Officer. Toilets shall be maintained and cleaned on a regular schedule at the PURCHASER's expense, and shall be removed immediately upon completion or seasonal interruption of operations.

Within 100 feet of any truck road, log landing or trail, human waste shall be buried immediately at a depth of at least 12 inches. Human waste shall not be deposited within any Watercourse and Lake Protection Zone or any Class III Watercourse Equipment Limitation Zone.

18. During the time that this Agreement remains in force, the PURCHASER shall independently of STATE effort do all that can be done to prevent and suppress forest fires on the sale area and shall require all employees, agents, contractors, subcontractors, and employees of contractors and subcontractors to do likewise.

Unless prevented by uncontrollable circumstances, the PURCHASER shall place all employees, agents, contractors, subcontractors, and employees of contractors and subcontractors, and their equipment at the disposal of any authorized representative of the Director of Forestry and Fire Protection for the purpose of fighting forest fires on or adjacent to the State Forest, with the understanding that where fire fighting services are not rendered on the sale area of the PURCHASER, payment to the PURCHASER, and to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER by the STATE for such services shall be made at standard rates established by the Director of Forestry and Fire Protection where such services are specifically ordered or requested by the Department of Forestry and Fire Protection Officer in charge of the fire; provided further, however, that no payment shall be made by the STATE to the PURCHASER if said fire occurred or spread as the result of violation of law, Forest Practice Rules, or actionable negligence attributable to the PURCHASER, or to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER.

In cases where fires occur upon the sale area or spread across the sale area from an adjacent area, the PURCHASER will bear all expenses incurred in action taken upon the fire prior to the arrival of the Department Officer in charge of the fire. Upon arrival of the Department Officer in charge of the fire the PURCHASER, and employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, may be reimbursed by the STATE for fire fighting services rendered by them in response to specific orders and requests made by the Department Officer in charge of the fire at the rates provided for in the second paragraph of this section; provided further, however, that when the fire has been surrounded by control lines, the PURCHASER will assume all costs of patrol until the fire is declared to be out by the State Forest Ranger in charge of the fire protection in the area and provided further, that in the event said fire has occurred or spread as a result of violation of law, Forest Practice Rules, or actionable negligence of the PURCHASER, or employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, then the

PURCHASER shall not be reimbursed in any amount by the STATE for services rendered by PURCHASER, or by employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, in control of the fire.

When the STATE becomes legally obligated by contract expressed, implied or otherwise, to make payment for any fire fighting services under the second and third paragraphs of this section and the said fire occurred or spread as the result of violation of law, Forest Practice Rules, or negligence attributable to the PURCHASER, or to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, said PURCHASER shall reimburse the STATE for that payment.

The provisions of this section shall not be construed as relieving the PURCHASER of fire suppression costs for which the PURCHASER is otherwise liable under State law.

19. In addition to the required complement of fire tools, during the period specified by law, the PURCHASER shall have readily available to the sale area for fire suppression purposes a "water wagon" or similar self-propelled vehicle of at least 1,000 gallons capacity which shall be maintained in good operating condition. This unit shall be kept filled to capacity except when in actual physical use on the logging operation and equipped with at least 150 feet of serviceable 1½ inch fire hose with National Standard thread fittings and a serviceable nozzle for said hose; and further, said unit shall be equipped to draft water from a stream or pond as well as to pump water from the tank mounted on the vehicle.

20. All timber included in this Agreement shall remain the property of the STATE until paid for in full by the PURCHASER in the manner hereinbefore set forth, provided that the risk of loss thereof, by fire or otherwise, after operations have begun with reference to the particular logging area, shall be on the PURCHASER.

21. At all times when construction or logging operations are in progress, the PURCHASER shall have a representative readily available to the area of such operations, who shall be authorized to receive, on behalf of the PURCHASER, any notices and instructions given by the STATE in regard to performance under this Agreement, and to take such action thereon as is required by the terms of this Agreement.

22. The PURCHASER agrees to indemnify and save harmless the STATE, its officers, agents, and employees, from any and all claims and losses accruing or resulting to persons engaged in or about the performance of this Agreement, or to third persons who may be injured or damaged by the PURCHASER or his/her agents, in the performance of this Agreement except negligent acts of the STATE. The PURCHASER shall provide necessary Workers' Compensation Insurance at the PURCHASER'S own cost and expense.

23. The PURCHASER, in all activities under or pursuant to this Agreement, as well as in handling, reselling otherwise dealing with respect to the timber and other material realized by the PURCHASER by reason of this Agreement, whether such timber and other material is in its original form or in a changed form, agrees to comply in all respects with all lawful acts, rules, regulations and directions of any legislative, executive, administrative or judicial body or officer exercising any power of regulation or supervision with respect to such matters and whether arising out of the provisions of this Agreement and otherwise.

The PURCHASER shall comply with all applicable State Safety Orders, Title 8, California Code of Regulations.

24. No provision of this Agreement shall authorize the PURCHASER or his/her agents or servants to act as an officer, agent, or employee of the STATE.

25. This agreement is entered into by the STATE in reliance upon the knowledge and skill of the PURCHASER, and is not assignable by the PURCHASER either in whole or in part except on prior written consent by the STATE.

26. Time is of the essence in each and all the provisions of this Agreement.

27. If the PURCHASER breaches any of the provisions of this Agreement, the STATE may serve written notice of such breach upon the PURCHASER, and thereupon the STATE may suspend the operations of the PURCHASER hereunder until such time as such breach is remedied, and if such breach is not remedied within ten days, the STATE may, at its option, without further notice, terminate this Agreement.

28. As further guarantee of a faithful performance of the conditions of this Agreement, the PURCHASER delivers herewith a faithful performance bond, or approved alternate form of security, satisfactory to the STATE in the sum of \$40,000 (Approximately 5% of minimum estimated value, or more as needed to cover the estimated costs to the state of a default). Upon satisfactory completion of all timber harvesting activities, the PURCHASER may request a one-time reduction of this security to an amount determined by the STATE to be sufficient to cover all remaining provisions of this Agreement.

Alternate forms of security in lieu of a performance bond are:

- a. Certificate of deposit with the California Department of Forestry and Fire Protection as payee, issued by a bank or similar financial institution which is a member of the Federal Reserve System or is insured by the Federal Deposit Insurance Corporation.
- b. Irrevocable letter of credit issued by a bank or financial institution which is a member of the Federal Reserve System or is insured by the Federal Deposit Insurance Corporation.

All bonds, letters of credit, or certificates of deposit, must be in a form acceptable to the STATE.

The PURCHASER agrees that all monies deposited and the faithful performance bond, or security, delivered under this Agreement may, upon failure on his/her part to fulfill all and singular the requirements herein set forth or made a part hereof, may be retained by the STATE to be applied as far as may be to the satisfaction of his/her obligations assumed hereunder, without prejudice whatever to any other rights and remedies of the STATE. As soon as security for the performance of the terms of this Agreement or provisions for the settlement of claims or for damages incident thereto is no longer necessary to be retained or made, any balance of the initial deposit that may be left after applying it to any payment due or owing will be returned to the PURCHASER.

29. The PURCHASER shall be solely responsible for filing reports with the State Board of Equalization and payment of the timber yield tax levied on timber cut under this Agreement as provided by the Z'Berg-Warren-Keene-Collier Forest Taxation Reform Act, Statutes of 1976, Chapter 176. The PURCHASER'S yield tax payments shall not be credited in any way for timber cut or other obligations of this Agreement.

The PURCHASER'S yield tax payments shall not be credited in any way for timber cut or other obligations of this Agreement.

30. By signing this contract, PURCHASER swears under penalty of perjury that no more than one final un-appealable finding of contempt of court by a federal court has been issued against PURCHASER within the immediately preceding two-year period because of PURCHASER'S failure to comply with an order of a federal court which orders compliance with an order of the National Labor Relations Board.

31. Upon mutual consent, either party may amend this contract in writing.

32. PURCHASER understands that his/her performance under this contract will be evaluated by the STATE.

33. If this contract involves the expenditure of public funds in excess of \$10,000, contracting parties shall, in accordance with Government Code Section 8546.7, be subject to examination and audit of the Bureau of State Audits for a period of three years after final payment under the contract. Examination and audit shall be confined to those matters connected with performance of the contract including, but not limited to, cost of administering contract.

34. During the performance of this contract, PURCHASER and subcontractors involved shall not unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave. PURCHASER and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. PURCHASER and subcontractors shall comply with provisions of the Fair Employment and Housing Act (Government Code, Section 12900, et. seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7385.0 et seq.) The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this contract by reference and made a part hereof as if set forth in full. PURCHASER and subcontractors shall give written notice of these obligations under this clause to labor organizations with which they have collective bargaining or other agreement.

35. PURCHASER certifies under the penalty of perjury under the laws of the State of California to have, unless exempted, complied with the non-discrimination program requirements of Government Code Section 12990 and California Code of Regulations, Title 2, Section 8103.38

36. This contract is complete and in force only after all STATE approvals are obtained.

IN WITNESS WHEREOF this Agreement has been executed in quadruplicate by and on behalf of the parties hereto, the day and year first above written.

STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
AND FIRE PROTECTION _____

{Purchaser's Name} _____

By _____

By _____

(Printed Name)

(Printed Name)

(Title)

(Title)

Date _____

Date _____

EXHIBIT A
Vicinity Map

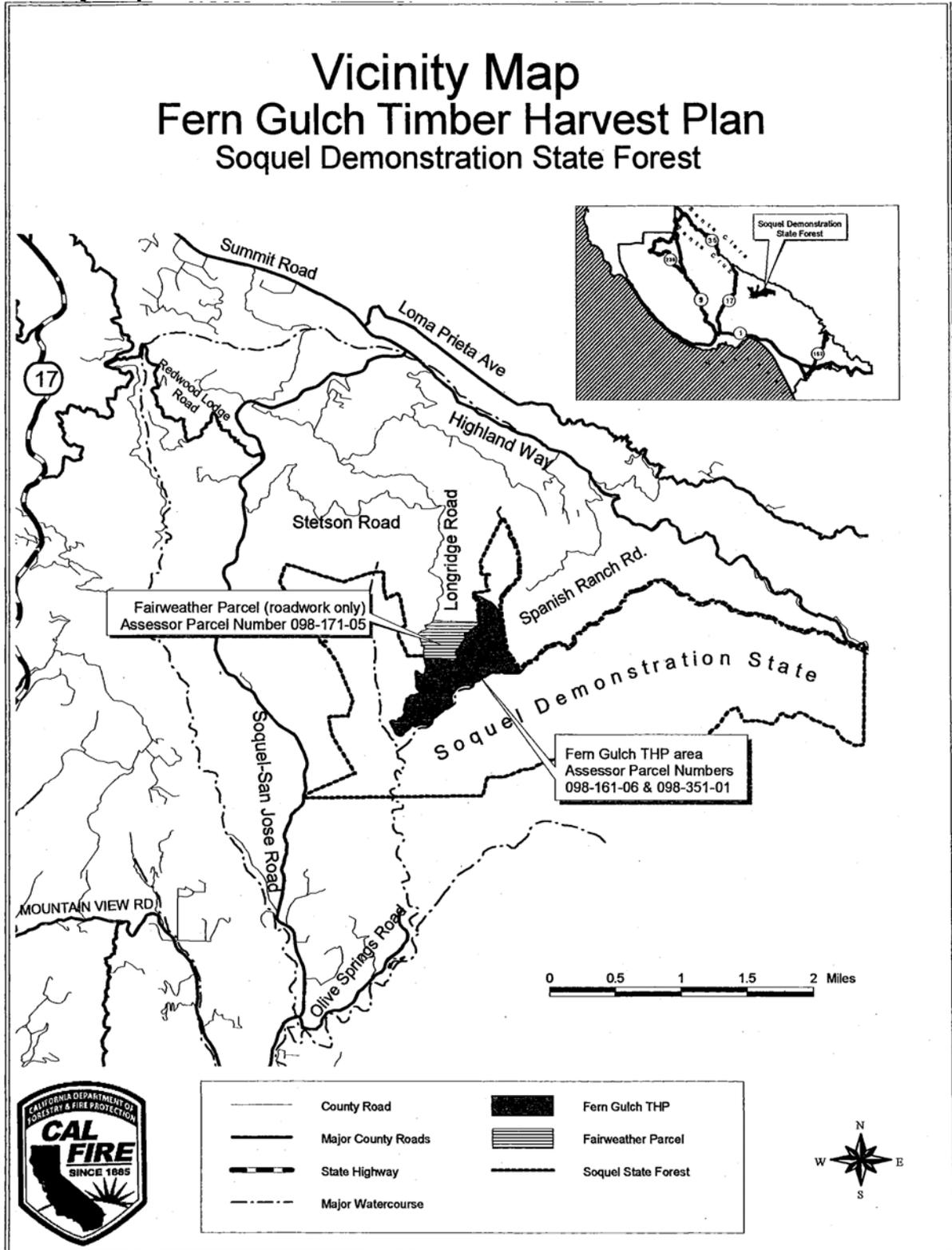


EXHIBIT A
Yarding Methods Map – North Half

Yarding Methods
North Half Fern Gulch THP

- Legend**
- SDSF Roads**
 - Existing Seasonal
 - Reconstruction Seasonal
 - Proposed Seasonal
 - Proposed Temporary
 - Private Road (No Trespass)
 - County Road
 - Tractor Road
 - Tractor Road Crossings
 - Landings**
 - Tractor/Horse
 - Tractor
 - Tractor/Cable
 - Watercourse**
 - Class I
 - Class II
 - Class III
 - Spring
 - Unstable Areas**
 - Inner Gorge
 - Recently Active Slides
 - Operational Boundaries**
 - Soquel State Forest
 - Fern Gulch THP



Soquel Demonstration State Forest

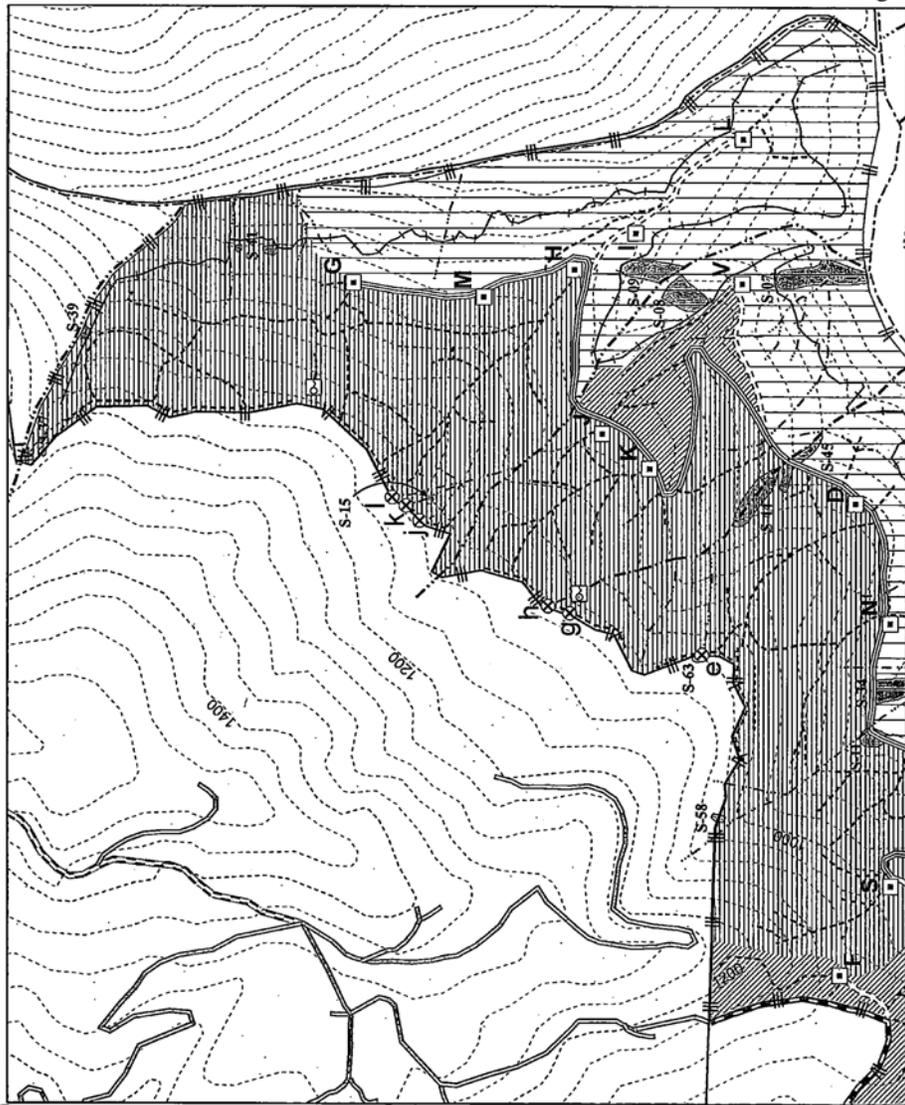


Contour Interval = 40 feet



0 250 500 750 1,000 Feet

SRS 11-09-2009



RECEIVED
 FEB 23 2010
 COAST AREA OFFICE
 RESOURCE MANAGEMENT

62 Revised 2/22/10

PART OF PLAN

EXHIBIT A
Yarding Methods Map – South Half

Yarding Methods
South Half Fern Gulch THP

Legend

SDSF Roads

- Existing Seasonal
- Reconstruction Seasonal
- Proposed Seasonal
- Proposed Temporary
- Private Road (No Trespass)
- County Road
- Tractor Road
- Tractor Road Crossings

Landings

- Tractor/Horse
- Tractor
- Tractor/Cable

Yarding Method

- Tractor/Horse
- Tractor
- Tractor/Cable

Watercourse

- Class I
- Class II
- Class III
- Spring

Unstable Areas

- Inner Gorge
- Recently Active Slides (Shaded Areas)

Operational Boundaries

- Soquel State Forest
- Fern Gulch THP

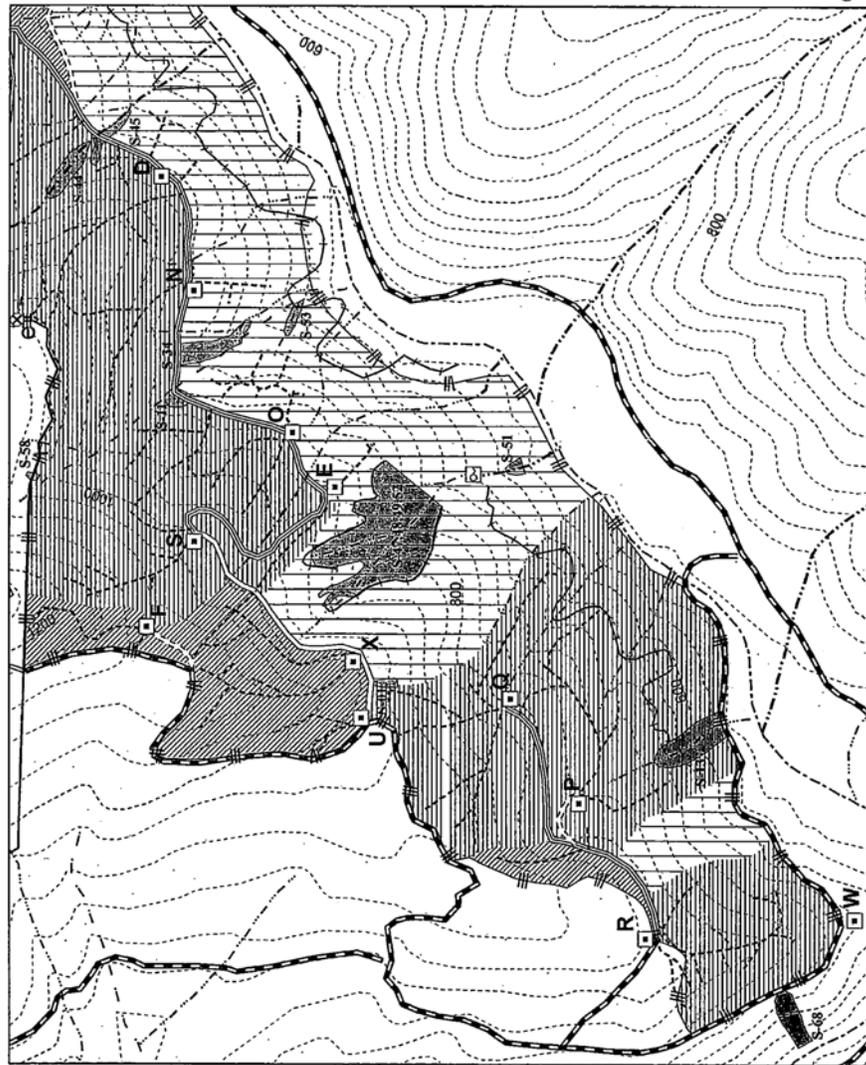
Soquel Demonstration State Forest



Scale: Contour Interval = 40 feet
 0 260 520 780 1,040 Feet

Orientation: N, S, E, W

Reference: SRS 11-09-2009



RECEIVED

FEB 23 2010

COAST AREA OFFICE
 RESOURCE MANAGEMENT

63

Revised 2/22/10

PART OF PLAN

EXHIBIT A

Road Construction, Reconstruction and Drainage Structures Map– North Half

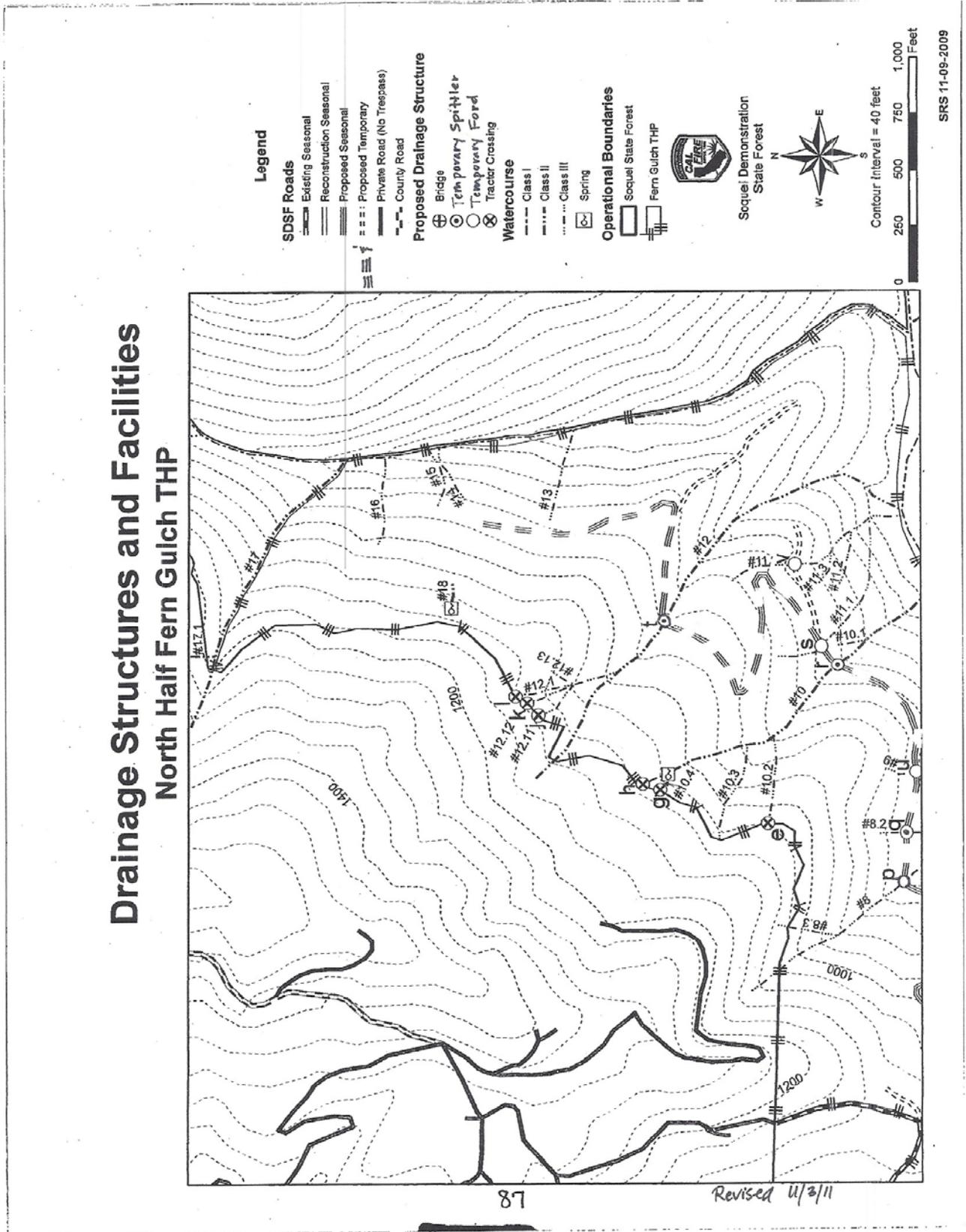
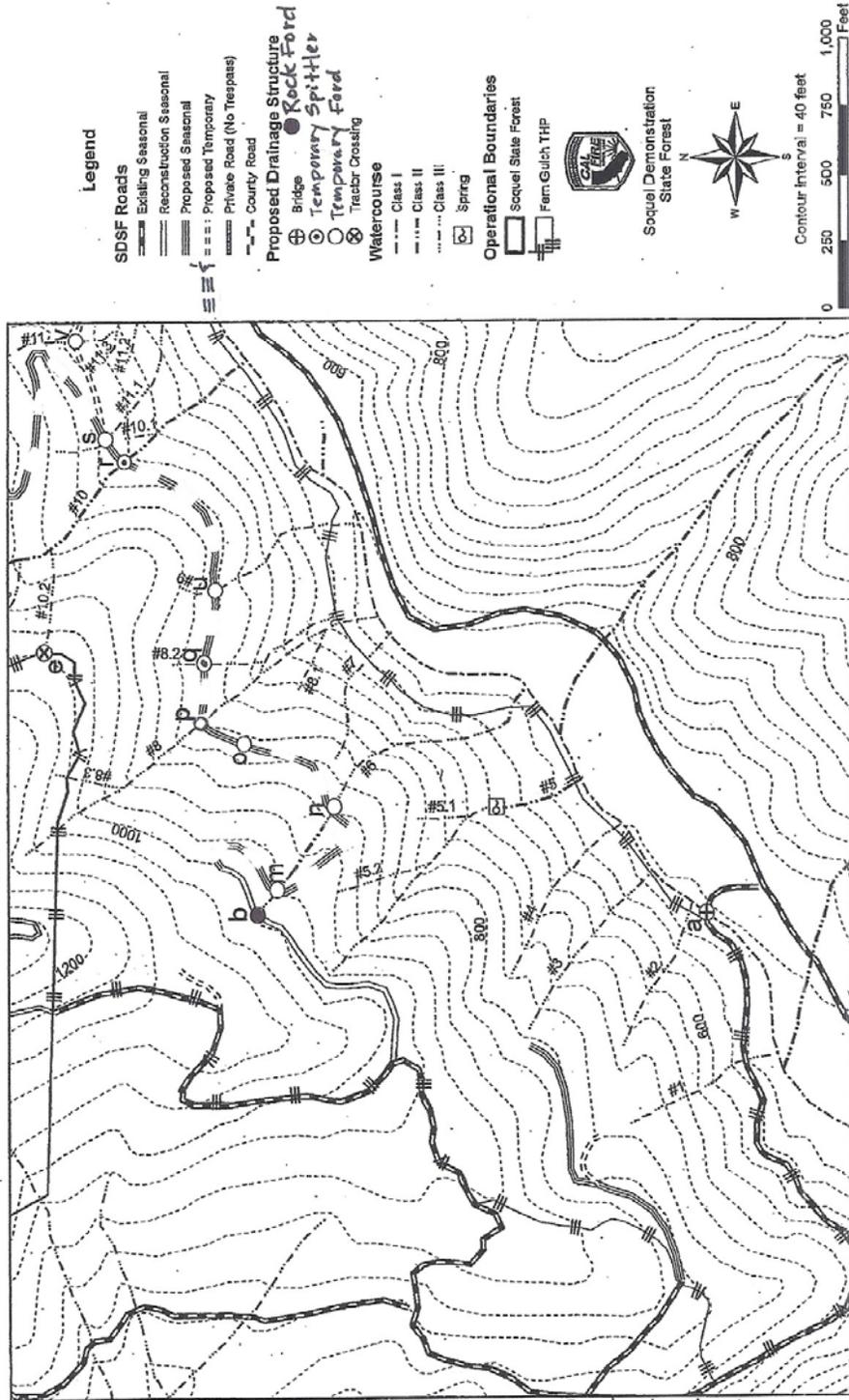


EXHIBIT A

Road Construction, Reconstruction and Drainage Structures Map – South Half

**Drainage Structures and Facilities
South Half Fern Gulch THP**



88

Revised 11/3/11

EXHIBIT A
Appurtenant Roads Map

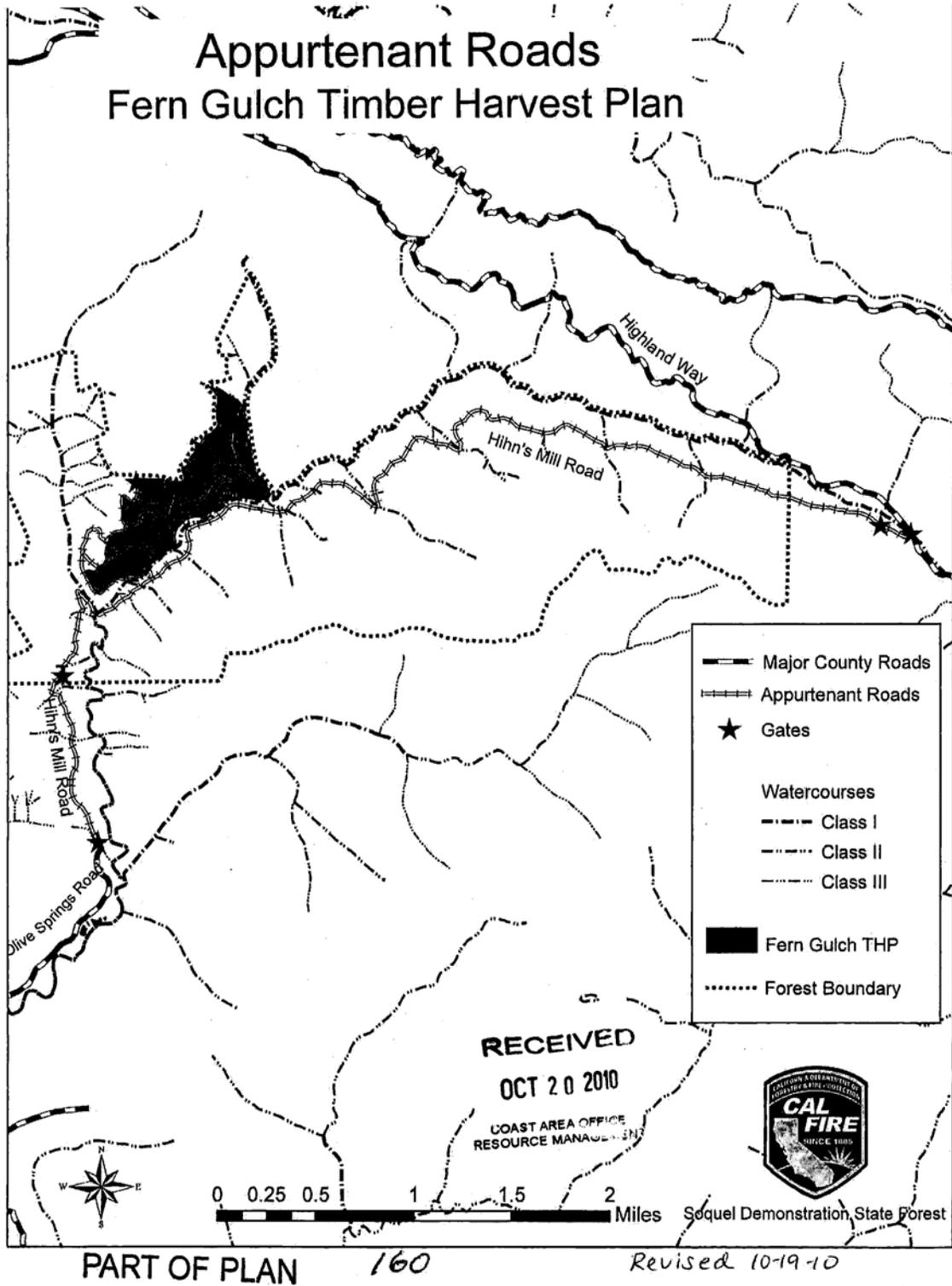


EXHIBIT B

SCALER INFORMATION FORM

All logs shall be scaled by a Log Scaler certified by a recognized Scaling Bureau or third party scaling organization approved by the STATE.

TIMBER SALE NAME Fern Gulch CONTRACT# _____
BEGIN_DATE 5/15/2012 TERMINATION DATE 10/15/2013

PURCHASER _____
REPRESENTATIVE _____
ADDRESS _____

SELLER Calif. Dept. of Forestry and Fire Protection; (STATE)
Soquel Demonstration State Forest
REPRESENTATIVE _____
ADDRESS 4750 Soquel San-Jose Road
Soquel, California 95073

LICENSED TIMBER OPERATOR _____
REPRESENTATIVE _____
ADDRESS _____

LOG BRAND "CDF" BRAND IDENTIFICATION PAINT Green

ESTIMATED SALE VOLUME 2,500 MBF Coast redwood, 73MBF Douglas-fir

LOAD SAMPLE 100% (roll-out) WEIGHT SAMPLE None

SCALING INSTRUCTIONS: N.F.L.S.H. AS SUPPLEMENTED. October 2006 EDITION

DELIVERY POINTS	MILL	ADDRESS
PRODUCT		
_____	_____	_____
_____	_____	_____
_____	_____	_____

SCALING SPECIFICATIONS

MINIMUM SCALING LENGTH | None; scale as Presented.
Logs shall be scaled in one-foot multiples (exc. trim).

MINIMUM SCALING DIAMETER | None; scale as Presented.
Diameters shall be measured to the nearest inch.

MINIMUM NET VOLUME | 10 b.f. and at least 25 % of Gross.

- SPECIAL COMMENTS:
- All logs in a load shall be scaled at the same location and time and within three days of leaving State land.
 - Immediately notify the STATE when it is known by scaler that a load has been bypassed or picked up from the designated scaling location before being scaled.
 - Daily scale tickets and the hard copy of a load receipt shall be sent to the scaling organization on the day of scaling.

SCALER INFORMATION FORM (cont.)

- The scaling organization shall notify the STATE of any change on a scale ticket that affects the volume of the original scale after the copy has been mailed to the STATE.
- The scaling organization shall process scale tickets of all STATE loads daily and mail copies of daily scale certificates and log listings to the STATE. Also required are semi-monthly scaled volume summaries as of the 15th and the last day of the month. When adjustments are required to compensate for omissions or errors in daily scaled column summaries, the STATE may request the scaling organization to issue an adjusted summary report for those specified time periods. The PURCHASER shall also be notified by the STATE when such an adjustment has been made. Correspondence and reports shall be mailed to
- All delivered logs shall be subject to check scale by a STATE representative to assure that the scaling of STATE logs is being conducted within allowable limits. The following standards shall be used to determine the proficiency of individual scalers; for gross scale, a variance of 2 percent is the satisfactory standard, unless otherwise justified by abnormal amounts of pieces with sloughed sap rot, fire damage or chunks. For net scale, the following standards shall apply:

Check Scaler's % Defect in Logs	Scalers allowable variance
0 – 10%	2%
Over 10%	0.2 x % of defect to a maximum of 5%

- The scaler shall have a minimum of one routine check scale per month during the operating season. Check scale standards shall be taken from Chapter 60 of the 2006 National Forest Log Scaling Handbook. Copies of such check scales shall be furnished to the STATE within ten days of completion of said check scales. The STATE reserves the right to check scale scalers at intervals determined by the STATE.
- If, through STATE check scales, it is found that a scaler's work is unacceptable, the STATE will notify the PURCHASER and request an additional check scale to be submitted to the STATE within ten working days. Should remedial action fail to achieve correction, the STATE may immediately terminate the acceptance of the scaler's work until his/her competence is mutually certified by all concerned parties. PURCHASER scaling complaints shall be jointly and promptly investigated by the STATE and an independent scaling organization. The STATE may disallow use of the PURCHASER's scaler(s) and instead require a third party scaling organization if scale or records are unacceptable to the STATE.

EXHIBIT C
Exhibit C

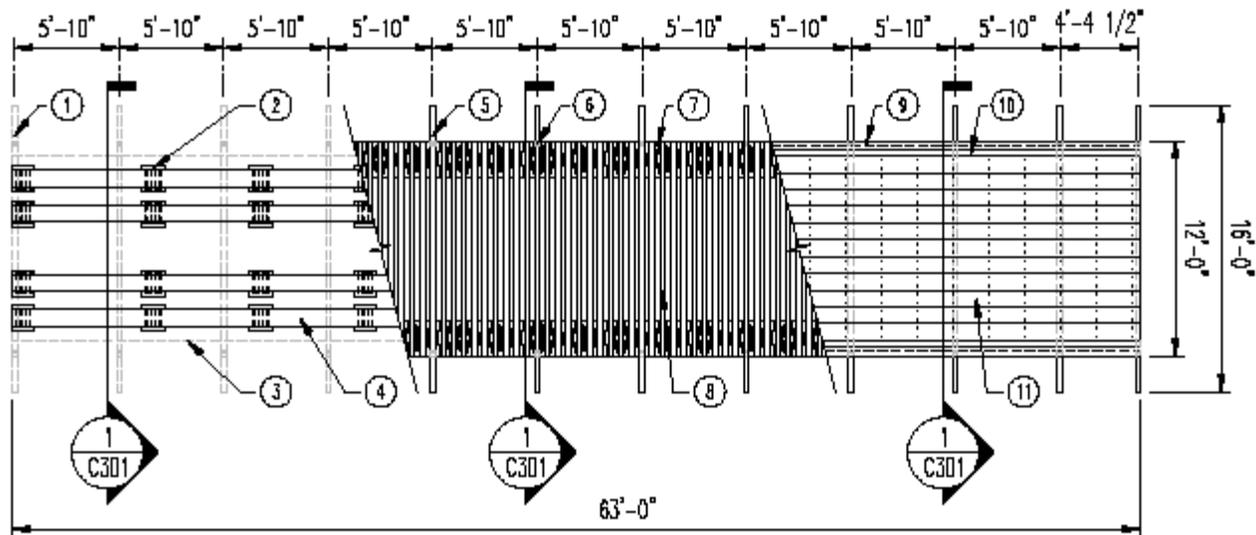
Additional Requirements Not Addressed in the Timber Harvesting Plan.

Bridges

The PURCHASER shall modify two existing bridges; one permanent and the other temporary as described below.

1. Highland Way Bridge Modification.

This existing bridge is at the East terminus of Hihn's Mill Road at MP 6.60 at the intersection with Highland Way. This rail car bridge has a steel deck with a minimal width. Work required includes constructing a new timber deck with integral curb rails and hand rails as shown on the drawings below. A material list is also included. The work shall be done within 30 days of commencing timber operations with minimal interference to timber harvest related traffic associated with either this timber sale agreement or the Rim Timber Sale.

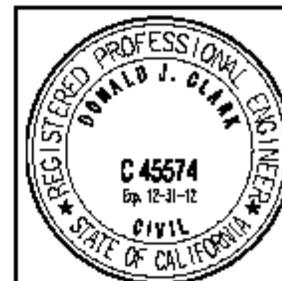


BRIDGE PLAN

SCALE: 1/8" = 1'-0"

BRIDGE PLAN NOTES:

- | | | | |
|---|---|------|--|
| <ul style="list-style-type: none"> ① 16'-0" JOIST, SHOWN GREY TO GIVE SPACING, TYP ② L 3" x 3" x 1/4" x 15" BRACKET, SEE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">2</td></tr><tr><td style="text-align: center;">C502</td></tr></table> TYP ③ EXISTING BRIDGE DECK ④ 4" x 12" PRESSURE TREATED CONTINUOUS GIRDER, TYP ⑤ 4" x 8" x 16'-0" PRESSURE TREATED JOIST, SPACE AS INDICATED, TYP ⑥ 4" x 4" GUARD RAIL POST, TYP | 2 | C502 | <ul style="list-style-type: none"> ⑦ 4" x 6" x 2'-0" PRESSURE TREATED JOIST BLKG AT ENDS, TYP ⑧ 4" x 6" x 12'-0" PRESSURE TREATED JOIST, TYP ⑨ 2" x 6" REDWOOD OR PRESSURE TREATED CONTINUOUS GUARD RAIL CAP, TYP ⑩ 4" x 6" REDWOOD OR PRESSURE TREATED CONTINUOUS BUMPER, TYP ⑪ 2" x 12" PRESSURE TREATED CONTINUOUS DECK BOARD, TYP |
| 2 | | | |
| C502 | | | |



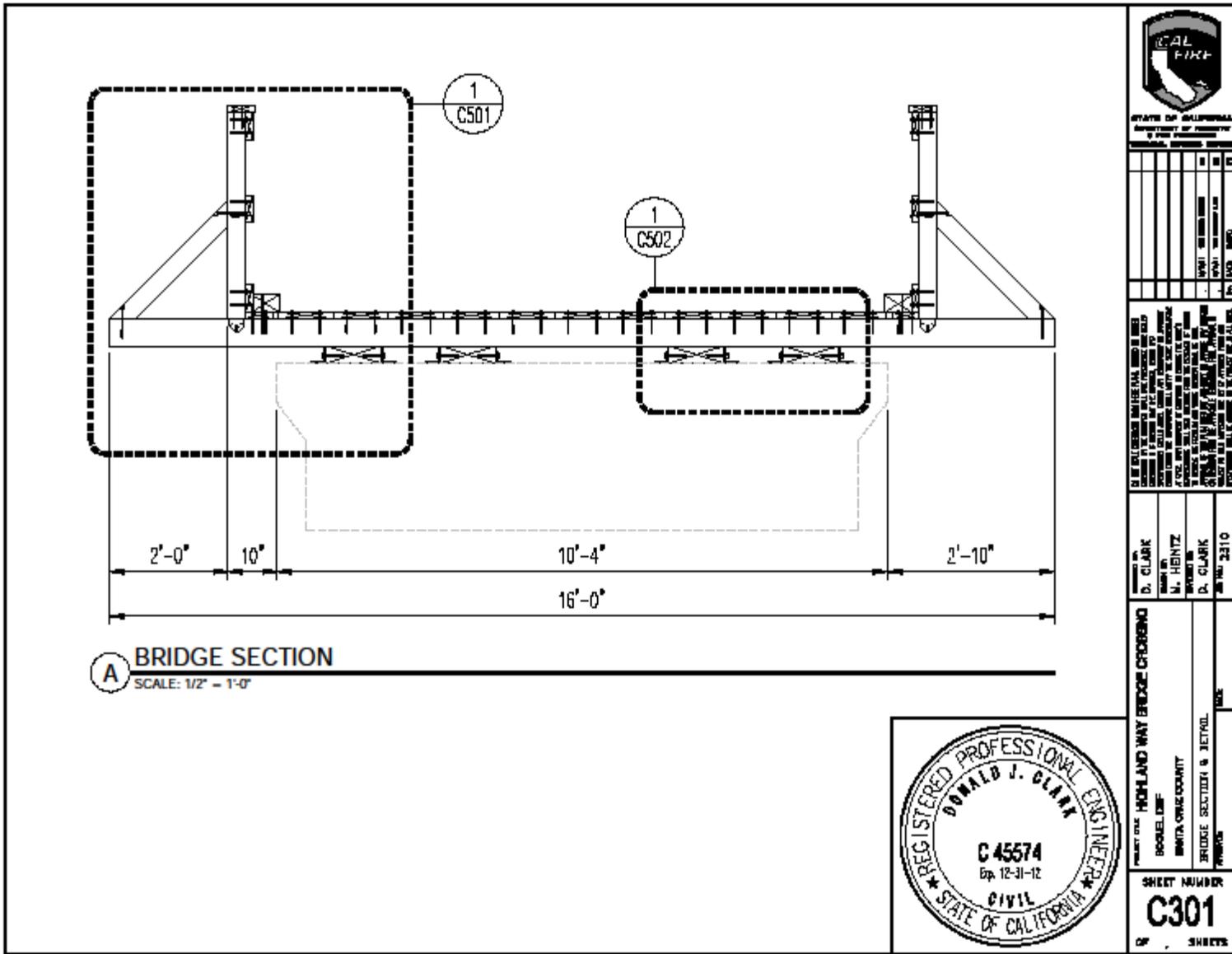


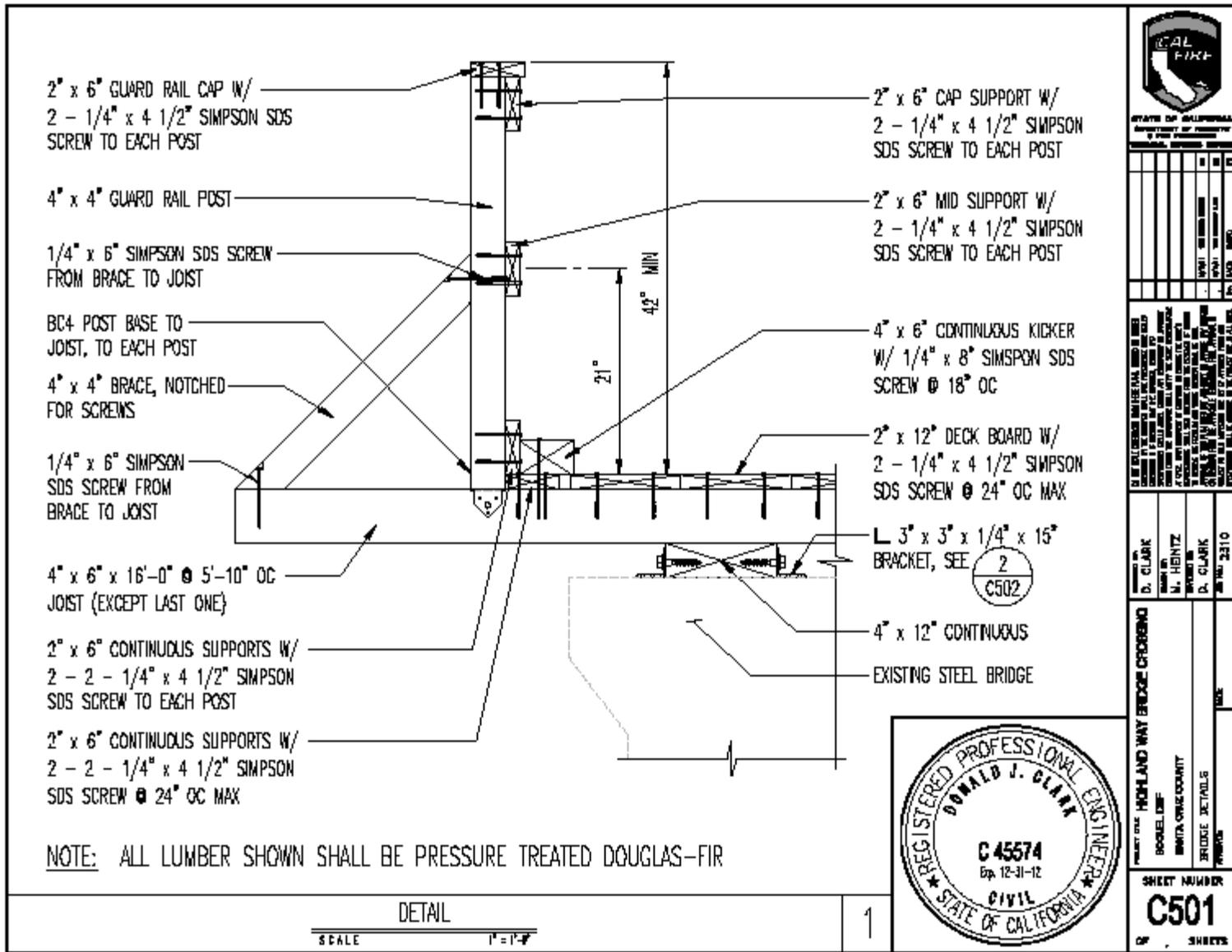
STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
& FIRE PROTECTION

DATE OF PRELIMINARY DESIGN									
DATE OF PRELIMINARY DESIGN									
DATE OF PRELIMINARY DESIGN									

I, D. CLARK, AMERICAN INSTITUTE OF ARCHITECTS, REGISTERED ARCHITECT, NO. 12345, STATE OF CALIFORNIA, LICENSE NO. 12345, EXPIRES 12/31/12. I, N. HEINTZ, REGISTERED ARCHITECT, NO. 67890, STATE OF CALIFORNIA, LICENSE NO. 67890, EXPIRES 12/31/12. I, D. CLARK, REGISTERED ARCHITECT, NO. 11111, STATE OF CALIFORNIA, LICENSE NO. 11111, EXPIRES 12/31/12.

D. CLARK ARCHITECT 11111	N. HEINTZ ARCHITECT 67890	D. CLARK ARCHITECT 11111
PROJECT NO. HIGHLAND WAY BRIDGE CHECKING		
BOOKED FOR: BRIMFA ORANGE COUNTY		
BRIDGE PLAN		
SHEET NUMBER		
C101		
OF SHEETS		





CAL
FIXED

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

NO.	DATE	BY	CHKD.

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED SHALL BE IN FEET AND INCHES. DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE SPECIFIED. ALL MATERIALS SHALL BE AS SHOWN OR OF EQUAL OR BETTER QUALITY. ALL MATERIALS SHALL BE APPROVED BY THE ENGINEER. ALL MATERIALS SHALL BE PRESSURE TREATED DOUGLAS-FIR UNLESS OTHERWISE SPECIFIED. ALL MATERIALS SHALL BE OF THE BEST QUALITY AVAILABLE. ALL MATERIALS SHALL BE OF THE BEST QUALITY AVAILABLE. ALL MATERIALS SHALL BE OF THE BEST QUALITY AVAILABLE.

DESIGNED BY	D. CLARK
CHECKED BY	N. HEINTZ
APPROVED BY	D. CLARK
DATE	08/14/12

PROJECT: HIGHWAY 99 BRIDGE CROSSING
SHEET NO. C501
BRIDGE DETAILS
SHEET NUMBER
C501
SHEETS

ITEM NO.	ITEM	UNIT	QUANTITY	UNIT PRICE ¹	AMOUNT
1	L 3" x 3" x 1/4" x 15" BRACKET	EA	90	\$0.00	\$0
2	1/4" FIELD WELD	LF	90	\$0.00	\$0
3	5/8" DIA x 4" LAG BOLT W/ 5/8" WASHER	EA	90	\$0.00	\$0
4	4" x 12" PRESSURE TREATED DOUG-FIR CONTINUOUS GIRDER	LF	252	\$0.00	\$0
5	4" x 6" x 16'-0" PRESSURE TREATED DOUG-FIR JOIST	EA	12	\$0.00	\$0
6	4" x 6" x 12'-0" PRESSURE TREATED DOUG-FIR JOIST	EA	97	\$0.00	\$0
7	4" x 6" x 2'-0" PRESSURE TREATED DOUG-FIR JOIST BLOCKING	EA	214	\$0.00	\$0
8	4" x 4" PRESSURE TREATED DOUG-FIR POST & BRACE	LF	152	\$0.00	\$0
9	2" x 6" REDWOOD OR PRESSURE TREATED DOUG-FIR CONTINUOUS CAPS, SUPPORTS, & MID RAILS	LF	630	\$0.00	\$0
10	4" x 6" REDWOOD OR PRESSURE TREATED DOUG-FIR CONTINUOUS BUMPER	LF	126	\$0.00	\$0
11	2" x 12" PRESSURE TREATED DOUG-FIR CONTINUOUS DECK BOARD	LF	693	\$0.00	\$0
12	1/4" x 4 1/2" SIMPSON SDS SCREW	EA	1,216	\$0.00	\$0
13	1/4" x 6" SIMPSON SDS SCREW	EA	48	\$0.00	\$0
14	1/4" x 8" SIMPSON SDS SCREW	EA	84	\$0.00	\$0
15	SIMPSON BC4 POST BASE	EA	24	\$0.00	\$0
16					
17					

SUB TOTAL _____ \$0

CONTINGENCY

	CONTINGENCY [@ 10%]	LS	1	\$0	\$0
--	-----------------------	----	---	-----	-----

GRAND TOTAL _____ \$0

Matthew Heintz _____ 6/16/2001
 Prepared by: _____ Date: _____

Don Clark _____ 6/16/2011
 Checked by: _____ Date: _____

¹Source: Caltrans. 2009 Contract Cost Data.

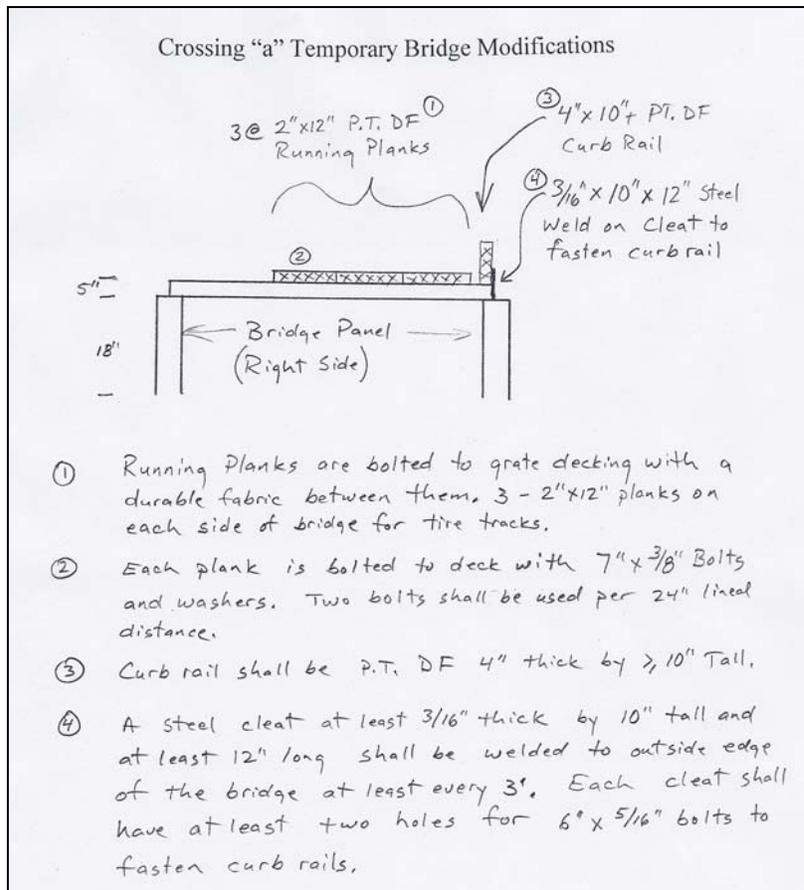
²CalFire Technical Services Data

2. Crossing "a" Temporary Bridge Modification.

This bridge site is on Longridge Road at Station 1+80 near the intersection with Hihn's Mill Road. A STATE owned Treadway bridge shall be installed and removed as described in the THP and Lake and Streambed Alteration Agreement with DFG.

The four panels that make up the bridge currently have an open grate deck and no railing. Prior to use, the PURCHASER shall perform the following modifications:

- The four panels shall be permanently joined together into two double-long panels. These panels shall be connected by means of pins, cleats and welds as specified by a Licensed, Professional Engineer provided by the PURCHASER.
- Used conveyor belt or similar material shall be placed over the existing grate decking to prevent soil and debris from falling through to the stream below. 2"x12" Douglas-fir planks shall then be placed on the fabric and bolted to the steel grate for a running surface.
- Full length, continuous curb rails at least 8 inches tall shall be installed on the outside edge of the bridge to discourage vehicles from driving off the bridge. Cleats shall be welded to the bridge to fasten the curb rails as shown in the drawing below. NOTE: these steel cleats shall be provided by the STATE.

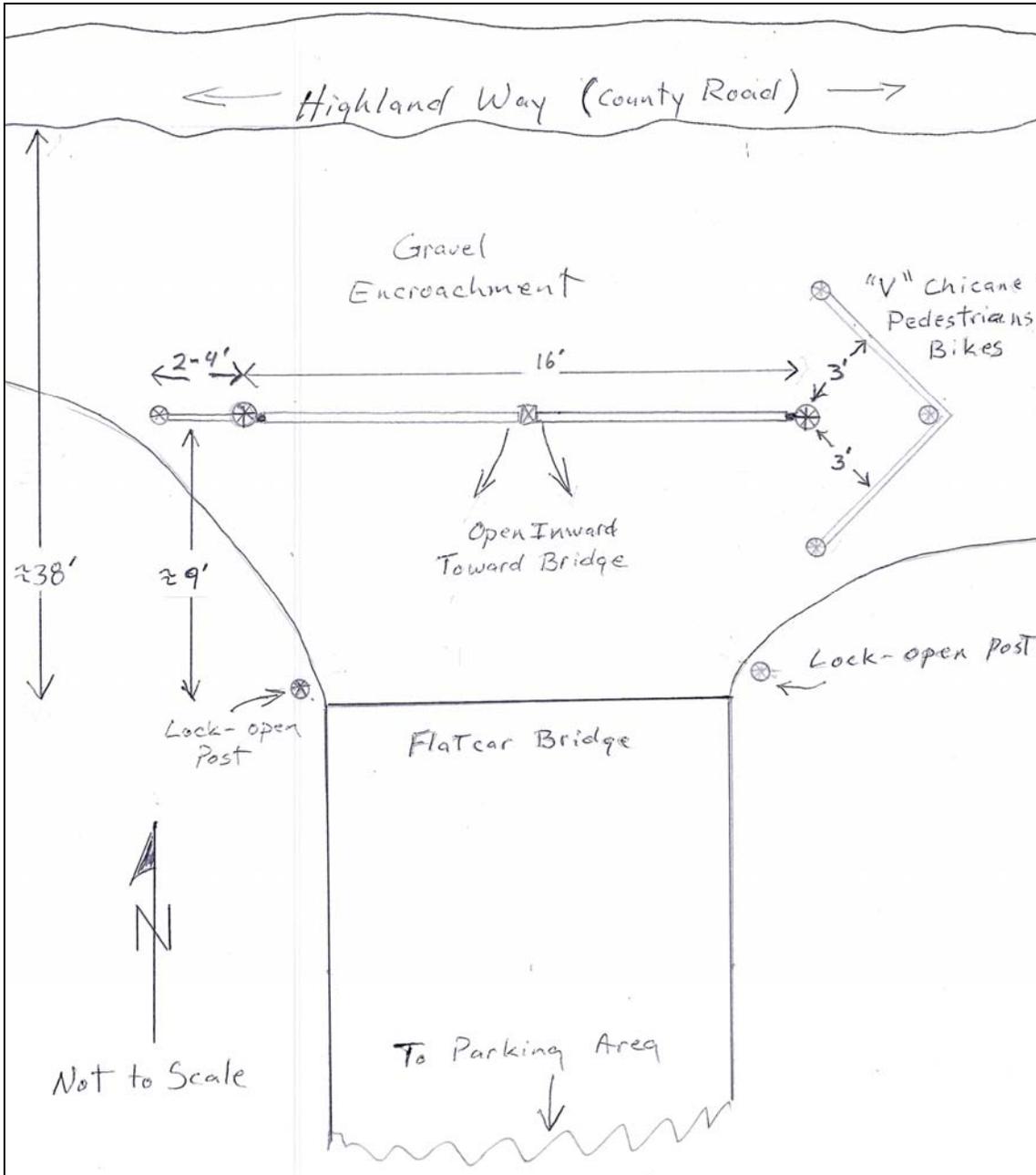


Gate

The PURCHASER shall construct and install a new gate at the east terminus of Hihn's Mill Road at MP 6.60, where it intersects with Highland Way. The gate shall be located between Highland Way (County Road) and the east end of an existing flatcar bridge over Soquel Creek.

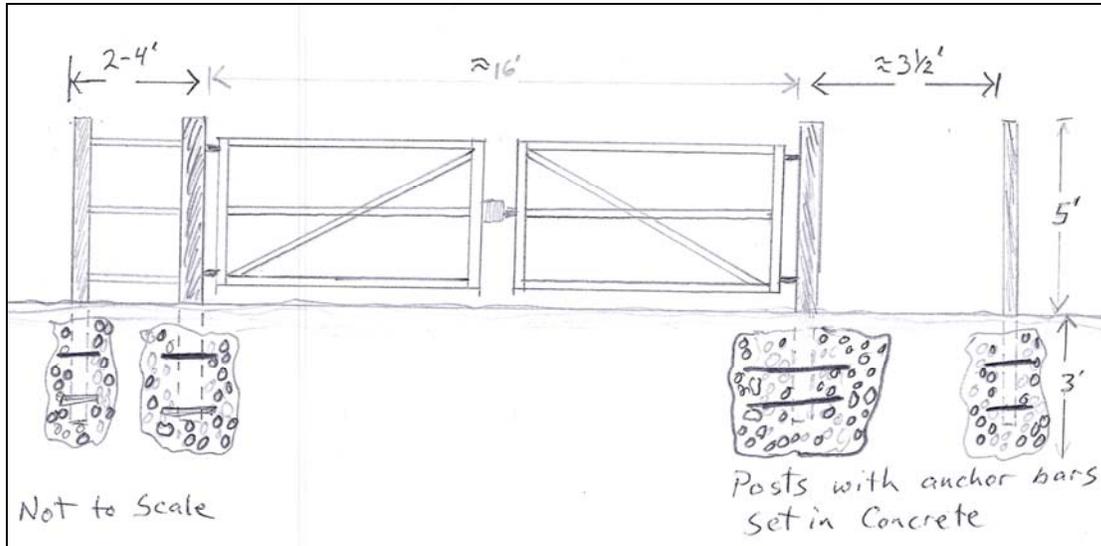
Vehicle Closure Gate with "V" Chicane for pedestrian and bicycle bypass.

Plan View



Highland Way Bridge Gate
Vehicle Closure Gate with "V" Chicane for pedestrian and bicycle bypass.

Profile View



The Purchaser shall provide a gate that meets the general dimensions above and the following criteria:

1. This new gate shall be installed after work is completed on widening the bridge deck.
2. Two existing gate round posts (used for the cable gate) shall be moved as appropriate to serve as "lock open" posts on each corner of the bridge closest to Highland Way.
3. All posts set in concrete shall have flat bar or rebar welded on for additional bonding strength. The volume of concrete used shall be adequate to support the gate weight under reasonable conditions.
4. The lock mechanism shall be capable of accepting three padlocks which can independently unlock the gate.
5. Hinges shall be appropriately sized and have secure pins.
6. The Chicane shall have three horizontal rails that are approximately the same heights as the gate rails.
7. The locking mechanism and locks shall be semi-enclosed to reduce opportunities for vandalism.
8. Hinge posts shall be at least 6" diameter. All other posts shall be at least 4" round or square tube. All pipe shall have a thickness of at least 3/16" and have ends capped.
9. Gate rails, stiles and braces shall be round or square tube of appropriate dimensions to resist moderate abuse.
10. Inside dimensions are minimum clear distances required to meet accessibility standards.
11. The outside face of each gate shall have a steel bracket sign holder (channel) to hold a piece of 1/2" thick plywood 24" wide. The height shall be determined by the distance between the center and top gate rail.
12. All welds and exposed metal shall be primed with a rust preventative paint. The final gate shall be painted with a good quality yellow paint.
13. These drawings are typical drawings and may require minor modification for installation.

Old-Growth Hazard Tree Stabilization

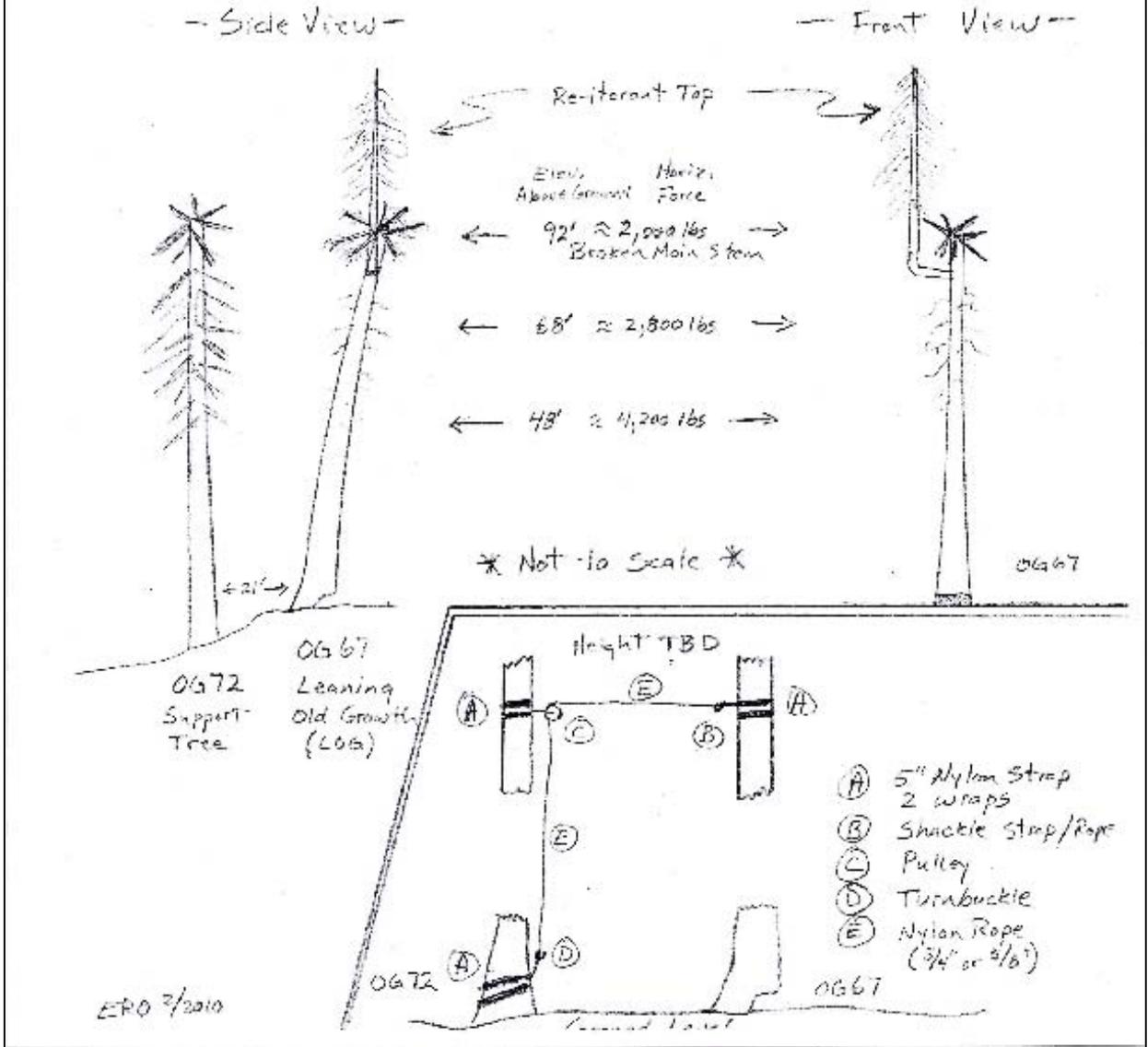
An old-growth redwood tree (OG067) recognized to be a hazard tree is located adjacent to Fern Gulch Road and Landing "E." This tree, like all other known old growth trees, shall not be cut or damaged. The PURCHASER shall either assume all responsibility for timber operations around tree OG067 or request to the STATE in writing, that the tree be cable supported. The STATE will provide a Licensed Professional Engineer to design and oversee the installation of a cable support system to restrain the tree. The tentative plan is shown in the drawings below. The PURCHASER shall provide the following labor and materials:

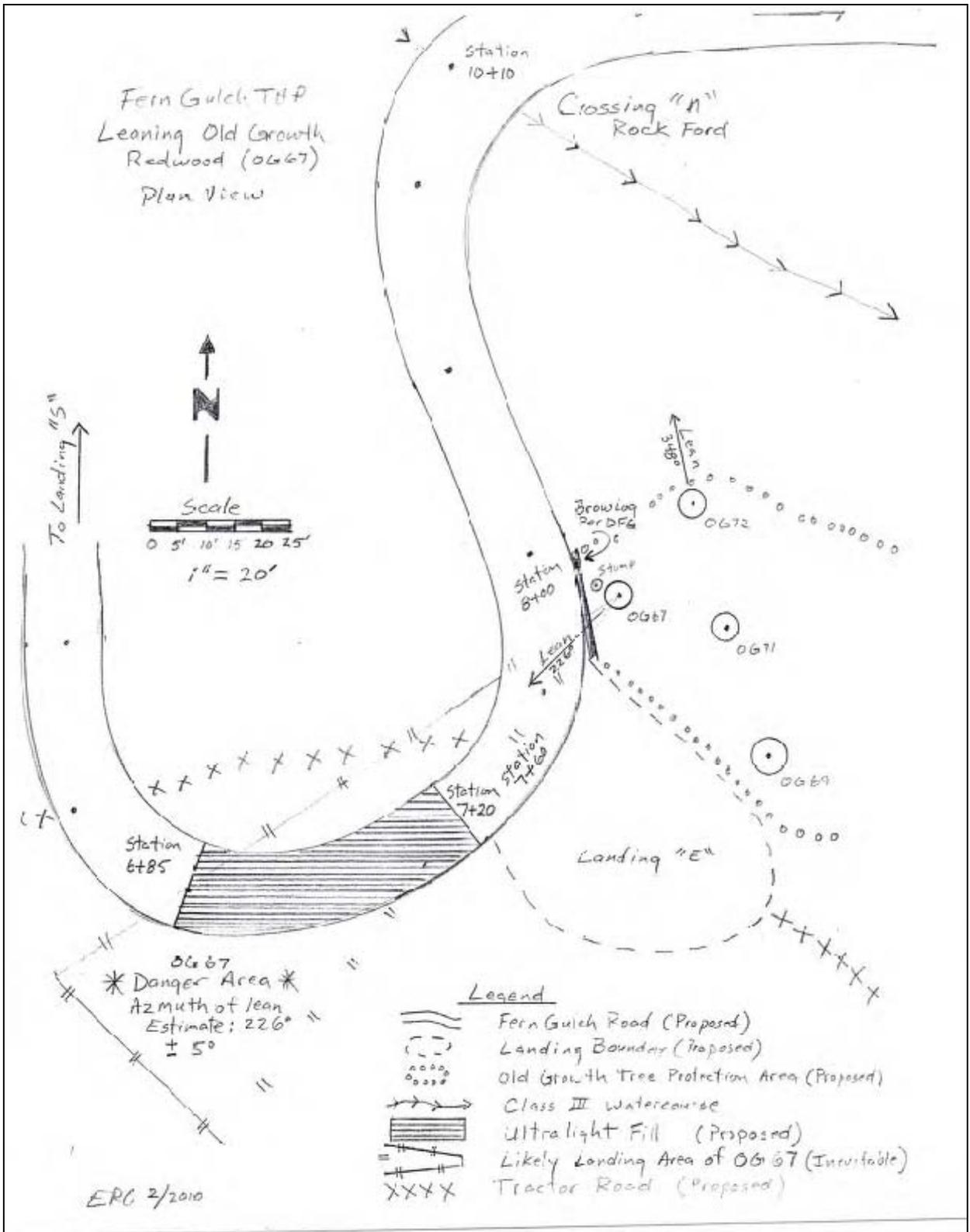
- An experienced tree climber for 4 hours of work.
- Nylon tree straps; at least 4 inches wide, 4 each.
- Steel shackle; 4 each;.
- Block with 6-inch diameter x $\frac{3}{4}$ " wide pulley, 1 each.
- Turnbuckle with 1 inch diameter eyes and at least 18 inch travel.
- High strength rope; $\frac{3}{4}$ inch diameter minimum, 250 lineal feet.
- All rope and materials must be rated for a minimum breaking strength of 16,000 pounds.

Fern Gulch THP
Leaning Old Growth (LOG) Redwood
OG67

General Plan for Cable Support

Note: Specific location of nylon straps shall be determined when a climber/engineer examines upper bole closely.





Rootwad Excavation and Removal.

The PURCHASER shall produce 18 rootwads and 37 logs from the Fern Gulch THP area and deliver them to designated staging areas for use in off-site projects. Some of these rootwads and logs are planned for use as a rootwad revetment to stabilize the streambank adjacent to Hihn's Mill Road MP 1.36. The remaining rootwads and logs are intended for an instream habitat improvement project. The PURCHASER shall harvest and deliver these rootwad/butt logs as provided below.

- The PURCHASER shall produce the rootwads and logs according to the dimensions specified in the tables below.
- All rootwads and logs shall be produced from sound, green redwood trees.
- All excavated rootwads shall have an attached buttlog at least 25 feet long.
- Rootwads shall be excavated from road right-of-way trees marked with orange paint. Any substitutions must be approved in advance by the Timber Sale Officer.
- The size and weight of each rootwad and log are important considerations for the final use of these products. Rootwads shall therefore be kept intact and as large as practical during the excavation, loading and transport process. The purchaser shall therefore employ sufficient care to prevent cracking, splitting or other structural damage to the rootwads and buttlogs.
- The PURCHASER shall transport each specified rootwad and log to a delivery site designated by the Timber Sale Officer. Up to five delivery locations may be specified within ½ mile of Crossing "a." The PURCHASER shall also be responsible for unloading rootwads and logs at each delivery site.
- Timing is an important consideration in this activity. The PURCHASER shall insure all listed rootwads and logs are delivered to the specified delivery sites by August 15, 2012 except for Rootwad #12 which cannot be delivered until September 15. Any other changes shall be approved in writing by the Timber Sale Officer.

Rootwads* to Produce and Deliver.

Rootwad Number	Road Name Source	Road Station Source	Tree DBH (Approx. inches)	Delivery Location	Note
1	Shortridge Road	4+60	42	DP #7	
2		5+60	52	DP #7	
3	"	7+50	38	DP #7	
4	"	8+50	34	DP #7	
5		12+00	54	DP #7	
6	"	12+15	36	DP #7	
7	"	14+10	38	DP #7	
8	"	Landing "Q"	38	DP #7	
9		Landing "Q"	38	DP #7	
10	Shortridge Temp Spur	Landing "P"	36	DP #7	
11	"	Landing "P"	34	DP #7	
12	"	Landing "P"	36	DP #7	
13	"	Landing "P"	36	DP #2	2a
14	Old Spanish Ranch Road	9+50	42	DP #7	
15	Fern Gulch Road	5+40	46	DP #4	4c
16		6+00	44	DP #7	
17		6+80	42	DP #7	
18		15+25	50	DP #7	

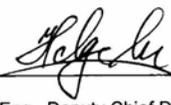
* includes a 25' long buttlog attached

Logs to Produce and Deliver.

Log Number	Minimum Log Diameter at <u>Large End</u> (inches)	Log Length (feet)	Delivery Location	Note
1	32	60	DP #1	1a
2	32	60	DP #1	1a
3	32	60	DP #1	1b
4	32	60	DP #1	1b
5	32	60	DP #1	1b
6	32	60	DP #1	1c
7	34	60	DP #1	1c
8	34	60	DP #1	1c
9	34	60	DP #2	2b
10	34	60	DP #2	2b
11	34	60	DP #2	2b
12	34	60	DP #5	5b
13	34	60	DP #5	5b
14	36	25	DP #7	Streambank
15	36	25	DP #7	Streambank
16	36	25	DP #7	Streambank
17	36	25	DP #7	Streambank
18	36	25	DP #7	Streambank
19	36	25	DP #7	Streambank
20	36	25	DP #7	Streambank
21	36	25	DP #7	Streambank
22	36	25	DP #7	Streambank
23	36	25	DP #7	Streambank
24	36	25	DP #7	Streambank
25	36	25	DP #7	Streambank
26	36	25	DP #7	Streambank
27	36	25	DP #7	Streambank
28	36	25	DP #7	Streambank
29	36	25	DP #7	Streambank
30	36	60	DP #4	4a
31	36	60	DP #4	4a
32	36	60	DP #5	5a
33	38	60	DP #5	5a
34	38	60	DP #5	5a
35	38	65	DP #2	2a
36	42	60	DP #5	4a
37	48	65	DP #4	4c

EXHIBIT D

Fern Gulch Timber Harvesting Plan 1-09-096-SCR; page 1

<p>FOR ADMIN. USE ONLY Amendments-date & S or M</p> <p>1. _____ 7. _____ 2. _____ 8. _____ 3. _____ 9. _____ 4. _____ 10. _____ 5. _____ 11. _____ 6. _____ 12. _____</p>	<p>TIMBER HARVESTING PLAN STATE OF CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION RM-63 (01-00)</p> <p>THP Name: <u>FERN GULCH</u></p> <p>If this is a Modified THP, check box: []</p>	<p>FOR ADMIN. USE ONLY</p> <p>THP No. <u>1-09-096 SCR</u></p> <p>Dates Rec'd <u>NOV 17 2009</u></p> <p>Date Filed <u>NOV 27 2009</u></p> <p>Date Approved <u>MAR 16, 2011</u></p> <p>Date Expires <u>MAR 15, 2014</u></p> <p>Extensions 1) [] 2) []</p>
<p>This Timber Harvesting Plan (THP) form, when properly completed, is designed to comply with the Forest Practice Act (FPA) and Board of Forestry and Fire Protection rules. See separate instructions for information on completing this form. NOTE: The form must be printed legibly in ink or typewritten. The THP is divided into six sections. If more space is necessary to answer a question, continue the answer at the end of the appropriate section of your THP. If writing an electronic version, insert additional space for your answer. Please distinguish answers from questions by <i>font change, bold or underline</i>.</p>		
<p><u>SECTION I - GENERAL INFORMATION</u></p>		
<p>This THP conforms to my/our plan and upon approval, I/we agree to conduct harvesting in accordance therewith. Consent is hereby given to the Director of Forestry and Fire Protection, and his or her agents and employees, to enter the premises to inspect timber operations for compliance with the Forest Practice Act and Forest Practice Rules.</p>		
1a. TIMBER OWNER(S) OF RECORD:	<p>State of California, Department of Forestry and Fire Protection Soquel Demonstration State Forest 4750 Soquel-San Jose Road Soquel, CA 95073 (831) 475-8643</p>	
Signature _____		Date <u>11/16/09</u>
	Helge Eng, Deputy Chief Demonstration State Forests	
<p>NOTE: The timber owner is responsible for payment of a yield tax. Timber Yield Tax information may be obtained at the Timber Tax Section, MIC: 60, State Board of Equalization, P.O. Box 942879, Sacramento, California 94279-0060; phone 1-800-400-7115; BOE Web Page at http://www.boe.ca.gov.</p>		
2a. TIMBERLAND OWNER(S) OF RECORD:	<p>State of California, Department of Forestry and Fire Protection Soquel Demonstration State Forest 4750 Soquel-San Jose Road Soquel, CA 95073 (831) 475-8643</p>	
Signature _____		Date <u>11/16/09</u>
	Helge Eng, Deputy Chief Demonstration State Forests	
#3 on page 3		
3. PLAN SUBMITTER(S):	<p>State of California, Department of Forestry and Fire Protection Soquel Demonstration State Forest 4750 Soquel-San Jose Road Soquel CA 95073 (831) 475-8643</p>	
4. Signature _____		Date <u>11/16/09</u>
	Helge Eng, Deputy Chief Demonstration State Forests	
<p>Section I; General Information</p>		
<p>1</p>		
<p>RECEIVED NOV 17 2009 COAST AREA OFFICE RESOURCE MANAGEMENT</p>		

**EXHIBIT E
SAMPLE FORMS FOR REPORTING OPERATING COSTS**

**SAMPLE FORM FOR REPORTING
LOGGING AND ROAD CONSTRUCTION COSTS**

Page ___ of ___ for ACTIVITY: _____ AREA or UNIT: _____

PART 1. EQUIPMENT

<u>Equipment Type</u>	<u>No. of Hours Worked</u>	<u>Rate per Hour</u>	Check if	<u>Total Cost</u>
			<u>With Oper</u> *	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

PART 2. LABOR

<u>Labor Type</u>	<u>No. of Hours Worked</u>		<u>Rate per Hour</u> *		<u>Total Cost</u>
	<u>Straight</u>	<u>OT</u>	<u>Straight</u>	<u>OT</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

* Labor rates, whether with equipment rates or listed separately, must include state comp insurance, benefits, and other employer costs.

PART 3. MATERIALS, SERVICES, OVERHEAD, ETC.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Cost/Unit</u>	<u>Total Cost</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Attach additional information as appropriate.

EXHIBIT E

**SAMPLE FORM FOR REPORTING
ROOTWAD/LOG EXTRACTION AND DELIVERY COSTS**

Page ___ of ___ for _____ AREA

PART 1. EQUIPMENT

<u>Equipment Type</u>	<u>No. of Hours Worked</u>	<u>Rate per Hour</u>	<u>Check if With Oper *</u>	<u>Total Cost</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

PART 2. LABOR

<u>Labor Type</u>	<u>No. of Hours Worked</u>		<u>Rate per Hour *</u>		<u>Total Cost</u>
	<u>Straight</u>	<u>OT</u>	<u>Straight</u>	<u>OT</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

* Labor rates, whether with equipment rates or listed separately, must include state comp insurance, benefits, and other employer costs.

PART 3. MATERIALS, SERVICES, OVERHEAD, ETC.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Cost/Unit</u>	<u>Total Cost</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Attach additional information as appropriate.