Staff Report to the Zoning Administrator

Application Number: 10-0038

Applicant: Marty Paisley
Owner: Marty Paisley & Michele Paisley-Ardaiz
APN: 062-201-01

Agenda Date: February 7, 2014
Agenda Item #: 5

Time: After 9:00 a.m.

Project Description: Proposal to recognize construction of a 4,113 square foot, 2-story single-family dwelling, 996 square foot second unit, 1,875 square foot horse shelter, pond, and grading of approximately 210 cubic yards. Proposal also includes development of a family-operated winery producing more than 1,000 gallons annually.

Location: Property located on the south side of Smith Grade, about 2 miles from the intersection with Empire Grade (no situs).

Supervisoral District: 3rd District (District Supervisor: Neal Coonerty)

Permits Required: Coastal Development Permit, Residential Development Permit to increase the maximum 28-foot height limit to about 34 foot (main unit) by increasing the required setbacks 30 feet and to recognize a bathroom in the basement of the main unit, which has no interior access.

Technical Reviews: Preliminary Grading Review, Soils Report Approval

Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- ~~DENIAL of Application 10-0038, based on the attached findings.~~

Exhibits

A.	Statutory (CEQA determination)	D.	Assessor's, Location, Zoning and General Plan Maps
B.	Findings		
C.	Project plans	E.	Comments & Correspondence

Parcel Information

Parcel Size:	81.88 acres
Existing Land Use - Parcel:	Timber production, vineyard
Existing Land Use - Surrounding:	Residential, timber production
Project Access:	Smith Grade Road
Planning Area:	Bonny Doon
Land Use Designation:	R-M (Mountain Residential)
Zone District:	TP (Timber Production)
Coastal Zone:	_X_ Inside ___ Outside
Appealable to Calif. Coastal Comm.	___ Yes _X_ No

Environmental Information

Geologic Hazards:	Areas of instability visible; however not in the vicinity of habitable development
Soils:	N/A
Fire Hazard:	Not a mapped constraint
Slopes:	Site contains slopes in excess of 50%; no habitable structures in vicinity of steep slopes, however unpermitted pond excavation resulted in embankment of greater than 50% slope
Env. Sen. Habitat:	Mapped protected species; biotic studies indicate no appropriate habitat on site. Riparian corridor associated with Majors Creek; unpermitted pond excavation approximately 600 feet upslope from Majors.
Grading:	Approximately 980 cubic yards to be recognized
Tree Removal:	No trees proposed to be removed
Scenic:	Smith Grade is a mapped scenic roadway; development not visible from roadway
Drainage:	Drainage plans not prepared by civil engineer; impacts unclear
Archeology:	Mapped resource; survey demonstrated no resources on site.

Services Information

Urban/Rural Services Line:	__ Inside _X_ Outside
Water Supply:	Private
Sewage Disposal:	Private
Fire District:	CalFire
Drainage District:	N/A

History

In 1988 the property received a notice of violation for unpermitted grading in a scenic corridor in the coastal zone. In 1989, the property owner made an application (89-0007) for the construction of a single-family dwelling, habitable accessory structure, barn and over 2,000 cubic yards of grading. The application was denied.

In 1992, Permit 91-0328 was approved to construct a house, guesthouse, barn and swimming pool on the subject parcel. The permit also recognized approximately 1,225 cubic yards of grading, including 400 cubic yards of earthwork necessary to improve existing roads on the site. Although the grading was completed generally in accordance with the approved Exhibit 'A' no structures were ever constructed. Consequently, Permit 91-0328 went void because it was never properly exercised.

In 2010 the County received a complaint regarding unpermitted construction and a notice of violation was issued for the construction of a single-family dwelling, partial construction of a second unit, and horse shelter. The location of the unpermitted structures was significantly different than that approved under Coastal Permit 91-0328, however the majority of grading that occurred in conjunction with the unpermitted construction *was* in conformance with the grading approved with the 1991 permit. The current application was made on February 16, 2010 in order to recognize the unpermitted construction and to resolve the code violation. In addition to the structures, the submitted project plans and field visit indicated the excavation of a pond in the vicinity of the dwellings. The preliminary review of the project revealed that the approximately 8,000 square foot pond had been graded without the supervision of a civil engineer, in close proximity to the access road leading to the dwellings. The pond embankment slope was found to be in excess of 2:1, which is considered potentially unstable. Failure of the over-steepened embankment would likely wash out the adjacent access road and threaten water quality and habitat associated with Majors Creek, approximately 600 feet down slope.

As a result of the concerns over the pond embankment, the County Civil Engineer asked the applicant to provide verification from the project geotechnical engineer attesting to the stability of the slope, the outlet location, compaction of fill and other aspects of the pond construction and location. The applicant was asked to provide grading and drainage plans prepared by a civil engineer or geologic cross sections through the pond and access road to identify the extent of fill and identifying underlying materials. The applicant was also required to provide information about the unpermitted portion of the access road, including surfacing, slope, turnouts and centerline radius to establish the proper scope of work to be recognized.

The applicant responded with a request that Environmental Planning "waive" the requirement for further geotechnical information regarding the pond construction. In an effort to provide a compromise, County engineers agreed to accept a letter from the geotechnical engineer certifying that the failure of the pond would not present a threat to life or property. The applicant was not able to secure such a letter.

On June 19, 2012 the County Senior and Associate Civil Engineers met with the applicant to discuss the concerns regarding the pond as well as requirements for the access road. The applicant was once again informed that the pond embankment is over-steepened (greater than a 2:1 slope), adjacent to a roadway and does not meet County Code requirements for fills (County Code Section 16.20.150) which state that no fill shall be made which creates an exposed surface steeper than 2:1. The Code does allow approval of steeper slopes if the slope is found to be consistent with stability and safety. The applicant indicated that he was unable to secure such a determination from his consulting engineers.

Environmental Planning staff provided one final option for the applicant to retain the pond on his

property, namely, that a buttress fill be placed adjacent to the over-steepened slope. This option would require removal and replacement of all unengineered fill on the outboard edge of the roadway and designing a proper energy dissipater at the outlet of the pipe leading from the pond, to prevent erosion. The applicant was directed to provide a grading and drainage plan, prepared by a civil engineer, based on a surveyed topographic map of the area, and designed based on written recommendations from the geotechnical engineer of record. In October 2013, more than a year after the final option was presented to him, the applicant provided a hand drawn set of grading and drainage plans. Although the applicant also submitted a letter from an engineer with the hand drawn plans, the letter simply described the hand drawn plans and did not attest to the adequacy of the plans, their accuracy or otherwise provide assurances that the proposal would meet County requirements.

As the application remains incomplete and the applicant has elected not to provide the County Engineers with the materials requested, the staff planner recommends denial of application 10-0038 based on the failure of the proposal to conform to County Codes and Policies.

Environmental Review

Recognition of the grading volumes and environmental impact of the excavation of the pond would trigger Environmental Review under CEQA. However, as the recommendation is for DENIAL of this project, it qualifies for a Statutory Exemption under Section 15270. In the event that the project is deemed eligible for approval, the project would likely require Environmental Review and the preparation of an Initial Study.

Conclusion

As proposed and conditioned, the project is NOT consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- ~~Certification that the proposal is exempt from further Environmental Review under the~~ California Environmental Quality Act.

- **DENIAL** of Application Number **10-0038,** based on the attached findings.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

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Santa Cruz CA 95060
Phone Number: (831) 454-5357
E-mail: robin.bolster@co.santa-cruz.ca.us

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 10-0038
Assessor Parcel Number: 062-201-01
Project Location: No Situs

Project Description: Proposal to recognize construction of a 4,113 square foot dwelling, 996 square foot second unit, construct a 1.875 square foot horse shelter and proposed commercial winery operation

Person or Agency Proposing Project: Marty Paisley

Contact Phone Number: (831) 458-3611

A. _____ The proposed activity is not a project under CEQA Guidelines Section 15378.

B. _____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).

C. _____ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.

D. __X__ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type: Section 15270 – Project Denial

E. ____ **Categorical Exemption**

F. Reasons why the project is exempt:

This project is recommended for denial.

_____ Date:_____

Robin Bolster-Grant, Project Planner

EXHIBIT A

Coastal Development Permit Findings

1. That the project is a use allowed in one of the basic zone districts, other than the Special Use (SU) district, listed in section 13.10.170(d) as consistent with the General Plan and Local Coastal Program LUP designation.

This finding can be made, in that the property is zoned TP (Timber Production), a designation which allows residential; commercial uses. The proposed dwelling, second unit, and horse shelter are principal permitted uses within the zone district, and the zoning is consistent with the site's (R-M) Mountain Residential General Plan designation.

2. That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.

This finding can be made, in that the proposal does not conflict with any existing easement or development restriction such as public access, utility, or open space easements in that no such easements or restrictions are known to encumber the project site.

3. That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to section 13.20.130 et seq.

This finding can be made, in that the development is consistent with the surrounding neighborhood in terms of architectural style; the site is surrounded by lots developed to a rural density; the structures are log houses, natural in appearance and complementary to the site. Further; the development site is not on a prominent ridge, beach, or bluff top.

4. That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the General Plan and Local Coastal Program land use plan, specifically Chapter 2: figure 2.5 and Chapter 7, and, as to any development between and nearest public road and the sea or the shoreline of any body of water located within the coastal zone, such development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act commencing with section 30200.

This finding can be made, in that the project site is not located between the shoreline and the first public road. Consequently, the dwelling, second unit, horse shelter and pond excavation will not interfere with public access to the beach, ocean, or any nearby body of water. Further, the project site is not identified as a priority acquisition site in the County Local Coastal Program.

5. That the proposed development is in conformity with the certified local coastal program.

This finding **cannot** be made, in that the pond represents a potential threat to a public water source and to endangered salmonid species dependent on the water source. The pond is located approximately 600 feet upslope from Majors Creek, a waterway that supports Coho salmon and steelhead trout, in addition to supplying the City of Santa Cruz with drinking water. The pond embankment is too steep (greater than 2:1 slope) and potentially unstable in its current configuration. The project engineers have been unable to provide assurances that the pond will not suffer catastrophic failure. While the project applicant submitted hand drawn plans depicting

the creation of a stabilizing buttress downhill from the pond embankment, the plans have not been drawn by registered civil engineer as required by the County Senior and Associate Civil Engineers, nor have the project engineers attested to the accuracy of the plans. The pond excavation was undertaken without the supervision of a registered engineer or geologist. The failure of the unpermitted pond and oversteepened embankment would threaten both the habitat and water quality of Majors Creek.

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding **cannot** be made, in that while the project is located in an area designated for residential uses, it is encumbered by physical constraints to development, including proximity to a stream (Majors Creek), which provides the City of Santa Cruz with drinking water and habitat for protected fish species. The excavation of an approximately 8,000 square foot pond was completed without the supervision of a registered engineer or geologist and the consulting engineer is not able to attest to the stability of the pond, which is located 600 feet upslope from Majors Creek. Additionally, the grading volumes provided on the hand-drawn plans have not been verified by a registered engineer and appear to be significantly smaller than the volume indicated by the size and depth of the pond.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding **cannot** be made, in that the proposed location of the dwelling, second unit, horse shelter and the conditions under which it would be operated or maintained will **not** be consistent with all pertinent County ordinances or the purpose of the TP (Timber Production) zone district.

Section 16.20.080 (C) of the Grading Ordinance calls for Denial of Approval of applications when the proposed grading plan for the development does not comply with the requirements of the Santa Cruz County Code or if the work proposed would be hazardous by reason of unstable soils and/or liable to endanger other properties or result in the deposition of debris on any property or drainage course. The unpermitted pond and over-steepened pond embankment conflict with Section 16.20.150, which limits fills to 2:1 slopes. The stability of the embankment cannot be verified by any licensed engineer and therefore represents a hazard to down slope properties, including a municipal water source and habitat for endangered aquatic species. While the applicant proposes to buttress the embankment, the necessary plans and specifications have not been supplied to allow the County to evaluate the proposal to ensure compliance with all applicable County codes and policies.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding **cannot** be made, in that the stability of the unpermitted pond embankment has not been verified by licensed engineers and the plans to buttress the embankment have not been evaluated or approved by licensed engineers. Failure of the embankment would result in erosion and sedimentation. Therefore, the embankment represents a threat to the Majors Creek watershed as the creek provides drinking water for the City of Santa Cruz and habitat for protected fish

species.

The project site is located within a mapped Water Supply Watershed. General Plan Objective 5.5a (Watershed Protection) calls for the preservation of the quality of water stored in Water Supply Watershed areas. As designed, the proposal is in conflict with this provision.

General Plan Policy 5.1.10 (Species Protection) requires protection of rare, endangered and threatened species. Failure of the unpermitted pond would result in sedimentation into Majors Creek, which provides habitat for Coho salmon and steelhead trout, which are threatened species.

General Plan Policy 6.3.9 (Site Design to Minimize Grading) requires all fill to be recompacted to engineered standards and protected from erosion. The grading and drainage plans submitted to the County for review have not been prepared by licensed engineer; nor has the accuracy of the plans been verified by a licensed engineer. Therefore, the County's evaluation of possible negative impacts of the proposed grading activities cannot be completed.

General Plan Policy 6.3.8 (On-Site Sediment Containment) requires measures to prevent any significant increase in site runoff. While the applicant proposes a buttress for the pond embankment, the hand-drawn grading and drainage plans do not provide such measures.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed dwelling, second unit and horse shelter are to be constructed on an existing undeveloped lot. The expected level of traffic generated by the proposed project is anticipated to be only 1 peak trip per day (1 peak trip per dwelling unit); such an increase will not adversely impact existing roads and intersections in the surrounding area.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed structures are located in an area containing a variety of architectural styles, and the proposed dwelling, second unit, and horse shelter are consistent with the land use intensity and density of the neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed dwelling, second unit, horse shelter will be of an appropriate scale and type of design that will enhance the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

Wanda Williams Deputy Zoning Administrator	Robin Bolster-Grant Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

EXHIBIT B

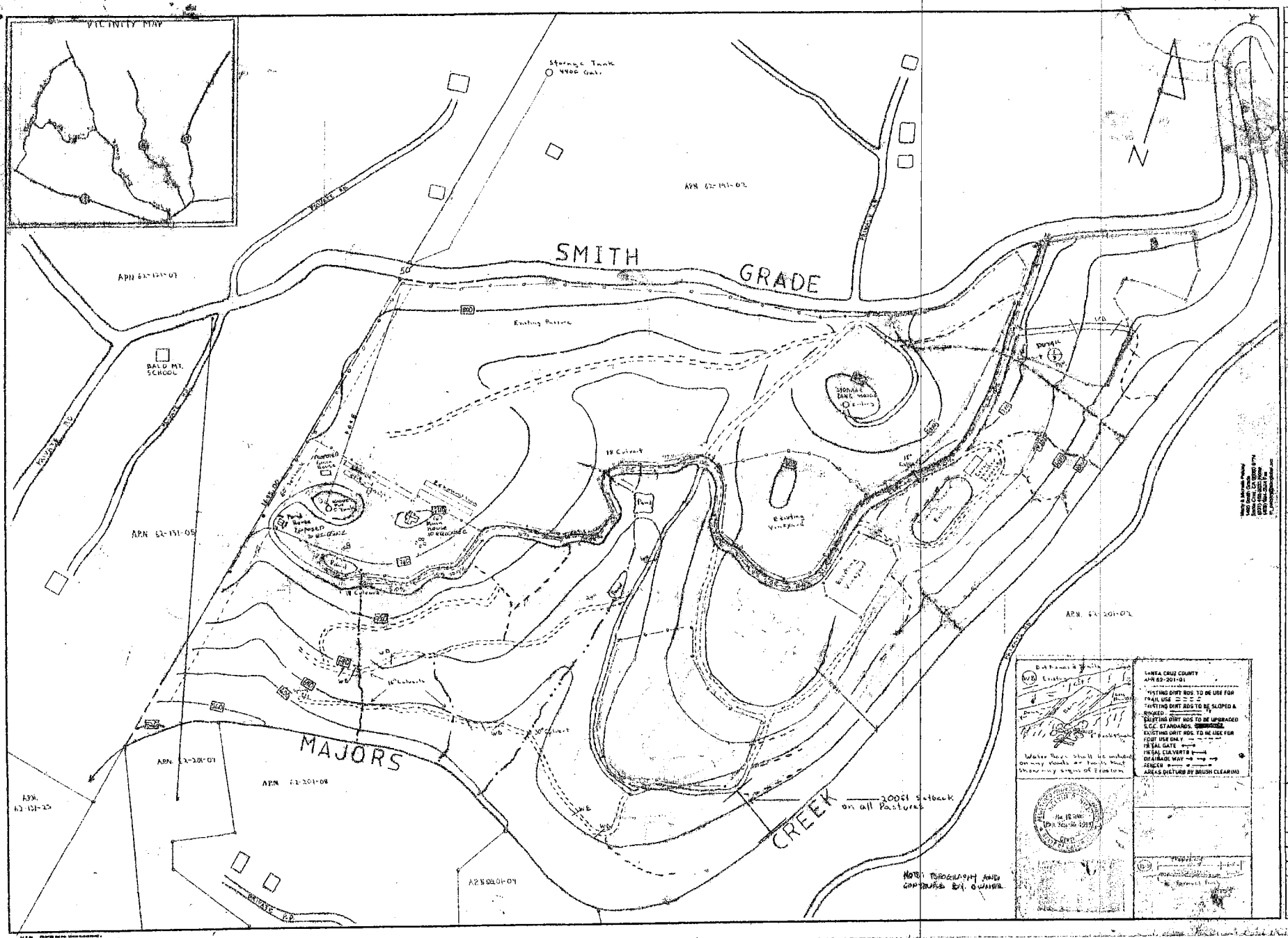


EXHIBIT C

SITE & GRADING PLAN - 12-RAILEY RESIDENCE

REVISIONS BY

Date 3/20/09
Scale 1" = 120'
Drawn
Job
Sheet 1 of 1 Sht

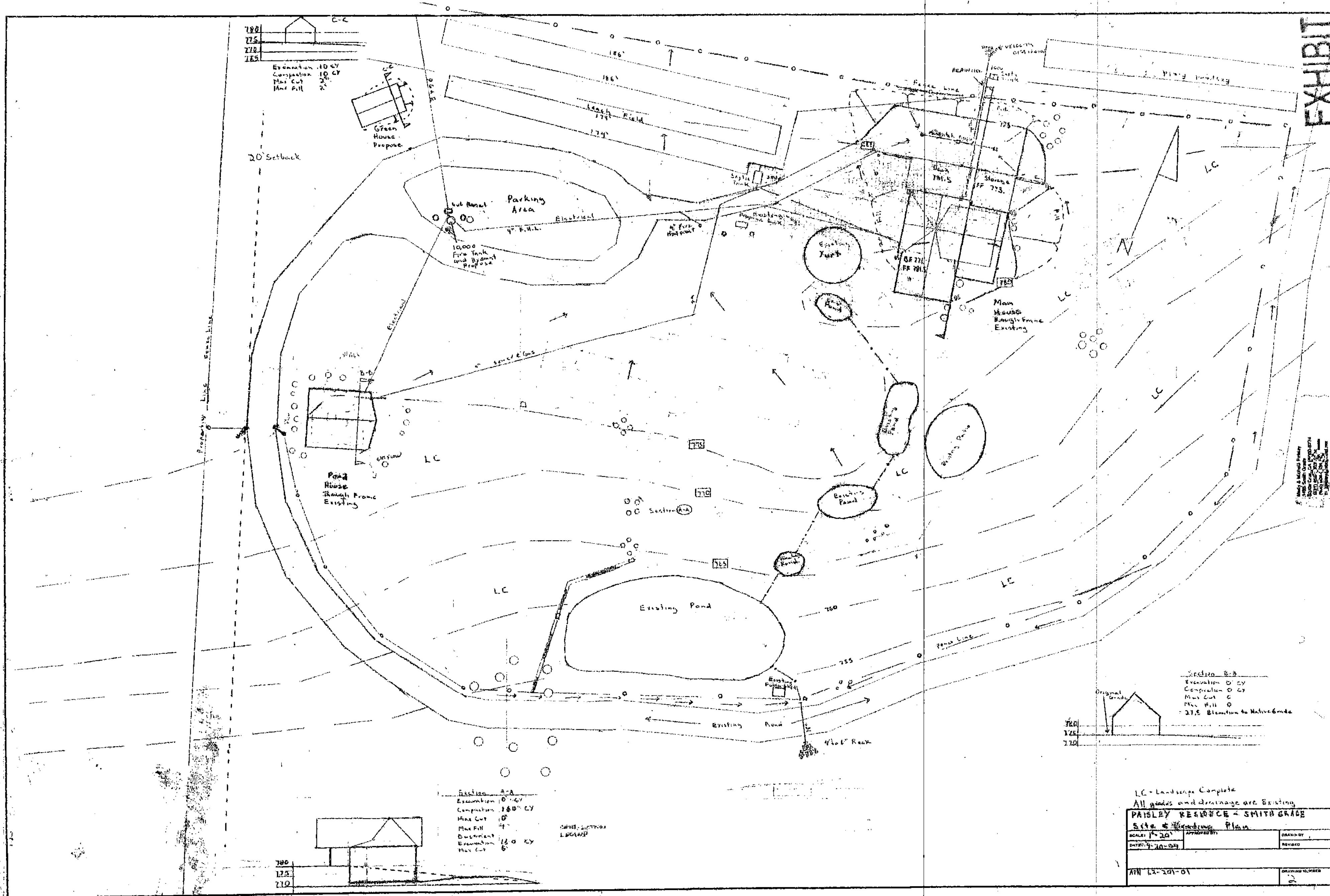
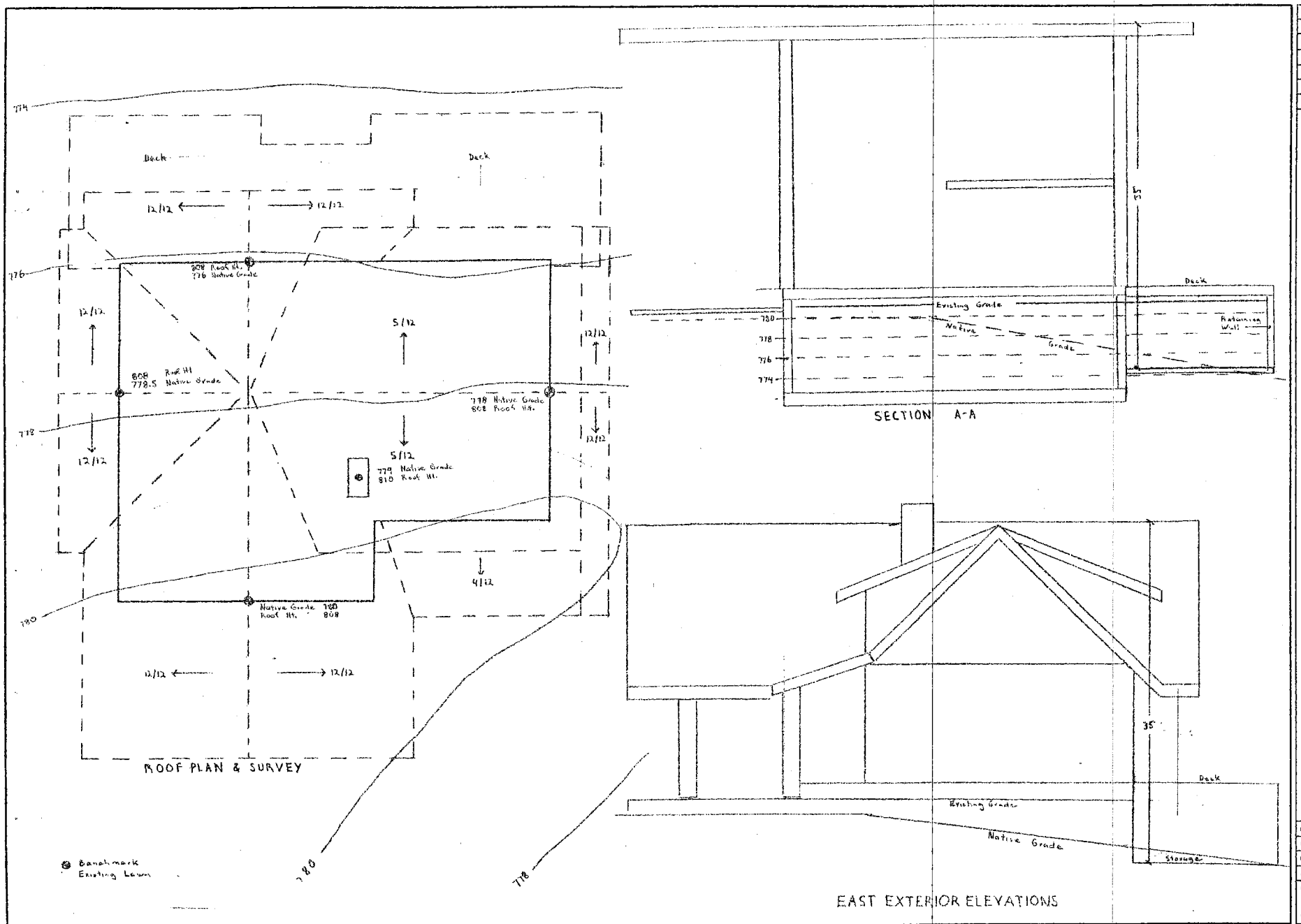

C-C
Green House Propose
20' Setback
Parking Area
Electrical
10,000 Fire Tank and Hydrant Propose
Leach Field
Fence Line
Property Line
Pond House Rough Frame Existing
LC
Existing Yurt
Existing Pond
Main House Rough Frame Existing
Existing Road
Section A-A
Section B-B
LC = Landscape Complete
All grades and drainage are Existing
PAISLEY RESIDENCE - SMITH GRADE
Site & Grading Plan
APN 62-201-01

EXHIBIT C

EXHIBIT 9



REVISIONS	BY

HEIGHT EXHIBIT

Date 12-15-04
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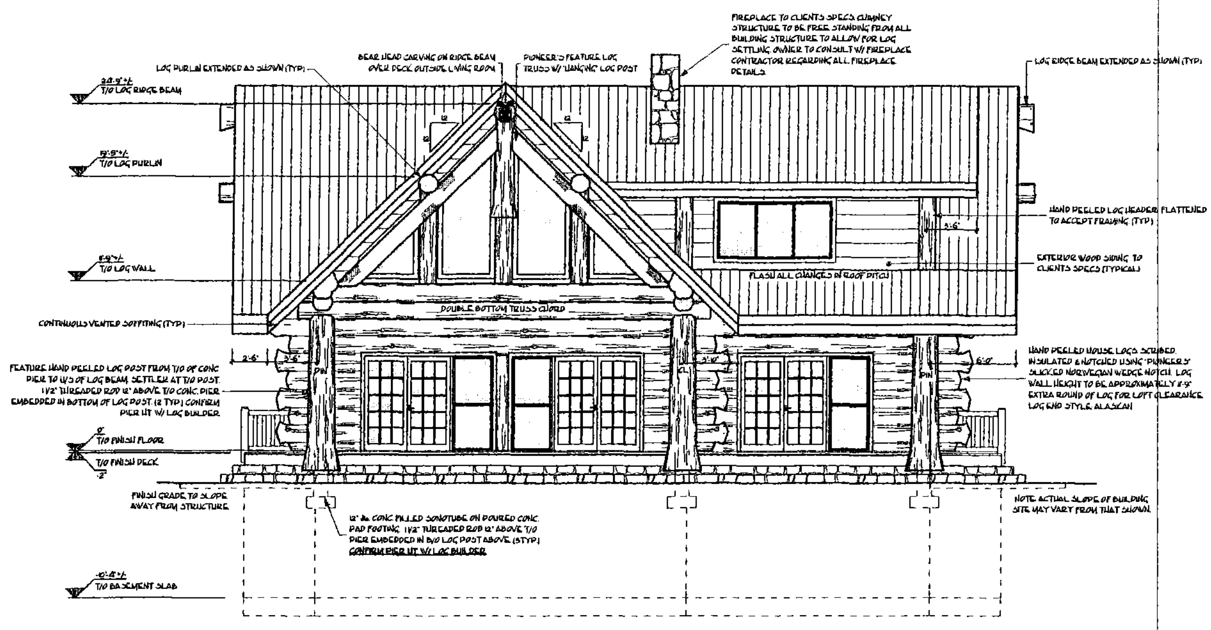
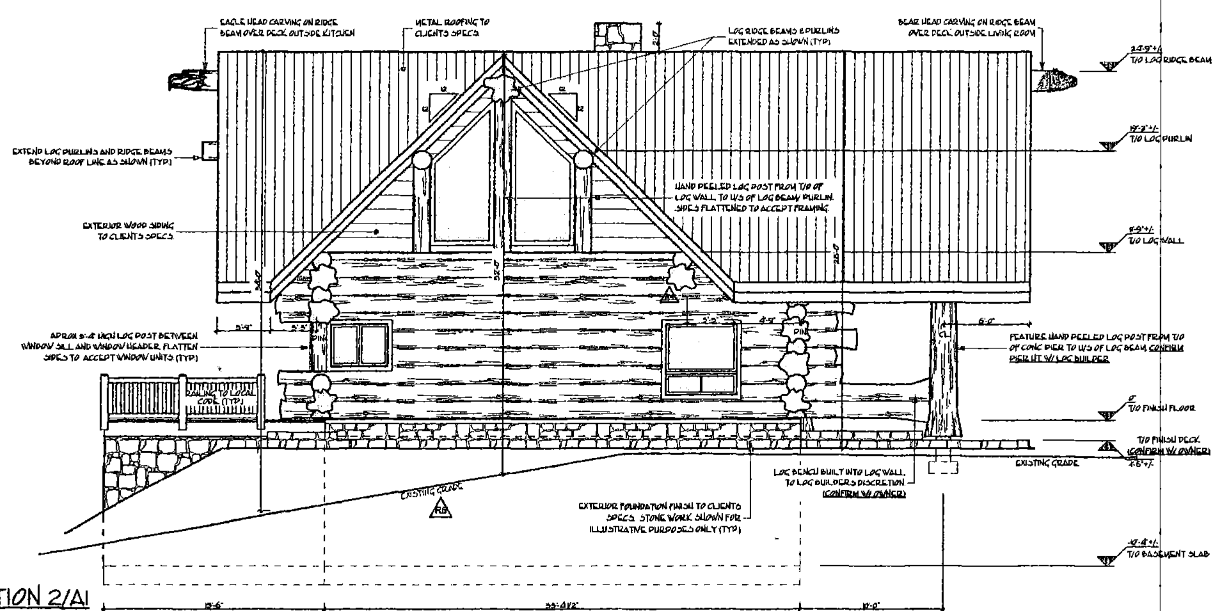
Drawn MP
Job
Sheet 3
Of Sheets


LOG PURLIN EXTENDED AS SHOWN (TYP)
BEAR HEAD CARVING ON RIDGE BEAM OVER DECK OUTSIDE LIVING ROOM
PIONEER'S FEATURE LOG TRUSS W/ HANGING LOG POST
FIREPLACE TO CLIENTS SPECS CHIMNEY STRUCTURE TO BE FREE STANDING FROM ALL BUILDING STRUCTURE TO ALLOW FOR LOG SETTLING OWNER TO CONSULT W/ FIREPLACE CONTRACTOR REGARDING ALL FIREPLACE DETAILS
LOG RIDGE BEAM EXTENDED AS SHOWN (TYP)
T/O LOG RIDGE BEAM
T/O LOG PURLIN
T/O LOG WALL
HAND PEELED LOG HEADER FLATTENED TO ACCEPT FRAMING (TYP)
EXTERIOR WOOD SIDING TO CLIENTS SPECS (TYPICAL)
FLASH ALL CHANGES IN ROOF PITCH
DOUBLE BOTTOM TRUSS CHORD
CONTINUOUS VENTED SOFFITING (TYP)
HAND PEELED HOUSE LOGS SCRIBED, INSULATED & NOTCHED USING "PIONEER'S" SLICKED NORWEGIAN WEDGE NOTCH. LOG WALL HEIGHT TO BE APPROXIMATELY 8'-9" EXTRA ROUND OF LOG FOR LOFT CLEARANCE LOG END STYLE ALASKAN
FEATURE HAND PEELED LOG POST FROM T/O OF CONC PIER TO U/S OF LOG BEAM, SETTLER AT T/O POST. 1 1/2" THREADED ROD 12" ABOVE T/O CONC PIER EMBEDDED IN BOTTOM OF LOG POST (2 TYP) CONFIRM PIER HT W/ LOG BUILDER
T/O FINISH FLOOR
T/O FINISH DECK
FINISH GRADE TO SLOPE AWAY FROM STRUCTURE
12" ⌀ CONC FILLED SONOTUBE ON POURED CONC PAD FOOTING 1 1/2" THREADED ROD 12" ABOVE T/O PIER EMBEDDED IN B/O LOG POST ABOVE (3 TYP) CONFIRM PIER HT W/ LOG BUILDER
NOTE ACTUAL SLOPE OF BUILDING SITE MAY VARY FROM THAT SHOWN
T/O BASEMENT SLAB

ELEVATION 1/A1


EAGLE HEAD CARVING ON RIDGE BEAM OVER DECK OUTSIDE KITCHEN
METAL ROOFING TO CLIENTS SPECS
LOG RIDGE BEAMS & PURLINS EXTENDED AS SHOWN (TYP)
BEAR HEAD CARVING ON RIDGE BEAM OVER DECK OUTSIDE LIVING ROOM
T/O LOG RIDGE BEAM
EXTEND LOG PURLINS AND RIDGE BEAMS BEYOND ROOF LINE AS SHOWN (TYP)
T/O LOG PURLIN
HAND PEELED LOG POST FROM T/O OF LOG WALL TO U/S OF LOG BEAM PURLIN. SIDES FLATTENED TO ACCEPT FRAMING
EXTERIOR WOOD SIDING TO CLIENTS SPECS
T/O LOG WALL
APPROX 5'-4" HIGH LOG POST BETWEEN WINDOW SILL AND WINDOW HEADER. FLATTEN SIDES TO ACCEPT WINDOW UNITS (TYP)
FEATURE HAND PEELED LOG POST FROM T/O OF CONC PIER TO U/S OF LOG BEAM, CONFIRM PIER HT W/ LOG BUILDER
T/O FINISH FLOOR
T/O FINISH DECK (CONFIRM W/ OWNER)
EXISTING GRADE
LOG BENCH BUILT INTO LOG WALL TO LOG BUILDERS DISCRETION (CONFIRM W/ OWNER)
EXTERIOR FOUNDATION FINISH TO CLIENTS SPECS. STONE WORK SHOWN FOR ILLUSTRATIVE PURPOSES ONLY (TYP)
T/O BASEMENT SLAB

ELEVATION 2/A1

PIONEER LOG HOMES OF BRITISH COLUMBIA LTD. ASSUMES RESPONSIBILITY FOR ARCHITECTURAL DESIGN & CONSTRUCTION OF THE LOG WORK ONLY AS SHOWN IN THIS PLAN PROVIDED THE LOG WORK IS CONSTRUCTED BY PIONEER LOG HOMES OF BRITISH COLUMBIA LTD. ALL OTHER ELEMENTS ARE TO BE APPROVED BY LOCAL BUILDING AUTHORITIES & BUILT TO LOCAL BUILDING CODES. ANY ENGINEERING REQUIRED & RELATED COSTS ARE THE RESPONSIBILITY OF THE OWNER.

STRUCTURAL ANALYSIS BASED ON THESE PLANS SHALL BE USED FOR LOG CONSTRUCTION PROVIDED BY PIONEER LOG HOMES OF BRITISH COLUMBIA LTD ONLY. STRUCTURAL ANALYSIS FOR THESE PLANS SHALL NOT BE USED FOR CONSTRUCTION BY OTHER LOG HOME BUILDING COMPANIES AS THEIR SYSTEMS MAY DIFFER SUBSTANTIALLY FROM THOSE OF PIONEER LOG HOMES OF BRITISH COLUMBIA LTD

NOTE:
LOG WALLS SHOWN ON THIS DRAWING ARE 16" DIAMETER FOR ILLUSTRATIVE PURPOSES ONLY.
ACTUAL SIZES OF LOGS USED DURING CONSTRUCTION MAY BE LARGER OR SMALLER. REFER TO "SCHEDULE A" FOR QUOTED SIZES.

LOG CONSTRUCTION NOTES

1) LOG SPECIES
WALL LOGS: #1 WESTERN RED CEDAR (APPROXIMATE SIZES 16" MEAN DIA)
STRUCTURAL MEMBERS: #1 STANDING DEAD LODGEPOLE PINE FOR FLOOR JOISTS/HEADERS AND #1 DOUGLAS FIR BEAMS AND RIDGE BEAMS (UNO) OPTIONAL #1 W.R.C RIDGE BEAMS WHERE CARVINGS ARE LOCATED.
2) LOG END STYLE: ALASKAN AS SHOWN
3) LOG WALL HEIGHT: 8'-9" & +/- EXTRA ROUND AS REQUIRED FOR LOFT CLEARANCE
4) LOG STAIRCASE FROM MAIN TO LOFT
5) CONFIRM WINDOW AND DOOR SUPPLIER WITH LOG BUILDER. WINDOWS AND DOORS NOT TO BE ORDERED UNTIL SIZES CONFIRMED W/ LOG BUILDER
6) ALL EXTERIOR OPENINGS ON THE MAIN LEVEL TO HAVE APPROX 88" HEADER HEIGHTS. THIS INCLUDES APPROX 5" OF INSULATED SETTLING SPACE ABOVE OPENINGS
7) WHERE LOG POSTS AND LOG BEAMS INTERSECT, USE WOOD DOWEL BETWEEN TOP OF LOG POST AND BOTTOM OF LOG BEAM
8) LOG POSTS SUPPLIED WITH SETTLERS WHERE REQUIRED.
9) LOG POST AND BEAM TO SUPPORT DORMERS W/ SIDES FLATTENED TO ACCEPT FRAMING (TYP. WHERE LOG POSTS AND FRAME WALLS INTERSECT)
10) LOG FLOOR JOISTS & BEAMS FOR LOFT FLOOR FLATTENED FOR DECK FRAMING
11) FEATURE LOG POSTS ON DECK W/ LOG BEAM PER PLAN
12) FEATURE LOG POST ON MAIN FLOOR PER PLAN
13) PIONEER'S FEATURE "HANGING" LOG TRUSS OUTSIDE GREAT ROOM
14) BUILT IN LOG BENCH OUTSIDE GREAT ROOM
15) LOG PURLINS EXTENDED BEYOND ROOF LINE PER PLAN
16) BEAR HEAD CARVING ON RIDGE BEAM ABOVE GREAT ROOM
17) EAGLE HEAD CARVING ON RIDGE BEAM

DRAWING SHEET INDEX

STRUCTURAL NOTE:
A3 ALL PLYWOOD SHEATHING TO BE NAILED 10/6/12

NOTES:

AMENDMENTS
(R5) NOV 23/09 - REVISED GRADE
(R4) JUNE 25/09 - REVISED HOLD-DOWN SYSTEM ADD'L ROOM BEAM
(R3) JUNE 8/09 - REVISED ROOF BEAM ENGINEERING FOR W.R.CEDAR
(R2) JUNE 3/09 - ADDED ENGINEERING (FOUNDATION)
(R1) MAY 12/09 - ADDED ENGINEERING & ROOF PLAN

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG GUEST HOUSE
MAIN: 1526 sq ft
LOFT: 844 sq ft
BASEMENT: 1515 sq ft
STORAGE: 628 sq ft

PREPARED FOR:
MARTY & MICHELE PAISLEY
1495 SMITH GRADE
SANTA CRUZ CA
95060-9774
PHONE: (831) 458 - 3683
CELL: (831) 359 - 2852
OFFICE: (831) 458 - 3611
EMAIL:
scm_plumbing@sbcglobal.net
m_paisley@sbcglobal.net

STRUCTURE DESTINATION:
SANTA CRUZ, CA

PREPARED BY:
PIONEER LOG HOMES OF BRITISH COLUMBIA
CANADA DIVISION
551 HODGSON ROAD
WILLIAMS LAKE B.C.
CANADA
PH. (250) 392 - 5577
FAX (250) 392 - 5581
TOLL FREE: 1 - 877 - 822 - 5647
U.S. DIVISION
1100 N. BEELINE HIGHWAY
PAYSON ARIZONA
UNITED STATES
PH. (928) 472 - 8073
PH. (928) 474 - 2514
FAX (928) 474 - 8991
TOLL FREE: 1 - 877 - 224 - 4564
www.pioneerloghomesofbc.com

DRAWING TITLE:
ELEVATIONS

SCALE:
1/4" = 1'-0"

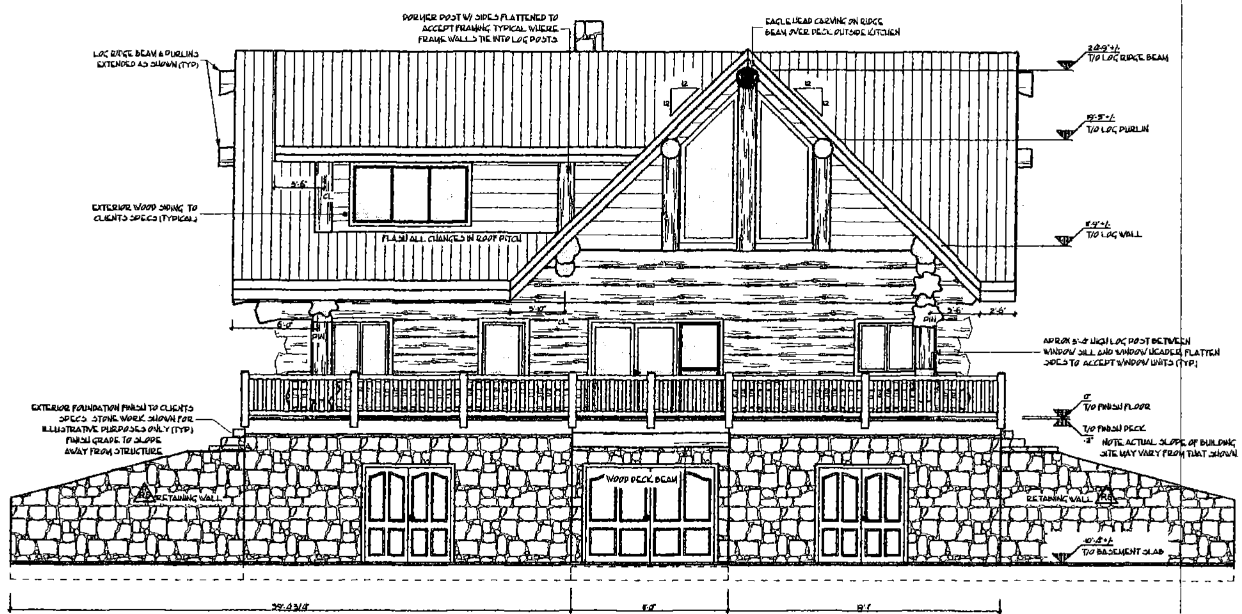
DATE:
NOVEMBER 23, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

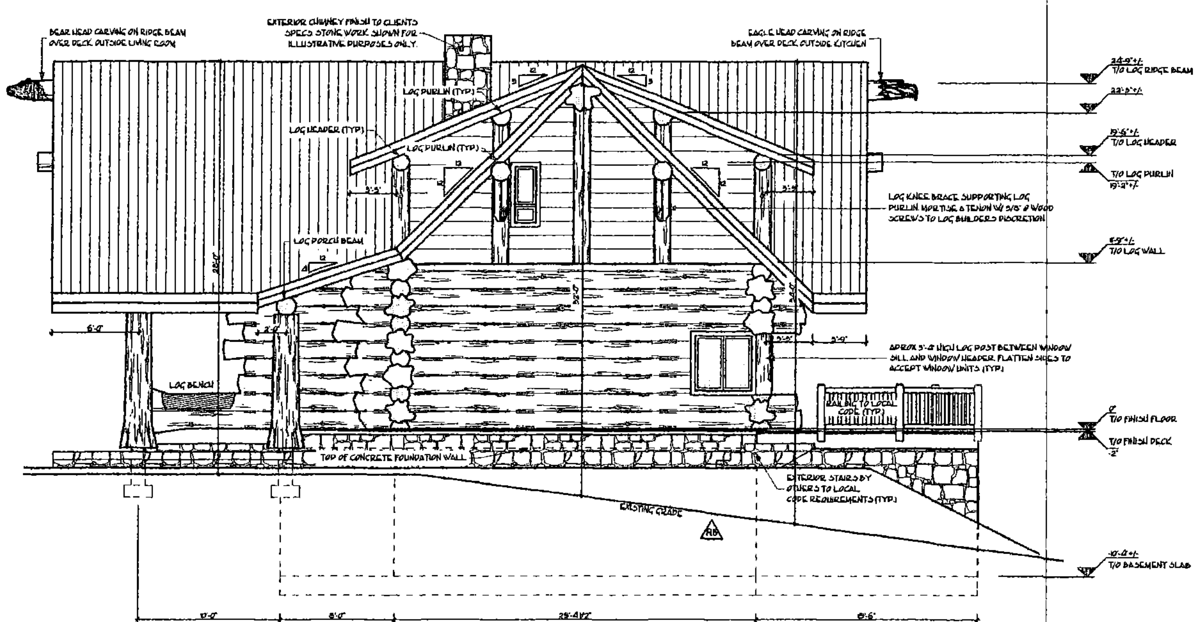
CHECKED BY:

PAGE:
A - 1

EXHIBIT A



ELEVATION 1/A2



ELEVATION 2/A2

GENERAL NOTES

1. ALL ENGINEERING INSPECTIONS AND COSTS REQUIRED AT ANY TIME FOR THE BUILDING WILL BE THE SOLE RESPONSIBILITY OF THE OWNER
2. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE
3. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. ALL WORK SHALL CONFORM TO THE CURRENT EDITION OF THE LOCAL BUILDING CODE
5. INFORMATION CONTAINED ON THESE DRAWINGS SHALL BE AT THE DISCRETION OF THE CONTRACTOR PROVIDED IT MEETS WITH THE ABOVE REQUIREMENTS AND REPRESENTS SOUND BUILDING PRACTICE
6. ALL DIMENSIONAL LUMBER TO BE SPF No 2 OR BETTER. UNLESS NOTED OTHERWISE (UNO)
7. PROVIDE SMOKE DETECTORS AS REQUIRED IN BEDROOMS OUTSIDE OF BEDROOM, TOP OF STAIRS AND AT EACH FLOOR. AT LEAST ONE SMOKE ALARM IS TO BE LOCATED NOT MORE THAN 24' FROM THE HIGHEST POINT INSIDE THE STRUCTURE. ALL DETECTORS TO BE PERMANENTLY WIRED 110 V. INTERCONNECTED EACH FLOOR THROUGHOUT W/ BATTERY BACK-UP.
8. PERIMETER DRAIN, IF REQUIRED, TO BE IN ACCORDANCE WITH LOCAL BUILDING CODE
9. HOUSE FLOOR JOISTS TO REST ON 2x6 TREATED SILL PLATE, DECK JOISTS REST ON 2x6 TREATED SILL PLATE
10. TREATED SILL PLATE TO BE ANCHORED TO FOUNDATION WALL USING MIN. 5/8" Ø STEEL ANCHOR BOLTS W/ 2" x 2" x 3/16" WASHERS SPACED NOT MORE THAN 6'-0" o.c. MAX 12" FROM A CORNER MINIMUM 2 ANCHOR BOLTS PER SILL
11. SITE PLAN AND LEGAL SHALL BE SUPPLIED AND COMPLETED BY OWNER
12. OWNER AND CONTRACTOR SHALL CHECK THE SPECIFICATIONS AGAINST THE BLUEPRINTS
13. ACTUAL DOORS AND WINDOWS USED ON THE JOB MAY VARY IN MAKE-UP AND APPEARANCE FROM BLUEPRINT UNLESS SPECIFIED. CONFIRM WINDOW AND DOOR SUPPLIER WITH LOG BUILDER. WINDOW'S AND DOOR'S ARE NOT TO BE ORDERED UNTIL OPENING DIMENSIONS ARE CONFIRMED WITH LOG BUILDER
14. OWNER TO ENSURE THAT THE FOLLOWING IS COMPLETE PRIOR TO THE ARRIVAL OF THE LOG PACKAGE. FIRST FLOOR FRAMING TO BE COMPLETE AND SUBFLOOR INSTALLED. 1x6 TREATED WOOD SPACERS TO BE NAILED TO SUBFLOOR AT LOG WALL LOCATIONS FOR LOG WALLS TO SIT ON. A 2x6 TREATED WOOD SPACER WILL BE PLACED BENEATH THE 1x6 IF A POURED CONCRETE TOPPING FOR HEATING IS TO BE USED ON THE FIRST FLOOR. ALL EXTERIOR WOOD SPACERS TO HAVE SILL SEAL ABOVE AND BELOW WITH A GALVANIZED DRIP EDGE ABOVE THE WOOD SPACERS AND SILL SEAL. THIS DRIP EDGE TO BE BROWN, GREEN, COLORED OR COPPER.
15. OWNER TO PROVIDE 1x4 WOOD SPACERS WHICH ARE TO BE USED AT THE TOPS OF LOG WALLS AND LOG ROOF MEMBERS (PURLINS, RIDGE BEAMS) WHICH SUPPORT THE ROOF. (NOT APPLICABLE IF USING SIP PANEL W/ CEILING FINISHED - SEE ROOF ASSEMBLY NOTE ON LOFT FLOOR PLAN)
16. IF REQUIRED, AN ENGINEER CERTIFIED IN THE PROJECT LOCATION MUST COMPLETE A FULL PLAN REVIEW AND SEAL THESE DRAWINGS PRIOR TO THE APPLICATION OF ANY BUILDING PERMITS AND BEFORE THE START OF ANY CONSTRUCTION OR EXCAVATION.

ABBREVIATIONS

AB. = ANCHOR BOLT
B/O = BOTTOM OF
BTWN = BETWEEN
BSMT = BASEMENT
CLG = CEILING
CONC. = CONCRETE
CMU = CONCRETE MASONRY UNIT
C/W = COMPLETE WITH
DET. = DETAIL
D.F. or D FIR = DOUGLAS FIR
DIA = DIAMETER
ELEC = ELECTRICAL
ELEV. = ELEVATION
E.W. = EACH WAY
EXT. = EXTERIOR
FD. = FLOOR DRAIN
FDN. = FOUNDATION
FP = FIREPLACE
GLB = GLULAM BEAM
HT. = HEIGHT
LAU = LAUNDRY
L.P.P. or LP = LODGEPOLE PINE
MAX. = MAXIMUM
MECH = MECHANICAL
MIN. = MINIMUM
MISC. = MISCELLANEOUS
N.T.S. = NOT TO SCALE
O.C. = ON CENTER
PDR = POWDER ROOM
PLY = PLYWOOD
PSI = POUNDS PER SQUARE INCH
PSF = POUNDS PER SQUARE FEET
P.T. = PRESSURE TREATED
REQ'D = REQUIRED
S.F. or SQ. FT. = SQUARE FEET
SPEC = SPECIFICATION
T/O = TOP OF
T&G = TONGUE AND GROOVE
TYP. = TYPICAL
U.N.O. = UNLESS NOTED OTHERWISE
U/S = UNDERSIDE
W.I.C. = WALK-IN-CLOSET
W.C. = WATER CLOSET
WD = WOOD
W.R.C. = WESTERN RED CEDAR
WT = WEIGHT

NOTES

AMENDMENTS

(R5) NOV 23/09 - REVISED GRADE
(R4) JUNE 25/09 - REVISED HOLD-DOWN SYSTEM, ADD LROOM BEAM
(R3) JUNE 8/09 - REVISED ROOF BEAM ENGINEERING FOR W.R.CEDAR
(R2) JUNE 5/09 - ADDED ENGINEERING (FOUNDATION)
(R1) MAY 12/09 - ADDED ENGINEERING & ROOF PLAN

PROJECT TITLE:

PAISLEY HANDCRAFTED LOG GUEST HOUSE

MAIN: 1526 sq ft.
LOFT: 644 sq ft.
BASEMENT: 1515 sq ft.
STORAGE: 628 sq ft.

PREPARED FOR:

MARTY & MICHELE PAISLEY
1095 SMITH GRADE
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DRAWING TITLE:

ELEVATIONS

SCALE:

1/4" = 1'-0"

DATE:

NOVEMBER 23, 2009

DRAWN BY:

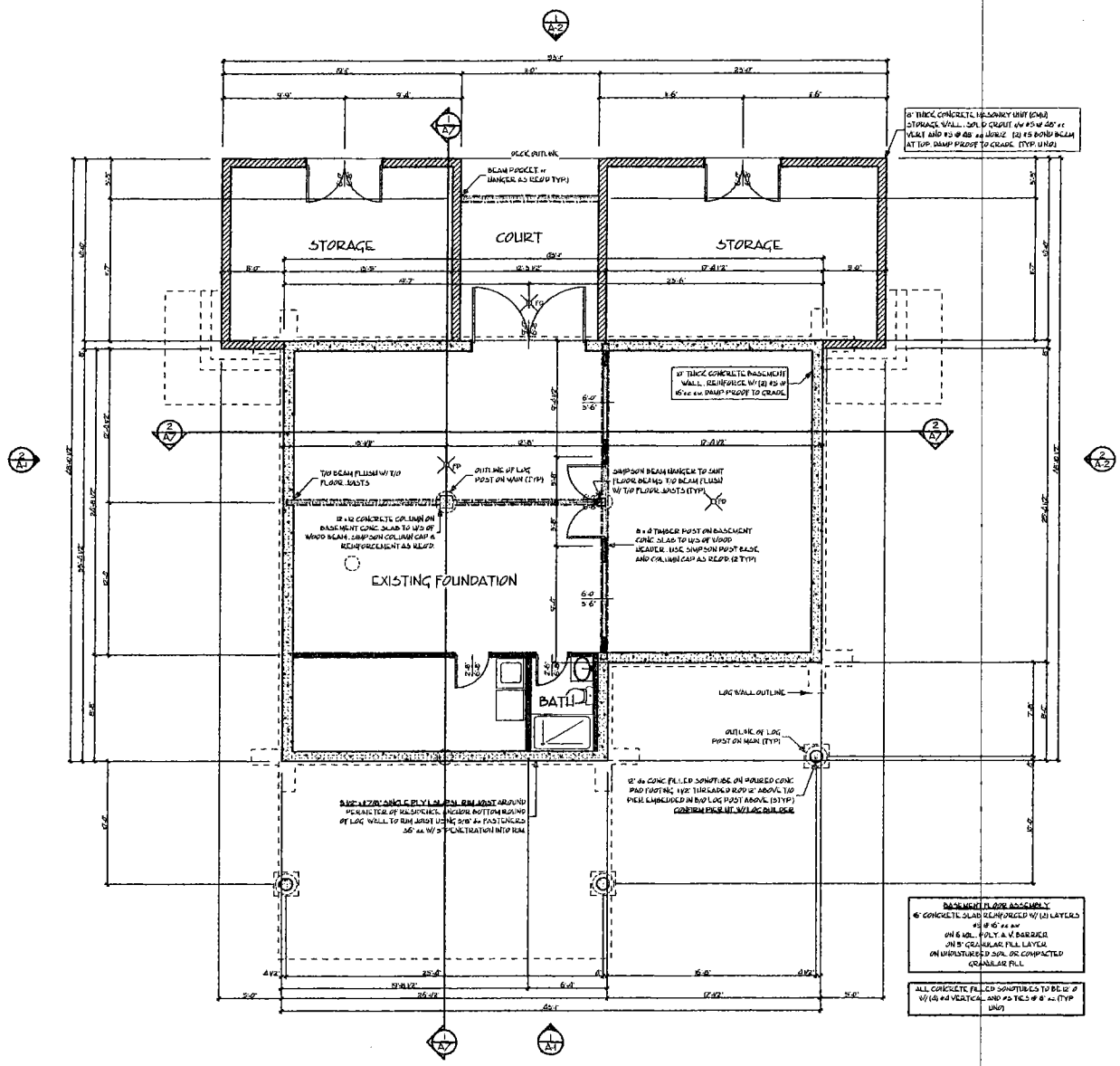
L.R. KEATS
N. CRAMER

CHECKED BY:

PAGE:

A-2

EXHIBIT C



NOTES:

AMENDMENTS

PROJECT TITLE:

PAISLEY HANDCRAFTED LOG GUEST HOUSE

MAIN 1326 sq ft
LOFT: 864 sq ft
BASEMENT 1515 sq ft
STORAGE: 628 sq ft

PREPARED FOR:

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DRAWING TITLE:

LOWER FLOOR PLAN

SCALE:
1/4" = 1'-0"

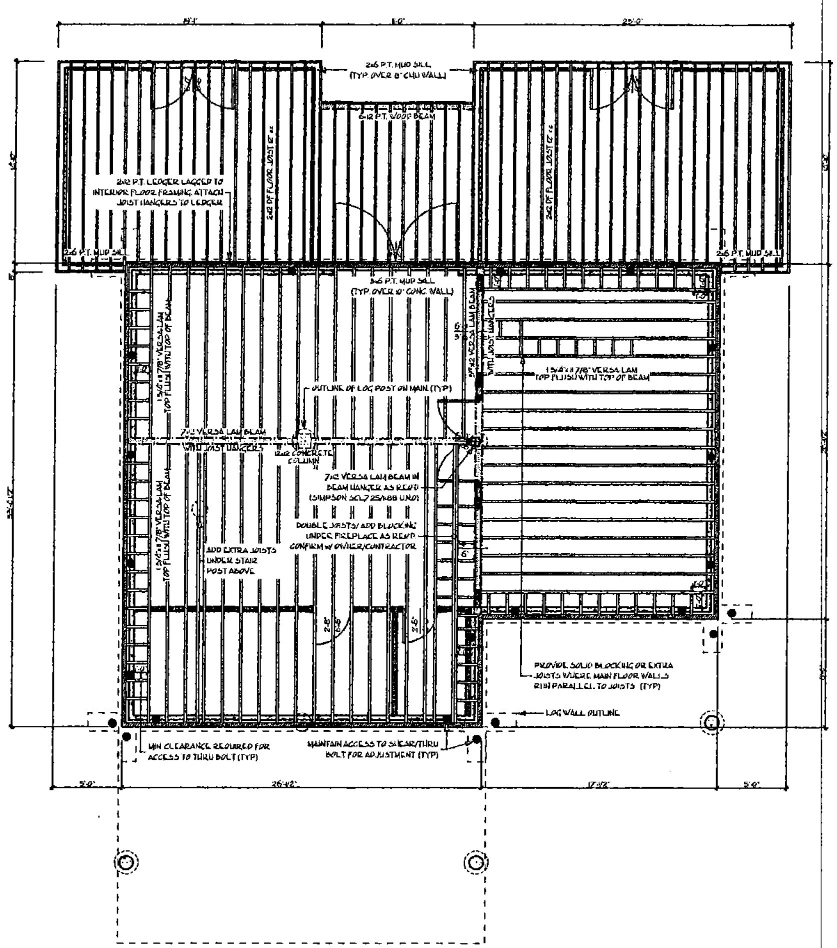
DATE:
MARCH 31, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

PAGE
A - 3

EXHIBIT C



THRU-BOLT TIGHTENING & SETTLER ADJUSTMENTS

1. TIGHTENING OF THRU-BOLTS - THIS IS COMPLETED BY HOLDING THE BOTTOM OF THE THRU-BOLT ROD STATIONARY, WHILE TURNING THE NUT CLOCKWISE UNTIL THE TENSION SPRING ON THE BOTTOM OF THE THRU-BOLT IS COMPRESSED AND TIGHTENED. THIS NEEDS TO BE DONE TO ALL THRU-BOLTS IN THE HOME WHEN THE HOUSE IS FIRST DELIVERED AND ABOUT EVERY THREE MONTHS FOR THE FIRST THREE YEARS.

2. ADJUSTMENT OF ALL VERTICAL POSTS/STRUCTURAL POSTS (BOTH INTERIOR AND EXTERIOR) - AS A RULE, WHEN THE THRU-BOLTS HAVE TO BE TIGHTENED ANY EXTERIOR AND INTERIOR VERTICAL POSTS/STRUCTURAL POSTS WILL ALSO NEED ADJUSTING. THESE POSTS CAN BE IDENTIFIED AS HAVING SCREW JACKS ON EITHER THE TOP OR BOTTOM. THE POSTS SHOULD BE ADJUSTED BY APPROXIMATELY THE SAME AMOUNT AS THE THRU-BOLTS BECAUSE YOUR HOME WILL COME DOWN AN AVERAGE AMOUNT ALL THE WAY AROUND THE EXTERIOR WALLS EXCEPT WHERE THERE IS AN INTERIOR LOG WALL AND THE SETTLING MAY BE INCREASED SOMEWHAT BECAUSE OF HEAT ON BOTH SIDES OF THE WALL.

FRAMING NOTES

1) FLOOR JOISTS TO REST ON 3x6 TREATED SILL PLATE. DECK JOISTS TO REST ON 2x6 TREATED SILL PLATE.

2) 2x6 AND 3x6 TREATED SILL PLATES TO BE ANCHORED TO FOUNDATION WALL USING MIN. 5/8" dia. STEEL ANCHOR BOLTS W/ 2" x 2" x 3/16" WASHERS SPACED NOT MORE THAN 6'-0" o.c. MINIMUM 2 ANCHOR BOLTS PER SILL.

3) OWNER TO ENSURE THAT THE FOLLOWING IS COMPLETE PRIOR TO THE ARRIVAL OF THE LOG PACKAGE:

- FIRST FLOOR FRAMING TO BE COMPLETE AND SUBFLOOR INSTALLED.
- 1x6 TREATED WOOD SPACERS TO BE NAILED TO SUBFLOOR AT LOG WALL LOCATIONS FOR LOG WALLS TO SIT ON.
- A 2x6 TREATED WOOD SPACER WILL BE PLACED BENEATH THE 1x6 IF A POURED GYPCRETE TOPPING FOR HEATING IS TO BE USED ON THE FIRST FLOOR.
- ALL EXTERIOR WOOD SPACERS TO HAVE SILL SEAL ABOVE AND BELOW WITH A GALVANIZED DRIP EDGE ABOVE THE WOOD SPACERS AND SILL SEAL. THIS DRIP EDGE TO BE BROWN, GREEN COLORED OR COPPER.

NOTE: PLAN MAY NOT BE ENGINEERED FOR GYPCRETE TOPPING. CONTRACTOR TO VERIFY WITH DESIGNER AND/OR ENGINEER PRIOR TO CONSTRUCTION IF USING GYPCRETE.

● REPRESENTS 5/8" dia THRU-BOLT LOCATION
MAINTAIN ACCESS TO THRU-BOLT.

MAIN FLOOR ASSEMBLY OVER BASEMENT
FINISH FLOORING TO CLIENTS SPECS
3/4" T&G PLYWOOD SUBFLOOR on 6/6/12 (GLUE-NAILED)
1 3/4" x 1 7/8" VERSA-LAM FLOOR JOISTS 16" o.c.
ADD A JOIST OR BLOCKING UNDER EACH PARALLEL WALL.
BASEMENT CEILING FINISH TO CLIENTS SPECS

MAIN FLOOR ASSEMBLY OVER STORAGE AREAS
FINISH DECKING TO CLIENTS SPECS
WATERPROOF MEMBRANE
3/4" T&G PLYWOOD SUBFLOOR on 6/6/12 (GLUE-NAILED)
2 x 12 DECK JOISTS 12" o.c.
6 MIL. POLY A.V. BARRIER AS REQ'D
BATT INSULATION AS REQ'D
STORAGE CEILING FINISH TO CLIENTS SPECS

INSTALL FLOOR JOISTS AS PER MANUFACTURER'S INSTRUCTIONS WHICH INCLUDES THE CORRECT USE OF SQUASH BLOCKS AND BLOCKING UNDER POINT LOADS FROM ABOVE.

NOTE: ALL PLUMBING TO BE LOCATED IN FLOOR JOIST SPACES SO THAT ACCESS TO THRU BOLTS ARE NOT RESTRICTED

EXTERIOR DECK ASSEMBLY OVER STORAGE AREAS
FINISH DECKING TO CLIENTS SPECS
WATERPROOF MEMBRANE
3/4" T&G PLYWOOD SUBFLOOR on 6/6/12 (GLUE-NAILED)
2x12 D.FIR #2 or BTR. DECK JOISTS 12" o.c.
6 MIL. POLY A.V. BARRIER AS REQ'D
BATT INSULATION AS REQ'D
STORAGE CEILING FINISH TO CLIENTS SPECS
6 x 12 P.T. WOOD DECK BEAM (SEE PLAN)
T/O BEAM & MUDSILL TO BE FLUSH W/ U/S OF DECK JOIST

NOTE:
ENDS OF DECK JOISTS TO SIT IN SIMPSON U210 METAL JOIST HANGERS (AS REQUIRED) HANGERS ATTACHED TO CONTINUOUS PRESSURE TREATED 2x12 WOOD LEDGER. LEDGER ATTACHED TO RIM JOIST W/ 1/4 x 3" SIMPSON SDS SCREWS (OR EQUIV) 6" o.c. STAGGERED. TYPICAL AT ALL DECK JOIST LOCATIONS.

NOTES:

AMENDMENTS

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG GUEST HOUSE
MAIN 1326 sq ft
LOFT 844 sq ft
BASEMENT 1315 sq ft
STORAGE 628 sq ft

PREPARED FOR:
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DRAWING TITLE:
MAIN FLOOR FRAMING & LOG HOLDDOWN

SCALE:
1/4" = 1'-0"

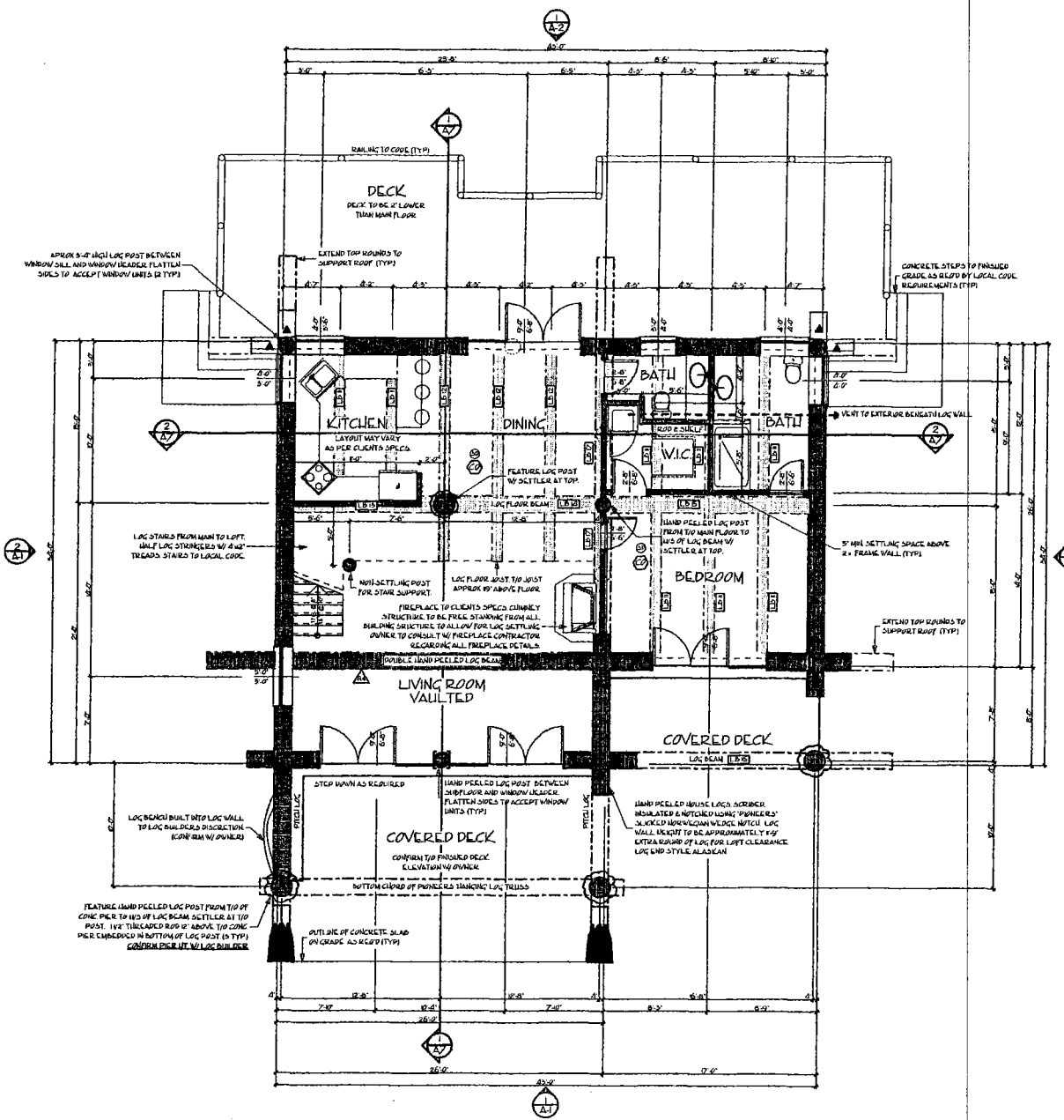
DATE:
MARCH 31 2009

DRAWN BY:
L.R. KEATS
N. CRAMER

CHECKED BY:

PAGE:
A-4

EXHIBIT C



STRUCTURAL NOTE:
ALL PLYWOOD SHEATHING TO BE NAILED W/ 8d@ 6"

INTERIOR FRAME WALLS
1. ALL INTERIOR FRAME WALLS TO BE 2x4 @ 24" o.c. WOOD STUD SPF #2 & BTR UNO
2. 2x6 FRAME WALLS TO BE 2x6 @ 24" o.c. WOOD STUDS SPF #2 & BTR UNO.
3. INTERIOR FRAME WALLS ARE NON-LOAD BEARING AND MUST HAVE 5" SETTLING SPACE (MAIN FLOOR ONLY)
4. DO NOT CHIP OUT LOG PIECES BETWEEN SLOTS WHERE INTERIOR FRAME WALLS INTERSECT LOG WALLS

● REPRESENTS 5/8" ø SILL GAP / THRU-BOLT LOCATION MAINTAIN ACCESS TO THRU-BOLT.

▲ REPRESENTS 5/8" ø THRU-BOLT LOCATION IN LOG WORK ABOVE AND BELOW (DET 6/A10)

(S) REPRESENTS SMOKE DETECTORS ALL DETECTORS TO BE PERMANENTLY WIRED 110 V. INTERCONNECTED EACH FLOOR THROUGHOUT W/ BATTERY BACK-UP.

FIREPLACE/CHIMNEY STRUCTURE AND VENTS
PENETRATIONS THRU ROOF TO BE FREE STANDING FROM BUILDING STRUCTURE TO ALLOW FOR LOG SETTLING FLASH AND SLIP FLASH AT ROOF OPENING.
NOTE: OWNER TO CONSULT WITH STONE MASON ON FIREPLACE DESIGN

EGRESS WINDOW NOTES (PER RBC 2006)
1. PROVIDE EMERGENCY EXIT DOOR OR WINDOW FROM SLEEPING ROOMS.
2. NET CLEAR WINDOW OPENING AREA SHALL BE NOT LESS THAN 5.7 SQ FT (0.530 m²).
3. MIN NET WINDOW OPENING WIDTH DIMENSION 20" (508mm) CLEAR, FINISHED SILL HEIGHT MAX 24" (610mm) ABOVE FLOOR.

SAFETY GLASS REQUIREMENTS (PER RBC 2006)
4. GLAZING WITHIN A 24" (610mm) ARC OF THE DOOR IN VERTICAL IN CLOSED & BATH TUB DOORS AND ENCLOSURES SHALL BE TEMPERED (TEMP)
5. GLAZING WITH BOTTOM EDGE WITHIN 18" (457mm) OF THE FLOOR OR WALKING SHALL BE TEMPERED
6. GLAZING WITH TOP EDGE GREATER THAN 36" (914mm) OF THE FLOOR OR DECKING SHALL BE TEMPERED
7. GLAZING OF EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQ FT. (0.836 m²) SHALL BE TEMPERED

ELECTRICAL REQUIREMENTS
1. ALL WORK SHALL CONFORM TO THE CURRENT EDITION OF THE LOCAL BUILDING / ELECTRICAL CODE.
2. PROVIDE SMOKE DETECTORS AS REQUIRED IN BEDROOMS, OUTSIDE OF BEDROOM, TOP OF STAIRS AND AT EACH FLOOR. AT LEAST ONE SMOKE ALARM IS TO BE LOCATED NOT MORE THAN 21' FROM THE FURTHEST POINT INSIDE THE STRUCTURE. ALL DETECTORS TO BE PERMANENTLY WIRED TO 110 V INTERCONNECTED EACH FLOOR THROUGHOUT W/ BATTERY BACK-UP
3. ALL PVC CEILING BEDROOM BRANCH CIRCUITS REQUIRE AFCI (ARC-FAULT-CIRCUIT-INTERRUPTERS)

GUARDRAIL NOTES
1. PROVIDE 42" HIGH PROTECTIVE RAILING FOR PORCHES, BALCONIES & OPEN SIDES OF LANDINGS AS REQUIRED BY LOCAL CODE.
2. MAXIMUM OPENING BETWEEN RAILINGS IS TO BE SUCH THAT A 4" SPHERE CANNOT PASS THRU.
3. GLASS GUARDRAILS SHALL BE TEMPERED OR LAMINATED C/W A CONTINUOUS CAP INSTALLED ON THE TOP OF THE GLASS GUARDRAIL.

STAIR NOTES
LOG STAIRS FROM MAIN TO LOFT ARE HEAVY TIMBER CONSTRUCTION AND MEET THE ONE HOUR FIRE PROTECTION REQUIREMENTS.
LOG STAIRS TO BE HALF LOG STRINGERS WITH 4"x12" TREADS MIN 6'-6" HEADROOM ABOVE ALL TREADS & 36" HIGH HANDRAIL. ALL OPENINGS TO PREVENT THE PASSAGE OF A 4" SPHERE. . MIN 36" CLEAR STAIR WIDTH MIN 44" LONG LANDING AREA @ TOP & BOTTOM OF STAIRS RISE TO BE BETWEEN 6" & 7 3/4" MIN RUN OF 10"

ENGINEERING MARKERS
- ENGINEERED MARKER
- LS-1 NOT USED
- LS-2 LOG FLOOR JOIST: 8 1/2" MIN @ SPF #1
- LS-3 LOG FLOOR BEAM 10" MIDSPAN @ SPF #1
- LS-4 LOG FLOOR BEAM 8 7/8" MIDSPAN @ SPF #1
- LS-5 LOG FLOOR BEAM 15 1/8" MIDSPAN @ SPF #1 OR 13 1/8 MIDSPAN @ DF #1
- LS-6 LOG PORCH BEAM 10 1/4" MIDSPAN @ SPF #1
- LS-22 LOG F. JOIST: 8 5/8" MIDSPAN @ SPF #1 (SINGLE) (2) 4 1/8" MIDSPAN @ SPF #1 (DOUBLE)

NOTES:

AMENDMENTS
(2A) JUNE 23/09 - REVISED HOLD DOWN SYSTEM, ADD LAMINATED BEAM
(2B) JUNE 30/09 - REVISED ROOF BEAM ENGINEERING FOR WACHER
(2C) JUNE 30/09 - ADDED ENGINEERING (FOUNDATION)
(3A) MAY 12/09 - ADDED ENGINEERING & ROOF PLAN

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG GUEST HOUSE

MAIN 1326 sq ft
LOFT: 644 sq ft
BASEMENT: 1315 sq ft
STORAGE: 628 sq ft

PREPARED FOR:
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STRUCTURE DESTINATION:
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DRAWING TITLE:
MAIN FLOOR PLAN

SCALE: 1/4" = 1'-0"

DATE: JUNE 25, 2009

DRAWN BY: L. R. KEATS, N. CRAMER

CHECKED BY:

PAGE: A - 5

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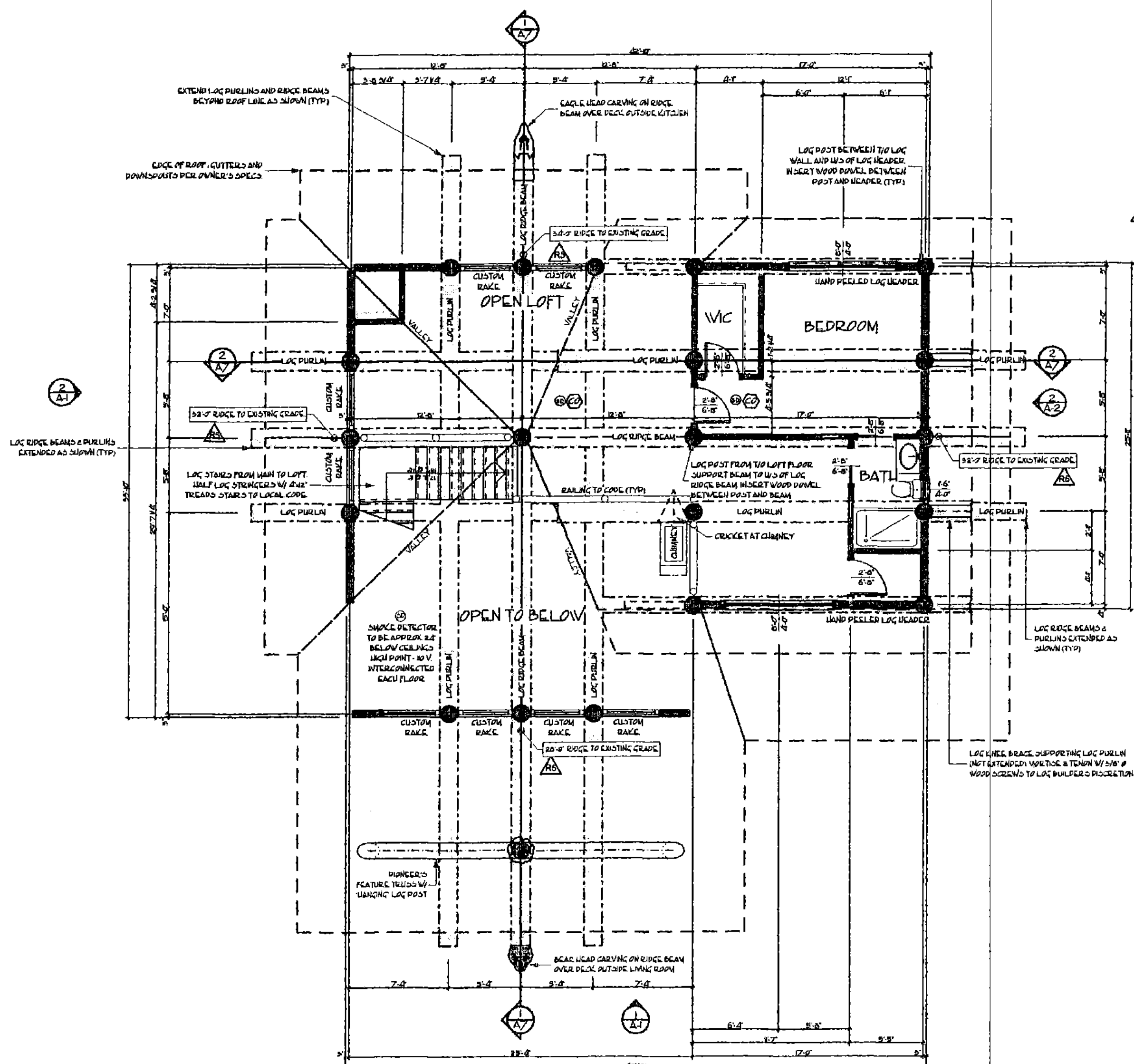
OPEN LOFT
OPEN TO BELOW
BEDROOM
W/C
BATH
LOG PURLIN
LOG RIDGE BEAM
CUSTOM RAKE
VALLEY
HAND PEELED LOG HEADER
CRICKET AT CHIMNEY
CHIMNEY
RAILING TO CODE (TYP)
EXTEND LOG PURLINS AND RIDGE BEAMS BEYOND ROOF LINE AS SHOWN (TYP)
EDGE OF ROOF, GUTTERS AND DOWNSPOUTS PER OWNER'S SPECS.
EAGLE HEAD CARVING ON RIDGE BEAM OVER DECK OUTSIDE KITCHEN
LOG POST BETWEEN T/O LOG WALL AND U/S OF LOG HEADER. INSERT WOOD DOWEL BETWEEN POST AND HEADER (TYP)
LOG RIDGE BEAMS & PURLINS EXTENDED AS SHOWN (TYP)
LOG STAIRS FROM MAIN TO LOFT. HALF LOG STRINGERS W/ 4"x12" TREADS STAIRS TO LOCAL CODE.
LOG POST FROM T/O LOFT FLOOR SUPPORT BEAM TO U/S OF LOG RIDGE BEAM. INSERT WOOD DOWEL BETWEEN POST AND BEAM
SMOKE DETECTOR TO BE APPROX 2.5' BELOW CEILINGS HIGH POINT - 110 V INTERCONNECTED EACH FLOOR
PIONEER'S FEATURE TRUSS W/ 'HANGING' LOG POST
BEAR HEAD CARVING ON RIDGE BEAM OVER DECK OUTSIDE LIVING ROOM
LOG KNEE BRACE SUPPORTING LOG PURLIN (NOT EXTENDED). MORTISE & TENON W/ 3/8" Ø WOOD SCREWS TO LOG BUILDER'S DISCRETION
34'-0" RIDGE TO EXISTING GRADE
32'-0" RIDGE TO EXISTING GRADE
28'-0" RIDGE TO EXISTING GRADE

STRUCTURAL NOTE:
ALL PLYWOOD SHEATHING TO BE NAILED W/ 6/12

EXTERIOR FRAMED WALL ASSEMBLY
EXTERIOR WOOD SIDING TO CLIENTS SPECS.
BUILDING PAPER
5/8" CDX PLYWOOD WALL SHEATHING
2x6 WOOD STUDS 16" o.c.
BATT INSULATION
6 MIL. POLY. AIR/VAPOUR BARRIER
INTERIOR FINISH TO CLIENTS SPECS.

LOFT FLOOR ASSEMBLY
3/4" FINISH FLOOR TO CLIENTS SPECS
3/4" T&G PLYWOOD SUBFLOOR (NAILED & GLUED)
2 x 8 WOOD FLOOR JOISTS 16" o.c.
3/4" T&G WOOD CEILING
3/4" WOOD SPACER
LOG FLOOR JOISTS

INTERIOR FRAME WALLS
ALL INTERIOR FRAME WALL TO BE 2x4 UNO.

(SD) REPRESENTS SMOKE DETECTORS. ALL DETECTORS TO BE PERMANENTLY WIRED 110 V. INTERCONNECTED EACH FLOOR THROUGHOUT W/ BATTERY BACK UP.

FIREPLACE/CHIMNEY STRUCTURE AND VENTS
1) PENETRATIONS THRU ROOF TO BE FREE STANDING FROM BUILDING STRUCTURE TO ALLOW FOR LOG SETTLING. FLASH AND SLIP-FLASH AT ROOF OPENING.
2) OWNER TO CONSULT WITH FIREPLACE CONTRACTOR / SUPPLIER ON FIREPLACE DESIGN.
3) FIREPLACE TO CONFORM TO CURRENT EDITION OF THE LOCAL BUILDING CODE AND GOOD BUILDING PRACTICE.

NOTES:

AMENDMENTS

(R5) NOV 23/09 - REVISED GRADE
(R4) JUNE 25/09 - REVISED HOLD-DOWN SYSTEM ADD L.ROOM BEAM
(R3) JUNE 8/09 - REVISED ROOF BEAM ENGINEERING FOR W.R.CEDAR
(R2) JUNE 3/09 - ADDED ENGINEERING (FOUNDATION)
(R1) MAY 12/09 - ADDED ENGINEERING & ROOF PLAN

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MAIN: 1326 sq ft.
LOFT: 844 sq ft.
BASEMENT: 196 sq ft.
STORAGE: 628 sq ft.

PREPARED FOR:
MARTY & MICHELE PAISLEY
1495 SMITH GRADE
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m_paisley@sbcglobal.net

STRUCTURE DESTINATION:
SANTA CRUZ, CA

PREPARED BY:
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DRAWING TITLE:
LOFT FLOOR PLAN

SCALE:
1/4" = 1'-0"

DATE:
NOVEMBER 23, 2009

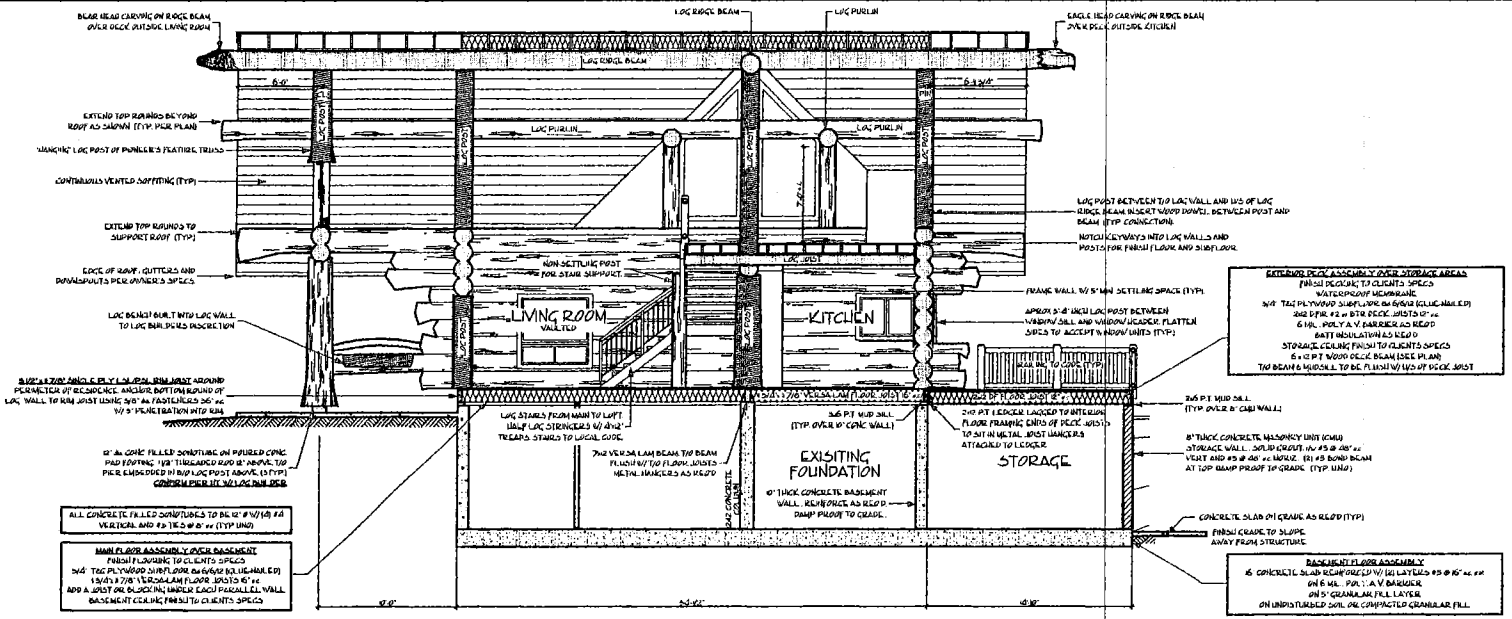
DRAWN BY:
L.R. KEATS
N. CRAMER

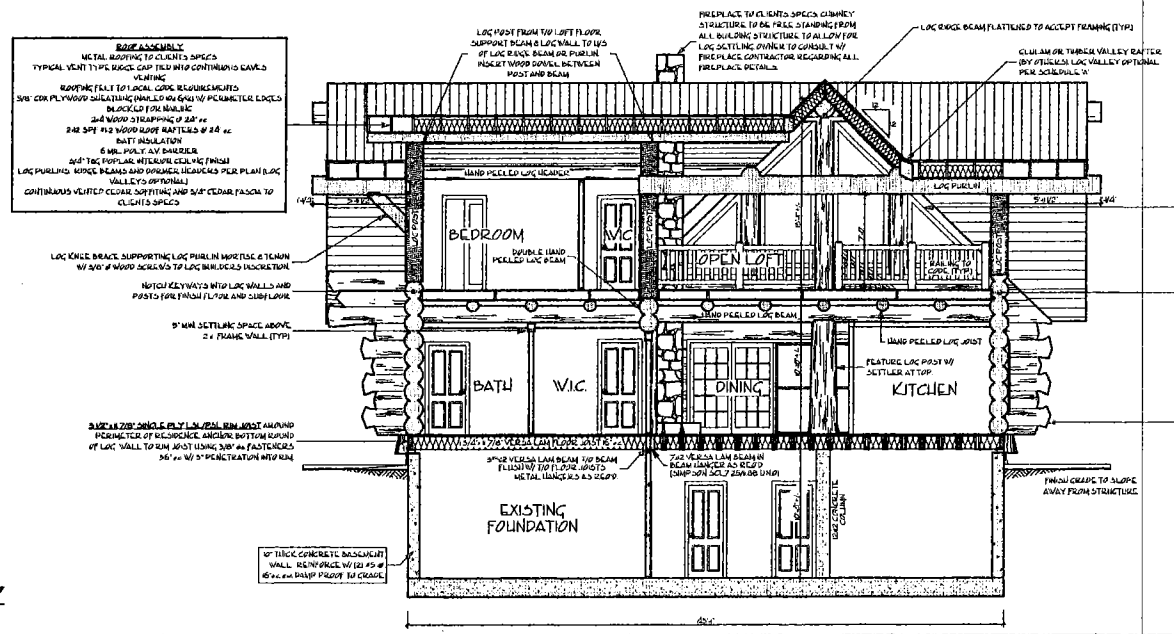
CHECKED BY:

PAGE:
A - 6

EXHIBIT C

EXHIBIT C





NOTES:

AMENDMENTS

PROJECT TITLE:

PAISLEY HANDCRAFTED LOG GUEST HOUSE

MAIN: 1326 sq ft
LOFT: 348 sq ft
BASEMENT: 1,195 sq ft
STORAGE: 628 sq ft

PREPARED FOR:

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PREPARED BY:

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DRAWING TITLE:

SECTIONS

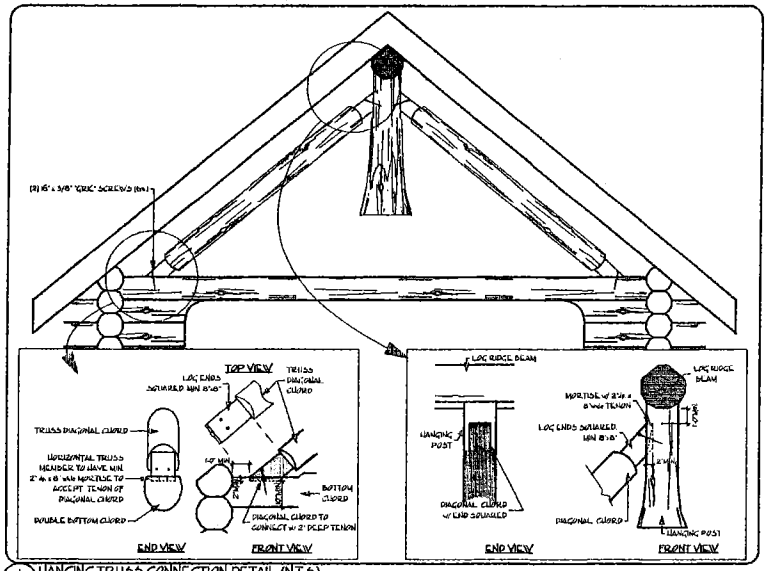
SCALE:
1/4" = 1'-0"

DATE:
MARCH 31, 2009

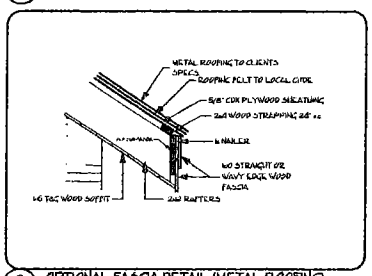
DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

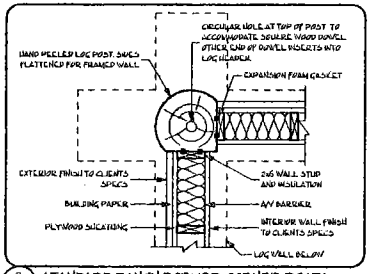
PAGE:
A - 7



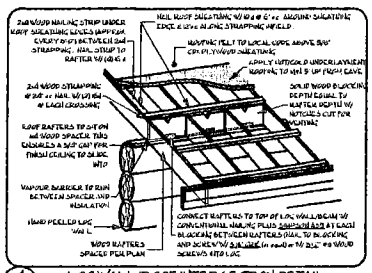
1 A-9 HANGING TRUSS CONNECTION DETAIL (N.T.S.)



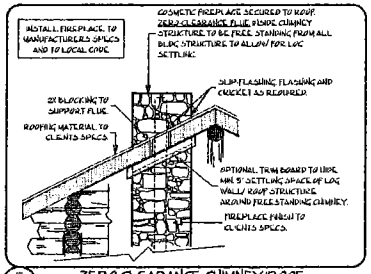
2 A-9 OPTIONAL FASCIA DETAIL (METAL ROOFING)



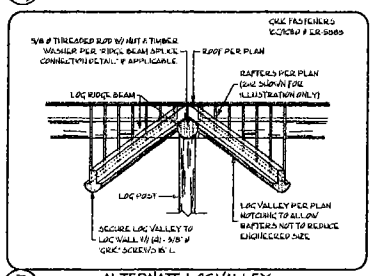
3 A-9 STANDARD RANCH DORMER CORNER POST/ WALL FRAMING INTERSECTION



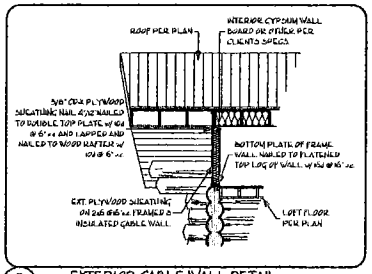
4 A-9 LOG WALL/ROOF INTERSECTION DETAIL SHEATHING ON STRAPPING



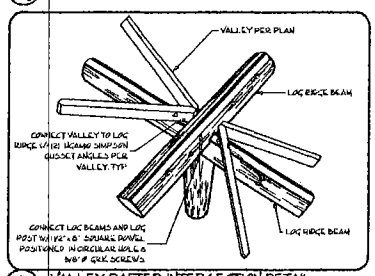
5 A-9 ZERO-CLEARANCE CHIMNEY/ROOF INTERSECTION DETAIL



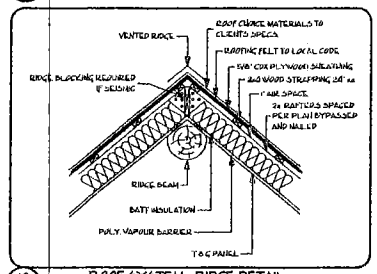
7 A-9 ALTERNATE LOG VALLEY RAFTER INTERSECTION DETAIL



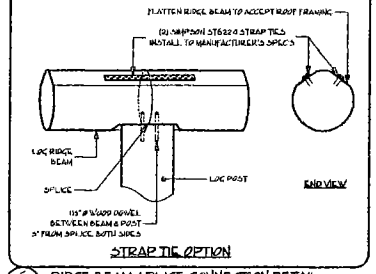
8 A-9 EXTERIOR GABLE WALL DETAIL (NAILING TO ROOF & LOG WALL)



9 A-9 LOG POST TO BEAM DETAIL



COUPLER OPTION

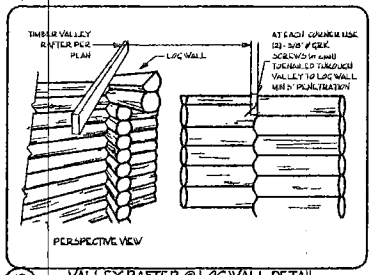


STRAP TIE OPTION

6 A-9 RIDGE BEAM SPLICE CONNECTION DETAIL

10 A-9 ROOF SYSTEM - RIDGE DETAIL

11 A-9 VALLEY RAFTER INTERSECTION DETAIL



12 A-9 VALLEY RAFTER @ LOG WALL DETAIL

NOTES:
ALL DETAILS MAY NOT APPLY

AMENDMENTS

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG GUEST HOUSE

MAIN: 1926 sq ft
LOFT: 844 sq ft
BASEMENT: 1,148 sq ft
STORAGE: 620 sq ft

PREPARED FOR:

MARTY & MICHELLE PAISLEY
1095 SMITH GRADE
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acm_plumbing@sbcglobal.net
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DRAWING TITLE:
DETAILS

SCALE:
N.T.S.

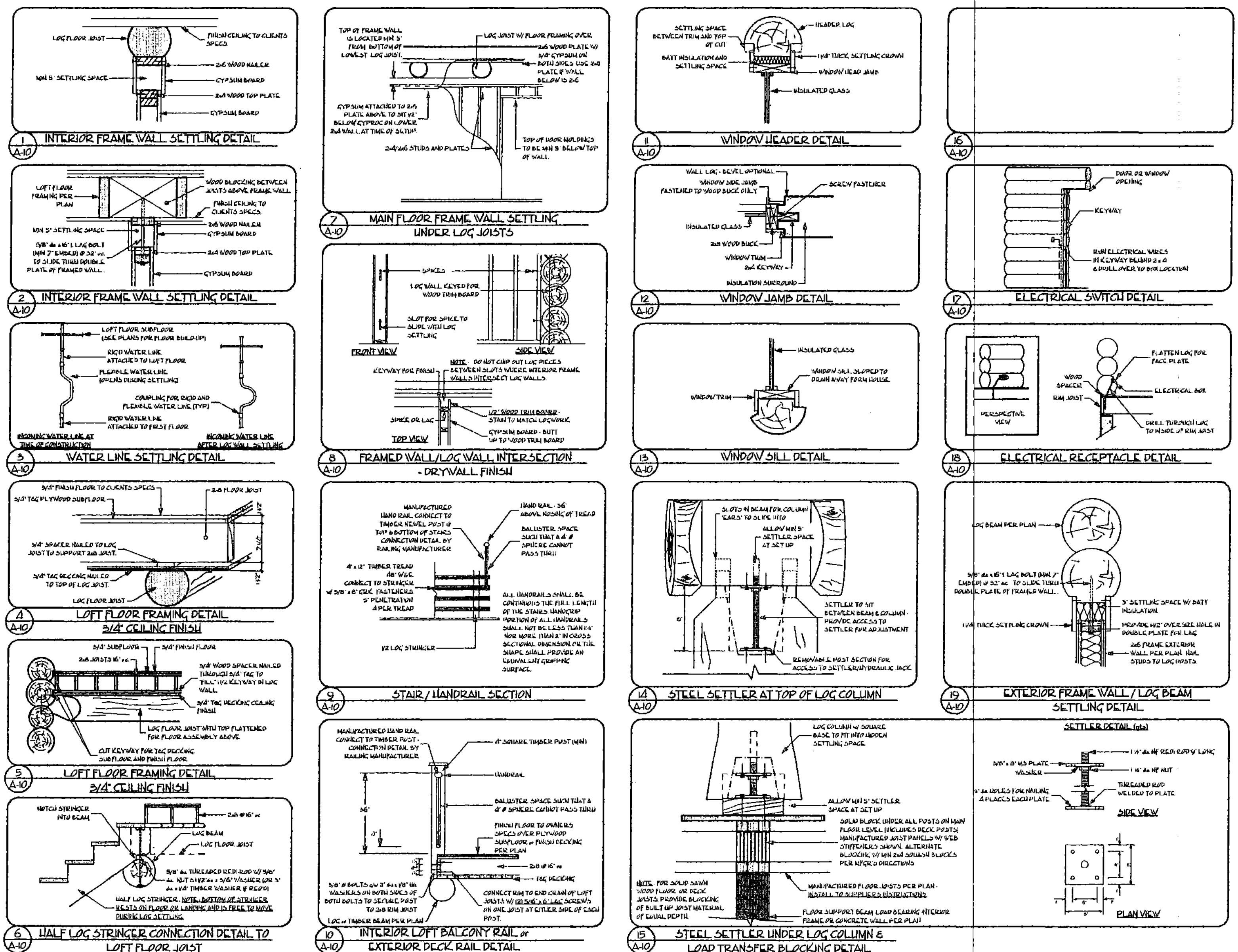
DATE:
MARCH 31, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

PAGE:
A - 8

EXHIBIT C


1 A-10 INTERIOR FRAME WALL SETTLING DETAIL
2 A-10 INTERIOR FRAME WALL SETTLING DETAIL
3 A-10 WATER LINE SETTLING DETAIL
4 A-10 LOFT FLOOR FRAMING DETAIL 3/4" CEILING FINISH
5 A-10 LOFT FLOOR FRAMING DETAIL 3/4" CEILING FINISH
6 A-10 HALF LOG STRINGER CONNECTION DETAIL TO LOFT FLOOR JOIST
7 A-10 MAIN FLOOR FRAME WALL SETTLING UNDER LOG JOISTS
8 A-10 FRAMED WALL/LOG WALL INTERSECTION - DRYWALL FINISH
9 A-10 STAIR / HANDRAIL SECTION
10 A-10 INTERIOR LOFT BALCONY RAIL or EXTERIOR DECK RAIL DETAIL
11 A-10 WINDOW HEADER DETAIL
12 A-10 WINDOW JAMB DETAIL
13 A-10 WINDOW SILL DETAIL
14 A-10 STEEL SETTLER AT TOP OF LOG COLUMN
15 A-10 STEEL SETTLER UNDER LOG COLUMN & LOAD TRANSFER BLOCKING DETAIL
16 A-10
17 A-10 ELECTRICAL SWITCH DETAIL
18 A-10 ELECTRICAL RECEPTACLE DETAIL
19 A-10 EXTERIOR FRAME WALL / LOG BEAM SETTLING DETAIL
SETTLER DETAIL (pta)
SIDE VIEW
PLAN VIEW

NOTES:
ALL DETAILS MAY NOT APPLY

AMENDMENTS

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG GUEST HOUSE
MAIN 1326 sq ft
LOFT 844 sq ft
BASEMENT 1315 sq ft
STORAGE 628 sq ft

PREPARED FOR:
MARTY & MICHELE PAISLEY
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STRUCTURE DESTINATION:
SANTA CRUZ CA

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DRAWING TITLE:
DETAILS

SCALE:
N.T.S.

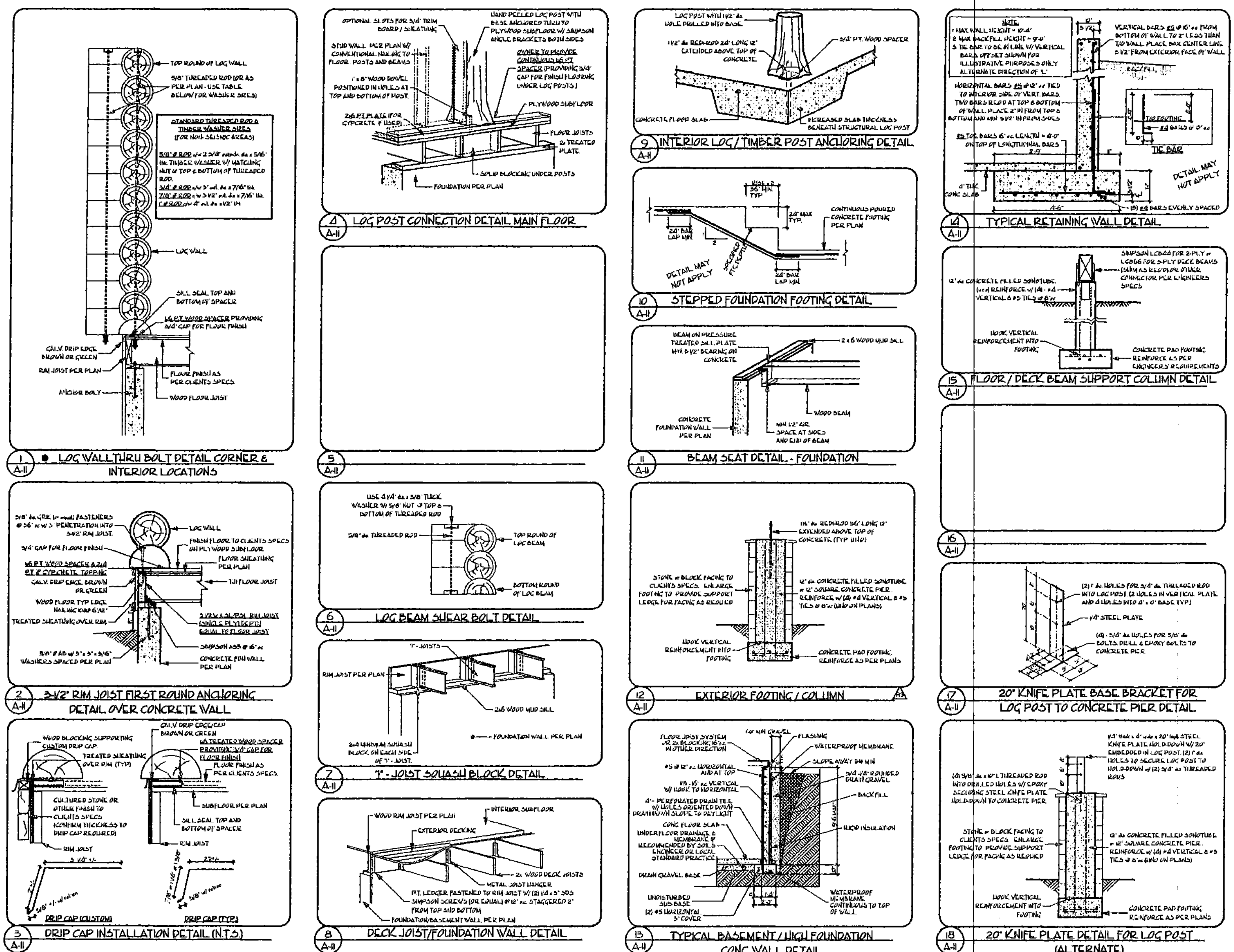
DATE:
MARCH 31, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

PAGE:
A-9

EXHIBIT C


1 A-11 LOG WALL THRU BOLT DETAIL CORNER & INTERIOR LOCATIONS
2 A-11 3-1/2" RIM JOIST FIRST ROUND ANCHORING DETAIL OVER CONCRETE WALL
3 A-11 DRIP CAP INSTALLATION DETAIL (N.T.S.)
4 A-11 LOG POST CONNECTION DETAIL MAIN FLOOR
5 A-11
6 A-11 LOG BEAM SHEAR BOLT DETAIL
7 A-11 "I"-JOIST SQUASH BLOCK DETAIL
8 A-11 DECK JOIST/FOUNDATION WALL DETAIL
9 A-11 INTERIOR LOG / TIMBER POST ANCHORING DETAIL
10 A-11 STEPPED FOUNDATION FOOTING DETAIL
11 A-11 BEAM SEAT DETAIL - FOUNDATION
12 A-11 EXTERIOR FOOTING / COLUMN
13 A-11 TYPICAL BASEMENT / HIGH FOUNDATION CONC. WALL DETAIL
14 A-11 TYPICAL RETAINING WALL DETAIL
15 A-11 FLOOR / DECK BEAM SUPPORT COLUMN DETAIL
16 A-11
17 A-11 20" KNIFE PLATE BASE BRACKET FOR LOG POST TO CONCRETE PIER DETAIL
18 A-11 20" KNIFE PLATE DETAIL FOR LOG POST (ALTERNATE)
DETAIL MAY NOT APPLY

NOTES:
1. ALL DETAILS MAY NOT APPLY

AMENDMENTS

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG GUEST HOUSE
MAIN 1326 sq ft
LOFT 644 sq ft
BASEMENT 1315 sq ft
STORAGE 628 sq ft

PREPARED FOR:
MARTY & MICHELE PAISLEY
1495 SMITH GRADE
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STRUCTURE DESTINATION:
SANTA CRUZ CA

PREPARED BY:
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DRAWING TITLE:
DETAILS

SCALE:
N.T.S.

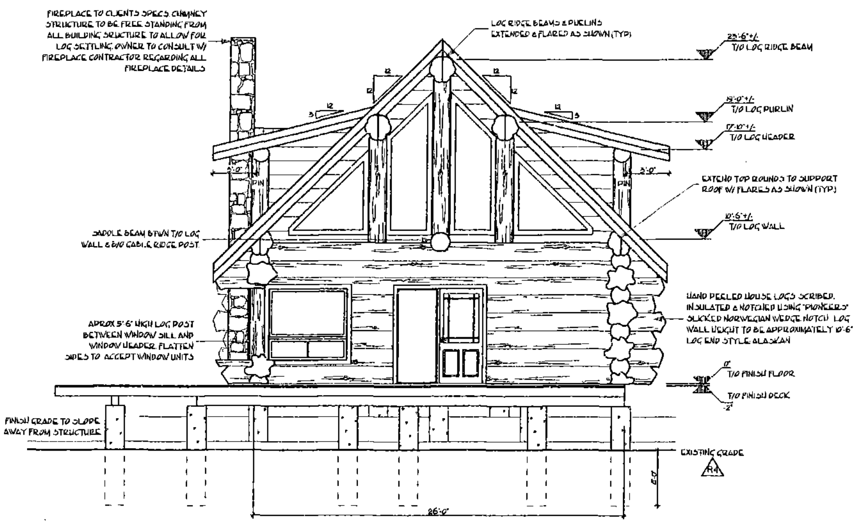
DATE:
MARCH 31, 2009

DRAWN BY:
L.R. KEATS
N. CRAMER

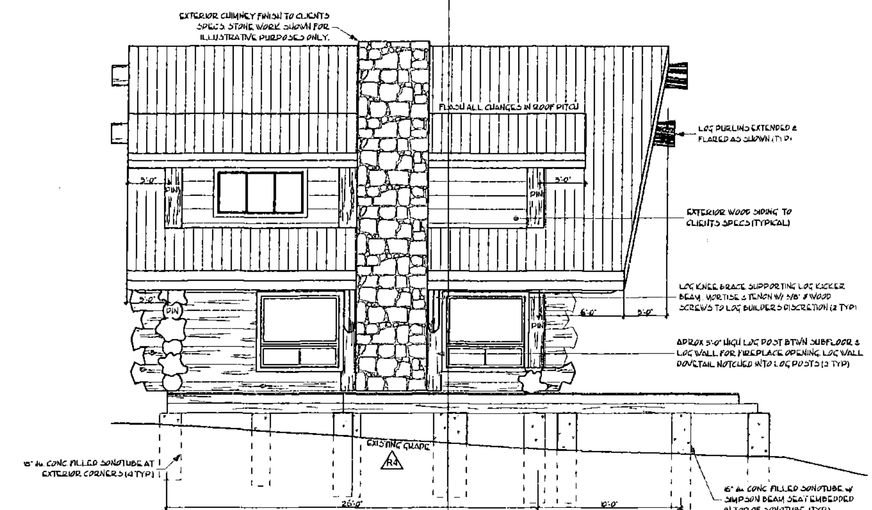
CHECKED BY:

PAGE:
A-10

EXHIBIT C


FIREPLACE TO CLIENTS SPECS CHIMNEY STRUCTURE TO BE FREE STANDING FROM ALL BUILDING STRUCTURE TO ALLOW FOR LOG SETTLING OWNER TO CONSULT W/ FIREPLACE CONTRACTOR REGARDING ALL FIREPLACE DETAILS
LOG RIDGE BEAMS & PURLINS EXTENDED & FLARED AS SHOWN (TYP)
23'-6" +/- T/O LOG RIDGE BEAM
T/O LOG PURLIN
T/O LOG HEADER
EXTEND TOP ROUNDS TO SUPPORT ROOF W/ FLARES AS SHOWN (TYP)
T/O LOG WALL
SADDLE BEAM BTWN T/O LOG WALL & B/O GABLE RIDGE POST
HAND PEELED HOUSE LOGS SCRIBED, INSULATED & NOTCHED USING "PIONEERS" SLICKED NORWEGIAN WEDGE NOTCH. LOG WALL HEIGHT TO BE APPROXIMATELY 10'-6" LOG END STYLE ALASKAN
APROX 5'-6" HIGH LOG POST BETWEEN WINDOW SILL AND WINDOW HEADER FLATTEN SIDES TO ACCEPT WINDOW UNITS
T/O FINISH FLOOR
T/O FINISH DECK
FINISH GRADE TO SLOPE AWAY FROM STRUCTURE
EXISTING GRADE
26'-0"

ELEVATION 1/A1

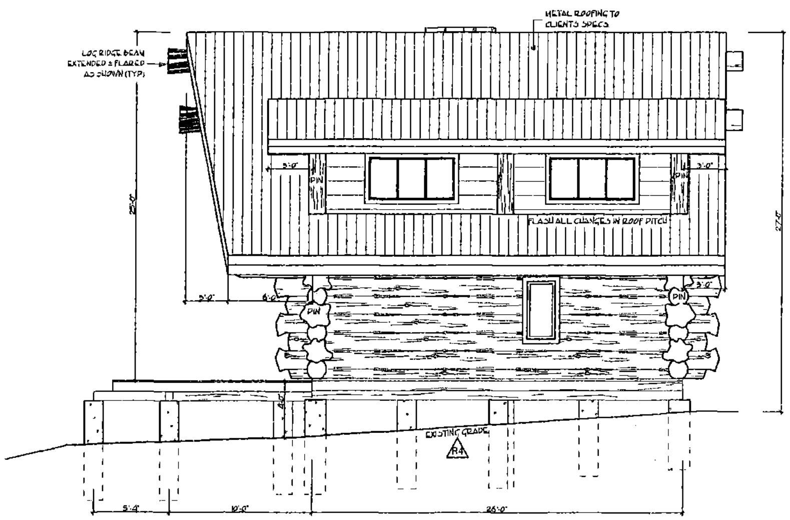

EXTERIOR CHIMNEY FINISH TO CLIENTS SPECS STONE WORK SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
FLASH ALL CHANGES IN ROOF PITCH
LOG PURLINS EXTENDED & FLARED AS SHOWN (TYP)
EXTERIOR WOOD SIDING TO CLIENTS SPECS (TYPICAL)
LOG KNEE BRACE SUPPORTING LOG KICKER BEAM. MORTISE & TENON W/ 5/8" Ø WOOD SCREWS TO LOG BUILDERS DISCRETION (2 TYP)
APROX 5'-0" HIGH LOG POST BTWN SUBFLOOR & LOG WALL FOR FIREPLACE OPENING. LOG WALL DOVETAIL NOTCHED INTO LOG POSTS (2 TYP)
EXISTING GRADE
16" Ø CONC FILLED SONOTUBE AT EXTERIOR CORNERS (4 TYP)
16" Ø CONC FILLED SONOTUBE W/ SIMPSON BEAM SEAT EMBEDDED IN TOP OF SONOTUBE (TYP)
26'-0"
10'-0"

ELEVATION 2/A1

PIONEER LOG HOMES OF BRITISH COLUMBIA LTD. ASSUMES RESPONSIBILITY FOR ARCHITECTURAL DESIGN & CONSTRUCTION OF THE LOG WORK ONLY AS SHOWN IN THIS PLAN PROVIDED THE LOG WORK IS CONSTRUCTED BY PIONEER LOG HOMES OF BRITISH COLUMBIA LTD. ALL OTHER ELEMENTS ARE TO BE APPROVED BY LOCAL BUILDING AUTHORITIES & BUILT TO LOCAL BUILDING CODES. ANY ENGINEERING REQUIRED & RELATED COSTS ARE THE RESPONSIBILITY OF THE OWNER.

STRUCTURAL ANALYSIS BASED ON THESE PLANS SHALL BE USED FOR LOG CONSTRUCTION PROVIDED BY PIONEER LOG HOMES OF BRITISH COLUMBIA LTD ONLY. STRUCTURAL ANALYSIS FOR THESE PLANS SHALL NOT BE USED FOR CONSTRUCTION BY OTHER LOG HOME BUILDING COMPANIES AS THEIR SYSTEMS MAY DIFFER SUBSTANTIALLY FROM THOSE OF PIONEER LOG HOMES OF BRITISH COLUMBIA LTD

NOTE:
LOG WALLS SHOWN ON THIS DRAWING ARE 16" DIAMETER FOR ILLUSTRATIVE PURPOSES ONLY.
ACTUAL SIZES OF LOGS USED DURING CONSTRUCTION MAY BE LARGER OR SMALLER. REFER TO "SCHEDULE A" FOR QUOTED SIZES.

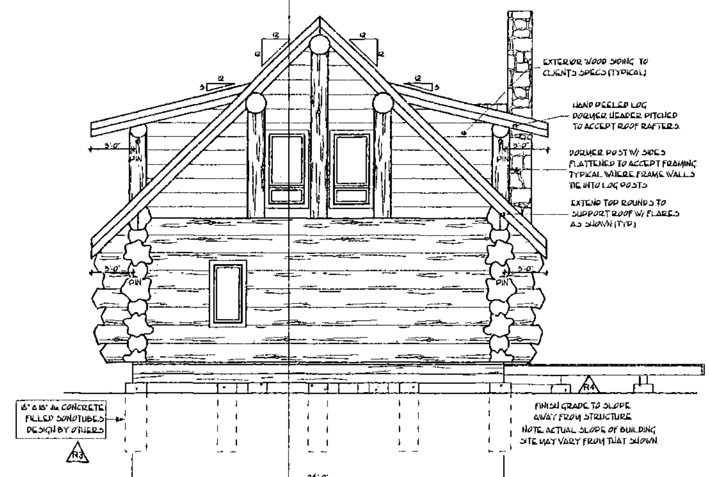


ELEVATION 3/A1

LOG CONSTRUCTION NOTES

1) LOG SPECIES.
WALL LOGS: #1 WESTERN RED CEDAR (APPROXIMATE SIZES 16" MEAN DIA)
STRUCTURAL MEMBERS: #1 STANDING DEAD LODGEPOLE PINE FOR FLOOR JOISTS/HEADERS AND #1 DOUGLAS FIR BEAMS AND RIDGE BEAMS (U.N.O.) OPTIONAL #1 W.R.C. RIDGE BEAMS WHERE CARVINGS ARE LOCATED
2) LOG END STYLE: ALASKAN AS SHOWN
3) LOG WALL HEIGHT: 10'-6" +/-
4) LOG STAIRCASE FROM MAIN TO LOFT
5) CONFIRM WINDOW AND DOOR SUPPLIER WITH LOG BUILDER. WINDOWS AND DOORS NOT TO BE ORDERED UNTIL SIZES CONFIRMED W/ LOG BUILDER
6) ALL EXTERIOR OPENINGS ON THE MAIN LEVEL TO HAVE APPROX 88" HEADER HEIGHTS. THIS INCLUDES APPROX 5" OF INSULATED SETTLING SPACE ABOVE OPENINGS.
7) WHERE LOG POSTS AND LOG BEAMS INTERSECT USE WOOD DOWEL BETWEEN TOP OF LOG POST AND BOTTOM OF LOG BEAM
8) LOG POSTS SUPPLIED WITH SETTLERS WHERE REQUIRED.
9) LOG POST AND BEAM TO SUPPORT DORMERS W/ SIDES FLATTENED TO ACCEPT FRAMING (TYP. WHERE LOG POSTS AND FRAME WALLS INTERSECT).
10) LOG FLOOR JOISTS & BEAMS FOR LOFT FLOOR FLATTENED FOR DECK FRAMING
11) LOG POST ON MAIN FLOOR W/ SETTLERS PER PLAN
12) LOG PURLINS & LOG RIDGE BEAM EXTENDED BEYOND ROOF LINE W/ FLARED ENDS PER PLAN
13) EAGLE HEAD CARVING ON SADDLE BEAM BETWEEN LOG HEADER AND GABLE POST.

STRUCTURAL NOTE:
ALL PLYWOOD SHEATHING TO BE NAILED 10d 6/12


EXTERIOR WOOD SIDING TO CLIENTS SPECS (TYPICAL)
HAND PEELED LOG DORMER HEADER PITCHED TO ACCEPT ROOF RAFTERS.
DORMER POST W/ SIDES FLATTENED TO ACCEPT FRAMING TYPICAL WHERE FRAME WALLS TIE INTO LOG POSTS
EXTEND TOP ROUNDS TO SUPPORT ROOF W/ FLARES AS SHOWN (TYP)
16" & 18" Ø CONCRETE FILLED SONOTUBES DESIGN BY OTHERS
FINISH GRADE TO SLOPE AWAY FROM STRUCTURE
NOTE: ACTUAL SLOPE OF BUILDING SITE MAY VARY FROM THAT SHOWN
26'-0"

ELEVATION 4/A1

NOTES:

AMENDMENTS

(R4) NOV 25/08 - REVISED GRADE & DECK
(R3) JUNE 25/08 - UPDATED ENGINEERING
(R2) JUNE 6/08 - REVISED ENGINEERING FOR W.R. CEDAR ROOF BEAMS
(R1) JUNE 3/08 - ADDED ENGINEERING

PROJECT TITLE:

PAISLEY HANDCRAFTED LOG POND HOUSE

MAIN: 676 sq ft.
LOFT: 320 sq ft.

TOTAL LIVING: 996 sq ft.

PREPARED FOR:

MARTY & MICHELE PAISLEY
1495 SMITH GRADE
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DRAWING TITLE:

ELEVATIONS

SCALE:
1/4" = 1'-0"

DATE:
NOVEMBER 25, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

PAGE:
A - 1

EXHIBIT C

EXHIBIT C

GENERAL NOTES ON FOUNDATIONS AND FOOTINGS

1. CONCRETE STRENGTH TO BE 2500 PSI @ 28 DAYS FOR FOOTINGS AND FOR CONCRETE SLABS.
2. FOOTING DEPTH TO BELOW FROST LEVEL CONSULT LOCAL BUILDING DEPARTMENT FOR LOCAL FROST PENETRATION DEPTHS.
3. ALL FOOTING SIZES AND REINFORCING SPECIFICATIONS ON THIS PLAN ARE BASED ON A MINIMUM GROUND BEARING CAPACITY OF 1500 psf OR GREATER UNLESS SPECIFIED OTHERWISE BY THE PROJECT ENGINEER (REFER TO ENGINEER'S REPORT)
4. SINCE SOILS < 1500 psf CAN SWELL OR REBOUND. THE FOUNDATION AND FOOTINGS DESIGN MUST COMPLY WITH LOCAL BUILDING CODE REGULATIONS AND GOOD BUILDING PRACTICES.
5. ALL FOUNDATIONS TO BE DESIGNED BY OTHERS.

R3

THRU-BOLT TIGHTENING & SETTLER ADJUSTMENTS

1. TIGHTENING OF THRU-BOLTS - THIS IS COMPLETED BY HOLDING THE BOTTOM OF THE THRU-BOLT ROD STATIONARY WHILE TURNING THE NUT CLOCKWISE UNTIL THE TENSION SPRING ON THE BOTTOM OF THE THRU-BOLT IS COMPRESSED AND TIGHTENED. THIS NEEDS TO BE DONE TO ALL THRU-BOLTS IN THE HOME WHEN THE HOUSE IS FIRST DELIVERED AND ABOUT EVERY THREE MONTHS FOR THE FIRST THREE YEARS.

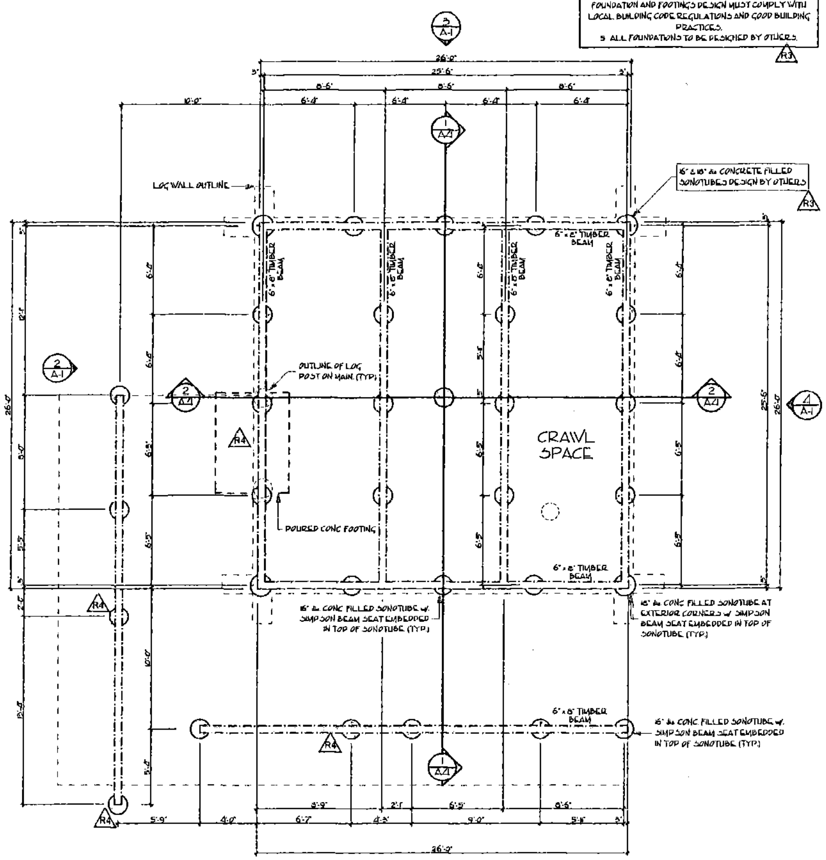
2. ADJUSTMENT OF ALL VERTICAL POSTS/STRUCTURAL POSTS (BOTH INTERIOR AND EXTERIOR) - AS A RULE. WHEN THE THRU-BOLTS HAVE TO BE TIGHTENED ANY EXTERIOR AND INTERIOR VERTICAL POSTS/STRUCTURAL POSTS WILL ALSO NEED ADJUSTING. THESE POSTS CAN BE IDENTIFIED AS HAVING SCREW JACKS ON EITHER THE TOP OR BOTTOM. THE POSTS SHOULD BE ADJUSTED BY APPROXIMATELY THE SAME AMOUNT AS THE THRU-BOLTS BECAUSE YOUR HOME WILL COME DOWN AN AVERAGE AMOUNT ALL THE WAY AROUND THE EXTERIOR WALLS EXCEPT WHERE THERE IS AN INTERIOR LOG WALL AND THE SETTLING MAY BE INCREASED SOMEWHAT BECAUSE OF HEAT ON BOTH SIDES OF THE WALL

FRAMING NOTES

1) FLOOR JOISTS REST IN JOIST HANGERS ON TIMBER BEAMS.
2) OWNER TO ENSURE THAT THE FOLLOWING IS COMPLETE PRIOR TO THE ARRIVAL OF THE LOG PACKAGE:
- FIRST FLOOR FRAMING TO BE COMPLETE AND SUBFLOOR INSTALLED.
- 1x6 TREATED WOOD SPACERS TO BE NAILED TO SUBFLOOR AT LOG WALL LOCATIONS FOR LOG WALLS TO SIT ON.
- A 2x6 TREATED WOOD SPACER WILL BE PLACED BENEATH THE 1x6 IF A POURED GYPCRETE TOPPING FOR HEATING IS TO BE USED ON THE FIRST FLOOR.
- ALL EXTERIOR WOOD SPACERS TO HAVE SILL SEAL ABOVE AND BELOW WITH A GALVANIZED DRIP EDGE ABOVE THE WOOD SPACERS AND SILL SEAL. THIS DRIP EDGE TO BE BROWN, GREEN, COLORED OR COPPER.
3) NOTE: PLAN MAY NOT BE ENGINEERED FOR GYPCRETE TOPPING. CONTRACTOR TO VERIFY WITH DESIGNER AND/OR ENGINEER PRIOR TO CONSTRUCTION IF USING GYPCRETE.

● REPRESENTS 5/8" dia. THRU-BOLT LOCATION. MAINTAIN ACCESS TO THRU-BOLT. (SEE DETAIL 10/A6)

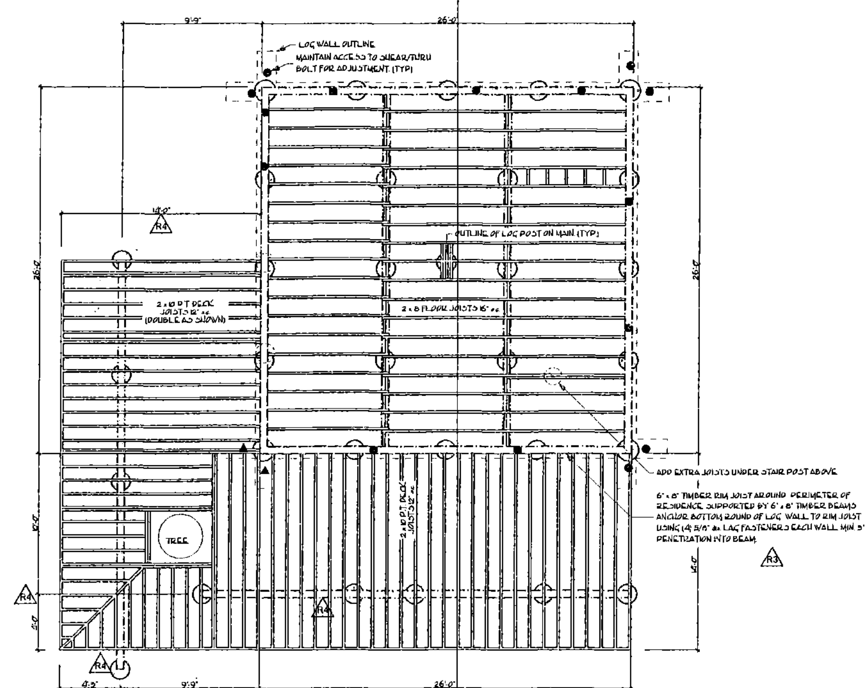
▲ REPRESENTS 5/8" dia. THRU-BOLT LOCATION IN LOG WORK ABOVE AND BELOW (SEE DETAIL 6/A6)



NOTE:
CONSULT WITH FIREPLACE CONTRACTOR REGARDING ALL FIREPLACE DETAILS

ALL CONCRETE FILLED SONOTUBES TO BE 16"Ø min (18"Ø at corners) W/ (4) #5 VERTICAL AND #3 TIES @ 12" oc

FOUNDATION PLAN



R3

MAIN FLOOR ASSEMBLY
FINISH FLOORING TO CLIENTS SPECS
3/4" T&G PLYWOOD SUBFLOOR @ 6/6/12 (GLUE-NAILED)
2 x 8 FLOOR JOISTS 16" oc
ADD A JOIST OR BLOCKING UNDER EACH PARALLEL WALL
6 MIL. POLY A.V. BARRIER AS REQ'D
BATT INSULATION W/ WIRE MESH AS REQ'D

NOTE:
ENDS OF FLOOR JOISTS TO SIT IN SIMPSON LUS28 METAL JOIST HANGERS (TYP. AS REQUIRED UNO)

STRUCTURAL NOTE:
ANCHOR FIRST ROUND W/ MIN (4) 5/8" dia. LAGS PER BOTTOM ROUND ON EACH WALL. MIN. 5" PENETRATION INTO RIM JOIST. (SEE DETAIL 10/A6)

R4

EXTERIOR DECK ASSEMBLY
FINISH DECKING TO CLIENTS SPECS
2 x 10 P.T. DECK JOISTS 12" oc
6 x 8 WOOD DECK BEAM
T/O BEAM TO BE FLUSH W/ T/O OF DECK JOIST

NOTE:
ENDS OF DECK JOISTS TO SIT IN SIMPSON LUS28 METAL JOIST HANGERS (TYP. AS REQUIRED UNO)

FRAMING & LOG HOLD DOWN PLAN

NOTES:

AMENDMENTS

(R4) NOV 23/09 - REVISED GRADE & DECK
(R3) JUNE 25/08 - UPDATED ENGINEERING
(R2) JUNE 8/08 - REVISED ENGINEERING FOR W.R.CEDAR ROOF BEAMS
(R1) JUNE 3/08 - ADDED ENGINEERING

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG POND HOUSE
MAIN: 676 sq. ft
LOFT: 320 sq.ft.
TOTAL LIVING: 996 sq.ft.

PREPARED FOR:
MARTY & MICHELE PAISLEY
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95060-9774
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STRUCTURE DESTINATION:
SANTA CRUZ, CA

PREPARED BY:
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DRAWING TITLE:
FOUNDATION & LOG HOLD DOWN PLANS

SCALE:
1/4" = 1'-0"

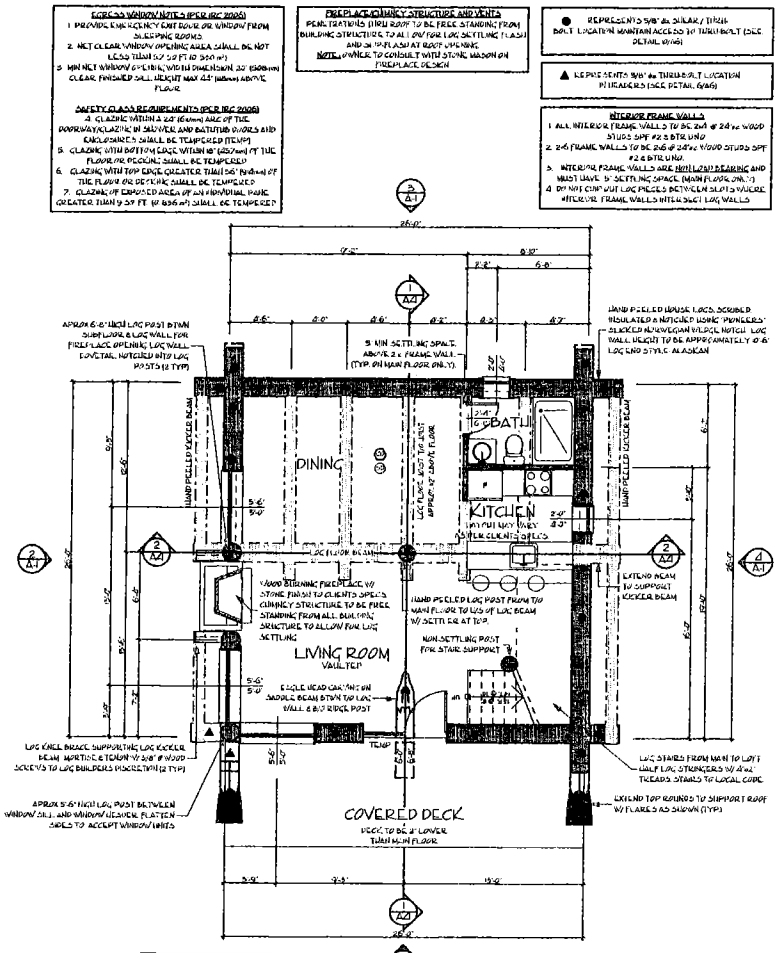
DATE:
NOVEMBER 23, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

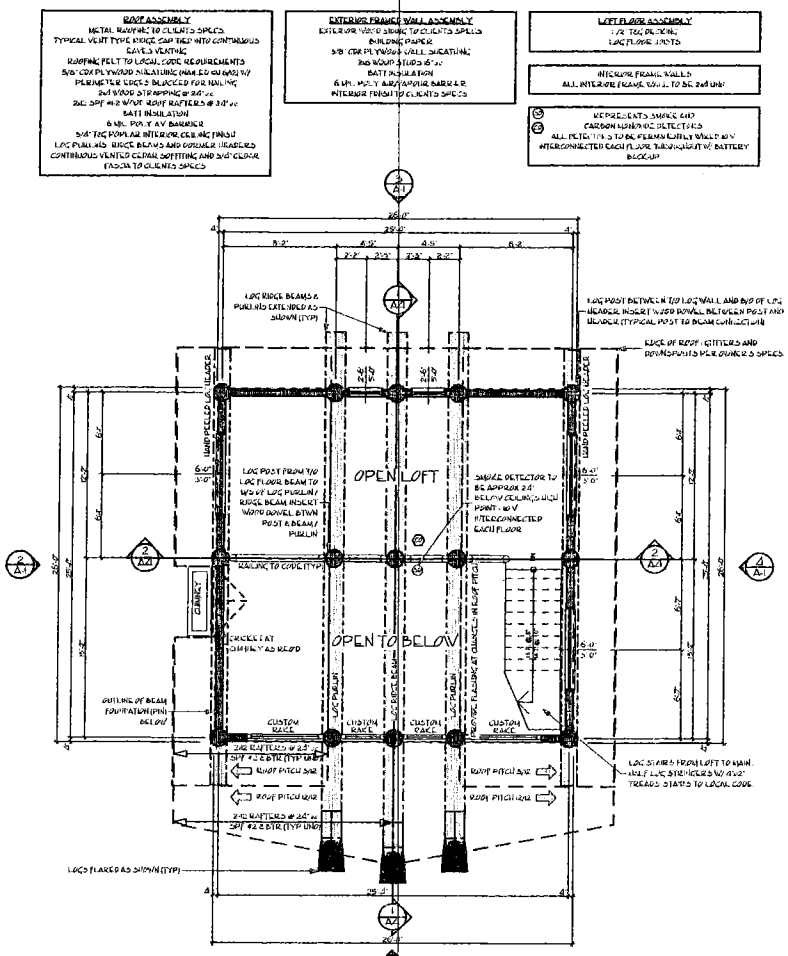
CHECKED BY:

PAGE:
A - 2

EXHIBIT C



MAIN FLOOR PLAN



LOFT FLOOR PLAN

NOTES:

AMENDMENTS

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG POND HOUSE

MAIN 676 sq ft
LOFT 320 sq ft

TOTAL LIVING 996 sq ft

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DRAWING TITLE:
MAIN & LOFT FLOOR PLANS

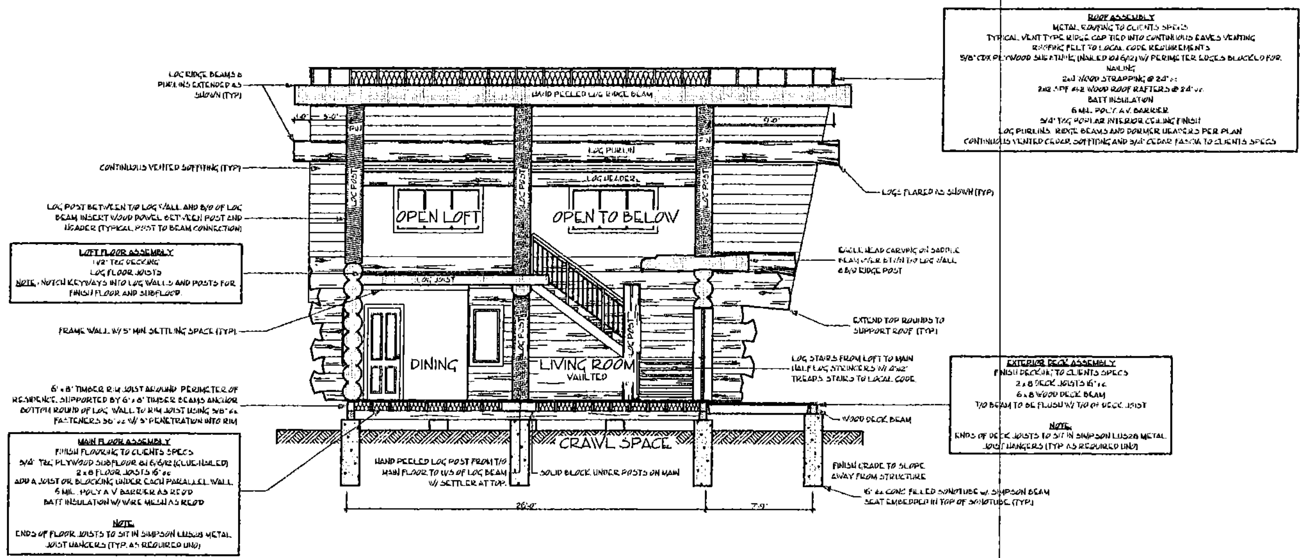
SCALE:
1/4" = 1'-0"

DATE:
APRIL 9, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

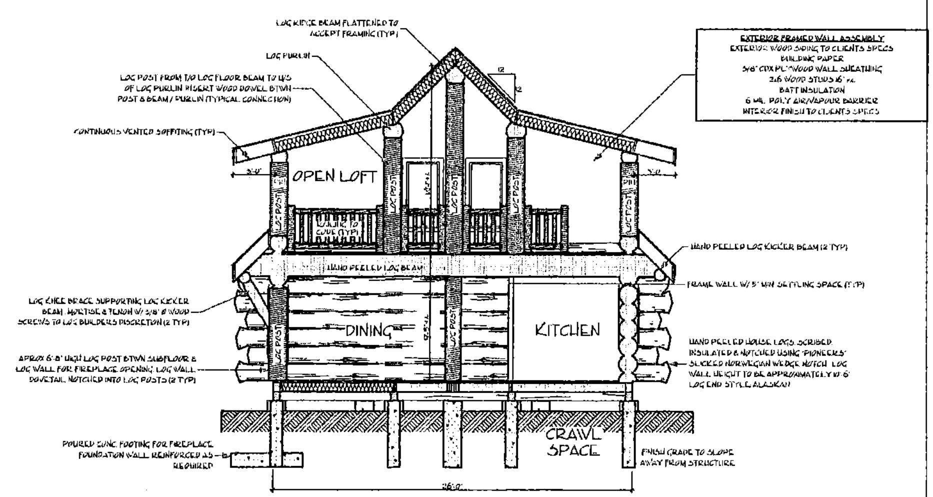
PAGE:
A - 3


ROOF ASSEMBLY
METAL ROOFING TO CLIENTS SPECS
TYPICAL VENT TYPE RIDGE CAP TIED INTO CONTINUOUS EAVES VENTING
ROOFING FELT TO LOCAL CODE REQUIREMENTS
5/8" CDX PLYWOOD SHEATHING (NAILED @ 6/12) W/ PERIMETER EDGES BLOCKED FOR NAILING
2x4 WOOD STRAPPING @ 24" o.c.
2x12 SPF #2 WOOD ROOF RAFTERS @ 24" o.c.
BATT INSULATION
6 MIL POLY A.V. BARRIER
3/4" T&G POPLAR INTERIOR CEILING FINISH
LOG PURLINS, RIDGE BEAMS AND DORMER HEADERS PER PLAN
CONTINUOUS VENTED CEDAR SOFFITING AND 3/4" CEDAR FASCIA TO CLIENTS SPECS
LOG RIDGE BEAMS & PURLINS EXTENDED AS SHOWN (TYP)
HAND PEELED LOG RIDGE BEAM
CONTINUOUS VENTED SOFFITING (TYP)
LOG PURLIN
LOG HEADER
LOGS FLARED AS SHOWN (TYP)
LOG POST BETWEEN T/O LOG WALL AND B/O OF LOG BEAM INSERT WOOD DOWEL BETWEEN POST AND HEADER (TYPICAL POST TO BEAM CONNECTION)
OPEN LOFT
OPEN TO BELOW
LOFT FLOOR ASSEMBLY
1 1/2" T&G DECKING
LOG FLOOR JOISTS
NOTE: NOTCH KEYWAYS INTO LOG WALLS AND POSTS FOR FINISH FLOOR AND SUBFLOOR.
EAGLE HEAD CARVING ON SADDLE BEAM OVER BTWN T/O LOG WALL & B/O RIDGE POST
FRAME WALL W/ 5" MIN SETTLING SPACE (TYP)
EXTEND TOP ROUNDS TO SUPPORT ROOF (TYP)
DINING
LIVING ROOM
VAULTED
LOG STAIRS FROM LOFT TO MAIN HALF LOG STRINGERS W/ 4"x12" TREADS. STAIRS TO LOCAL CODE.
EXTERIOR DECK ASSEMBLY
FINISH DECKING TO CLIENTS SPECS
2 x 8 DECK JOISTS 16" o.c.
6 x 8 WOOD DECK BEAM
T/O BEAM TO BE FLUSH W/ T/O OF DECK JOIST
NOTE:
ENDS OF DECK JOISTS TO SIT IN SIMPSON LUS28 METAL JOIST HANGERS (TYP AS REQUIRED UNO)
6" x 8" TIMBER RIM JOIST AROUND PERIMETER OF RESIDENCE, SUPPORTED BY 6" x 8" TIMBER BEAMS ANCHOR BOTTOM ROUND OF LOG WALL TO RIM JOIST USING 5/8" ø FASTENERS 36" o.c. W/ 3" PENETRATION INTO RIM
WOOD DECK BEAM
CRAWL SPACE
MAIN FLOOR ASSEMBLY
FINISH FLOORING TO CLIENTS SPECS
3/4" T&G PLYWOOD SUBFLOOR @ 6/6/12 (GLUE-NAILED)
2 x 8 FLOOR JOISTS 16" o.c.
ADD A JOIST OR BLOCKING UNDER EACH PARALLEL WALL
6 MIL. POLY A.V. BARRIER AS REQ'D
BATT INSULATION W/ WIRE MESH AS REQ'D
NOTE:
ENDS OF FLOOR JOISTS TO SIT IN SIMPSON LUS28 METAL JOIST HANGERS (TYP. AS REQUIRED UNO)
HAND PEELED LOG POST FROM T/O MAIN FLOOR TO U/S OF LOG BEAM W/ SETTLER AT TOP
SOLID BLOCK UNDER POSTS ON MAIN
FINISH GRADE TO SLOPE AWAY FROM STRUCTURE
16" ø CONC FILLED SONOTUBE w/ SIMPSON BEAM SEAT EMBEDDED IN TOP OF SONOTUBE (TYP)
26'-0"
7'-9"

SECTION 1/A4

ABBREVIATIONS

A.B. = ANCHOR BOLT
B/O = BOTTOM OF
BTWN = BETWEEN
BSMT = BASEMENT
CLG. = CEILING
CONC = CONCRETE
CMU = CONCRETE MASONRY UNIT
C.W. = COMPLETE WITH
DET = DETAIL
D.F. or D FIR = DOUGLAS FIR
DIA. = DIAMETER
ELEC. = ELECTRICAL
ELEV. = ELEVATION
E.W. = EACH WAY
EXT. = EXTERIOR
FD = FLOOR DRAIN
FDN = FOUNDATION
FP = FIREPLACE
GLB = GLULAM BEAM
HT = HEIGHT
LAU = LAUNDRY
L.P.P. or LP = LODGEPOLE PINE
MAX. = MAXIMUM
MECH = MECHANICAL
MIN. = MINIMUM
MISC = MISCELLANEOUS
N.T.S. = NOT TO SCALE
OC = ON CENTER
PDR = POWDER ROOM
PLY = PLYWOOD
PSI = POUNDS PER SQUARE INCH
PSF = POUNDS PER SQUARE FEET
PT = PRESSURE TREATED
REQ'D = REQUIRED
SF. or SQ. FT. = SQUARE FEET
SPEC = SPECIFICATION
T/O = TOP OF
T&G = TONGUE AND GROOVE
TYP. = TYPICAL
UNO = UNLESS NOTED OTHERWISE
U/S = UNDERSIDE
W.I.C. = WALK IN CLOSET
WC = WATER CLOSET
WD = WOOD
W.R.C. = WESTERN RED CEDAR
WT = WEIGHT


LOG RIDGE BEAM FLATTENED TO ACCEPT FRAMING (TYP)
LOG PURLIN
LOG POST FROM T/O LOG FLOOR BEAM TO U/S OF LOG PURLIN INSERT WOOD DOWEL BTWN POST & BEAM / PURLIN (TYPICAL CONNECTION)
CONTINUOUS VENTED SOFFITING (TYP)
OPEN LOFT
RAILING TO CODE (TYP)
HAND PEELED LOG BEAM
EXTERIOR FRAMED WALL ASSEMBLY
EXTERIOR WOOD SIDING TO CLIENTS SPECS
BUILDING PAPER
5/8" CDX PLYWOOD WALL SHEATHING
2x6 WOOD STUDS 16" o.c.
BATT INSULATION
6 MIL. POLY AIR/VAPOUR BARRIER
INTERIOR FINISH TO CLIENTS SPECS
HAND PEELED LOG KICKER BEAM (2 TYP)
FRAME WALL W/ 5" MIN SETTLING SPACE (TYP)
LOG KNEE BRACE SUPPORTING LOG KICKER BEAM. MORTISE & TENON W/ 3/8" ø WOOD SCREWS TO LOG BUILDERS DISCRETION (2 TYP)
DINING
KITCHEN
APPROX 6'-8" HIGH LOG POST BTWN SUBFLOOR & LOG WALL FOR FIREPLACE OPENING. LOG WALL DOVETAIL NOTCHED INTO LOG POSTS (2 TYP)
HAND PEELED HOUSE LOGS, SCRIBED, INSULATED & NOTCHED USING "PIONEERS" SLICKED NORWEGIAN WEDGE NOTCH. LOG WALL HEIGHT TO BE APPROXIMATELY 10'-6". LOG END STYLE: ALASKAN
POURED CONC FOOTING FOR FIREPLACE FOUNDATION WALL REINFORCED AS REQUIRED
CRAWL SPACE
FINISH GRADE TO SLOPE AWAY FROM STRUCTURE
26'-0"

SECTION 2/A4

GENERAL NOTES

1. ALL ENGINEERING INSPECTIONS AND COSTS REQUIRED AT ANY TIME FOR THE BUILDING WILL BE THE SOLE RESPONSIBILITY OF THE OWNER.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE.
3. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. ALL WORK SHALL CONFORM TO THE CURRENT EDITION OF THE LOCAL BUILDING CODE.
5. INFORMATION CONTAINED ON THESE DRAWINGS SHALL BE AT THE DISCRETION OF THE CONTRACTOR PROVIDED IT MEETS WITH THE ABOVE REQUIREMENTS AND REPRESENTS SOUND BUILDING PRACTICE.
6. ALL DIMENSIONAL LUMBER TO BE SPF No. 2 OR BETTER. UNLESS NOTED OTHERWISE (UNO)
7. PROVIDE SMOKE DETECTORS AS REQUIRED IN BEDROOMS OUTSIDE OF BEDROOM, TOP OF STAIRS AND AT EACH FLOOR. AT LEAST ONE SMOKE ALARM IS TO BE LOCATED NOT MORE THAN 24' FROM THE HIGHEST POINT INSIDE THE STRUCTURE. ALL DETECTORS TO BE PERMANENTLY WIRED 110 V INTERCONNECTED EACH FLOOR THROUGHOUT W/ BATTERY BACK-UP.
8. PERIMETER DRAIN IF REQUIRED TO BE IN ACCORDANCE WITH LOCAL BUILDING CODE.
9. HOUSE FLOOR JOISTS TO REST IN JOIST HANGERS SUPPORTED BY 6 x 8 BEAMS PER PLAN
10. SITE PLAN AND LEGAL SHALL BE SUPPLIED AND COMPLETED BY OWNER.
11. OWNER AND CONTRACTOR SHALL CHECK THE SPECIFICATIONS AGAINST THE BLUEPRINTS
12. ACTUAL DOORS AND WINDOWS USED ON THE JOB MAY VARY IN MAKE-UP AND APPEARANCE FROM BLUEPRINT UNLESS SPECIFIED. CONFIRM WINDOW AND DOOR SUPPLIER WITH LOG BUILDER. WINDOWS AND DOORS ARE NOT TO BE ORDERED UNTIL OPENING DIMENSIONS ARE CONFIRMED WITH LOG BUILDER.
13. OWNER TO ENSURE THAT THE FOLLOWING IS COMPLETE PRIOR TO THE ARRIVAL OF THE LOG PACKAGE. FIRST FLOOR FRAMING TO BE COMPLETE AND SUBFLOOR INSTALLED. 1x6 TREATED WOOD SPACERS TO BE NAILED TO SUBFLOOR AT LOG WALL LOCATIONS FOR LOG WALLS TO SIT ON. A 2x6 TREATED WOOD SPACER WILL BE PLACED BENEATH THE 1x6 IF A POURED CONCRETE TOPPING FOR HEATING IS TO BE USED ON THE FIRST FLOOR. ALL EXTERIOR WOOD SPACERS TO HAVE SILL SEAL ABOVE AND BELOW WITH A GALVANIZED DRIP EDGE ABOVE THE WOOD SPACERS AND SILL SEAL. THIS DRIP EDGE TO BE BROWN, GREEN, COLORED OR COPPER.
14. OWNER TO PROVIDE 1x4 WOOD SPACERS WHICH ARE TO BE USED AT THE TOPS OF LOG WALLS AND LOG ROOF MEMBERS (PURLINS, RIDGE BEAMS) WHICH SUPPORT THE ROOF. NOT APPLICABLE IF USING SIP PANEL W/ CEILING FINISHED - SEE ROOF ASSEMBLY NOTE ON LOFT FLOOR PLAN
15. IF REQUIRED AN ENGINEER CERTIFIED IN THE PROJECT LOCATION MUST COMPLETE A FULL PLAN REVIEW AND SEAL THESE DRAWINGS PRIOR TO THE APPLICATION OF ANY BUILDING PERMITS AND BEFORE THE START OF ANY CONSTRUCTION OR EXCAVATION.

NOTES:

AMENDMENTS

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG POND HOUSE
MAIN 676 sq ft
LOFT 320 sq ft
TOTAL LIVING 996 sq ft

PREPARED FOR:
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STRUCTURE DESTINATION:
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DRAWING TITLE:
SECTIONS

SCALE:
1/4" = 1'-0"

DATE:
APRIL 9, 2009

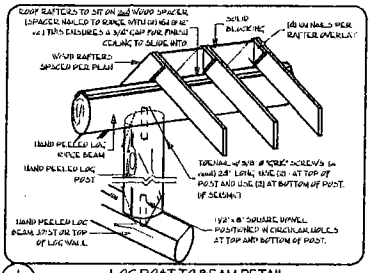
DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

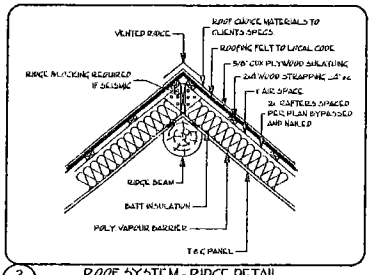
PAGE:
A - 4

EXHIBIT

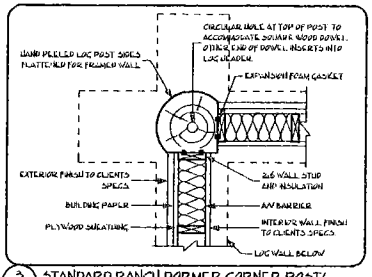
EXHIBIT 1



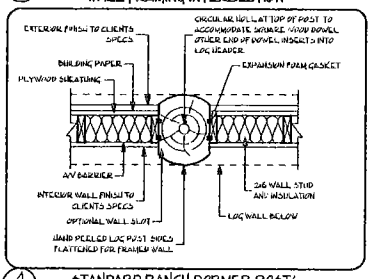
1 A-5 LOG POST TO BEAM DETAIL



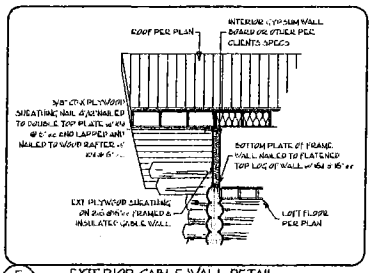
2 A-5 ROOF SYSTEM - RIDGE DETAIL



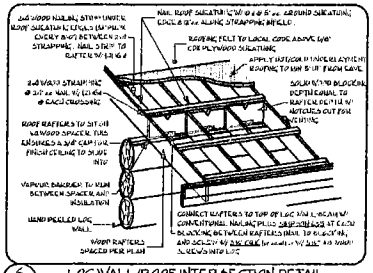
3 A-5 STANDARD RANCH DORMER CORNER POST/ WALL FRAMING INTERSECTION



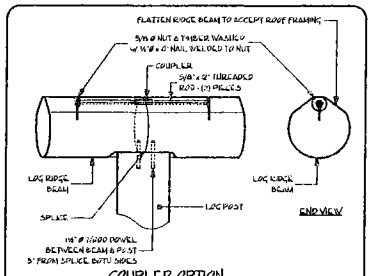
4 A-5 STANDARD RANCH DORMER POST/ WALL FRAMING INTERSECTION



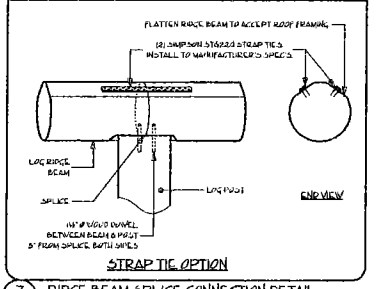
5 A-5 EXTERIOR GABLE WALL DETAIL (NAILING TO ROOF & LOG WALL)



6 A-5 LOG WALL/ROOF INTERSECTION DETAIL SHEATHING ON STRAPPING

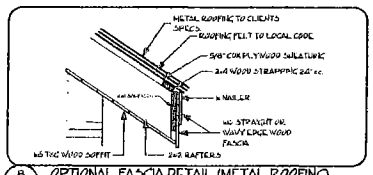


COUPLER OPTION

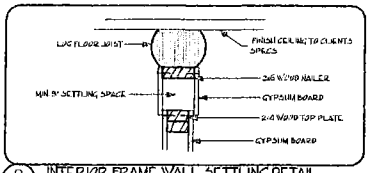


STRAP TIE OPTION

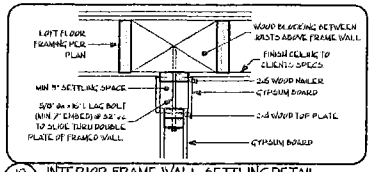
7 A-5 RIDGE BEAM SPLICE CONNECTION DETAIL



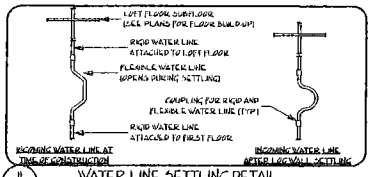
8 A-5 OPTIONAL FASCIA DETAIL (METAL ROOFING)



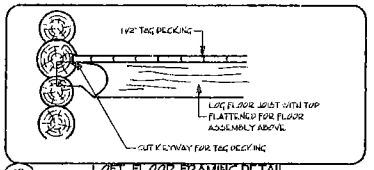
9 A-5 INTERIOR FRAME WALL SETTLING DETAIL



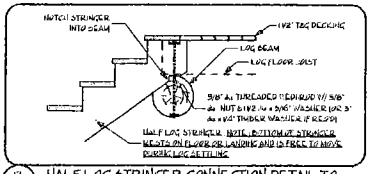
10 A-5 INTERIOR FRAME WALL SETTLING DETAIL



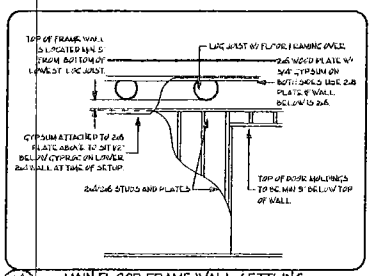
11 A-5 WATER LINE SETTLING DETAIL



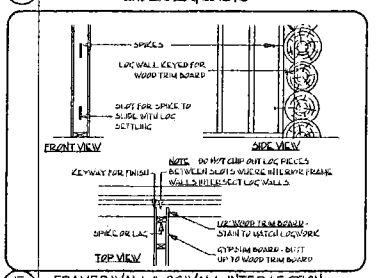
12 A-5 LOFT FLOOR FRAMING DETAIL 1 1/2" CEILING FINISH



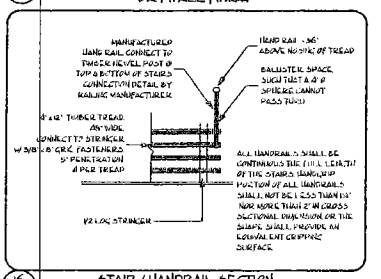
13 A-5 HALF LOG STRINGER CONNECTION DETAIL TO LOFT FLOOR JOIST



14 A-5 MAIN FLOOR FRAME WALL SETTLING UNDER LOG JOISTS



15 A-5 FRAMED WALL/LOG WALL INTERSECTION - DRYWALL FINISH



16 A-5 STAIR / HANDRAIL SECTION

NOTES
(ALL DETAILS MAY NOT APPLY)

AMENDMENTS

PROJECT TITLE:
PAISLEY HANDCRAFTED LOG POND HOUSE

MAIN: 676 sq ft
LOFT: 320 sq ft

TOTAL LIVING: 996 sq ft

PREPARED FOR:
MARTY & MICHELLE PAISLEY
1495 SMITH GRADE
SANTA CRUZ, CA
95060-9774
PHONE: (831) 458 - 3683
CELL: (831) 359 - 2852
OFFICE: (831) 458 - 361
EMAIL:
scm_plumbing@sbcglobal.net
m_paisley@sbcglobal.net
STRUCTURE DESTINATION:
SANTA CRUZ, CA

PREPARED BY:
PIONEER LOG HOMES OF BRITISH COLUMBIA
CANADA DIVISION
3511 LODGSON ROAD
WILLIAMS LAKE, BC
CANADA
PH (250) 392 - 5577
FAX (250) 392 - 5581
TOLL FREE 1 - 877 - 822 - 5647
U.S. DIVISION
1100 N. BEELINE HIGHWAY
PAYSON, ARIZONA
UNITED STATES
PH (928) 472 - 8073
PH (928) 474 - 2514
FAX (928) 472 - 8951
TOLL FREE 1 - 877 - 224 - 4566
www.pioneerloghomesofbc.com

DRAWING TITLE:
DETAILS

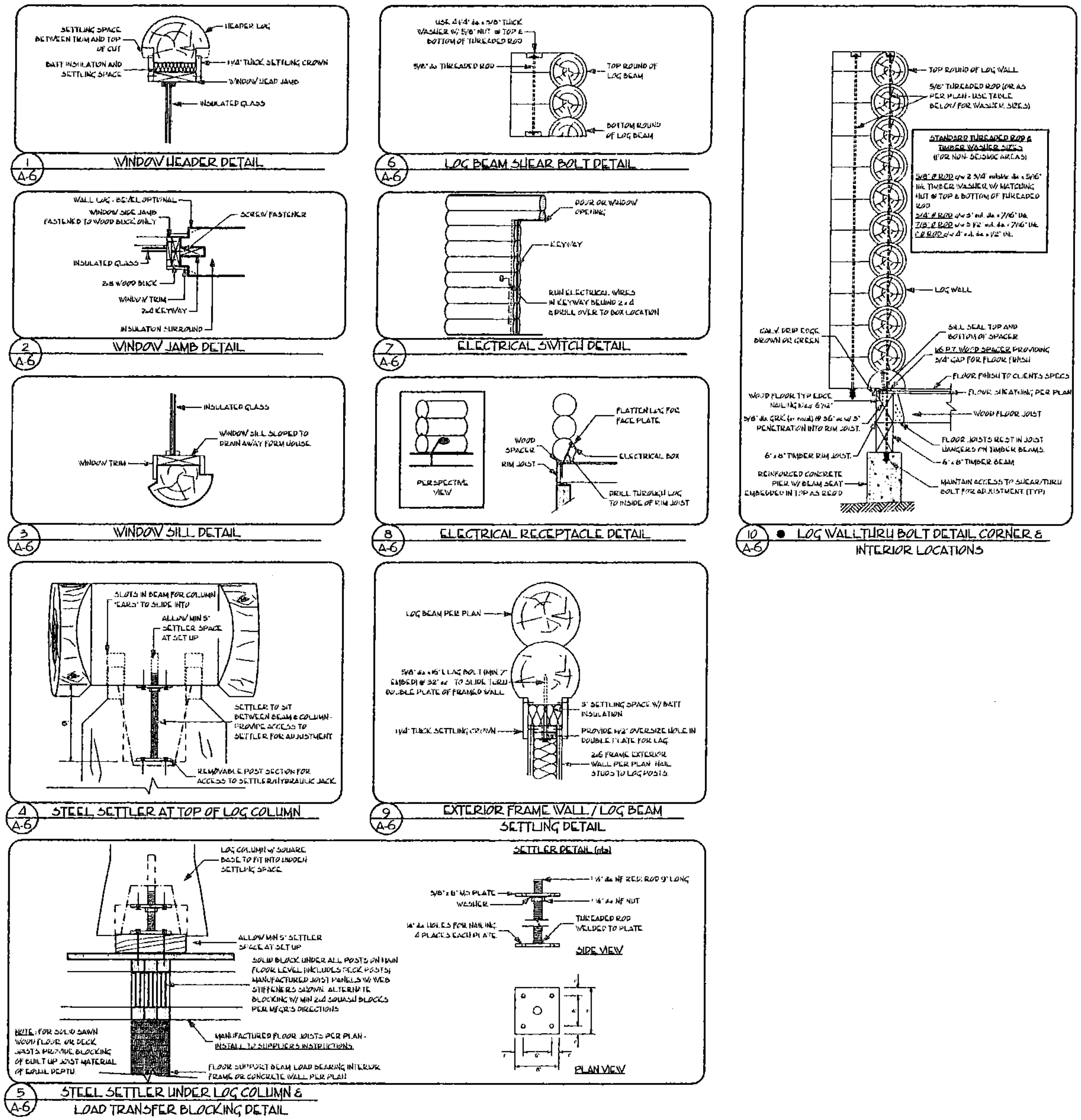
SCALE:
NTS

DATE:
APRIL 9, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

PAGE
A - 5



NOTES:
ALL DETAILS MAY NOT APPLY

AMENDMENTS

PROJECT TITLE:
PAISLEY
HANDCRAFTED
LOG POND HOUSE
MAIN 676 sq ft
LOFT 320 sq ft
TOTAL LIVING 996 sq ft

PREPARED FOR:
MARTY & MICHELE PAISLEY
1495 SMITH GRADE
SANTA CRUZ CA
95060-9774
PHONE: (831) 458 - 5683
CELL: (831) 359 - 2852
OFFICE: (831) 458 - 3611
EMAIL:
scm_plumbing@sbcglobal.net
m_paisley@sbcglobal.net
STRUCTURE DESTINATION:
SANTA CRUZ CA

PREPARED BY:
PIONEER LOG HOMES
CANADA DIVISION
351 HODGSON ROAD
WILLIAMS LAKE B.C.
CANADA
PH (250) 392 - 5577
FAX (250) 392 - 5581
TOLL FREE 1 - 877 - 822 - 5647
U.S. DIVISION
100 N BEELINE HIGHWAY
PAYSON ARIZONA
UNITED STATES
PH (928) 472 - 8075
PH (928) 474 - 2514
FAX (928) 474 - 8991
TOLL FREE 1 - 877 - 224 - 4564
www.pioneerloghomesofbc.com

DRAWING TITLE:
DETAILS

SCALE:
N.T.S.

DATE:
APRIL 9, 2009

DRAWN BY:
L. R. KEATS
N. CRAMER

CHECKED BY:

PAGE:
A - 6

EXHIBIT C

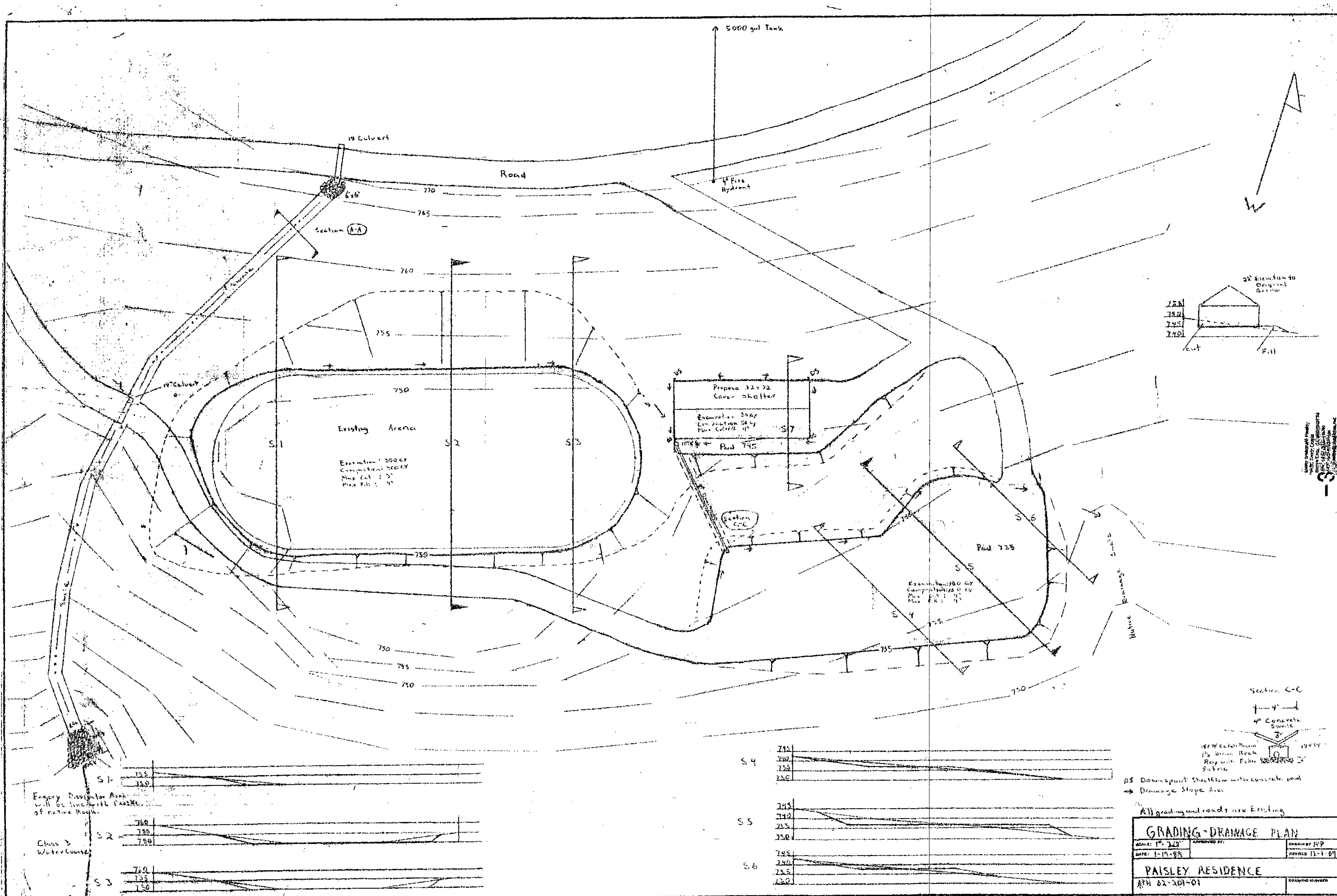
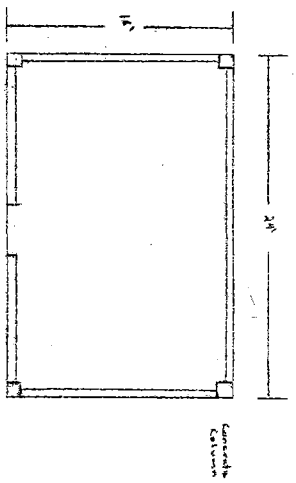

Road
770
765
760
755
750
745
740
735
730
18" Culvert
6'x6'
Section A-A
Swale
5000 gal Tank
4" Fire Hydrant
Existing Arena
S1
S2
S3
S4
S5
S6
S7
Propose 32 x 72 Cover shelter
Pad 745
Pad 735
Section C-C
Natural Drainage Swale
Energy Dissipator Area will be lined with rock of native Rock
Class 3 Water Course
22' Elevation to Original Grade
Cut
Fill
4" Concrete Swale
DS Downspout Sheetflow with concrete pad
Drainage Slope Area
All grading and roads are Existing
GRADING-DRAINAGE PLAN
PAISLEY RESIDENCE

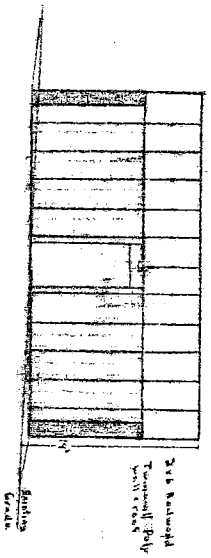
EXHIBIT F

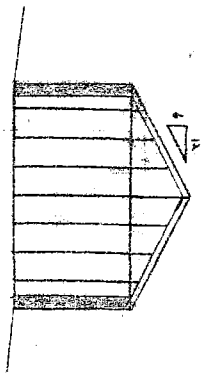
BARN

Barry & Michael Phillips
1480 Beach Grade
Santa Cruz, CA 95060-9774
(831) 426-2823 Home
(408) 854-5654 Fax

EXHIBIT C

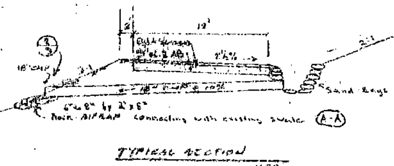






GREEN HOUSE

Marty & Michelle Mainini
1164 Emilio Grade
Santa Cruz, CA 95060-9774
(831) 466-3560 Home
(925) 804-6834 Fax
m_mainini@sbcglobal.net



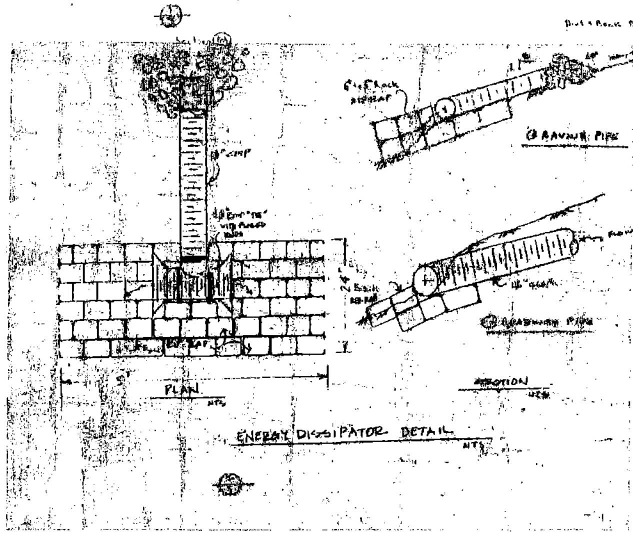
STANDARD SEEDING SPECIFICATIONS

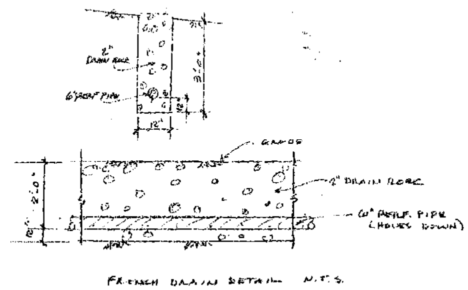
1. Seed and mulch will be applied by October 1 to all disturbed slopes and to all cut and fill slopes within or adjacent to public rights-of-way as directed by the Co. Engineer.

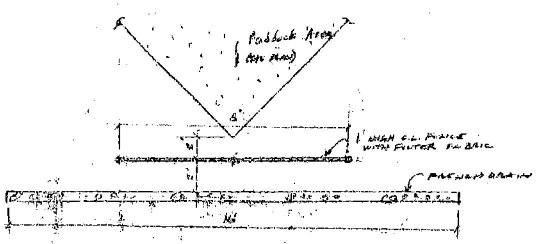
2. Seed and fertilizer will be applied hydraulically or by hand at the rates specified below. On slopes, straw will be applied by blower or by hand and anchored in place by punching.

Item	Pounds per Acre
*Blando brome	50
Annual rye grass	20
Fertilizer (16-20-0 and 15% sulfur)	500
Straw mulch	4,000

3. Seeded areas will be repaired, reseeded and mulched if damaged.

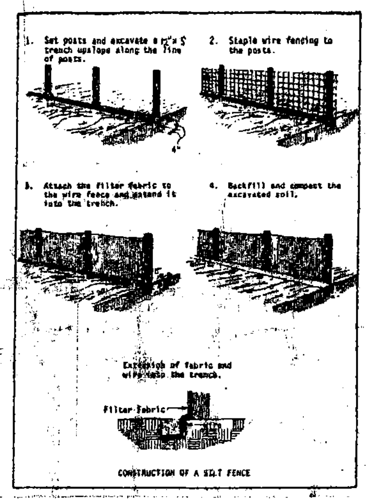






MANURE MANAGEMENT SLAB

MANURE WILL BE RETRIEVED BY TRUCK TO AN APPROVED DISPOSAL SITE AT REGULAR INTERVALS.



GRADING NOTES:

1. ALL GRADING, INCLUDING PLACEMENT OF FILL MATERIAL, SHALL BE DONE IN ACCORDANCE WITH RECOMMENDATIONS AND OBSERVATION BY THE SOILS ENGINEER. THE DEVELOPER SHALL SUBMIT CERTIFICATION THERETO.
2. DUST CONTROL SHALL BE IMPLEMENTED DURING GRADING OPERATIONS.
3. CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO STARTING WORK.
4. THE DEVELOPER'S ENGINEER SHALL STAKE FINAL GRADE AND LOCATION OF ALL DRIVEWAYS.
5. PRIOR TO STARTING WORK, CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT 800-642-2444.

SPACING

THE FOLLOWING IS A GENERAL GUIDE FOR DRAINAGE SPACING BASED ON THE ROAD GRADE:

Another way to determine proper spacing is to look at the surface of the unpaved road and note the distance it takes runoff water to cut a one-inch deep groove on the road surface. This is a rough measure for cross-drain spacing.

INSTALL ADDITIONAL CROSS-DRAINS ACCORDING TO THE FOLLOWING DO'S AND DON'TS: (see Figure 7)

DO's

DO place cross-drains above grade changes.

DO place cross-drains above curves in road to prevent bank-cutting.

DO place cross-drains above level areas to prevent water from puddling on the road surface.

DON'Ts

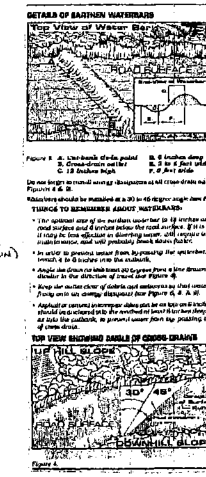
DON'T allow drainage onto fill slopes.

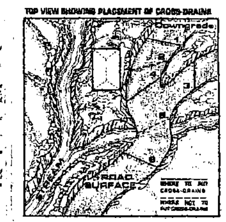
DON'T allow drainage onto unstable slopes, potential slide areas, very steep slopes, or otherwise unstable material.

DON'T allow drainage into active gullies or eroding areas.

DON'T allow drainage onto septic leach fields.

DON'T allow drainage directly into a stream or other water supply.

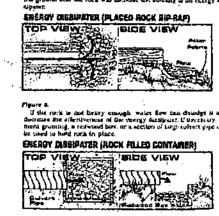


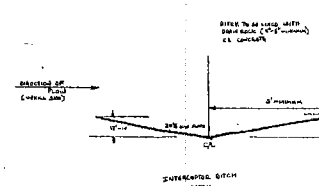


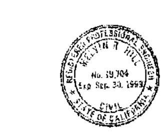
WHERE TO PUT CROSS-DRAINS

WHERE NOT TO PUT CROSS-DRAINS

ENERGY DISSIPATERS







ROAD & DRAINAGE DETAILS

SCALE: As Shown	DRAWN BY
DATE: 9/30/	REVISED
APN 62-201-02	DRAWING NUMBER

EXHIBIT C

FOR TAX PURPOSES ONLY

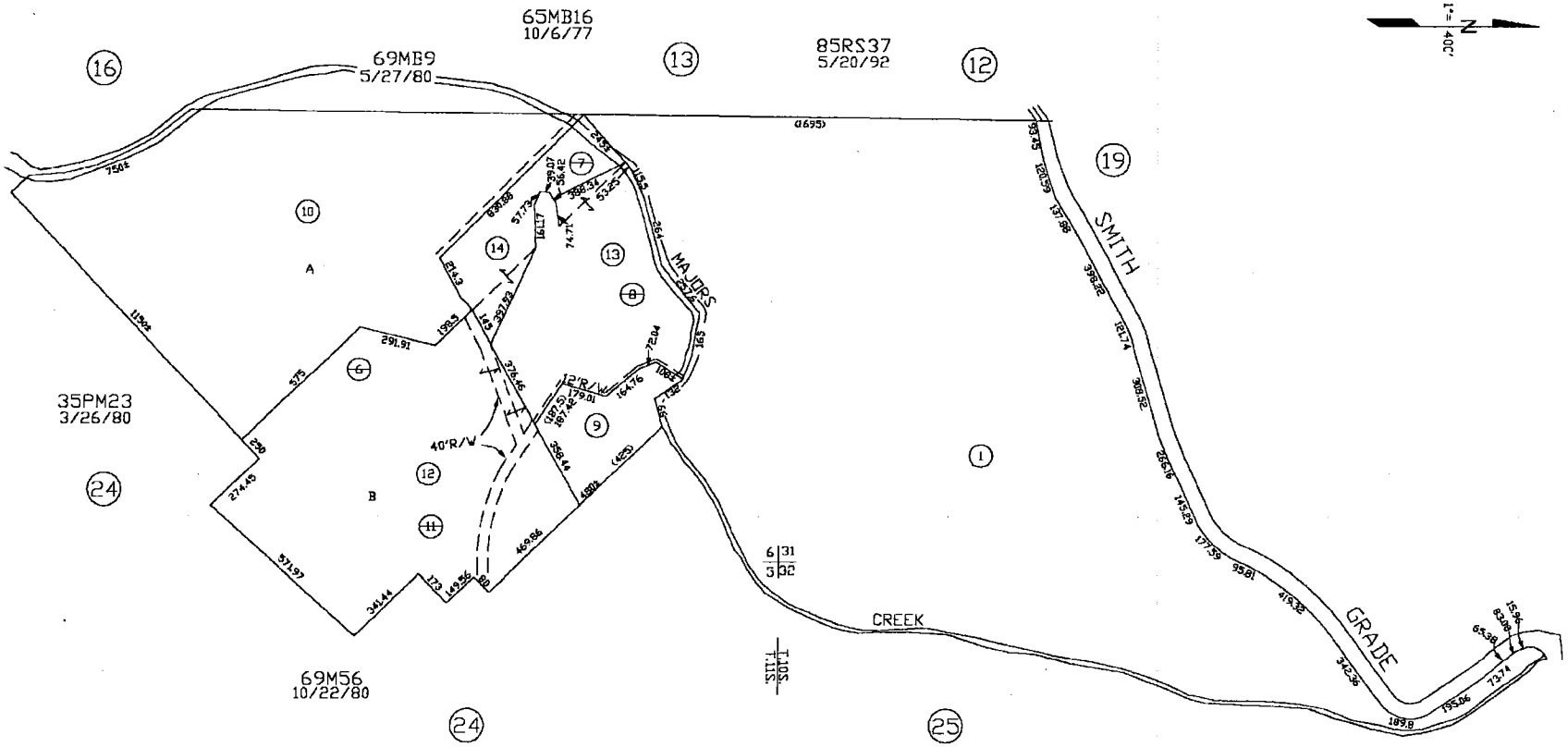
THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.

POR. REFUGIO RANCHO

SECS. 31 & 32, T.10S., & SECS. 5 & 6, T.11S., R.2W., M.D.B. & M.

Tax Area Code 58-001

62-20



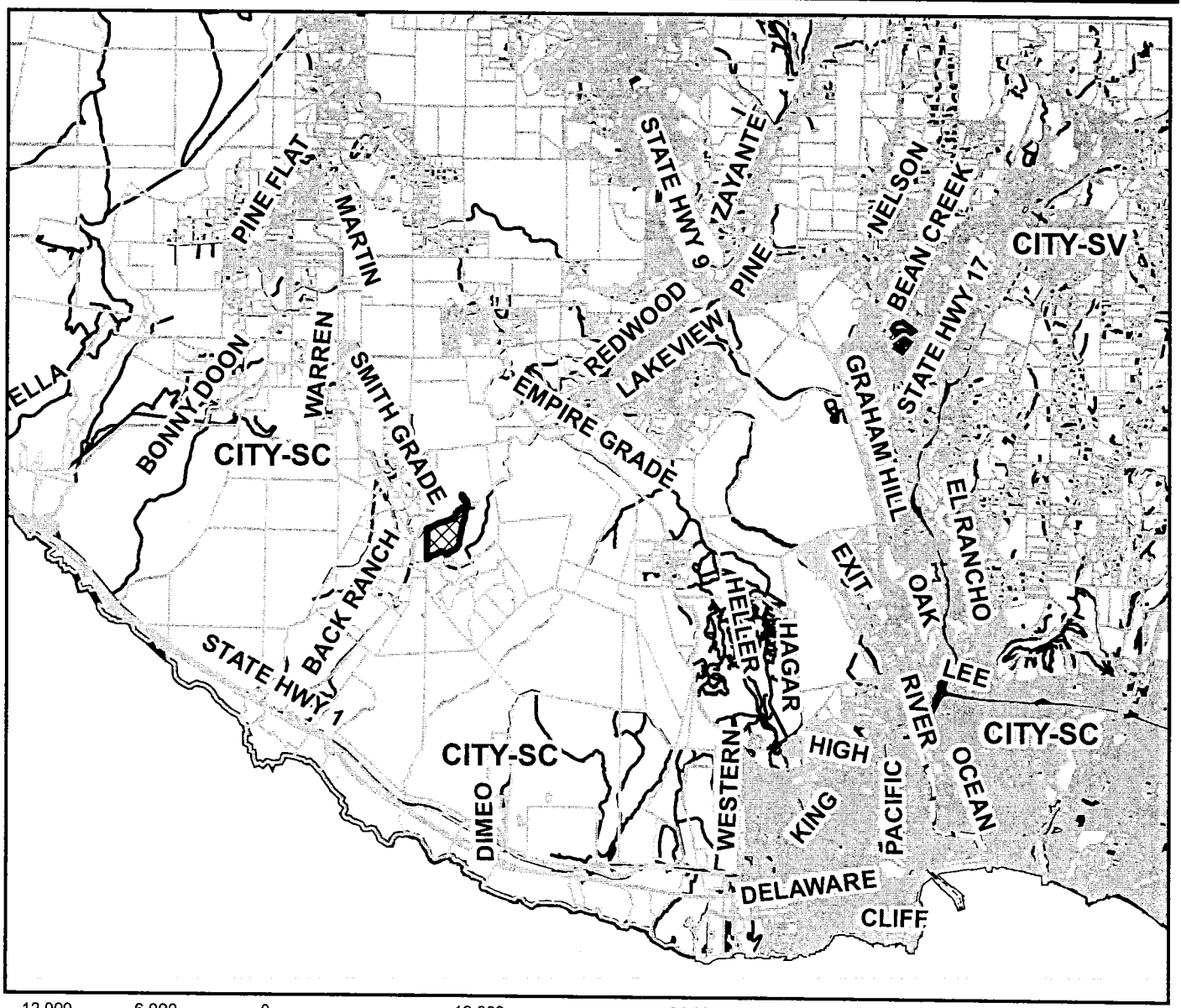
Note - Assessor's Parcel & Block Numbers Shown in Circles.

Assessor's Map No. 62-20
County of Santa Cruz, Calif.
Oct. 1999

Electronically Redrawn 10/6/99 KB
Rev. 7/10/01 mvn Changed page refs

EXHIBIT D

Location Map



12,000 6,000 0 12,000 24,000 36,000 48,000 Feet

LEGEND

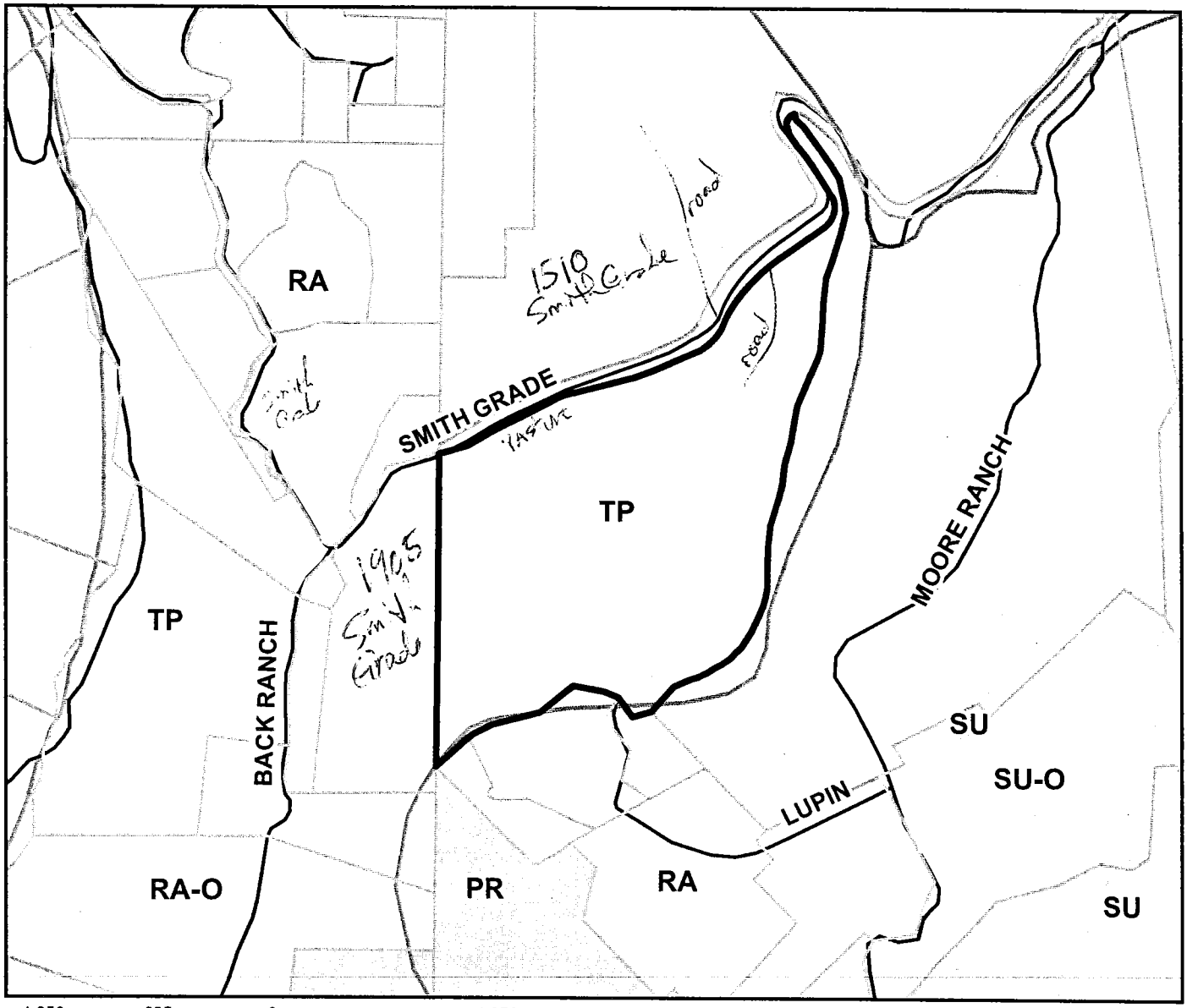
- APN: 062-201-01
- Assessors Parcels
- Streets
- State Highways
- SANTA CRUZ
- SCOTTS VALLEY
- County Boundary

N
W E
S

Map Created by
County of Santa Cruz
Planning Department
February 2010

EXHIBIT D

Zoning Map



1,250 625 0 1,250 2,500 3,750 5,000 Feet

LEGEND

- APN: 062-201-01
- Assessors Parcels
- Streets

STREAMTYPE

- PERENNIAL

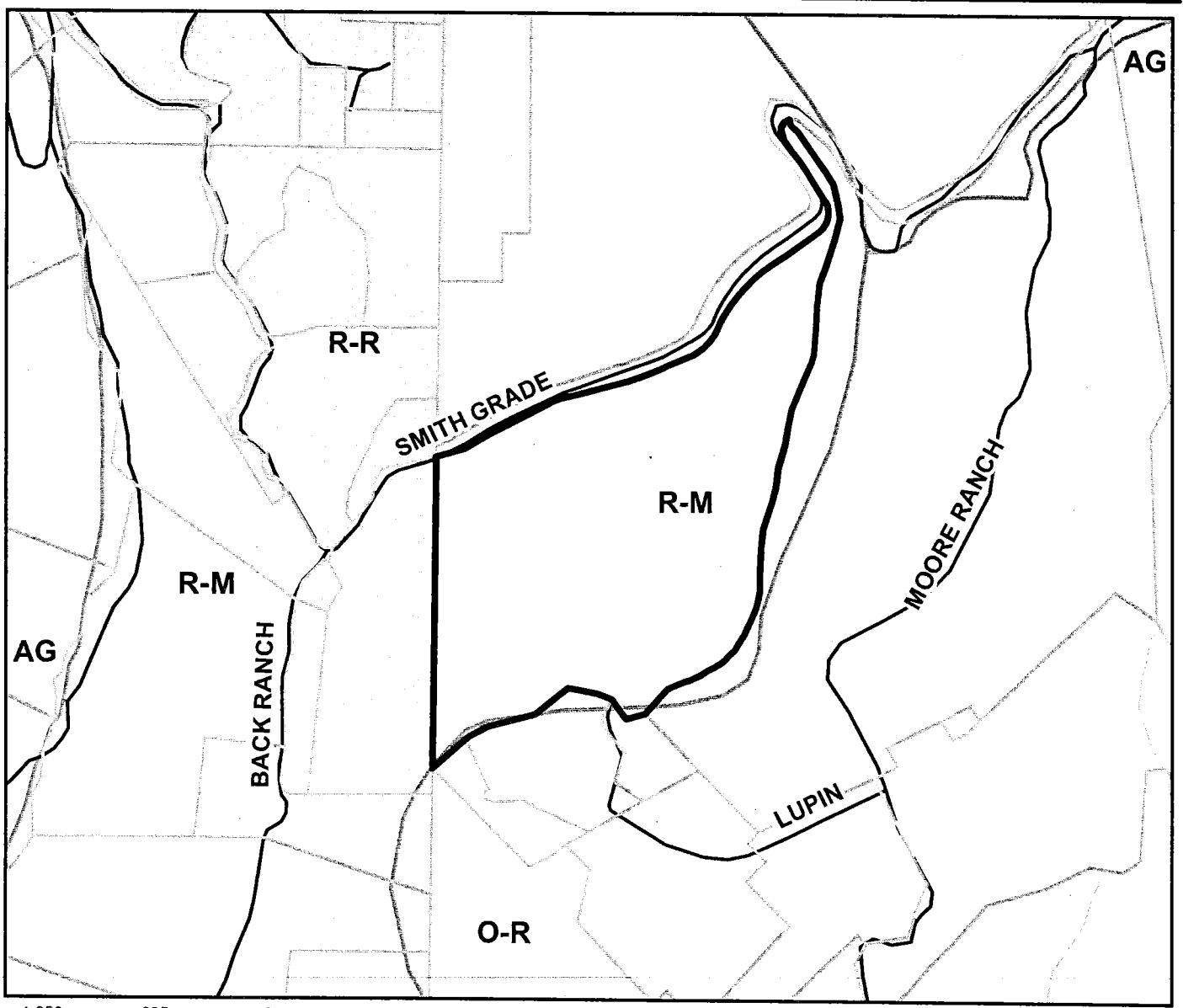
- TIMBER PRODUCTION
- AGRICULTURE RESIDENTIAL
- SPECIAL USE
- PARK

N W E S

Map Created by
County of Santa Cruz
Planning Department
February 2010

EXHIBIT D

General Plan Designation Map



1,250 625 0 1,250 2,500 3,750 5,000 Feet

LEGEND

- APN: 062-201-01
- Assessors Parcels
- Streets

STREAMTYPE

- PERENNIAL

- Residential-Mountain
- Agriculture
- Parks and Recreation
- Residential-Rural

N W E S

Map Created by
County of Santa Cruz
Planning Department
February 2010

EXHIBIT D

FALL CREEK ENGINEERING, INC.
Civil • Environmental • Water Resource Engineering and Sciences
Tel. (831) 426-9054 P.O. Box 7894, Santa Cruz, CA 95061 Fax. (831) 426-4932

October 19, 2013

Mr. Marty Paisley
1495 Smith Grade Road
Santa Cruz, CA 95060

Subject: **Review of Design Plans for the Improvements to the Fish Pond Embankment and Adjacent Driveway at 1495 Smith Grade Road, Santa Cruz County, California, Application 10-0038**

Dear Mr. Paisley:

Fall Creek Engineering, Inc. (FCE) is pleased to present this review letter of the proposed improvements to the fish pond embankment at the above referenced location. FCE has reviewed the hand drawn plans prepared by you and the Geotechnical Engineering Report prepared by Pollak Engineering Inc. (PEI), dated Feb 2013.

The intent of the proposed improvements is to address comments from the County of Santa Cruz Environmental Planning Staff. The comments state, that for the fish pond to remain on the property, the pond will need to meet specific requirements. The requirements include:

1. Mitigating over-steepened pond embankments to no steeper than 2H:1V to be constructed under the supervision of a Geotechnical Engineer
2. Mitigating the outboard fill failure and erosive drainage outlet by installing an energy dissipater/swale at the outlet of the overflow pipe
3. Removing failing fill soil
4. Preparing Grading and Drainage Plans. The plans are required to be based on a surveyed topographic map of the area with data extending 50-feet beyond the limits of the grading or the toe of the slope below the driveway, whichever is greater.
5. Possibly adding a secondary access to the main residence if the improved road is not able to meet fire agency standards.

Response to comments 1 and 3: To address comments 1 and 3, a Geotechnical Investigation Report was prepared by PEI. The Geotechnical Report recommendations include specifications for grading (Appendix B) that describe the appropriate type of fill material, method of placement, compaction and moisture requirements, and required maximum slopes of 2H:1V. The specifications state that any soil deemed soft or unsuitable by the Soil Engineer shall be removed. Lastly, the specifications also require that a soils engineer be on site to observe grading activities.

Response to comment 2: To address comment 2, the design plans show a new drainage outlet directed towards a new energy dissipater/swale. The proposed drainage outlet is an 18-inch diameter, 10% slope corrugated metal pipe (CMP) with a "tee" fitting at the outlet end. The "tee" outlet discharges to a 2-foot long by 5-foot wide energy dissipater constructed with 6- to 8-inch rock. FCE performed a limited Hydrologic Analysis of the pipe and energy dissipater to determine if the system was appropriately sized to convey flows consistent with the Santa Cruz Design Criteria for Stormwater Systems.

EXHIBIT E
EXHIBIT

FCE assumed the "worst case scenario" flow to be the condition where the ponds are full and stormwater is flowing through the pond system. FCE utilized the Rational Method as presented in the Santa Cruz County Design Criteria (Design Criteria) part 3- Stormwater Management. The rational method requires that the user identify an area (acres), rainfall intensity (inches/hour), and a runoff coefficient (unitless) that is based on the land use at the site. FCE utilized Google Earth to determine that the contributing drainage is conservatively 2.7 acres of landscaped area, roof structures, and open pond and has an estimated weighted runoff coefficient of 0.477. Based on the Design Criteria methodology, a rainfall intensity of 2.2 inches/hour was estimated at the site for a 19 minute duration, 25-year return period storm event. The resulting peak flows were estimated to be 3.11 cfs. A full set of calculations are presented as an attachment. FCE then utilized Manning's Equation to determine the flow depth in the proposed 18-inch overflow pipe. Given the design configuration of the proposed pipe (18-inches, 10% slope, CMP) the 3.11 cfs would result a flow depth of 0.42 ft (5-inches) and a velocity of 7.60 feet/second. A summary of the calculations are presented as an attachment. FCE checked the velocity against published values for the permissible velocities for the proposed 6- to 8 inch rock to be used in the energy dissipater. Permissible velocities for 6-inch rock range from 5-10 feet/second, which encompasses the anticipated velocity associated with the 25-year return period storm event. A summary of the published values are presented as an attachment.

FCE concludes that the energy dissipater proposed for the site is appropriately sized and should function as intended. FCE recommends that filter fabric be installed under the rock energy dissipater as a means of preventing the scour of soil below the rock which may lead to soil piping and slumping under the energy dissipater.

Response to comment 4: To address comment 4, FCE reviewed a set of hand-drawn plans prepared by you for general conformance with the Geotechnical recommendations and the comments provided by the County of Santa Cruz County Planning staff. The plan set includes 2 sheets. The first sheet (C-1) is a plan and profile of the proposed improvements and the second sheet (C-2) includes details of the proposed improvements.

The profile on sheet C-1 is from a grading alignment taken through the proposed pond embankment and road fill prism labeled and is section F-F. The profile shows the proposed improvements for two areas; the pond embankment and the road fill prism. For each of the two improvement areas, compacted fill is shown buttressing the existing slopes. The buttresses are shown to have a key as recommended by the Geotechnical Engineer; however the key shown does not meet the Geotechnical recommendation of having a depth of 3 feet. The Geotechnical Engineering Report recommends a key width of 1.5 times the equipment width. The key shown in the profile is approximately 1.5 feet and will meet the requirements if the equipment used has a 12 inches wide bucket. The Geotechnical Engineering Report requires the addition of a sub-drain at the back of the keyway which should consist of a perforated 4 inch diameter pipe encapsulated in crushed rock and geo-filter fabric. The sub-drain and its components are missing from the plan set.

The improved slopes on the grading profile are called out as 2H:1V slopes, though graphically the improved road prism embankment slopes are shown as 1.41H:1V, based on the designated scale of ¼" = 1'. A note on sheet C-1 indicates that the maximum fill height is 8 feet, and the scaled profile shows the fill heights for the pond buttress and the road fill buttress to be 6.5 feet and 6 feet, respectively. The resulting access road is 18 feet wide and will have an inboard slope directing the road runoff towards the toe of the pond embankment buttress and away from

EXHIBIT E

the top of the road fill buttress. A detail of the channel and culvert conveying surface runoff is shown in detail 1/3 on sheet C-2.

In plan view, the proposed improvements are shown using slope lines and slope arrows to indicate the toe of the buttress slope. The slopes are called out as "2 to 1", meaning 2H:1V. A dashed line is used to show the limit of grading for the slope buttressing. The contours on the plan are shown as extending approximately 40 feet beyond the limit of grading, 10 feet less than required by the County of Santa Cruz planning staff.

Thank you for the opportunity to provide engineering services for this project. If you have any questions or comments, please contact me at (831) 426-9054.

Sincerely,

ROBYN COOPER MS, PE
Senior Associate Engineer

EXHIBIT E

EXHIBIT E

Rational Method as outlined in the County of Santa Cruz Design Criteria Manual June 2006
Q = Ca * C * i * A

Project Size (p. 45)

	items that are selected from spreadsheet
	items that are to be entered into the spreadsheet

Size	Return Period Used	
0-100 acres	25	year
101-400 acres	50	year
over 400 acres	100	year
Cross Culverts on publicly maintained roads	100	year
Bridge Structures	100	year

Ca for return period storm event (p. 47)

Return Period	Ca
2 to 10	1
25	1.1
50	1.2
100	1.25

C Runoff Coefficient

	Return Period (yrs)						
Character of Surface	**2**	**5**	**10**	**25**	**50**	**100**	**500**
DEVELOPED							
Asphalt	0.73	0.77	0.81	0.86	0.90	0.95	1.00
Concrete/roof	0.75	0.80	0.83	0.88	0.92	0.97	1.00
Grass Areas (lawns, park, etc.)							
Poor Condition (grass cover less than 50% of area)							
Flat (0-2%)	0.32	0.34	0.37	0.40	0.44	0.47	0.58
Average (2-7%)	0.37	0.40	0.43	0.46	0.49	0.53	0.61
Steep (over 7%)	0.40	0.43	0.45	0.49	0.52	0.55	0.62
Fair Condition (grass cover on 50-75% of area)							
Flat (0-2%)	0.25	0.28	0.30	0.34	0.37	0.41	0.53
Average (2-7%)	0.33	0.36	0.38	0.42	0.45	0.49	0.58
Steep (over 7%)	0.37	0.40	0.42	0.46	0.49	0.53	0.60
Good Condition (grass cover over 75% of area)							
Flat (0-2%)	0.21	0.23	0.25	0.29	0.32	0.36	0.49
Average (2-7%)	0.29	0.32	0.35	0.39	0.42	0.46	0.56
Steep (over 7%)	0.34	0.37	0.40	0.44	0.47	0.51	0.58
UNDEVELOPED							
Cultivate Land							
Flat (0-2%)	0.31	0.34	0.36	0.40	0.43	0.47	0.57
Average (2-7%)	0.35	0.38	0.41	0.44	0.48	0.51	0.60
Steep (over 7%)	0.39	0.42	0.44	0.48	0.51	0.54	0.61
Pasture/Range							
Flat (0-2%)	0.25	0.28	0.30	0.34	0.37	0.41	0.53
Average (2-7%)	0.33	0.36	0.38	0.42	0.45	0.49	0.58
Steep (over 7%)	0.37	0.40	0.42	0.46	0.49	0.53	0.60
Forrest/Woodlands							
Flat (0-2%)	0.22	0.25	0.28	0.31	0.35	0.39	0.48
Average (2-7%)	0.31	0.34	0.36	0.40	0.43	0.47	0.56
Steep (over 7%)	0.35	0.39	0.41	0.45	0.48	0.52	0.58

Weighted Runoff Coefficient (more than one area)

	Description	Area (sf or acre)	C	2 Area Weighted	3 Area Weighted
Area 1	roof	0.114784206	0.88		
Area 2	landscape	2.329269972	0.40	0.423	
Area 3	pond	0.252525253	1.00		0.477

Isopleth 1.9 *Select from figure SWM-2 p. 48 (TAB SCC ISOPLETH P60 MAP.*

Rainfall (Figure SWM-3 p.49)

		Rainfall Intensity (in/hr)						
Duration (hr)	**Duration (min)**	**2-year**	**5-year**	**10-year**	**15-year**	**25-year**	**50-year**	**100-year**
	2	2.95	3.92	4.61	5.03	5.53	6.22	6.92
	5	2.07	2.75	3.24	3.53	3.89	4.37	4.86
	10	1.59	2.11	2.48	2.71	2.98	3.35	3.72
	15	1.36	1.80	2.12	2.31	2.55	2.67	3.18
	30	1.04	1.38	1.63	1.77	1.95	2.20	2.44
1	60	0.80	1.06	1.25	1.36	1.49	1.68	1.87
2	120	0.61	0.81	0.95	1.04	1.14	1.29	1.43
4	240	0.47	0.62	0.73	0.80	0.88	0.99	1.10
6	360	0.40	0.53	0.62	0.68	0.75	0.84	0.94
12	720	0.31	0.41	0.48	0.52	0.57	0.65	0.72
24	1440	0.23	0.31	0.37	0.40	0.44	0.49	0.55

Calculate Time of Concentration to determine correct duration storm event
(note County requires a minimum of 10 minute duration to first inlet of culvert)

Time of Concentration

SCS Lag Equation (as presented in Applied Hydrology by. V.T. Chow p. 500-501)

developed for agricultural watersheds and has been adapted to urban basins under 2000 acres. Good for areas that are completely paved; for mixed areas this equations generally overestimates.

$Tc = (100 * L^{0.6} ((1000/CN)-9)^{0.7}) / (1900 S^{0.5})$

L - Hydraulic Length of longest flow path (ft)

EXHIBIT E

TAB X3

CN - SCS Runoff Curve number
S - average watershed slope (% slope)

L and S come from topographic information

Curve Number (as presented in Applied Hydrology by. V.T. Chow p. 149-150)

Group A Deep Sand, deep loess, aggregate silts
Group B Shallow loess, sandy loam
Group C Clay loam, shallow sandy loam, soils low in organic content, and soils unusually high in clay
Group D Soils that swell significantly when wet, heavy plastic clay, and certain saline soils

Antecedent Moisture Condition

		Total 5-day antecedent rainfall (in)	
		dormant season	*growing season*
AMCI	dry condition	less than 0.5	less than 1.4
AMCII	normal condition	0.5 to 1.1	1.4 to 2.1
AMCIII	wet condition	over 1.1	over 2.1

CN(I) = (4.2 * CN(II))/(10 - 0.058CN(II))
CN(III) = (23 * CN(II))/(10 + 0.13CN(II))

Curve Number for AMCII (Normal Condition)

Land Use Description		A	B	C	D
Cultivated Land	without conservation treatment	72	81	88	91
	with conservation treatment	62	71	78	81
Pasture or range land	poor condition	68	79	86	89
	good condition	39	61	74	80
Meadow	good condition	30	58	71	78
Wood or forested land:	thin stand, poor cover, no mulch	45	66	77	83
	good cover	25	55	70	77
Open Spaces, lawns, parks golf	good condition (grass cover >75%)	39	61	74	80
	fair condition (50%<grass cover<75%)	49	69	79	84
Commercial and business areas	85% impervious	89	92	94	95
Industrial Districts	72% impervious	81	88	91	93
Residential					
1/8 acre or less	65 % impervious	77	85	90	92
1/4 acre	38 % impervious	61	75	83	87
1/3 acre	30 % impervious	57	72	81	86
1/2 acre	25 % impervious	54	70	80	85
1 acre	20 % impervious	51	68	79	84
Paved Parking Lots, roofs, driveways		98	98	98	98
Streets and roads					
	paved with curbs and sewers	98	98	98	98
	gravel	76	85	89	91
	dirt	72	82	87	89

Drainage Feature #1

L=	350	ft	*Determine from CAD*
CN=	61		*Select from table above*
S=	1.5	%	*Determine from CAD*

Tc=	18.91	min

From time of concentration select a duration. The duration storm event must be greater than or equal to the time of concentration.
(note County requires a minimum of 10 minute duration to first inlet of culvert)

Flow Calculations

Drainage Feature #1

C*Ca=	0.524261859		
i=	2.20	in/hr	
A=	2.7	acres	*Determine from CAD*

Q=	3.11	cfs

EXHIBIT E
EXHIBIT E

Channel Report

<Name>

Circular

Diameter (ft)	= 1.50
Invert Elev (ft)	= 100.00
Slope (%)	= 10.00
N-Value	= 0.024

Calculations

Compute by:	Known Q
Known Q (cfs)	= 3.11

Highlighted

Depth (ft)	= 0.42
Q (cfs)	= 3.110
Area (sqft)	= 0.41
Velocity (ft/s)	= 7.60
Wetted Perim (ft)	= 1.68
Crit Depth, Yc (ft)	= 0.68
Top Width (ft)	= 1.35
EGL (ft)	= 1.32

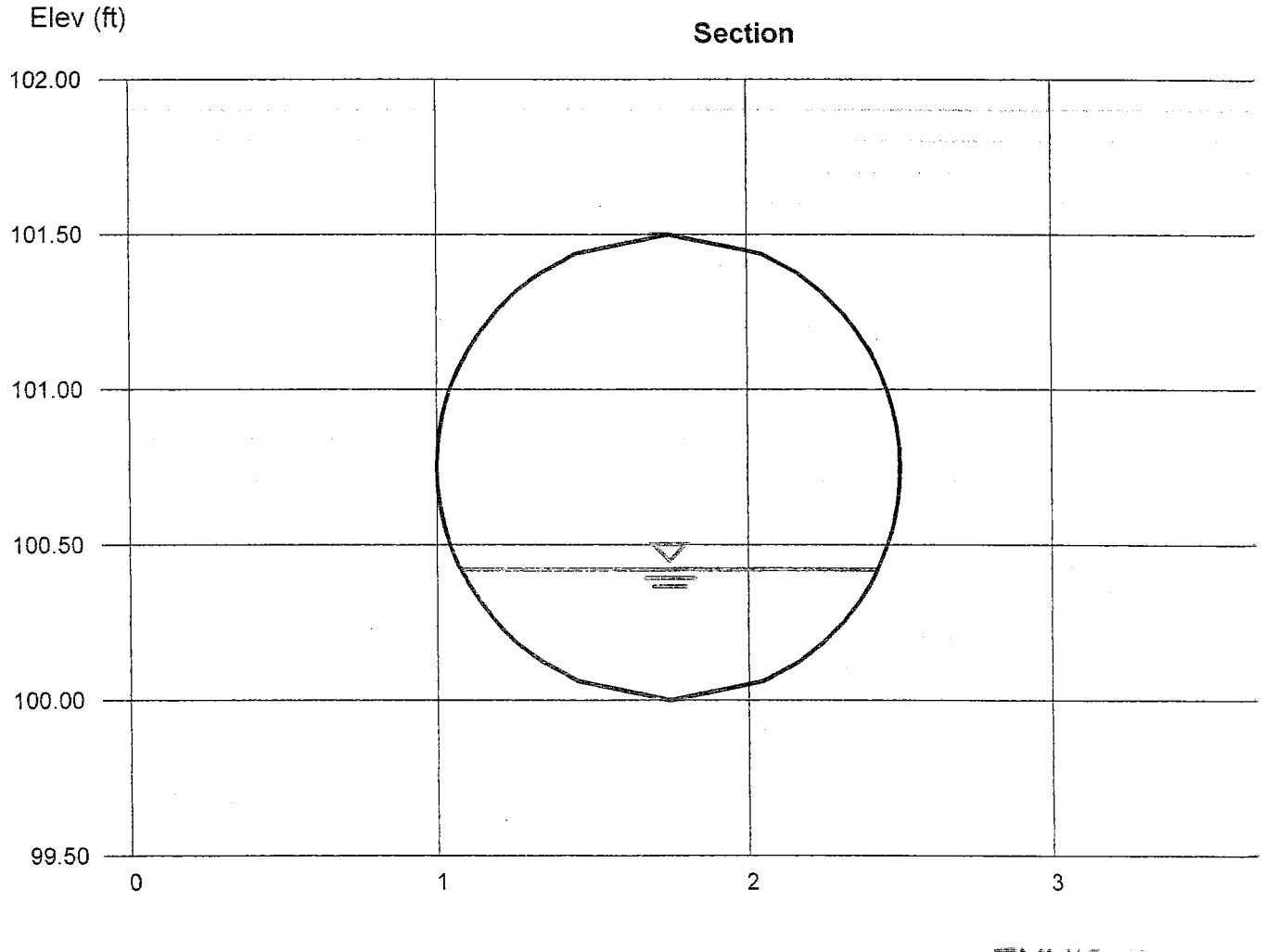


EXHIBIT E

Stability Thresholds for Stream Restoration Materials

by Craig Fischenich[1]

May 2001

Complexity	Value as a Planning Tool	Cost
Low – Moderate – High	Low – Moderate – High	Low – Moderate – High

OVERVIEW

Stream restoration projects usually involve some modification to the channel or the banks. Designers of stabilization or restoration projects must ensure that the materials placed within the channel or on the banks will be stable for the full range of conditions expected during the design life of the project. Unfortunately, techniques to characterize stability thresholds are limited. Theoretical approaches do not exist and empirical data mainly consist of velocity limits, which are of limited value.

Empirical data for shear stress or stream power are generally lacking, but the existing body of information is summarized in this technical note. Whereas shear thresholds for soils found in channel beds and banks are quite low (generally < 0.25 lb/sf), those for vegetated soils (0.5 – 4 lb/sf), erosion control materials and bioengineering techniques (0.5 – 8 lb/sf), and hard armoring (< 13 lb/sf) offer options to provide stability.

STABILITY CRITERIA

The stability of a stream refers to how it accommodates itself to the inflowing water and sediment load. In general, stable streams may adjust their boundaries but do not exhibit trends in changes to their geometric character. One form of instability occurs when a stream is unable to transport its sediment load (i.e., sediments deposited within the channel), leading to the condition referred to as aggradation.

When the ability of the stream to transport sediment exceeds the availability of sediments within the incoming flow, and stability thresholds for the material forming the boundary of the channel are exceeded, erosion occurs. This technical note deals with the latter case of instability and distinguishes the presence or absence of erosion (threshold condition) from the magnitude of erosion (volume).

Erosion occurs when the hydraulic forces in the flow exceed the resisting forces of the channel boundary. The amount of erosion is a function of the relative magnitude of these forces and the time over which they are applied. The interaction of flow with the boundary of open channels is only imperfectly understood. Adequate analytical expressions describing this interaction have not yet been developed for conditions associated with natural channels. Thus, means of characterizing erosion potential must rely heavily upon empiricism.

Traditional approaches for characterizing erosion potential can be placed in one of two categories: maximum permissible velocity, and tractive force (or critical shear stress). The former approach is advantageous in that velocity is a parameter that can be measured within the flow. Shear stress cannot be directly measured – it must be computed from other flow parameters. Shear stress is a better measure of the fluid force on the channel boundary than is velocity. Moreover, conventional guidelines, including ASTM standards, rely upon the shear stress as a

[1] USAE Research and Development Center, Environmental Laboratory, 3909 Halls Ferry Rd., Vicksburg MS 39180

EXHIBIT E

Table 2. Permissible Shear and Velocity for Selected Lining Materials[1]

Boundary Category	Boundary Type	Permissible Shear Stress (lb/sq ft)	Permissible Velocity (ft/sec)	Citation(s)
Soils	Fine colloidal sand	0.02 - 0.03	1.5	A
	Sandy loam (noncolloidal)	0.03 - 0.04	1.75	A
	Alluvial silt (noncolloidal)	0.045 - 0.05	2	A
	Silty loam (noncolloidal)	0.045 - 0.05	1.75 – 2.25	A
	Firm loam	0.075	2.5	A
	Fine gravels	0.075	2.5	A
	Stiff clay	0.26	3 – 4.5	A, F
	Alluvial silt (colloidal)	0.26	3.75	A
	Graded loam to cobbles	0.38	3.75	A
	Graded silts to cobbles	0.43	4	A
	Shales and hardpan	0.67	6	A
Gravel/Cobble	1-in.	0.33	2.5 – 5	A
	2-in.	0.67	3 – 6	A
	6-in.	2.0	4 – 7.5	A
	12-in.	4.0	5.5 – 12	A
Vegetation	Class A turf	3.7	6 – 8	E, N
	Class B turf	2.1	4 - 7	E, N
	Class C turf	1.0	3.5	E, N
	Long native grasses	1.2 – 1.7	4 – 6	G, H, L, N
	Short native and bunch grass	0.7 - 0.95	3 – 4	G, H, L, N
	Reed plantings	0.1-0.6	N/A	E, N
	Hardwood tree plantings	0.41-2.5	N/A	E, N
Temporary Degradable RECPs	Jute net	0.45	1 – 2.5	E, H, M
	Straw with net	1.5 – 1.65	1 – 3	E, H, M
	Coconut fiber with net	2.25	3 – 4	E, M
	Fiberglass roving	2.00	2.5 – 7	E, H, M
Non-Degradable RECPs	Unvegetated	3.00	5 – 7	E, G, M
	Partially established	4.0-6.0	7.5 – 15	E, G, M
	Fully vegetated	8.00	8 – 21	F, L, M
Riprap	6 – in. d_{50}	2.5	5 – 10	H
	9 – in. d_{50}	3.8	7 – 11	H
	12 – in. d_{50}	5.1	10 – 13	H
	18 – in. d_{50}	7.6	12 – 16	H
	24 – in. d_{50}	10.1	14 – 18	E
Soil Bioengineering	Wattles	0.2 – 1.0	3	C, I, J, N
	Reed fascine	0.6-1.25	5	E
	Coir roll	3 - 5	8	E, M, N
	Vegetated coir mat	4 - 8	9.5	E, M, N
	Live brush mattress (initial)	0.4 – 4.1	4	B, E, I
	Live brush mattress (grown)	3.90-8.2	12	B, C, E, I, N
	Brush layering (initial/grown)	0.4 – 6.25	12	E, I, N
	Live fascine	1.25-3.10	6 – 8	C, E, I, J
	Live willow stakes	2.10-3.10	3 – 10	E, N, O
Hard Surfacing	Gabions	10	14 – 19	D
	Concrete	12.5	>18	H

[1] Ranges of values generally reflect multiple sources of data or different testing conditions.

A. Chang, H.H. (1988).
B. Florineth. (1982)
C. Gerstgraser, C. (1998).
D. Goff, K. (1999).
E. Gray, D.H., and Sotir, R.B. (1996).
F. Julien, P.Y. (1995).
G. Kouwen, N.; Li, R. M.; and Simons, D.B., (1980).
H. Norman, J. N. (1975).
I. Schiechtl, H. M. and R. Stern. (1996).
J. Schoklitsch, A. (1937).
K. Sprague, C.J. (1999).
L. Temple, D.M. (1980).
M. TXDOT (1999)
N. Data from Author (2001)
O. USACE (1997).

EXHIBIT E

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

GRADING PLAN CHECKLIST

GENERAL INFORMATION	Included/Sheet No.
Name and address of owner	❑ Every Sheet
Project address	❑ Every Sheet
Assessor's Parcel Number	❑ Every Sheet
Plan designer name, address and contact number	❑ Every Sheet
Date the plan was prepared (include revision numbers and dates, if applicable)	❑ Every Sheet
Wet signature and stamp of the licensed Architect or Engineer	❑ Every Sheet
Intent of grading: A short description of the purpose for the grading and intended end result.	
References to all technical reports and/or letters (e.g.: geotechnical, geologic, hydrologic, biotic, etc.) Include author, title, date, project number and consultant contact information	
Estimated Earthwork: Volume of cut, fill and total (in cubic yards) ❑ Overexcavation/Recompaction quantity included as separate line item	
Vicinity map: Location of parcel within County of Santa Cruz and project area within parcel (include reference points – trees, drainages, structures – as necessary) Include names of existing streets, North Arrow. ❑ If no street address is available, please include written directions. ❑ If there are locked gates, please include gate code or contact to arrange for access.	

SITE PLAN	Included/Sheet No.
Show entire parcel with the location of project, building envelope, access roadway, driveway and septic system.	
Existing and proposed final contours: Show existing contours as dashed lines; show final contours as solid, bold lines. Show existing contours 15 feet beyond the limits of grading and beyond any drainage dissipators, etc.	
Limits of Grading: Bold, dashed line indicating limits of grading and disturbance. (Include fill keyways, septic system, etc.)	
Existing structures: On-site and those on adjacent properties within 15 feet of the property boundary	
Footprints of proposed structures/development	
❑ Buildings ❑ Roadways ❑ Water tanks and pads ❑ Sediment Ponds ❑ Retaining Walls (Include top-of-wall, bottom-of-wall elevations at beginning/end/transition points) ❑ Other:	
Setbacks: Identify grading setback from "Limits of Grading" line to property lines.	

GRADING AND DRAINAGE PLANS	Included/Sheet No.
Show the entire project area and identify the "Limits of Grading" around the entire construction area.	
Driveway/Roadway/Parking (plan view)	
❑ Existing and proposed profile (to scale) ❑ Typical Sections(s) to scale with dimensions (including compaction requirements) ❑ Surfacing / structural section requirements	
Proposed structures/development	
❑ Buildings (include pad grade(s)) ❑ Roadways ❑ Water tanks and pads ❑ Sediment Ponds ❑ Retaining Walls (Include top-of-wall, bottom-of-wall elevations at beginning/end/transition points) ❑ Other:	
Cross Sections (to scale with dimensions)	
Show existing and proposed grades. Limits should include top(s) of cut(s) to bottom(s) of fill(s) and 15-feet beyond, and should clearly delineate existing and proposed cut and fill areas. Locations of cross-sections should be shown in plan view and be placed: ❑ Through all pads ❑ Through significant cuts/fills ❑ Include keyway details and foundation setback from face of slope	

Parcel drainage: Detail existing and proposed area drainage (locations of ravines, drainage courses and pathway of off-site drainage). Show topography for the entire parcel of sufficient detail to clearly indicate where and how all drainage will flow across and off the parcel.	
Development Drainage	
Show the location of all drainage facilities to be installed with the development. Include construction details (to scale or with dimensions) for: ❑ Retaining wall backdrains, ❑ Culverts, ❑ Storm drains, ❑ French drains, ❑ Energy dissipaters, ❑ Retention/detention pits, ❑ Other:	
Location of existing and proposed septic tank(s), leachfield(s) and expansion area(s).	

EROSION/STORMWATER POLLUTION CONTROL PLAN
Please see "Construction Site Stormwater Pollution Control BMP Manual" for additional details.

- ❑ Project vicinity map.
- ❑ Property lines.
- ❑ Parcel number and address.
- ❑ Topography (existing contours) of the entire limits of disturbance, plus a minimum of 50 feet of topography in all directions.
- ❑ Nearby watercourses within 200 feet of the project area.
- ❑ Proposed grading contours, if applicable.
- ❑ Locations of existing utilities, such as sewer, storm drain, curb and gutter, as applicable.
- ❑ Name, phone number, email address and address of the property owner.
- ❑ Name, phone number, email address and address of the individual who prepared the plan.
- ❑ Proposed erosion control measures, including installation details and notes.
- ❑ Proposed sediment control measures, including installation details and notes.
- ❑ Proposed temporary drainage control measures, including installation details and notes.
- ❑ Proposed construction waste control measures, including installation details and notes.
- ❑ Locations of stockpile areas (per phase if major development)
- ❑ Equipment storage and staging area (per phase if major development.
- ❑ Total area of disturbance, expressed in acres.

Major Developments* shall also include:

❑ A phased plan for controlling erosion, sediment drainage, and waste during the various phases of construction. This shall also include temporary / phased grading contours, if applicable.
❑ An inspection schedule by a stormwater inspector that includes inspection of the erosion, sediment and drainage control before predicted rainfall events in excess of .5 inches, as well as during the rainfall event.
❑ A street sweeping schedule, if applicable.

* "Major Developments" are defined in the "Construction Site Stormwater Pollution Control BMP Manual" as "projects that disturb more than one acre, projects that include grading in excess of 1,000 cubic yards, projects that involve grading during the winter season, and other projects of a similar nature determined by the Planning Director to cause major land disturbance.

LETTERS AND REPORTS	Included
Two copies of all technical reports and/or letters (e.g.: geotechnical, geologic, hydrologic, biotic, etc).	
One copy of each "Conditions of Approval" for all associated development, land div., etc permits.	
Owner/Agent Form: If work is to be conducted on a parcel not owned by the owner/applicant, please submit an owner/agent form authorizing such work.	

To: Robin Bolster, Planner

Fr: Carolyn Burke, Civil Engineer, Environmental Planning

Re: Application 10-0038 Update

On June 19, 2012 Environmental Planning staff Kent Edler and Carolyn Burke met with Mr. Paisley and Chris Walters (Cal Fire), to discuss final permit requirements for the driveway leading to the new residence and accessory dwelling unit, as well as address concerns regarding the unpermitted pond located above the driveway.

After driving the roadway with Mr. Paisley and Mr. Walters, it appears that most of the roadway is of acceptable width and grade, with several minor exceptions. Mr. Paisley has indicated that final surfacing will meet the requirements set forth in County Code, but a final proposal for roadway surfacing is not required until he submits an application for a building permit. No additional plan revisions are required at this time.

County staff observed the condition of the pond and accessory drainage features and noted the following:

- The existing pond embankment is over steepened (steeper than a 2:1 slope) adjacent to the roadway;
- The un-engineered fill placed on the outboard edge of the driveway during the overflow pipe installation is failing, resulting in stress cracks along the roadway and slumping of fill material;
- Other sections of the fill along the portion of the driveway downslope of the pond exhibit stress cracks as well.
- The energy dissipater at the overflow pipe outlet is inadequate to effectively prevent erosion, and no safe path exists for overflow runoff during storm events.

Our concerns are outlined below:

- The existing pond embankment does not meet County Code requirements for fills (County Code Section 16.20.150), which state that no fill shall be made which creates an exposed surface steeper in slope than two horizontal to one vertical. County Code does provide for allowing steeper slopes if the slope is found to be *consistent with stability and safety.* In previous comments, Environmental Planning staff requested that a soils engineer provide a letter that states although construction of the pond embankment was not observed, there is a low likelihood of catastrophic failure, and that in the event of failure there is no significant threat to life and safety. Mr. Paisley responded that neither of the two geotechnical engineers associated with the project was able to provide such a determination.

EXHIBIT F

- The pond is located approximately 600 feet upslope of Majors Creek which serves as a water source for the City of Santa Cruz municipal water supply. Steelhead and Rainbow trout are also present in Majors Creek. As such the potential for sediment deposition in Majors Creek is very important; thus, the installations being recognized under this permit must be stable and designed to mitigate any potential erosion impacts.

We understand Mr. Paisley would like to retain the pond. Our previous comments for this project have detailed options for removal, removal and replacement, or decommissioning of the pond to mitigate the installation's potential impacts to health, welfare and the environment. Mr. Paisley has indicated that these options are not feasible for him; in response we have developed an additional option to mitigate the safety and environmental concerns while retaining the pond in its current location. The requirements are as follows:

- Mitigate the oversteepened pond embankment adjacent to the driveway by placing a buttress fill at a slope no steeper than 2 horizontal to 1 vertical. Placement of this fill would require the oversight of a geotechnical engineer who would be responsible for construction observations. The placement of this fill will require the removal of fill material from the outboard slope edge to allow for proper keying and benching of the buttress fill.
- Mitigate the outboard fill failure and erosive drainage outlet condition at the pond overflow pipe by removing and replacing the unengineered fill on the outboard edge of the roadway and designing and installing a proper energy dissipater/swale at the outlet of the pipe to prevent erosion.
- Remove the failing fill soil on the outboard edge of the driveway downslope of the pond.
- Both the placement of the buttress fill and the overflow pipe fill installation and outlet upgrades will require the preparation of a grading and drainage plan by a civil engineer. The plan must be based on a surveyed topographic map of the area, with data extending 50-feet beyond the limits of grading or to the toe of slope below the driveway, whichever is greater. The repair will be designed based on written recommendations from the geotechnical engineer of record.
- If, after improvement, the existing driveway is not of sufficient width to meet fire agency standards the secondary access behind the residence/winery must be improved and extended to meet the main driveway. A sign must be installed at the junction with the main driveway directing emergency traffic to use the secondary access. Specific wording will be developed prior to issuance of the building permit, should the applicant choose this alternative.

In addition to the permitting course outlined above, the resolution of this grading violation may be addressed by options laid out in previous Environmental Planning comments, repeated here:

- Pond Decommissioning: This option would entail draining the pond, removing the pond liner, and 'notching' or otherwise altering the embankment configuration such that the resulting depression may not be used to hold water in the future. Please submit a decommissioning plan along with a grading plan, both prepared by a licensed civil engineer. The decommissioning plan should detail the proposed embankment augmentation, along with draining procedures and liner removal. This plan would be accompanied by a letter from the soils engineer of record stating the proposed plan would mitigate the threat to life and safety posed by the un-engineered embankment fill. If the threat of embankment failure cannot be eliminated, please refer to Option b, below. Please note: The decommissioning plan may be combined with the grading plan, but the grading plan must include estimated original and final grades for all earthwork to be recognized (see Option b for more information).
- Grading Application: This option would entail submitting for a grading permit to remove or remove-and-replace the embankment. The grading permit application materials would include a grading and erosion control plan prepared by a licensed civil engineer. The plan would include pond draining procedures, along with existing and proposed grades and drainage details. A complete list of grading plan requirements may be found online at: http://www.sccoplanning.com/html/env/grading.htm The soils report must be updated to include recommendations for work to remove or remove-and-replace the pond. A plan review letter must be submitted with the grading permit application that states the project plans conform to the recommendations of the updated soils report.

Additional Note (Please Read)

During our field visit, it was noted that grading has taken place on the property since our last inspection. The scope of this grading has primarily been the placement of fill along the roadways to achieve the minimum widths required by Cal Fire. The extent of this additional grading does meet the threshold for requiring a grading permit per County Code Chapter 16.10. The grading done to date shall be included to be recognized in the subsequent building and grading permits granted for the project, but no additional grading is authorized on the property. Any grading performed violates the stipulations of the "Notice of Violation" recorded on the property, which indicates that all work must cease until the proper permits are obtained.

EXHIBIT F

Robin Bolster

From: Carolyn Burke
Sent: Monday, September 17, 2012 3:57 PM
To: 'Marty & Michela Paisley'
Cc: Robin Bolster
Subject: RE: A question

Hi Marty,

If you choose to pursue the option of stabilizing the pond embankment with a buttress fill or something similar, a civil-engineered grading/drainage plan will be required along with recommendations from the soils engineer supporting the design. These recommendations must be based on physical data and test results for the soils in question, and should conclude that the final design is stable from a static and seismic perspective.

In order to adequately determine the scope of work being considered under this application (10-0038), the civil-engineered grading/drainage plan and updated geotechnical recommendations are required prior to discretionary approval. Also, the geotechnical engineer must write a plan review letter after the plans are complete; the letter must state the project plans conform to the recommendations of the soils report and construction is feasible as shown (from a geotechnical perspective).

Our July memo provides additional information regarding plan details:

- Both the placement of the buttress fill and the overflow pipe fill installation and outlet upgrades will require the preparation of a grading and drainage plan by a civil engineer. The plan must be based on a surveyed topographic map of the area, with data extending 50-feet beyond the limits of grading or to the toe of slope below the driveway, whichever is greater. The repair will be designed based on written recommendations from the geotechnical engineer of record.

I have attached the complete memo for your reference. Please note that although we have offered a 2:1 buttress fill as a possible solution to ensure stability, other stabilizing options may be presented with supporting analysis from the soils engineer of record and any approach would need to be approved by your soils engineer (including the 2:1 buttress fill).

I hope this addresses your question. We are available to discuss plan/submittal details with your consultants as necessary.

Sincerely,

Carolyn Banti Burke
Santa Cruz County Planning Department
(831) 454-5121

10-0038_REV3ADD
.pdf

From: Robin Bolster
Sent: Tuesday, September 11, 2012 8:13 AM
To: Carolyn Burke
Cc: 'Marty & Michela Paisley'
Subject: A question

EXHIBIT F

scm_plumbing, inc.

From: Marty & Michelé' Paisley [m_paisley@sbcglobal.net]
Sent: Wednesday, March 21, 2012 1:50 PM
To: 'PLN416@co.santa-cruz.ca.us'
Subject: Environmental Planning Application 10-0038.

Carolyn, we are unable to get a letter from a soils engineer per your request, we have talk to Bauldry and Robert Pollak, and they were not interest in providing a letter. We have no problem recording a Declaration of Geologic Hazards, but a letter from a soil engineer will not be possible. Please let us know where we go from here. Marty

No Response 4-19-12
as of

EXHIBIT F

County of Santa Cruz, PLANNING DEPARTMENT

Discretionary Application Comments 10-0038

APN 062-201-01

Your plans have been sent to several agencies for review. The comments that were received are printed below. Please read each comment, noting who the reviewer is and which of the three categories (Completeness, Policy Considerations/Compliance, and Permit Conditions/Additional Information) the comment is in.

Completeness: A comment in this section indicates that your application is lacking certain information that is necessary for your plans to be reviewed and your project to proceed.

Policy Considerations/Compliance: Comments in this section indicate that there are conflicts or possible conflicts between your project and the County General Plan, County Code, and/or Design Criteria. We recommend that you address these issues with the project planner and the reviewer before investing in revising your plans in any particular direction.

Permit Conditions/Additional Information: These comments are for your information. No action is required at this time. You may contact the project planner or the reviewer for clarification if needed.

Accessibility Review

Routing No: 1 | Review Date: 02/27/2012

ROBIN BOLSTER (RBOLSTER) : Not Required

:Review Type= ACCESSIBILITY NO PROJECT REVIEW DESCRIPTION AVAILABLE

Code Compliance Review

Routing No: 1 | Review Date: 02/16/2010

ALUSConversion (Conversion) : Complete

Review By : KMF Employee ID : KFITZPATRICK Employee Name : KEVIN FITZPATRICK :Review Type= CODE COMPLIANCE ========= REVIEW ON FEBRUARY 16, 2010 BY KEVIN M FITZPATRICK ========= NO COMMENT This addresses the complaint. The structures were never posted as the owner was submitting the application. (KMF) MISCELLANEOUS COMMENT: ========= REVIEW ON FEBRUARY 16, 2010 BY KEVIN M FITZPATRICK =========

Coastal Commission Review

Routing No: 1 | Review Date: 02/27/2012

ROBIN BOLSTER (RBOLSTER) : No Response

:Review Type= COASTAL COMMISSION NO PROJECT REVIEW DESCRIPTION AVAILABLE

Drainage Review

Routing No: 1 | Review Date: 03/05/2010

GERARDO VARGAS (GVARGAS) : Complete

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Drainage Review

:Review Type= DPW DRAINAGE NO PROJECT REVIEW DESCRIPTION AVAILABLE

Routing No: 2 | Review Date: 11/29/2010
GERARDO VARGAS (GVARGAS) : Complete

:Review Type= DPW DRAINAGE ========= REVIEW ON MARCH 5, 2010 BY GERARDO VARGAS ========= 1. Please clarify on the plan what is being proposed as AS-BUILT, and what is being proposed as new. 2. Indicate on the plans the manner in which building downspouts will be discharged 3. Projects are required to minimize impervious surfacing. This project has an extensive driveway. The requirement to minimize impervious surfacing can be achieved by the use of porous pavement, pavers, or baserock etc.. where feasible. 4. Quantify the amount on runoff being directed to the culverts on the property. Are they adequate in size? Include a tributary drainage map. A civil engineered plan must be included addressing the above review comment. Until further information is submitted, a thorough review of this application cannot be completed. Once submitted, additional items may need to be addressed before the application can be deemed complete. 5. Show tabulation of existing impervious areas. Show tabulation of impervious area that will result from proposed development. The applicant is encouraged to discuss the above comments with the reviewer to avoid unnecessary additional routings. A $200.00 additional review fee shall be applied to all re-submittals starting with the third routing. Please call the Dept. of Public Works, Stormwater Management Section, from 8:00 am to 12:00 noon if you have questions. ========= UPDATED ON NOVEMBER 29, 2010 BY GERARDO VARGAS ========= Application has been approved for the discretionary stage in regards to drainage. MISCELLANEOUS COMMENT: ========= REVIEW ON MARCH 5, 2010 BY GERARDO VARGAS ========= No Comment ========= UPDATED ON NOVEMBER 29, 2010 BY GERARDO VARGAS ========= No Comment

Driveway/Encroachment Review

Routing No: 1 | Review Date: 03/01/2010
DEBRA LOCATELLI (DLOCATELLI) : Complete

:Review Type= DPW DRIVEWAY/ENCROACHMENT ========= REVIEW ON FEBRUARY 22, 2010 BY DEBBIE F LOCATELLI ========= See Misc comments MISCELLANEOUS COMMENT: ========= REVIEW ON FEBRUARY 22, 2010 BY DEBBIE F LOCATELLI ========= Driveway to conform to County Design Criteria Standards. Details shall be required on building permit application plans, along with direction of flow line. Due to the downslope of this driveway, please show how drainage will flow along edge of driveway approach, currently the runoff flows down the edge of dirt driveway, towards gate causing an eorsion problem, which has an impact on the County's paved section of right-of-way. This will need to be addressed as part of the building plans.

Environmental Health Review

Routing No: 1 | Review Date: 02/16/2010

EXHIBIT F

Environmental Health Review

JIM SAFRANEK (JSafranek) : Complete

:Review Type= ENVIRONMENTAL HEALTH NO PROJECT REVIEW DESCRIPTION AVAILABLE

Routing No: 2 | Review Date: 11/09/2010

JIM SAFRANEK (JSafranek) : Complete

:Review Type= ENVIRONMENTAL HEALTH ========= REVIEW ON FEBRUARY 16, 2010 BY JIM G SAFRANEK ========= Applicant must obtain a sewage disposal permit for the new development. Applicant will have to have an approved water supply prior to approval of the sewage disposal permit. Contact the appropriate Land Use staff of EHS at 454-2736, Brian Blease. Note that the winery waste will need to be addressed as part of EH septic permit requirements. (It should be stated that the existing unpermitted dwelling is being served by an unapproved septic system, though a 1988 onsite sewage disposal application was applied for and never received EHS approval). If the applicant will be attempting to gain approval for, specifically, the existingseptic tank,a new septic pumper's report should be forwarded to Brian Blease of EHS. Depending on the number of horses proposed, a Manure Managment Plan may be required by EHS. ========= UPDATED ON NOVEMBER 9, 2010 BY JIM G SAFRANEK ========= EHS completeness has been met. Prior to building appl the applicant will need an approvedOnsite Sewage Disposal Permit application and an Individual Water System permit for the proposed onsite water supply (spring). Depending on the number of horses, a Manure Management Plan could be required for EH Building Clearance. MISCELLANEOUS COMMENT: ========= REVIEW ON FEBRUARY 16, 2010 BY JIM G SAFRANEK ========= NO COMMENT ========= UPDATED ON NOVEMBER 3, 2010 BY JIM G SAFRANEK =========

Environmental Planning

Routing No: 1 | Review Date: 03/29/2010

JESSICA DUKTIG (JDUKTIG) : Complete

:Review Type= ENVIRONMENTAL PLANNING NO PROJECT REVIEW DESCRIPTION AVAILABLE

Routing No: 2 | Review Date: 12/02/2010

CAROLYN BURKE (CBURKE) : Complete

:Review Type= ENVIRONMENTAL PLANNING ========= REVIEW ON MARCH 29, 2010 BY JESSICA L DUKTIG ========= 1. Please submit an addendum to the Geotechnical (soils) report that provides additional boring data for the location of the Pond ADU, any additional recommendations and/or modifications for the existing foundations on all structures, with separate letter stating verification of existing foundations. Once this information has been recieved, the soils report will be formally reviewed. 2. Please provide approximate earthwork quantities for the driveway, beginning at the 2nd 18-inch culvert crossing up to the exisitng structures. The rest of the driveway was permitted under application 91-0328. 3. Please provide a driveway profile with

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Environmental Planning

Routing No: 2 | Review Date: 12/02/2010
CAROLYN BURKE (CBURKE) : Complete

associated cross sections for the length of the driveway beginning at the 2nd 18-inch culvert crossing. Include details of creek crossings, and appropriate driveway structural sections for any proposed work required to bring the existing driveway up to current code standards and as required by the local fire agency. If the existing driveway is acceptable to the local fire agency, please submit a wet-signed letter stating such. 4. Please submit earthwork quantities for the pad grading around all structures and the pond/waterfall area. 5. Please provide earthwork quantities for the barn area, include cross sections that show existing and proposed cut/fill areas. Include necessary removal of existing fill to be recompacted. 6.Please provide 2007 CBC seismic design parameters from the geotechnical engineer in the update addendum letter. ========== UPDATED ON DECEMBER 2, 2010 BY CAROLYN I BANTI ========== +++ Second Review +++ 1. Comment partially addressed. During our field reconnaissance, it was our understanding that Bauldry Engineering conducted foundation inspections during construction of the buildings. If this is the case, please provide the resulting test data for review. The assessment of existing foundations provided in the geotechnical report prepared by Pollak Engineering should also be expanded to detail the number and location of foundation observation points for both the pond house and guest house. Along with this additional information, please provide the seismic site class based on the 2007 California Building Code. 2. Comment addressed. 3. Comment partially addressed. Please submit a letter from the local fire agency that states the existing driveway conforms to the fire code. 4. Based on the high volume of excavated material for the large pond, it appears this is a substantial feature that may have impacts on the stability of adjacent slopes. Please have the project geotechnical engineer address the stability of adjacent slopes, outlet location, compaction of fill etc. In lieu of requiring civil engineered grading and drainage plans, the geotechnical engineer must prepare a geologic cross section through the pond and driveway that is dimensionally accurate and details the extent of fill and identifies the underlying materials. This review shall be based on field testing data, and its preparation may require the assistance of a certified geologist to verify underlying geologic units and determine whether karst formations are present beneath the pond. 5. Comment addressed. 6. See comment 1 above. MISCELLANEOUS COMMENT: ========== REVIEW ON MARCH 29, 2010 BY JESSICA L DUKTIG ==========

COMMENT UPDATES ENTERED 3/1/12
Response to email from Mr. Paisley, dated 2/3/12
Second Routing EP Comment Updates
Mr. Paisley has provided additional information to address a portion of the outstanding Environmental Planning Comments for Application 10-0038. Please see our response to review of this additional information, provided below.
1. Original Comment:
Please provide a driveway profile with associated cross sections for the length of the driveway beginning at the 2nd 18-inch culvert crossing. Include details of creek crossings, and appropriate driveway structural sections for any proposed work

Environmental Planning

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CAROLYN BURKE (CBURKE) : Complete

required to bring the existing driveway up to current code standards and as required by the local fire agency. If the existing driveway is acceptable to the local fire agency, please submit a wet-signed letter stating such. (The rest of the driveway was permitted under application 91-0328.)
Response:
Mr. Paisley submitted a letter from Cal Fire, dated February 6, 2012, that grants a one-time exception to the driveway width requirement with the following conditions:

- Those sections of 20' wide road that will be counted in lieu of full sized turnouts shall be a minimum of 100' long;
- All other road/driveway requirements must be met including but not limited to: *surfacing, slope, turnarounds, turnouts, vegetation clearance, and centerline radius*.

In order to establish the scope of work required to meet the requirements outlined in the aforementioned conditions, topographic data must be submitted that shows the width, slope and centerline radius for the existing driveway along with any proposed work necessary to bring the driveway into compliance with road/driveway requirements. Please also provide a centerline profile for the roadway.
2. Original Comment:
Based on the high volume of excavated material for the large pond, it appears this is a substantial feature that may have impacts on the stability of adjacent slopes. Please have the project geotechnical engineer address the stability of adjacent slopes, outlet location, compaction of fill etc. In lieu of requiring civil engineered grading and drainage plans, the geotechnical engineer must prepare a geologic cross section through the pond and driveway that is dimensionally accurate and details the extent of fill and identifies the underlying materials. This review shall be based on field testing data, and its preparation may require the assistance of a certified geologist to verify underlying geologic units and determine whether karst formations are present beneath the pond.
Response:
Mr. Paisley has submitted a request for us to waive the requirement for further geotechnical information regarding the pond, based on the performance of the existing pond liner and pictures of pond construction. It is impossible for us to determine that the existing pond construction complies with County code, or will remain stable regardless of the amount of time that has passed without incident. After further review of the site grades and embankment height, we have concluded that the following will suffice to address our concerns:

- Provide a letter from the soils engineer that states that although construction of the pond embankment was not observed, there is a low likelihood of catastrophic failure, and that in the event of failure there is no significant threat to life and safety.
- Record a Declaration of Geologic Hazards on the property that states that unengineered fill has been placed on the property in the area of the pond without inspections from the geotechnical engineer or County staff. The declaration will state

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CAROLYN BURKE (CBURKE) : Complete

that due to the lack of oversight, the stability of the fill is unknown and in the event of a failure the fill must be replaced as engineered fill under a valid grading permit and the supervision of a licensed geotechnical engineer. This wording is approximate; the final document will be issued after review of materials included with the upcoming submittal.

Routing No: 3 | Review Date: 05/29/2012
ROBIN BOLSTER (RBOLSTER) : Incomplete

Open Attachment to see memo from EP (part of 5/22/12 30-day letter)

Routing No: 4 | Review Date: 11/20/2013
CAROLYN BURKE (CBURKE) : Incomplete

We have received the following documents for review:
"Geotechnical Investigation for Existing Fish Pond Embankmentand Adjacent Driveway", by Pollak Engineering, Inc., dated 2/10/2013, Project No. 1160
"Review of Design Plans for the Improvements to the Fish Pond Embankment and Adjacent Driveway at 1495 Smith Grade Road", by Fall Creek Engineering, Inc., dated 10/19/2013
It appears the applicant has chosen to buttress the unengineered pond embankment with a 2:1 slope and widen the roadway, necessitating the installation of a second 2:1 slope downslope of the driveway. The applicant prepared hand drawn plans showing the general location of the proposed improvements which were summarized in the submitted memo from Fall Creek Engineering.
Our previous comments requested "preparation of a grading and drainage plan *by a civil engineer*" and that the plan be based on "a surveyed topographic map of the area, with data extending 50-feet beyond the limits of grading *or to the toe of slope below the driveway, whichever is greater*". Neither of these requirements have been met with the submitted documents. The grading plan was not prepared by a registered civil engineer, the topographic data is of unknown origin and does not extend to the toe of slope below the driveway. The review letter from the civil engineer simply stated what improvements were shown on the plans and noted several inaccuracies, and does not act as a substitute for civil engineered grading and drainage plans.
Formal review of the soils report will be deferred until engineered grading plans and surveyed topographic data are submitted, as the grade and condition of the slope below the lower driveway embankment and drainage outlet location must be analyzed by the soils engineer.
In summary, please submit the following:

- Both the placement of the buttress fill and the overflow pipe fill installation and outlet upgrades will require the preparation of a grading and drainage plan by a civil engineer. The plan must be based on a surveyed topographic map of the area, with data extending 50-feet beyond the limits of grading or to the toe of slope below the

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Routing No: 4 | Review Date: 11/20/2013
CAROLYN BURKE (CBURKE) : Incomplete

driveway, whichever is greater. The repair will be designed based on written recommendations from the geotechnical engineer of record. In addition to the improvements described above, the plans must show remove the failing fill soil on the outboard edge of the driveway down slope of the pond.

· Prior to the discretionary application being deemed complete, the applicant must submit a geotechnical plan review letter from the soils engineer that states the project plans conform to the recommendations of the soils report and can be constructed as shown on the plans without adverse impacts to adjacent slope stability.

Additional comments may follow, pending review of the submitted information.

Fire Review

Routing No: 1 | Review Date: 02/23/2010
COLLEEN BAXTER (CBAXTER) : Complete

:Review Type= CAL DEPT OF FORESTRY/COUNTY FIRE ========= REVIEW ON FEBRUARY 23, 2010 BY COLLEEN L BAXTER ========= DEPARTMENT NAME:CALFIRE/SANTA CRUZ COUNTY FIRE Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT, with an annotated copy of this letter: Note on the plans that these plans are in compliance with California Building and Fire Codes (2007) as amended by the authority having jurisdiction. Each APN (lot) shall have separate submittals for building and sprinkler system plans. The job copies of the building and fire systems plans and permits must be onsite during inspections. FIRE FLOW requirements for the subject property are _____ GPM. Note on the plans the REQUIRED and AVAILABLE FIRE FLOW. The AVAILABLE FIRE FLOW information can be obtained from the water company. A minimum fire flow 500___ GPM is required from 1 hydrant located within 150____ feet.This is for the RESIDENCE ONLY. SHOW on the plans a 10.000 gallon water tank for fire protection with a "fire hydrant" as located and approved by the Fire Department if your building is not serviced by a public water supply meeting fire flow requirements. For information regarding where the water tank and fire department connection should be located, contact the fire department in your jurisdiction.This is for the RESIDENCE ONLY NOTE on the plans that the building shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA _13D_____ and Chapter 35 of California Building Code and adopted standards of the authority having jurisdiction.RESIDENCE ONLY NOTE that the designer/installer shall submit three (3) sets of plans and calculations for the underground and overhead Residential Automatic Fire Sprinkler System to this agency for approval. Installation shall follow our guide sheet. NOTE on the plans that an UNDERGROUND FIRE PROTECTION SYSTEM WORKING DRAWING must be prepared by the designer/installer. The plans shall comply with the UNDERGROUND FIRE PROTECTION SYSTEM INSTALLATION POLICY

Fire Review

Routing No: 1 | Review Date: 02/23/2010
COLLEEN BAXTER (CBAXTER) : Complete

HANDOUT. Building numbers shall be provided. Numbers shall be a minimum of ___4____ inches in height on a contrasting background and visible from the street, additional numbers shall be installed on a directional sign at the property driveway and street. NOTE on the plans the installation of an approved spark arrester on the top of the chimney. The wire mesh shall be 1/2 inch. NOTE on the plans that the roof covering shall be no less than Class ___"B"____ rated roof. NOTE on the plans that a 100_ foot clearance will be maintained with non-combustible vegetation around all structures or to the property line (whichever is a shorter distance). Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure are exempt. The access road shall be __20___ feet minimum width and maximum twenty percent slope. All bridges, culverts and crossings shall be certified by a registered engineer. Minimum capacity of 25 tons. Cal-Trans H-20 loading standard. The access road shall be in place to the following standards prior to any framing construction, or construction will be stopped: - The access road surface shall be "all weather", a minimum 6" of compacted aggregate base rock, Class 2 or equivalent, certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but in no case exceeding 20%. The maximum grade of the access road shall not exceed 20%, with grades greater than 15% not permitted for distances of more than 200 feet at a time. The access road shall have a vertical clearance of 14 feet for its entire width and length, including turnouts. A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. All private access roads, driveways, turn-around and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times. SHOW on the plans, DETAILS of compliance with the driveway requirements. The driveway shall be __12__ feet minimum width and maximum twenty percent slope. The driveway shall be in place to the following standards prior to any framing construction, or construction will be stopped: - The driveway surface shall be "all weather", a minimum 6" of compacted aggregate base rock, Class 2 or equivalent certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be a minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but in no case exceeding 20%. - The maximum grade of the driveway shall not exceed 20%, with grades of 15% not permitted for distances of more than 200 feet at a time. - The driveway shall have an overhead clearance of 14 feet vertical distance for its entire width. - A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. - Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. - All private

Fire Review

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COLLEEN BAXTER (CBAXTER) : Complete

access roads, driveways, turn-arounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times. - The driveway shall be thereafter maintained to these standards at all times. All Fire Department building requirements and fees will be addressed in the Building Permit phase. Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction. _72__ hour minimum notice is required prior to any inspection and/or test. Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with the applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewing agency. If a winery operations is in place and the roads/driveways serving the habitable dwellings also provide access for the winery, ALL ROADS AND DRIVEWAYS SHALL BE TWENTY FEET IN WIDTH. There are no exceptions. Additional water storage and fire hydrants shall also be required. This is a preliminary review and requirements may change with additional information provided. MISCELLANEOUS COMMENT: ========= REVIEW ON FEBRUARY 23, 2010 BY COLLEEN L BAXTER =========

Routing No: 2 | Review Date: 05/29/2012
ROBIN BOLSTER (RBOLSTER) : No Response

Project Review

Routing No: 1 | Review Date: 02/27/2012
ROBIN BOLSTER (RBOLSTER) : Incomplete

See comments from Environmental Planning

Routing No: 2 | Review Date: 02/27/2012
ROBIN BOLSTER (RBOLSTER) : Incomplete

See Environmental Planning comments as the road and pond issues have not yet been resolved.

Routing No: 3 | Review Date: 05/22/2012
ROBIN BOLSTER (RBOLSTER) : Incomplete

see attachment

Routing No: 4 | Review Date:
() :

Road Engineering Review

Routing No: 1 | Review Date: 03/04/2010
ANWARBEG MIRZA (AMIRZA) : Complete

:Review Type= DPW ROAD ENGINEERING NO PROJECT REVIEW DESCRIPTION AVAILABLE

Routing No: 2 | Review Date: 11/09/2010
ANWARBEG MIRZA (AMIRZA) : Complete

:Review Type= DPW ROAD ENGINEERING ========= REVIEW ON MARCH 4, 2010 BY ANWARBEG MIRZA ========= 1. As per County of Santa Cruz Design Criteria, the minimum sight distance required for driveways intersecting County Roads is 250 feet in either direction; therefore, indicate if the proposed driveway meets the 250 feet required sight distance. If minimum sight distance is not obtainable, a sight distance analysis from a Traffic Engineer is required, indicating that the existing driveway conditions are safe or this analysis should include recommendations of how the project site can be mitigated to meet minimum sight distance requirements. ========= UPDATED ON NOVEMBER 9, 2010 BY ANWARBEG MIRZA ========= Completed. See Misc. Comment. MISCELLANEOUS COMMENT: ========= REVIEW ON MARCH 4, 2010 BY ANWARBEG MIRZA ========= 1. The driveway must meet County of Santa Cruz standards in the Design Criteria. Please refer the correct figure and show in planview. Design Criteria is available at the following internet address: http://www.dpw.co.santa-cruz.ca.us/DESIGN%20CRITERIA.PDF ========= UPDATED ON NOVEMBER 9, 2010 BY ANWARBEG MIRZA ========= The driveway must meet County of Santa Cruz standards in the Design Criteria. Please refer the correct figure and show in planview.

Urban Designer Review

Routing No: 1 | Review Date: 02/27/2012
ROBIN BOLSTER (RBOLSTER) : Not Required

:Review Type= URBAN DESIGNER NO PROJECT REVIEW DESCRIPTION AVAILABLE