

**CITY OF SACRAMENTO**

**1231 I Street, Sacramento, CA 95814**

**Permit No: 0612749**

**Insp Area: 4**

**Thos Bros: 278A2**

**Site Address: 1533 YOUNGS AV SAC**

**Parcel No: 237-0163-021**

**Sub-Type: RES**

**Housing (Y/N): N**

CONTRACTOR  
OWNER BUILDER

OWNER  
JIMENEZ JOSE M/ARACELI  
1533 YOUNGS AV  
SACRAMENTO, CA 95838

ARCHITECT

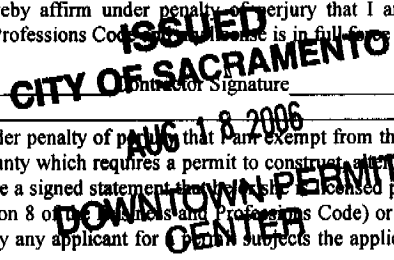
**Nature of Work: RE-ROOF, T/O, INSTALL ENGINEER REQ STRUCTAL UPGRADE & 26 SQ'S CONCRETE TILE\*\*INPR INSPT\*\***

**CONSTRUCTION LENDING AGENCY :** I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name \_\_\_\_\_ Lender's Address \_\_\_\_\_

**LICENSED CONTRACTORS DECLARATION:** I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class \_\_\_\_\_ License Number 0 \_\_\_\_\_ Date \_\_\_\_\_ Contractor Signature \_\_\_\_\_



**OWNER-BUILDER DECLARATION:** I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he/she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

X I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. \_\_\_\_\_ B & PC for this reason: \_\_\_\_\_

Date X 8-18-06 Owner Signature X JOSE M Jimenez

**IN ISSUING THIS BUILDING PERMIT,** the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date X 8-18-06 Applicant/Agent Signature X JOSE M Jimenez

**WORKER'S COMPENSATION DECLARATION:** I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier \_\_\_\_\_ Policy Number \_\_\_\_\_ Exp Date \_\_\_\_\_

(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date \_\_\_\_\_ Applicant Signature \_\_\_\_\_

**WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.**

**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**



**CITY OF SACRAMENTO**  
 PLANNING & BUILDING DEPARTMENT  
 BUILDING DIVISION  
 www.cityofsacramento.org



Help Line: 1-916-264-5656 OR 1-866-EZ-PERMIT  
 Inspection: 1-916-808-4677

Downtown Permit Center 1-916-264-6807  
 1231 I Street, Suite 200, Sacramento, CA 95814

North Permit Center 1-916-808-2354  
 2101 Arena Blvd., Suite 200, Sacramento, CA 95834

Fax # 916-264-1901

**FAXED PERMIT APPLICATION**

(certain restrictions apply)

*Faxed request must be received in this office by 3:00 P.M. to be processed the following work day.  
 Note: Contractors must have a current certificate of Worker's Compensation Insurance.*

*Note: Work started before a Building Permit is issued will be subject to quad fee.*

IN ORDER TO PROCESS THIS REQUEST, ALL THE FOLLOWING INFORMATION MUST BE PROVIDED:

RESIDENTIAL  APARTMENTS (4+ units per building)  COMMERCIAL (limited)  
 Job Address: 1533 Youngs Ave Sacramento CA Unit # 5000 Contract Price \$ 5000

Contact Person: Bob Simmet Contact Phone: Owner/builder

Property Owner: Bob & Carol Youngs Contractor:

Address: 1533 Youngs Ave Address:

City/State/Zip: Sacramento CA 95838 City/State/Zip:

Phone: (916) 923-99-34 / (916) 240-3980 Phone: FAX:

**NATURE OF REQUEST:** Indicate from the selections below & provide details under description of work.

<input checked="" type="checkbox"/> Reroof (excluding tile) <input checked="" type="checkbox"/> Tear-Off <input type="checkbox"/> Resheet <input type="checkbox"/> House <input type="checkbox"/> Garage # Stories: <u>1</u> # Squares: <u>26</u> Material: <u>Standard Weight</u> <input type="checkbox"/> Siding <u>Tile 10.30</u> <input type="checkbox"/> Wood <u>P.S.f.</u> <input type="checkbox"/> T-111 <input type="checkbox"/> Horiz <input type="checkbox"/> Vinyl <input type="checkbox"/> Stucco *Design Review approval may be required.	<input type="checkbox"/> HVAC Installations (Residential Only) <input type="checkbox"/> Change-out <input type="checkbox"/> New <input type="checkbox"/> Heat Pump <input type="checkbox"/> Package <input type="checkbox"/> Split system <input type="checkbox"/> Roof mount <input type="checkbox"/> Cut-in <input type="checkbox"/> Heat pump or elect. unit to gas. <input type="checkbox"/> Wall furnace <input type="checkbox"/> Other (describe below) Value of duct work: \$ Equipment: \$ Cut-in: \$ *Design Review approval may be required.	<input type="checkbox"/> Water Heater (Residential Only) <input type="checkbox"/> Gas <input type="checkbox"/> Electric <input type="checkbox"/> Change-out <input type="checkbox"/> Electric to Gas <input type="checkbox"/> Relocate <input type="checkbox"/> New <input type="checkbox"/> Dry Rot or Termites Damage Repair (Describe Locations Below) *Design Review approval may be required.	<input type="checkbox"/> Minor Electric and/or Plumbing (Residential Only) <input type="checkbox"/> Electric Service Change # amps <input type="checkbox"/> New electric circuits <input type="checkbox"/> Re-wire <input type="checkbox"/> Water Service Replacement <input type="checkbox"/> Sewer Service Replacement <input type="checkbox"/> Gas Line Replacement <input type="checkbox"/> Re-plumb <input type="checkbox"/> Water <input type="checkbox"/> Waste	<input type="checkbox"/> Public Utilities Safety Inspection (Residential and single apartment units Only) <input type="checkbox"/> SMUD <input type="checkbox"/> PG&E ◆ NOTE: Correction Notice items will require an additional building permit.
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**DESCRIPTION OF WORK:**

*Reroof, T/O, install engineer required structural upgrade & 26 sq's concrete tile.*

City of Sacramento  
Development Services Department  
**PLANNING REVIEW FOR BUILDING PERMIT SUBMITTAL**

ADDRESS: 1533 YOUNGS AVE	APN: 237-0163-021
DRPB AREA / PUD / SPD: EXPANDED NORTH AREA	ZONING: R-1
EXISTING LAND USE: SINGLE FAMILY RESIDENCE	
PROPOSED USE: NEW SIDING, REPLACE WINDOWS AND CHANGE ROOFING	
<b>PLANNING STAFF WILL CHECK ONE OR MORE OF THE ITEMS BELOW:</b>	
<input type="checkbox"/>	Planning review is NOT required.
<input type="checkbox"/>	Use is NOT allowed; applicant CANNOT submit for plan check.
<input checked="" type="checkbox"/>	Requires APPLICATION(s): PC      ZA      IR      ER    XX    DR      PB Required Planning application must be approved <i>before</i> project can be submitted for plan check
<input type="checkbox"/>	Application(s) IN PROGRESS:    File Number: Application must be approved before project can be submitted for plan check.
<input checked="" type="checkbox"/>	Application(s) COMPLETED:    File Number & approval date:    ER05-300 COMPLETED 12-14-2005 Building permit must conform to approved plans and comply with all conditions of approval. Do NOT accept applications for a building permit prior to the end of the 10-day appeal period.
<input type="checkbox"/>	Plans may be submitted for plan check. Plan checker(s) shall confirm compliance with Zoning Ordinance requirements and all applicable development standards <i>prior to issuance</i> of building permit.
<input type="checkbox"/>	Meets setback & lot coverage requirements as shown on site plan provided.
<input type="checkbox"/>	Plans to be submitted have been stamped/signed by Planning counter staff.
<input type="checkbox"/>	Route to SITE for plan check and inspection.
<input type="checkbox"/>	Route to SITE for inspection only, plan check not required.
<input type="checkbox"/>	Preliminary review ONLY; the information on this form must be reviewed again and confirmed at the time of building permit submittal.
CONDITIONS AND COMMENTS:	EXPANDED NORTH DESIGN REVIEW AREA. NO PLANS SUBMITTED PER ANDREA DIMATTEO AND MONICA MAY. NO SQ FOOTAGE TO BE ADDED, EXTERIOR REHAB ONLY. NEW STUCCO SIDING OVER EXISTING T-1-11 SIDING. REPLACING WINDOWS WITH HORIZONTAL SLIDING WINDOWS WITH GRIDS AND DECORATIVE TRIP AND SILL. TEAR OFF WOOD SHINGLE ROOF AND REPLACE WITH TILE. NO OTHER PLANNING ENTITLEMENTS APPARENT AT THIS TIME.
DATE: 12-14-2005	BY: CHRISTINA MONTANEZ



**CITY OF SACRAMENTO  
DEVELOPMENT SERVICES DEPARTMENT  
BUILDING DIVISION**

North Permit Center  
2101 Arena Blvd., Suite 200  
Sacramento, CA 95834  
Inspection: (916) 808-4677

**OWNER BUILDER VERIFICATION**

1. Check one below - I or my immediate family (parent, spouse, or child) will perform:

- A -  all the work authorized by this permit.
- B -  a portion of the work.
- C -  none of the work.

If B or C is checked, complete 2 or 3 below.

2. A State licensed contractor (\*) will be hired to do:

- all of the authorized work.
- a portion of the authorized work.

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

Type of Work \_\_\_\_\_

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

Type of Work \_\_\_\_\_

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

Type of Work \_\_\_\_\_

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

Type of Work \_\_\_\_\_

3.  I will utilize unlicensed person(s) other than my immediate family to perform all or portions of the authorized work. A Certificate of Workers Compensation must be on file at this office.

I declare under penalty of perjury that the above is true and correct. I have read and understand the owner-builder information on the reverse side of this form.

Signed: Property Owner X *Jose M Jimenez*

Date *8/18/06* Case No. \_\_\_\_\_ Permit No. *0612749*

Job Address *1533 Youngs Ave*

Note: \* Information regarding unknown contractors or change in subcontractors shall be submitted to the Building Inspection field office.

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PZSE, Inc. - Structural Engineers  
4701 Lakeside Way  
Fair Oaks, CA 95628

TEL: (916) 961-3960  
FAX: (916) 961-6552  
e-mail: paul@pzse.com

December 26, 2005

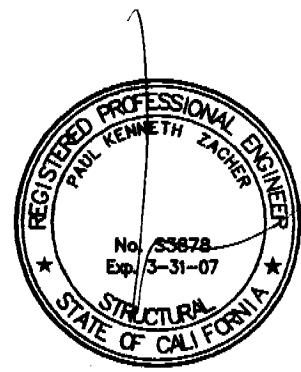
Jimenez  
1533 Youngs Avenue  
Del Paso Heights, CA 95838  
TEL: (916) 923-9934; M: (916) 240-3980  
FAX:

Attn.: Mr. Jimenez,

re: Job 2005015: JIMENEZ

Subject: Structural Investigation Report of the Roof for the Residence located at 1533 Youngs Avenue, Del Paso Heights, CA 95838.

ISSUED  
CITY OF SACRAMENTO  
AUG 18 2006  
DOWNTOWN PERMIT  
CENTER



As requested by Mr. Jimenez, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site December 6, 2005. The investigation was made to determine the existing condition of the structure. All information, data and analysis contained within this report are based on the 1997 Uniform Building Code with 2001 CBC Title 24 Amendments.

The following is based on visual observations with no subsurface investigation being made.

DESCRIPTION:

Type of Facility: Residence.  
Year Built: Estimated 1980's vintage.  
Occupancy: Residential.  
No. of Stories: One.  
Dimensions: Approximately 2000 square feet.



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division. The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.  
Approved By \_\_\_\_\_

MAB  
08-18-06

CONSTRUCTION:

Roof:  
The roof covering will consist of a *standard per sheet 3* Light Weight Concrete Tile over 7/16" solid sheathing. The roof structure is framed with pre-engineered wood trusses spaced at 24" on center.

CONCLUSIONS:

Roof:  
The roof structure currently lacks sufficient structural capacity for the applied live and dead loads. See "Recommendations" for location and repair to bring the roof structure up to the required capacity.

- Field verify  
- tile weight 10.3 psf  
- requirements of sheet 2 (of 19) are met  
1/19

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PZSE, Inc. - Structural Engineers  
4701 Lakeside Way  
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TEL: (916) 961-3960  
FAX: (916) 961-6552  
e-mail: paul@pzse.com

**RECOMMENDATIONS:**

If any of the following recommendations do not correspond to actual field conditions, the engineer of record shall be notified for further investigation and evaluation before continuing work.

**Roof Structure:**

1. Scab a 2x4 DF#2 x 10'-0" long rafter to the top chord of the existing truss. See details 1 and 2.

It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and are not an indication of a structural hazard or failure.

It shall be noted that some deflection of the rafters may be evident after installation of the tile. The existing roof framing has deflected but this may not be readily evident due to the uneven nature of the existing roofing material. Concrete tile is a very consistent and uniform product and when installed in an even plane, even small deflections can become apparent. This is only a cosmetic issue and not a structural concern.

The inspection consisted of visual observation only, made solely to determine the structural capacity of the existing roof. Analysis does not determine any effects on the overall structure under lateral forces or effects on the foundation unless specifically noted in the calculations and in this document. No warranties, expressed or implied, are made or intended in conjunction with this report. The inspection was made only to the portions that were accessible. The specific items noted were those that were observable and there may be defects that are not observable, or are hidden by architectural and structural materials.

If you have any questions on the above, do not hesitate to call.

Sincerely,



Paul Zacher, P.E., S.E.  
file



PAUL ZACHER- STRUCTURAL ENGINEERS, INC.

4701 Lakeside Way

Job #: 05\_651

Fair Oaks, Ca 95628

Date: 12/26/2005

TEL: (916) 961-3960

FAX: (916) 961-6552

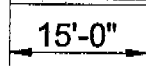
LOADING:

B1:

72 / 64

Dr = 17.9 psf x 4'-0" = 72 plf

4x12 #2



Lr = 16.0 psf x 4'-0" = 64 plf



Rev: 580006  
 User: KW-0602844, Ver 5.8.0, 1-Dec-2003  
 (c)1983-2003 ENERCALC Engineering Software

**Timber Beam & Joist**

Jimenez.ecw:Calculations

**Description RAFTERS AND BEAMS**

**Timber Member Information** Code Ref: 1997/2001 NDS, 2000/2003 IBC, 2003 NFPA 5000. Base allowables are user defined

		B1
<b>Timber Section</b>		4x12
Beam Width	in	3.500
Beam Depth	in	11.250
Le: Unbraced Length	ft	0.00
<b>Timber Grade</b>		Douglas Fir - Larch, No.2
Fb - Basic Allow	psi	875.0
Fv - Basic Allow	psi	95.0
Elastic Modulus	ksi	1,600.0
Load Duration Factor		1.250
Member Type		Sawn
Repetitive Status		No

**Center Span Data**

Span	ft	15.00
Dead Load	#/ft	72.00
Live Load	#/ft	64.00

**Results** Ratio = 0.5167

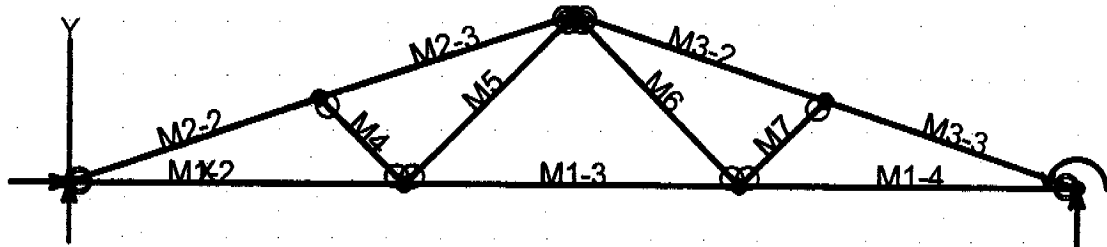
Mmax @ Center	in-k	45.90
@ X =	ft	7.50
fb : Actual	psi	621.7
Fb : Allowable	psi	1,203.1
Bending OK		
fv : Actual	psi	34.2
Fv : Allowable	psi	118.8
Shear OK		

**Reactions**

@ Left End	DL	lbs	540.00
	LL	lbs	480.00
	Max. DL+LL	lbs	1,020.00
@ Right End	DL	lbs	540.00
	LL	lbs	480.00
	Max. DL+LL	lbs	1,020.00

**Deflections** Deflection OK

Center DL Defl	in	-0.123
L/Defl Ratio		1,458.4
Center LL Defl	in	-0.110
L/Defl Ratio		1,640.7
Center Total Defl	in	-0.233
Location	ft	7.500
L/Defl Ratio		772.1



# Truss 1

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural - Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Owner\Desktop\Jimenez05\_651\Truss 1.vap

## Nodes

Node	X ft	Y ft	Fix DX	Fix DY	Fix RZ
N1	0.00	0.00	Yes	Yes	No
N2	19.00	0.00	No	"	Yes
N3	9.50	3.17	"	No	No
N4	6.33	0.00	"	"	"
N5	12.67	0.00	"	"	"
N6	4.75	1.59	"	"	"
N7	14.25	1.59	"	"	"

## Member Elements

Member	Section	Material	Length ft
M1-2	SS2x4	Wood	6.33
M1-3	"	"	6.33
M1-4	"	"	6.33
M2-2	"	"	5.01
M2-3	"	"	5.01
M3-2	"	"	5.01
M3-3	"	"	5.01
M4	"	"	2.24
M5	"	"	4.48
M6	"	"	4.48
M7	"	"	2.24

## Section Properties

Category	Section	Ax in <sup>2</sup>	Ix in <sup>4</sup>	Sy+ in <sup>3</sup>	Sy- in <sup>3</sup>
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

## Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft <sup>3</sup>
Wood	-NA-	1800000.00	0.36	40.47

## Load Combination Summary

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases & Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

## Nodal Reactions

Node	Load Case	FX	FY	MZ
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7

		lb	lb	lb-ft
N1	UBC97 12.8a	0.00	627.00	-NA-
N2	"	-NA-	627.00	0.00

## Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	1479.83	-29.94	-17.12	0.01	-0.10
"	1479.83	-11.78	26.90	0.01	-0.09
"	1479.83	6.38	32.61	0.00	-0.06
"	<b>1479.83</b>	24.53	0.00	0.00	0.00
M1-3	931.31	-27.23	-17.12	0.02	-0.10
"	931.31	-9.08	21.20	0.02	-0.12
"	931.31	9.08	21.20	0.01	-0.12
"	931.31	27.23	-17.12	0.01	-0.10
M1-4	1479.83	-24.53	0.00	0.03	0.00
"	1479.83	-6.38	32.61	0.03	-0.06
"	1479.83	11.78	26.90	0.02	-0.09
"	1479.83	29.94	-17.12	0.02	-0.10
M2-2	<b>-1594.4</b>	103.09	0.00	0.00	0.00
"	-1565.6	16.88	<b>100.06</b>	-0.00	-0.07
"	-1536.9	-69.33	56.28	-0.01	-0.09
"	-1508.1	<b>-155.54</b>	<b>-131.34</b>	-0.01	-0.10
M2-3	-1352.9	<b>155.54</b>	-131.34	-0.01	-0.10
"	-1324.1	69.33	56.28	-0.01	-0.13
"	-1295.3	-16.88	100.06	-0.02	<b>-0.14</b>
"	-1266.6	-103.09	0.00	-0.02	-0.10
M3-2	-1352.9	-155.54	-131.34	0.04	-0.09
"	-1324.1	-69.33	56.28	0.04	-0.12
"	-1295.3	16.88	100.06	0.05	-0.13
"	-1266.6	103.09	0.00	0.05	-0.09
M3-3	-1594.4	-103.09	0.00	0.03	<b>0.01</b>
"	-1565.6	-16.88	100.06	0.03	-0.06
"	-1536.9	69.33	56.28	0.04	-0.08
"	-1508.1	155.54	-131.34	0.04	-0.09
M4	-347.66	0.00	0.00	0.08	-0.07
"	-347.66	0.00	0.00	0.08	-0.06
"	-347.66	0.00	0.00	0.08	-0.06
"	-347.66	0.00	0.00	0.08	-0.05
M5	428.47	0.00	0.00	<b>-0.07</b>	-0.08
"	428.47	0.00	0.00	-0.06	-0.08
"	428.47	0.00	0.00	-0.06	-0.08
"	428.47	0.00	0.00	-0.06	-0.08
M6	428.47	0.00	0.00	0.08	-0.06
"	428.47	0.00	0.00	0.09	-0.06
"	428.47	0.00	0.00	0.09	-0.06
"	428.47	0.00	0.00	<b>0.09</b>	-0.06
M7	-347.66	0.00	0.00	-0.06	-0.09
"	-347.66	0.00	0.00	-0.06	-0.08
"	-347.66	0.00	0.00	-0.06	-0.08
"	-347.66	0.00	0.00	-0.06	-0.07

**BENDING & COMP: TRUSS 1 - MEMBER 2-2**

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

Grading:

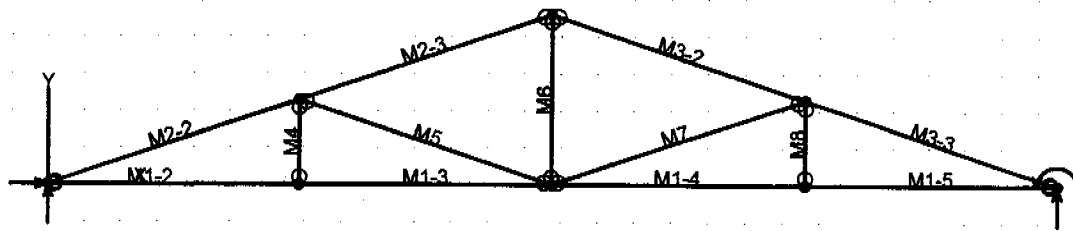
2x or 4x

Doug-fir larch: No. 2

Assumptions:

Solid sheathing on top chord of truss. Therefore,  
continuous lateral support is provided along compression face  
Maximum center-center spacing = 24"

Width, b	1.5 inches
Depth, d	3.5 inches
Length	5.01 feet
Max Axial Comp, C	1508 lbs
Max Reaction, R	155 lbs
Max Moment, M	131 ft-lbs
Max LL Deflection	0.05 inches
Max TL Deflection	0.10 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.5 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.15 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.14
fc =	287 psi
Fce=	1967 psi
Fc*=	2084 psi
F'c=	1398 psi
fb=	513 psi
F'b=Fb*=	2156 psi
Shear D/C ratio	0.37 < 1.0, Member OK
Interaction equation:	
(fc/F'c)^2 +	
fb/ (F'b(1-fc/Fce)) =	0.32 < 1.0, Member OK
Live Load defl ratio	0.20 < 1.0, Member OK
Total Load defl ratio	0.30 < 1.0, Member OK



## Truss 2

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural - Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Owner\Desktop\Jimenez05\_651\Truss 2.vap

### Nodes

Node	X ft	Y ft	Fix	DK	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes		No	
N2	27.50	0.00	No		"		Yes	
N3	13.75	4.58	"		No		No	
N4	6.88	0.00	"		"		"	
N5	13.75	0.00	"		"		"	
N6	20.63	0.00	"		"		"	
N7	6.88	2.29	"		"		"	
N8	20.63	2.29	"		"		"	

### Member Elements

Member	Section	Material	Length ft
M1-2	SS2x4	Wood	6.88
M1-3	"	"	6.88
M1-4	"	"	6.88
M1-5	"	"	6.88
M2-2	"	"	7.25
M2-3	"	"	7.25
M3-2	"	"	7.25
M3-3	"	"	7.25
M4	"	"	2.29
M5	"	"	7.25
M6	"	"	4.58
M7	"	"	7.25
M8	"	"	2.29

### Section Properties

Category	Section	Ax in <sup>2</sup>	Ix in <sup>4</sup>	Sy+ in <sup>3</sup>	Sy- in <sup>3</sup>
Wood	Sha SS2x4	5.25	5.36	3.06	3.06

### Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft <sup>3</sup>
Wood	-NA-	1800000.00	0.36	40.47

### Load Combination Summary

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases & Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

## Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
N1	UBC97 12.8a	0.00	910.25	-NA-
N2	"	-NA-	910.25	0.00

## Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	2184.21	-29.98	-2.87	0.02	-0.22
"	2184.21	-10.27	43.24	0.01	-0.18
"	2184.21	9.44	44.19	0.01	-0.11
"	<b>2184.21</b>	29.15	0.00	0.00	0.00
M1-3	2184.21	-35.78	-45.64	0.04	-0.23
"	2184.21	-16.08	13.76	0.03	-0.24
"	2184.21	3.63	28.02	0.03	-0.24
"	2184.21	23.34	-2.87	0.02	-0.22
M1-4	2184.21	-23.34	-2.87	0.06	-0.22
"	2184.21	-3.63	28.02	0.05	-0.24
"	2184.21	16.08	13.76	0.04	-0.24
"	2184.21	35.78	-45.64	0.04	-0.23
M1-5	2184.21	-29.15	0.00	0.08	0.00
"	2184.21	-9.44	44.19	0.07	-0.11
"	2184.21	10.27	43.24	0.06	-0.18
"	2184.21	29.98	-2.87	0.06	-0.22
M2-2	<b>-2350.7</b>	145.69	0.00	0.00	0.00
"	-2309.0	20.46	<b>200.54</b>	-0.01	-0.22
"	-2267.3	-104.78	98.71	-0.01	-0.26
"	-2225.5	<b>-230.01</b>	<b>-305.51</b>	-0.02	-0.22
M2-3	-1527.2	<b>230.01</b>	-305.51	-0.02	-0.22
"	-1485.5	104.78	98.71	-0.03	-0.33
"	-1443.8	-20.46	200.54	-0.03	<b>-0.37</b>
"	-1402.1	-145.69	0.00	-0.03	-0.22
M3-2	-1527.2	-230.01	-305.51	0.09	-0.20
"	-1485.5	-104.78	98.71	0.10	-0.31
"	-1443.8	20.46	200.54	0.10	-0.35
"	-1402.1	145.69	0.00	0.11	-0.20
M3-3	-2350.7	-145.69	0.00	0.07	0.02
"	-2309.0	-20.46	200.54	0.08	-0.20
"	-2267.3	104.78	98.71	0.09	-0.24
"	-2225.5	230.01	-305.51	0.09	-0.20
M4	53.32	0.00	0.00	0.22	0.02
"	53.32	0.00	0.00	0.22	0.03
"	53.32	0.00	0.00	0.22	0.04
"	53.32	0.00	0.00	<b>0.22</b>	0.05
M5	-851.52	0.00	0.00	0.11	-0.20
"	-851.52	0.00	0.00	0.11	-0.20
"	-851.52	0.00	0.00	0.11	-0.19
"	-851.52	0.00	0.00	0.12	-0.19
M6	609.76	0.00	0.00	-0.23	-0.04
"	609.76	0.00	0.00	<b>-0.23</b>	-0.04
"	609.76	0.00	0.00	-0.22	-0.04
"	609.76	0.00	0.00	-0.22	-0.04
M7	-851.52	0.00	0.00	-0.04	-0.23
"	-851.52	0.00	0.00	-0.04	-0.22
"	-851.52	0.00	0.00	-0.04	-0.22
"	-851.52	0.00	0.00	-0.04	-0.21
M8	53.32	0.00	0.00	0.22	0.03
"	53.32	0.00	0.00	0.22	0.04
"	53.32	0.00	0.00	0.22	0.05
"	53.32	0.00	0.00	0.22	<b>0.06</b>



**BENDING & COMP: TRUSS 2 - MEMBER 2-2**

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

Grading:

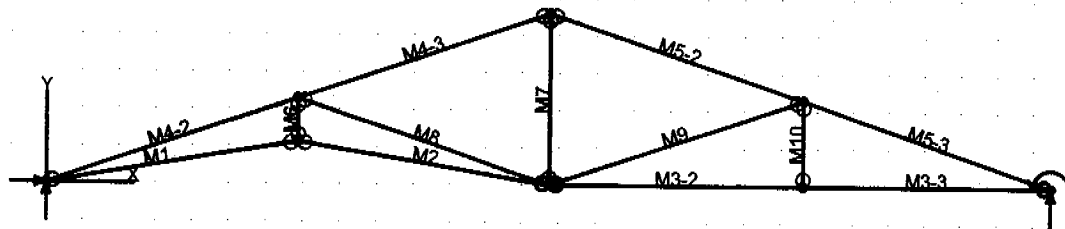
2x or 4x                      Doug-fir larch: No. 2

Assumptions:

Solid sheathing on top chord of truss. Therefore,  
continuous lateral support is provided along compression face

Maximum center-center spacing = 24"

Width, b	3 inches
Depth, d	3.5 inches
Length	7.25 feet
Max Axial Comp, C	2225 lbs
Max Reaction, R	230 lbs
Max Moment, M	305 ft-lbs
Max LL Deflection	0.11 inches
Max TL Deflection	0.22 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.5 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.15 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.20
fc =	212 psi
Fce =	990 psi
Fc* =	2084 psi
F'c =	867 psi
fb =	598 psi
F'b = Fb* =	2156 psi
Shear D/C ratio	0.28 < 1.0, Member OK
Interaction equation:	
(fc/F'c) <sup>2</sup> +	
fb / (F'b(1-fc/Fce)) =	0.41 < 1.0, Member OK
Live Load defl ratio	0.30 < 1.0, Member OK
Total Load defl ratio	0.46 < 1.0, Member OK



# Truss 3

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural - Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Owner\Desktop\Jimenez05\_651\Truss 3.vap

## Nodes

Node	X ft	Y ft	Fix	DX Fix	DY Fix	RZ Fix
N1	27.50	0.00	No	Yes	Yes	
N2	0.00	0.00	Yes	"	"	No
N3	13.75	4.58	No	No	"	"
N4	13.75	0.00	"	"	"	"
N5	6.88	1.13	"	"	"	"
N6	20.63	0.00	"	"	"	"
N7	6.88	2.29	"	"	"	"
N8	20.63	2.29	"	"	"	"

## Member Elements

Member	Section	Material	Length ft
M1	SS2x4	Wood	6.97
M2	"	"	6.97
M3-2	"	"	6.88
M3-3	"	"	6.88
M4-2	"	"	7.25
M4-3	"	"	7.25
M5-2	"	"	7.25
M5-3	"	"	7.25
M6	"	"	1.17
M7	"	"	4.58
M8	"	"	7.25
M9	"	"	7.25
M10	"	"	2.29

## Section Properties

Category	Section	Ax in <sup>2</sup>	Iz in <sup>4</sup>	Sy+ in <sup>3</sup>	Sy- in <sup>3</sup>
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

## Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft <sup>3</sup>
Wood	-NA-	1800000.00	0.36	40.47

## Load Combination Summary

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases & Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

## Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
N1	UBC97 12.8a	-NA-	910.25	0.00
N2	"	0.00	910.25	-NA-

## Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1	4246.09	29.17	0.00	0.00	0.00
"	4249.27	9.72	45.15	0.01	-0.28
"	4252.45	-9.72	45.15	0.03	-0.52
"	<b>4255.64</b>	-29.17	0.00	0.04	-0.72
M2	4246.09	-29.17	0.00	0.30	-0.49
"	4249.27	-9.72	45.15	0.29	-0.59
"	4252.45	9.72	45.15	0.28	-0.65
"	4255.64	29.17	0.00	0.27	-0.67
M3-2	2189.08	-31.62	-14.11	0.24	-0.37
"	2189.08	-11.91	35.74	0.23	-0.45
"	2189.08	7.80	40.44	0.23	-0.51
"	2189.08	27.51	0.00	0.22	-0.53
M3-3	2189.08	-27.51	0.00	0.26	0.00
"	2189.08	-7.80	40.44	0.25	-0.16
"	2189.08	11.91	35.74	0.25	-0.28
"	2189.08	31.62	-14.11	0.24	-0.37
M4-2	<b>-4475.3</b>	161.11	0.00	0.00	0.00
"	-4433.6	35.88	<b>237.79</b>	-0.01	-0.44
"	-4391.9	-89.36	173.19	-0.03	-0.66
"	-4350.1	-214.59	-193.78	-0.04	-0.73
M4-3	-1511.6	214.59	-193.78	-0.04	-0.73
"	-1469.9	89.36	173.19	-0.05	<b>-0.84</b>
"	-1428.2	-35.88	237.79	-0.05	-0.80
"	-1386.5	-161.11	0.00	-0.05	-0.54
M5-2	-1516.7	<b>-230.00</b>	<b>-305.39</b>	0.27	-0.30
"	-1475.0	-104.76	98.78	0.27	-0.47
"	-1433.3	20.47	200.58	0.28	-0.56
"	-1391.6	145.71	0.00	0.28	-0.46
M5-3	-2355.8	-145.71	0.00	0.25	0.08
"	-2314.1	-20.47	200.58	0.25	-0.19
"	-2272.4	104.76	98.78	0.26	-0.29
"	-2230.7	<b>230.00</b>	<b>-305.39</b>	0.27	-0.30
M6	1432.06	0.00	0.00	0.70	0.18
"	1432.06	0.00	0.00	0.70	0.19
"	1432.06	0.00	0.00	0.71	0.15
"	1432.06	0.00	0.00	<b>0.71</b>	0.17
M7	586.86	0.00	0.00	0.53	0.12
"	586.86	0.00	0.00	0.53	0.15
"	586.86	0.00	0.00	0.53	0.19
"	586.86	0.00	0.00	0.53	0.22
M8	-2981.4	0.00	0.00	<b>-0.40</b>	0.55
"	-2981.4	0.00	0.00	-0.40	<b>0.61</b>
"	-2981.4	0.00	0.00	-0.39	0.49
"	-2981.4	0.00	0.00	-0.38	0.43
M9	-867.15	0.00	0.00	0.03	-0.40
"	-867.15	0.00	0.00	0.04	-0.57
"	-867.15	0.00	0.00	0.04	-0.52
"	-867.15	0.00	0.00	0.04	-0.46
M10	63.23	0.00	0.00	0.37	0.16
"	63.23	0.00	0.00	0.37	0.19
"	63.23	0.00	0.00	0.37	0.21
"	63.23	0.00	0.00	0.37	0.24

**BENDING & COMP: TRUSS 3 - MEMBER 4-2**

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

**Grading:**

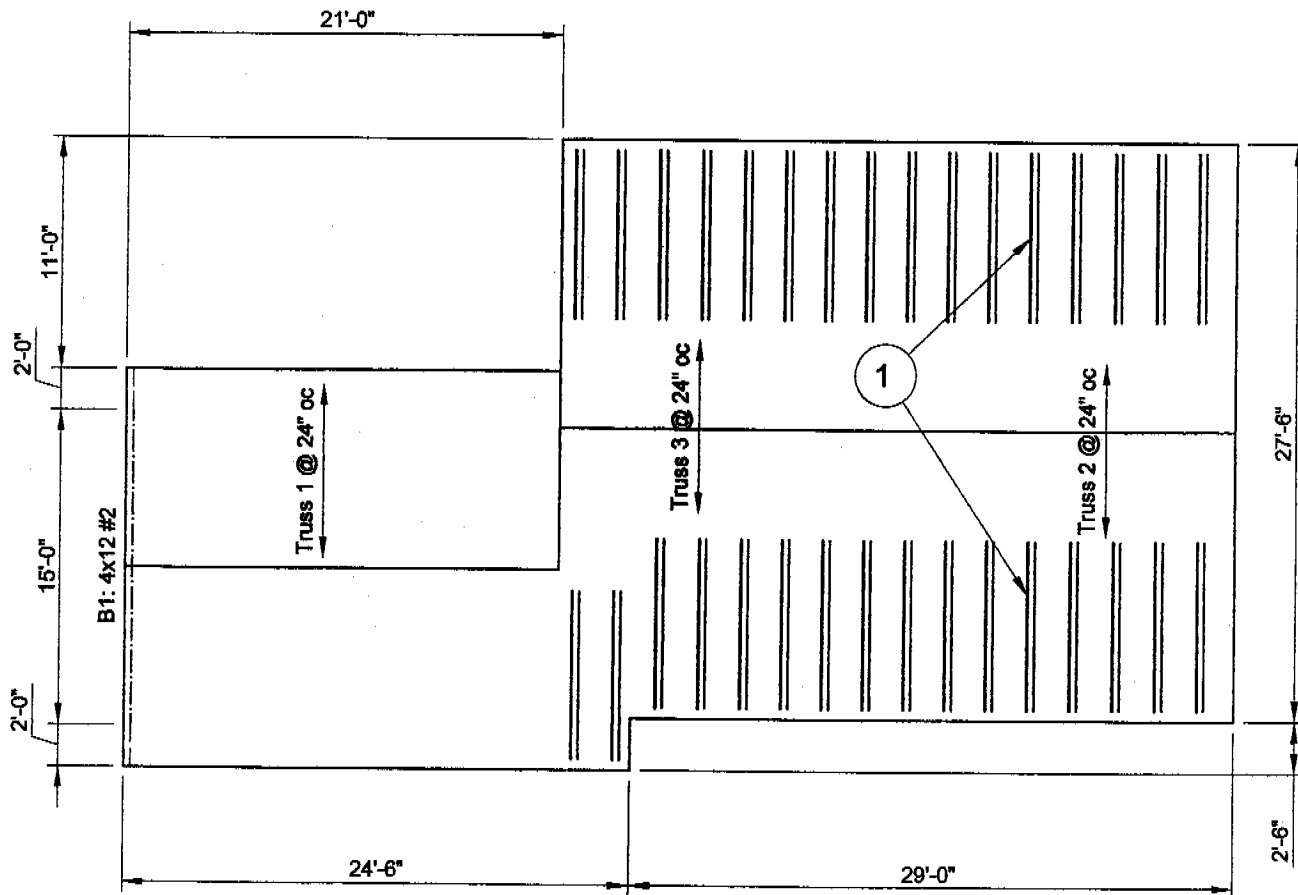
2x or 4x                      Doug-fir larch: No. 2

**Assumptions:**

Solid sheathing on top chord of truss. Therefore,  
continuous lateral support is provided along compression face

Maximum center-center spacing = 24"

Width, b	3 inches
Depth, d	3.5 inches
Length	7.25 feet
Max Axial Comp, C	4350 lbs
Max Reaction, R	214 lbs
Max Moment, M	193 ft-lbs
Max LL Deflection	0.19 inches
Max TL Deflection	0.38 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.5 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.15 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.20
fc =	414 psi
Fce =	990 psi
Fc* =	2084 psi
F'c =	867 psi
fb =	378 psi
F'b = Fb* =	2156 psi
Shear D/C ratio	0.26 < 1.0, Member OK
Interaction equation:	
(fc/F'c) <sup>2</sup> +	
fb / (F'b(1-fc/Fce)) =	0.53 < 1.0, Member OK
Live Load defl ratio	0.52 < 1.0, Member OK
Total Load defl ratio	0.79 < 1.0, Member OK

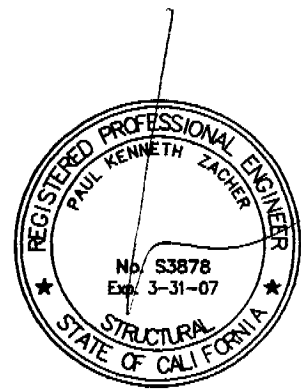


**FRAMING NOTES:**

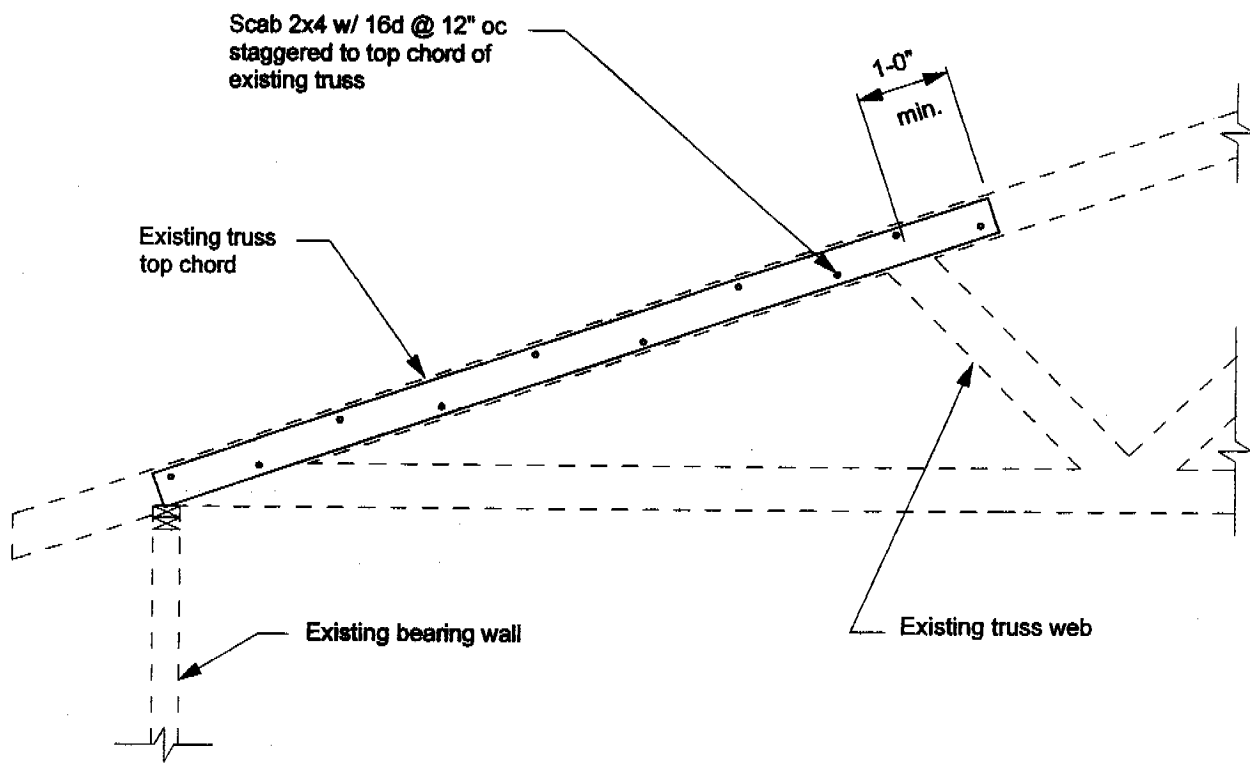
1. Scab a 2x4 DF#2 x 10'-0" long rafter to the top chord of the existing truss (total 32). See detail 2.

**NOTES:**

- A. This is a reroof project. The new roofing material shall be a Standard Weight Concrete Tile. The tile shall weigh less than or equal to 10.3 psf.
- B. All framing members including rafters, purlins, joists and beams are existing unless otherwise noted in the framing notes above.
- C. All structural wood members that were observed appear to be in sound condition and without structural defect.



**1 ROOF PLAN - JIMENEZ**  
Not to Scale



2

TRUSS REINFORCEMENT DETAIL

scale: 1/2" = 1'-0"

19

