

**CITY OF SACRAMENTO**

1231 I Street, Sacramento, CA 95814

Permit No: 0506397

Insp Area: 2

Thos Bros: 337B3

Site Address: 7574 RIVER RANCH WY SAC

Parcel No: 031-0790-030

Sub-Type: RES

Housing (Y/N): N

**CONTRACTOR**

AGUIRRE ROOFING  
3515 BINGHAMPTON DR  
SACRAMENTO CA 95834

**OWNER**

MARQUEZ MARCILINO H/SILVIA T  
7574 RIVER RANCH WY  
SACRAMENTO, CA 95831

**ARCHITECT**

Nature of Work: T/O, RESHEET, REROOF 40SQ LIGHTWEIGHT TILE

**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 C39 License Number 765880 Date 5-6-05 Contractor Signature [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 or 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);

I, as a 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 \_\_\_\_\_ Owner Signature \_\_\_\_\_

PAID  
CITY OF SACRAMENTO  
MAY 06 2005  
NORTH PERMIT  
CLINTEK

**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 above mentioned property for inspection purposes.

Date 5-6-05 Applicant/Agent Signature [Signature]

**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 STATE FUND Policy Number 1656828 Exp Date 10/01/2005

(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 5-6-05 Applicant Signature [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.**

**ROOF STRENGTHENING**  
**7574 RIVER RANCH WAY, SACRAMENTO CA**

Prepared for: - field verify structural  
Aguirre Roofing modifications see  
3515 Binghampton Drive page 2 of 7  
Sacramento, CA 95834



From the reactions of the the beam models included with these calculations the nails required for the ceiling joist tie/roof rafter system as exists can be determined by summation of moments about ridge point of a freebody diagram through the center of tied roof system. (see pg. 2.)

$$\begin{aligned} \frac{1}{2} \text{ half span of tied roof system} &= 39.5'/2 = 19.75' \\ \text{Span to interior support} &= 19.5'/2 = 9.75' \\ \text{Height @ center (exterior wall top plate to ridge bd.)} &= 19.75' \times 8''/12 = 13' \end{aligned}$$

Load case 1 - DL + LL all spans

$$\begin{aligned} \text{Reaction exterior wall} &= 352\# \\ \text{Reaction interior support} &= 2035\# \end{aligned}$$

$$\begin{aligned} \Sigma M &= [ 352\# \times 19.75' + 2035\# \times 9.75' - 4' \text{ spacing}(9.8+16)\text{psf} (19.75^2/2) ] \\ &= 6666 \text{ ft-lb} \end{aligned}$$

Load case 2 - DL all spans; LL over center span only (betw. Interior supports)

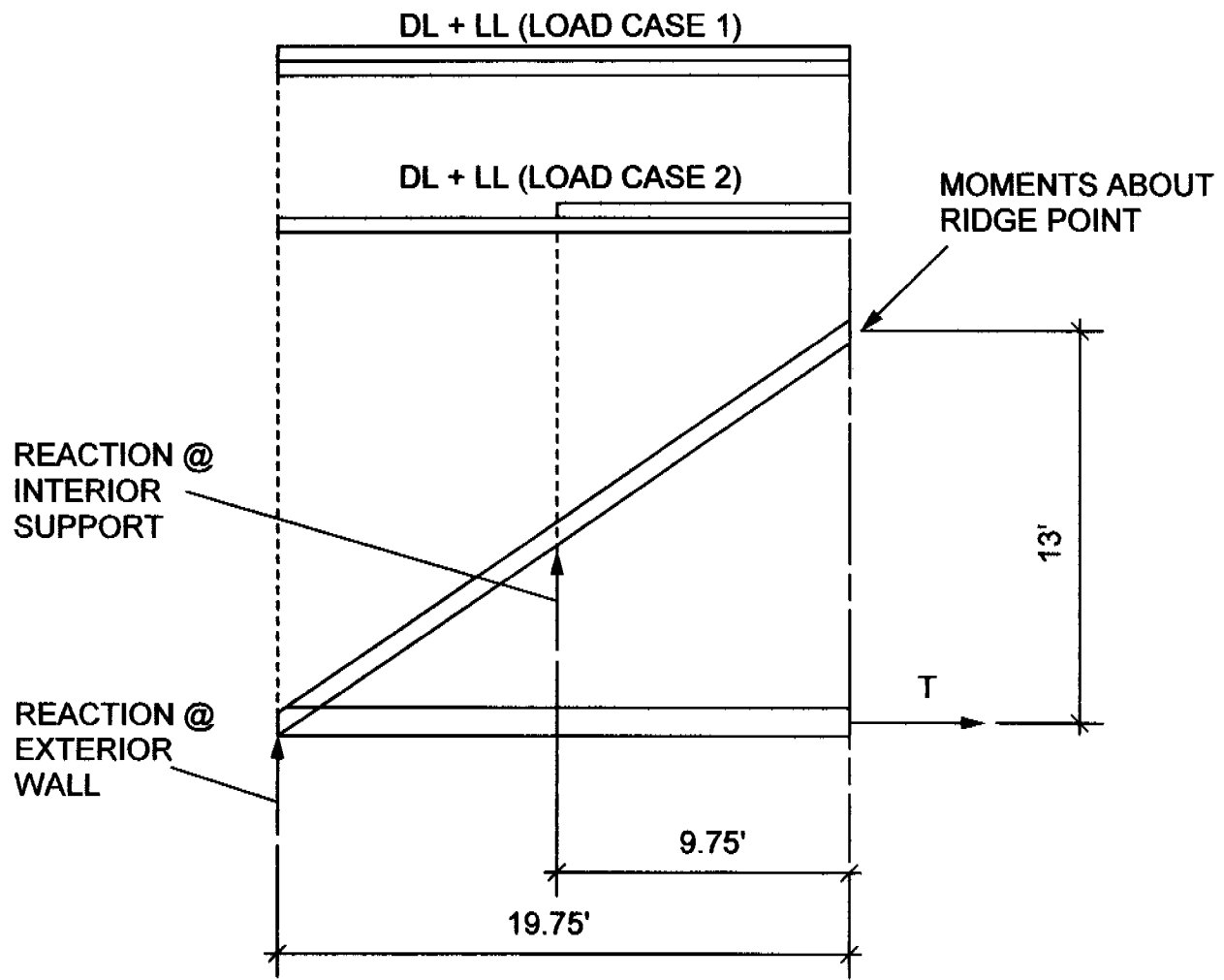
$$\begin{aligned} \text{Reaction exterior wall} &= 123\# \\ \text{Reaction interior support} &= 1685\# \end{aligned}$$

$$\begin{aligned} \Sigma M &= [ 123\# \times 19.75' + 1685\# \times 9.75' - 4' \text{ spacing}(9.8\text{psf})(19.75^2/2) \\ &\quad - 4' \text{ spacing}(16\text{psf})(9.75^2/2) ] \\ &= 8170 \text{ ft-lb} > 6666 \text{ ft-lb} \text{ Therefore Load case 2 governs.} \end{aligned}$$

$$T = 8170 \text{ ft-lb} / 13' = 629\#$$

$$\text{Number of 16d nails required} = 629\# / (1.25 \times 141 \text{ \#/nail}) = 3.57 \text{ nails}$$

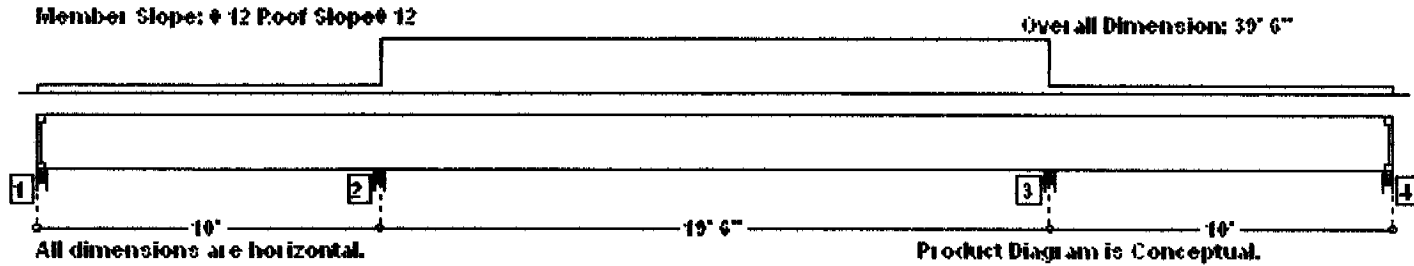
Revision to 0506397  
**OFFICE / CITY COPY**  
JKG 12-09-05



FREEBODY DIAGRAM

**3 1/2" x 11 7/8" 2.0E Parallam® PSL**

**THIS PRODUCT MEETS OR EXCEEDS THE SET DESIGN CONTROLS FOR THE APPLICATION AND LOADS LISTED**



**LOADS:**

Analysis is for a Header (Flush Beam) Member. Tributary Load Width: 4'  
 Primary Load Group - Roof (psf): 0.0 Live at 125 % duration, 9.8 Dead

**Vertical Loads:**

Type	Class	Live	Dead	Location	Application	Comment
Uniform(plf)	Roof(1.25)	64.0	0.0	10' To 29' 6"	Adds To	

**SUPPORTS:**

	Input Width	Bearing Length	Vertical Reactions (lbs) Live/Dead/Uplift/Total	Detail	Other	
1	Stud wall	3.50"	1.50"	-154 / 123 / -33 / 123	L1: Blocking	1 Ply 1 1/4" x 11 7/8" 1.3E TimberStrand® LSL
2	Stud wall	3.50"	1.50"	778 / 907 / 0 / 1685	R7	None
3	Stud wall	3.50"	1.50"	778 / 907 / 0 / 1685	R7	None
4	Stud wall	3.50"	1.50"	-154 / 123 / -33 / 123	L1: Blocking	1 Ply 1 1/4" x 11 7/8" 1.3E TimberStrand® LSL

-See TJ SPECIFIER'S / BUILDERS GUIDE for detail(s): L1: Blocking,R7

**DESIGN CONTROLS:**

	Maximum	Design	Control	Control	Location
Shear (lbs)	1133	-1001	10044	Passed (10%)	Rt. end Span 2 under Roof loading
Moment (Ft-Lbs)	-2913	-2913	24878	Passed (12%)	MID Span 3 under Roof ADJACENT span loading
Live Load Defl (in)		0.090	0.650	Passed (L/999+)	MID Span 2 under Roof loading
Total Load Defl (in)		0.149	0.975	Passed (L/999+)	MID Span 2 under Roof loading

-Deflection Criteria: MINIMUM(LL:L/360,TL:L/240).

-Bracing(Lu): All compression edges (top and bottom) must be braced at 14' 7" o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.

-The load conditions considered in this design analysis include alternate and adjacent member pattern loading.

-Design assumes adequate continuous lateral support of the compression edge.

**ADDITIONAL NOTES:**

-IMPORTANT! The analysis presented is output from software developed by Trus Joist (TJ). TJ warrants the sizing of its products by this software will be accomplished in accordance with TJ product design criteria and code accepted design values. The specific product application, input design loads, and stated dimensions have been provided by the software user. This output has not been reviewed by a TJ Associate.

-Not all products are readily available. Check with your supplier or TJ technical representative for product availability.

-THIS ANALYSIS FOR TRUS JOIST PRODUCTS ONLY! PRODUCT SUBSTITUTION VOIDS THIS ANALYSIS.

-Allowable Stress Design methodology was used for Building Code UBC analyzing the TJ Distribution product listed above.

**PROJECT INFORMATION:**

7574 RIVER RANCH WAY

**OPERATOR INFORMATION:**

frank gregorin  
 gregorin design & engineering  
 9469 fort worth wy  
 sacramento, CA 95827  
 Phone : 916-362-3230  
 gregorin@sbcglobal.net

**3 1/2" x 11 7/8" 2.0E Parallam® PSL**

**THIS PRODUCT MEETS OR EXCEEDS THE SET DESIGN CONTROLS FOR THE APPLICATION AND LOADS LISTED**

Load Group: Primary Load Group

	9' 10.00"	19' 6.00"	9' 10.00"
Max. Vertical Reaction Total (lbs)	123	1685	123
Max. Vertical Reaction Live (lbs)	-154	778	-154
Required Bearing Length in	1.50(W)	1.50(W)	1.50(W)
Max. Unbraced Length (in)	175	175	175

Loading on all spans, LDF = 0.90 , 1.0 Dead

Design Shear (lbs)	56	-339	449	-449	339	-56
Max Shear (lbs)	115	-398	509	-509	398	-115
Member Reaction (lbs)	115	907	907	907	115	
Support Reaction (lbs)	123	907	907	907	123	
Moment (Ft-Lbs)	126	-1396	1084	-1396	126	

Loading on all spans, LDF = 1.25 , 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	-98	-494	1001	-1001	494	98
Max Shear (lbs)	-40	-553	1133	-1133	553	40
Member Reaction (lbs)	-40	1685	1685	1685	-40	
Support Reaction (lbs)	-31	1685	1685	1685	-31	
Moment (Ft-Lbs)	N/A	-2913	2608	-2913	N/A	
Live Deflection (in)	-0.019	0.090	0.090	-0.019		
Total Deflection (in)	-0.025	0.149	0.149	-0.025		

ALTERNATE span loading on odd # spans, LDF = 1.25 , 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	-21	-416	725	-725	416	21
Max Shear (lbs)	37	-476	821	-821	476	-37
Member Reaction (lbs)	37	1296	1296	1296	37	
Support Reaction (lbs)	46	1296	1296	1296	46	
Moment (Ft-Lbs)	13	-2155	1846	-2155	13	
Live Deflection (in)	-0.010	0.045	0.045	-0.010		
Total Deflection (in)	-0.015	0.104	0.104	-0.015		

ALTERNATE span loading on even # spans, LDF = 1.25 , 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	-98	-494	1001	-1001	494	98
Max Shear (lbs)	-40	-553	1133	-1133	553	40
Member Reaction (lbs)	-40	1685	1685	1685	-40	
Support Reaction (lbs)	-33	1685	1685	1685	-33	
Moment (Ft-Lbs)	N/A	-2913	2608	-2913	N/A	
Live Deflection (in)	-0.019	0.090	0.090	-0.019		
Total Deflection (in)	-0.025	0.149	0.149	-0.025		

ADJACENT span loading over support # 2, LDF = 1.25, 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	-98	-494	1001	-1001	494	98
Max Shear (lbs)	-40	-553	1133	-1133	553	40
Member Reaction (lbs)	-40	1685	1685	1685	-40	
Support Reaction (lbs)	-31	1685	1685	1685	-31	
Moment (Ft-Lbs)	N/A	-2913	2608	-2913	N/A	
Live Deflection (in)	-0.019	0.090	0.090	-0.019		
Total Deflection (in)	-0.025	0.149	0.149	-0.025		

**PROJECT INFORMATION:**

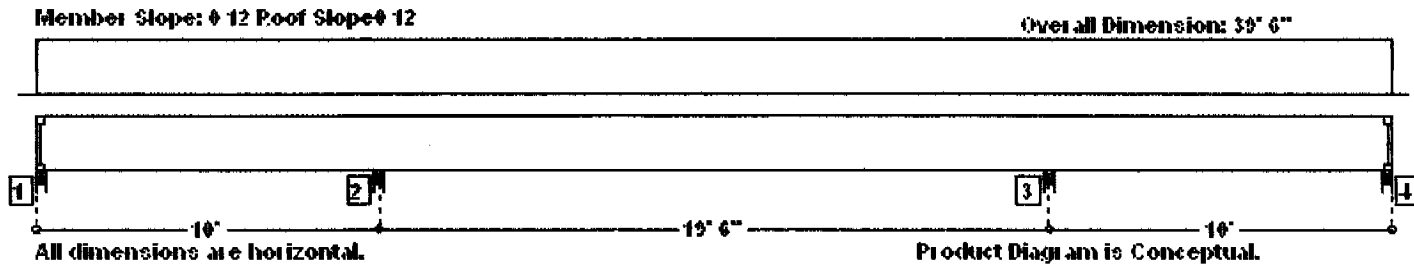
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**LOADS:**

Analysis is for a Header (Flush Beam) Member. Tributary Load Width: 4'  
 Primary Load Group - Roof (psf): 0.0 Live at 125 % duration, 9.8 Dead  
 Vertical Loads:

Type	Class	Live	Dead	Location	Application	Comment
Uniform(plf)	Roof(1.25)	64.0	0.0	0 To 39' 6"	Adds To	

**SUPPORTS:**

	Input Width	Bearing Length	Vertical Reactions (lbs) Live/Dead/Uplift/Total	Detail	Other
1	Stud wall 3.50"	1.50"	228 / 123 / 0 / 352	L1: Blocking	1 Ply 1 1/4" x 11 7/8" 1.3E TimberStrand® LSL
2	Stud wall 3.50"	1.50"	1128 / 907 / 0 / 2035	R7	None
3	Stud wall 3.50"	1.50"	1128 / 907 / 0 / 2035	R7	None
4	Stud wall 3.50"	1.50"	228 / 123 / 0 / 352	L1: Blocking	1 Ply 1 1/4" x 11 7/8" 1.3E TimberStrand® LSL

-See TJ SPECIFIER'S / BUILDERS GUIDE for detail(s): L1: Blocking, R7

**DESIGN CONTROLS:**

	Maximum	Design	Control	Control	Location
Shear (lbs)	-1143	-1011	10044	Passed (10%)	Rt. end Span 2 under Roof ADJACENT span loading
Moment (Ft-Lbs)	-3157	-3157	24878	Passed (13%)	Bearing 3 under Roof ADJACENT span loading
Live Load Defl (in)		0.081	0.650	Passed (L/999+)	MID Span 2 under Roof ALTERNATE span loading
Total Load Defl (in)		0.141	0.975	Passed (L/999+)	MID Span 2 under Roof ALTERNATE span loading

-Deflection Criteria: MINIMUM(LL:L/360, TL:L/240).

-Bracing(Lu): All compression edges (top and bottom) must be braced at 14' 7" o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.

-The load conditions considered in this design analysis include alternate and adjacent member pattern loading.

-Design assumes adequate continuous lateral support of the compression edge.

**ADDITIONAL NOTES:**

-IMPORTANT! The analysis presented is output from software developed by Trus Joist (TJ). TJ warrants the sizing of its products by this software will be accomplished in accordance with TJ product design criteria and code accepted design values. The specific product application, input design loads, and stated dimensions have been provided by the software user. This output has not been reviewed by a TJ Associate.

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-Allowable Stress Design methodology was used for Building Code UBC analyzing the TJ Distribution product listed above.

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TJ-Beam® 6.16 Serial Number: 7004124969  
 User: 2 10/25/2005 9:41:07 AM  
 Page 2 Engine Version: 1.16.5

NAILING FOR TIED ROOF USING CONT. BEAM MODEL. DL + LL ALL SPANS

**3 1/2" x 11 7/8" 2.0E Parallam® PSL**

**THIS PRODUCT MEETS OR EXCEEDS THE SET DESIGN CONTROLS FOR THE APPLICATION AND LOADS LISTED**

Load Group: Primary Load Group

	9' 10.00"	19' 6.00"	9' 10.00"	
Max. Vertical Reaction Total (lbs)	352	2035	2035	352
Max. Vertical Reaction Live (lbs)	228	1128	1128	228
Required Bearing Length in	1.50(W)	1.50(W)	1.50(W)	1.50(W)
Max. Unbraced Length (in)	175	175	175	175

Loading on all spans, LDF = 0.90 , 1.0 Dead

Design Shear (lbs)	56	-339	449	-449	339	-56
Max Shear (lbs)	115	-398	509	-509	398	-115
Member Reaction (lbs)	115		907		907	115
Support Reaction (lbs)	123		907		907	123
Moment (Ft-Lbs)		126	-1396	1084	-1396	126

Loading on all spans, LDF = 1.25 , 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	126	-755	1001	-1001	755	-126
Max Shear (lbs)	255	-887	1133	-1133	887	-255
Member Reaction (lbs)	255		2020		2020	255
Support Reaction (lbs)	274		2020		2020	274
Moment (Ft-Lbs)		280	-3108	2413	-3108	280
Live Deflection (in)		-0.008		0.073		-0.008
Total Deflection (in)		-0.014		0.132		-0.014

ALTERNATE span loading on odd # spans, LDF = 1.25 , 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	203	-678	725	-725	678	-203
Max Shear (lbs)	332	-810	821	-821	810	-332
Member Reaction (lbs)	332		1631		1631	332
Support Reaction (lbs)	352		1631		1631	352
Moment (Ft-Lbs)		475	-2349	1651	-2349	475
Live Deflection (in)		0.005		0.028		0.005
Total Deflection (in)		-0.007		0.087		-0.007

ALTERNATE span loading on even # spans, LDF = 1.25 , 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	14	-624	1001	-1001	624	-14
Max Shear (lbs)	108	-720	1133	-1133	720	-108
Member Reaction (lbs)	108		1853		1853	108
Support Reaction (lbs)	119		1853		1853	119
Moment (Ft-Lbs)		69	-3011	2511	-3011	69
Live Deflection (in)		-0.013		0.081		-0.013
Total Deflection (in)		-0.019		0.141		-0.019

ADJACENT span loading over support # 2, LDF = 1.25, 1.0 Dead + 1.0 Floor + 1.0 Roof

Design Shear (lbs)	121	-760	1011	-991	619	-19
Max Shear (lbs)	250	-892	1143	-1123	715	-113
Member Reaction (lbs)	250		2035		1838	113
Support Reaction (lbs)	269		2035		1838	124
Moment (Ft-Lbs)		269	-3157	2462	-2962	75
Live Deflection (in)		-0.008		0.077		-0.012
Total Deflection (in)		-0.014		0.136		-0.018

**PROJECT INFORMATION:**

7574 RIVER RANCH WAY

**OPERATOR INFORMATION:**

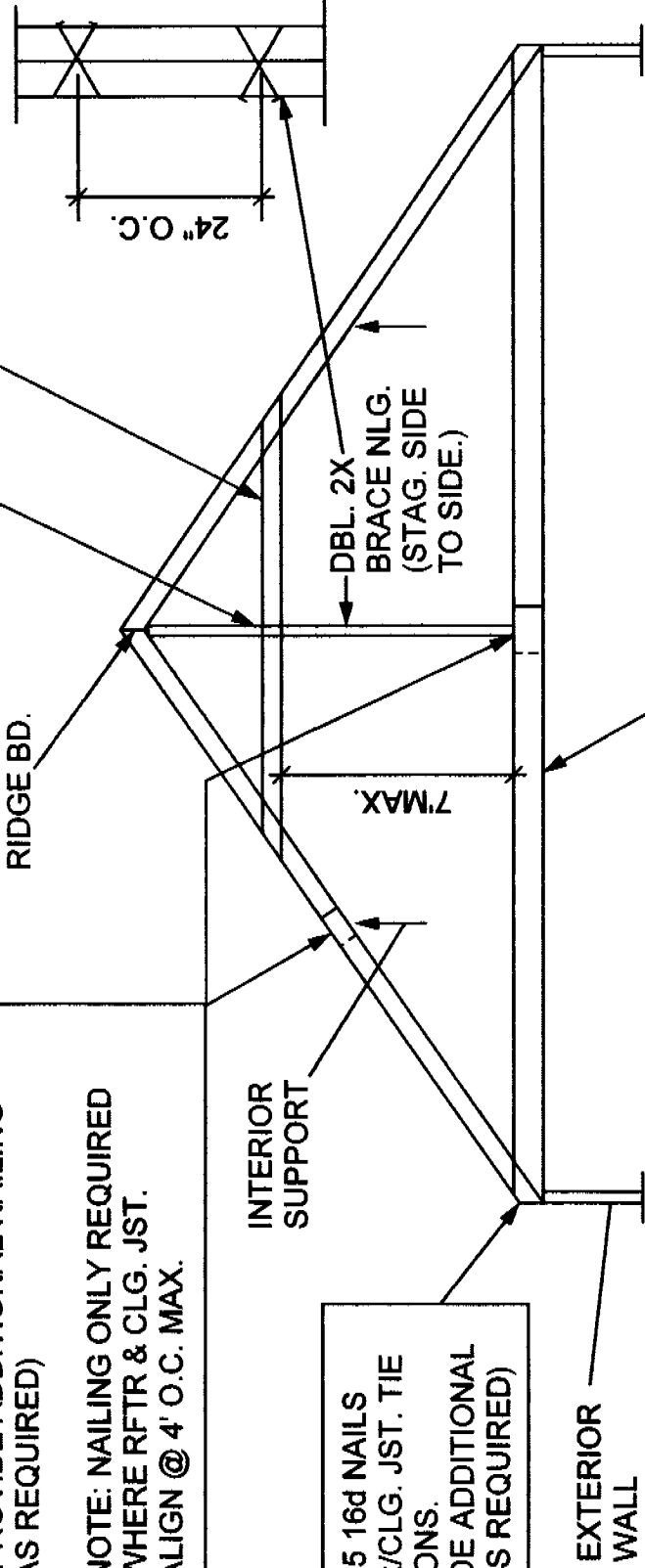
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AFTER RFTR & CLG. JST. TIE NAILING IS COMPLETE REPLACE BUCKLED DIAGONAL BRACING W/ DBL. 2X4 BRACING MIN.

VERIFY 5 16d NAILS @ ALL CLG. JST. TIE / RFTR SPLICE LOCATIONS. (PROVIDE ADDITIONAL NAILING AS REQUIRED)

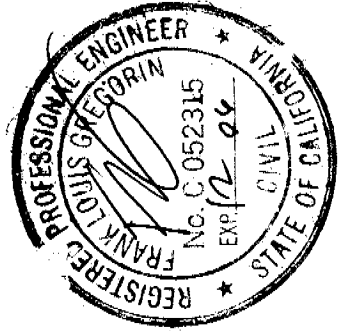
NOTE: NAILING ONLY REQUIRED WHERE RFTR & CLG. JST. ALIGN @ 4' O.C. MAX.

VERIFY 5 16d NAILS @ RFTR/CLG. JST. TIE LOCATIONS. (PROVIDE ADDITIONAL NAILS AS REQUIRED)



(E) 2X CLG. JST. TIE @ 4' O.C. ALIGNED W/ 2X RFTRS (VERIFY IN FIELD)

7



**STRENGTHENING REQUIREMENTS**