

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0009069
Insp Area: 2

Site Address: 6733 BREAKWATER WY SAC
Parcel No: 030-0670-039

Sub-Type: RES
Housing (Y/N): N

CONTRACTOR
ZIMMERMAN ROOFING
3675 R ST
SACRAMENTO CA 95816

OWNER
TRUMBLY RICHARD
6733 BREAKWATER WAY
SACRAMENTO CA 95831-1407

ARCHITECT

Nature of Work: TEAROFF REROOF WITH PIONEER TILE 4/12 PITCH.

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 C-39 License Number 557559 Date 8/7/00 Contractor Signature Lilly Coy

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractor 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
AUG 07 2000
NEIGHBORHOODS PLANNING
AND DEVELOPMENT SERVICES

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 8/7/00 Applicant/Agent Signature Lilly Coy

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 COMP INS FUND Policy Number 713-99-2021 Exp Date 10/01/2000

_____ (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 8/7/00 Applicant Signature Lilly Coy

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.



DEPARTMENT OF
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO
CALIFORNIA

12311 STREET
ROOM 200
SACRAMENTO, CA
95814-2921

Richard Trumbly
6733 Breakwater way
Sacramento, CA - 95831

Permit Services
916-264-7817
FAX 916-264-7046

TILE ROOF WORKSHEET

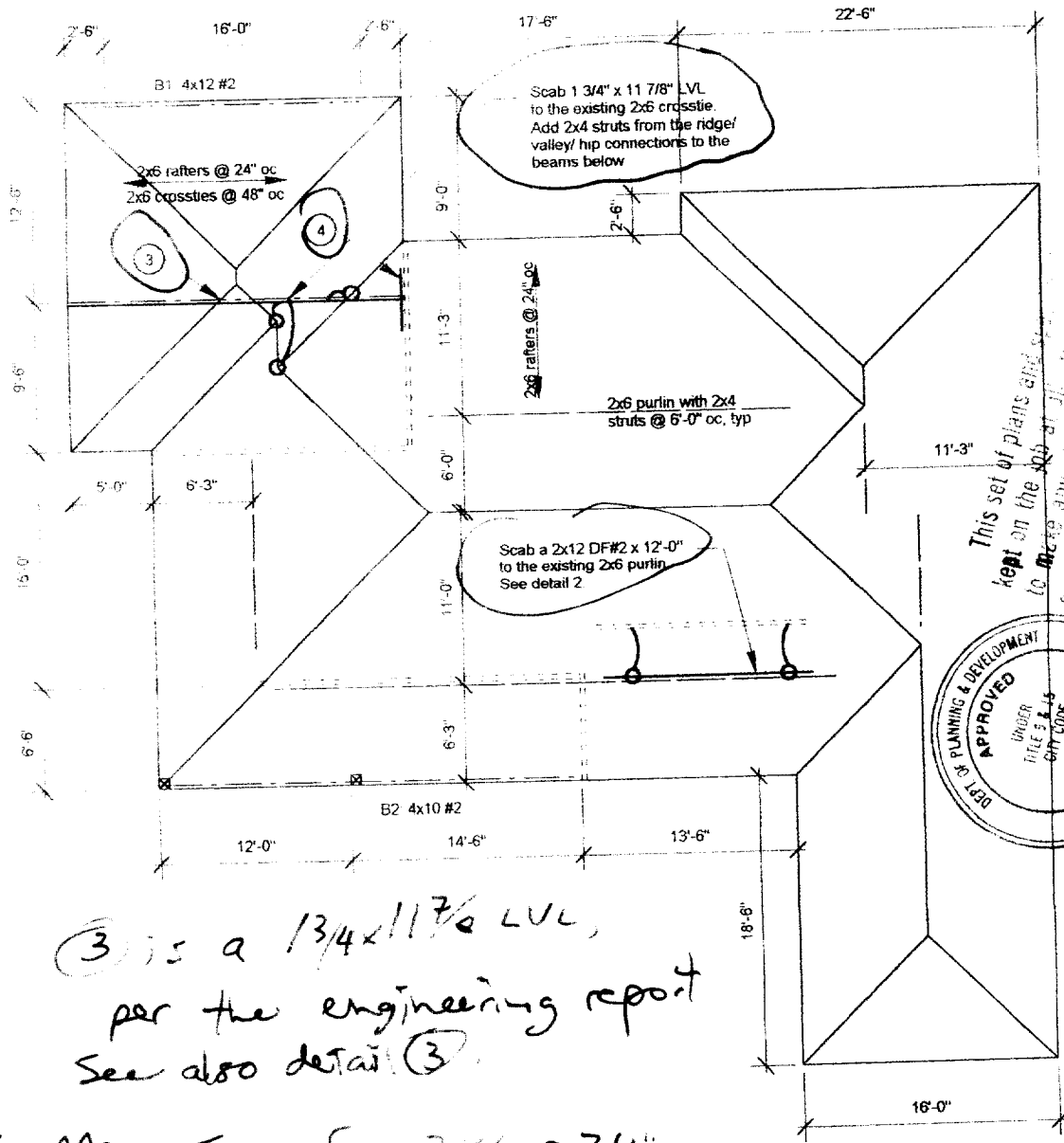
This worksheet must be filled out whenever any type of tile roof is applied for.

If the answer to question #5 is yes, a written engineering report from a registered engineer must be provided with each application.

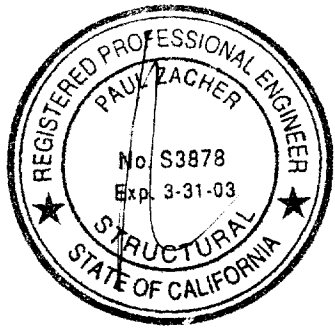
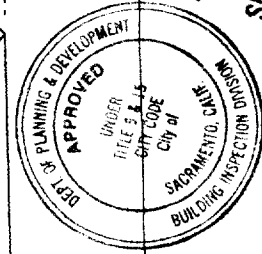
BRAND AND MODEL OF TILE	<u>Pioneer Lite weight</u>
TILE WEIGHT PER SQUARE	<u>730 lbs.</u>
HEIGHT OF ROOF SYSTEM PER SQUARE	<u>180 lbs</u>
TOTAL WEIGHT OF ROOF SYSTEM	<u>910 lbs</u>
DOS TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE?	<u>YES</u> NO
ROOF SLOPE	<u>4/12</u>

PLEASE PROVIDE A SEPARATE WORKSHEET FOR EACH APPLICATION INVOLVING A TILE ROOF.

See attached engin. report

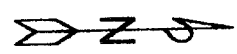


This set of plans and specifications is to be kept on the job at all times. No changes or alterations shall be made without written permission from the Building Inspection Division. The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.



→ ③ is a 1 3/4 x 11 7/8 LVL, per the engineering report. See also detail ③.

→ Max span for 2x6 @ 24" is 12', per engineering report.



Work required is circled.

Reviewed by Matt P.

Notes:

1. This is a reroof project. The new roofing material shall be a Light Weight Concrete Tile. The tile shall weigh less than or equal to 7.0 psf.
2. All rafters are 2x6 DF#2 and hips and valleys are 2x8 DF#2 unless otherwise noted.
3. All existing rafter, hips, valleys, rafter ties, and purlins are braced per UBC Section 2320.12 "Roof and Ceiling Framing" unless otherwise shown.
4. All structural wood members that were observed appear to be in sound condition and without structural defect.

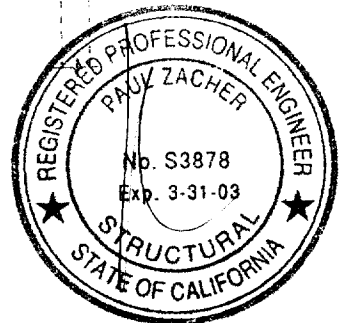
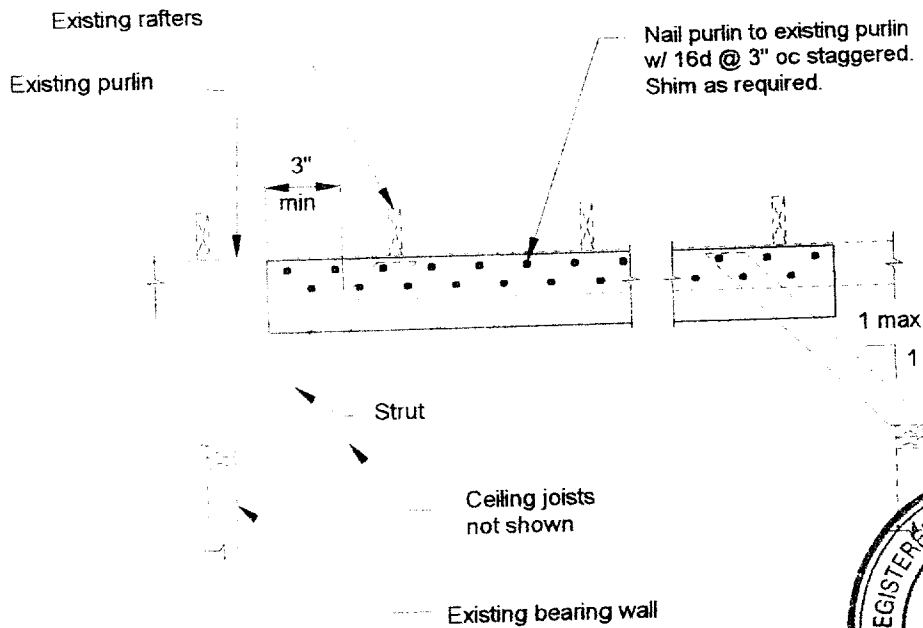
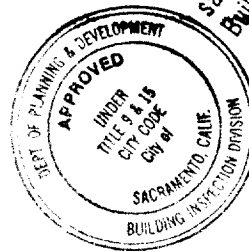


ROOF PLAN - TRUMBLY

Not to Scale

6

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.

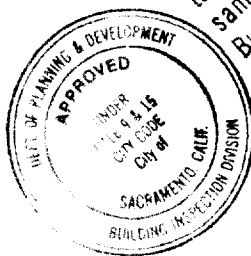


2

PURLIN DETAIL

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

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 department SHALL NOT be held liable for any violation of any City Ordinance.



Simpson TS18, strongback to beam, each side

Strut not shown (where occurs)

Existing 2x strongback

4" min

2x6 x 1'-0" long blocking both sides of strongback. Nail to beam w/ 4-16d's, typical each side of beam

Existing 2x cross tie or ceiling joist

Nail beam to cross tie/ ceiling joist w/ 16d @ 12" oc

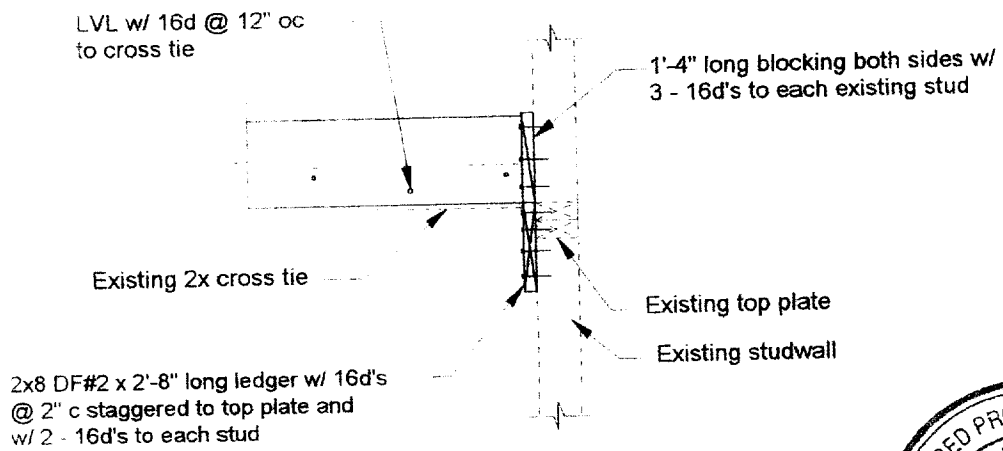
3

STRONGBACK DETAIL

No scale

8





4

LEDGER CONNECTION

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

Trumbly

Paul Zacher – Structural Engineers
4701 Lakeside Way
Fair Oaks, CA 95628

TEL: 916.961.3960
FAX: 916.961.6552

July 25, 2000

Zimmerman Roofing
3675 R Street
Sacramento, CA 95816
TEL: 916.454.3667
FAX: 916.455.3784



Attn: Mr. Jeff Tucker,

re: Job 2000_216: TRUMBLY

Subject: Structural Investigation Report of the Roof for the Residence located at 6733 Breakwater Way, Sacramento, CA 95831.

As requested by Mr. Jeff Tucker, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site July 25, 2000. 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.

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

DESCRIPTION:

Type of Facility: Residence
Year Built: Estimated 1970's vintage.
Occupancy: Residential.
No. of Stories: One.
Dimensions: Approximately 2000 square feet with a first story plate height of 8 feet.

CONSTRUCTION:

Roof:
The roof covering will consist of a Light Weight Concrete Tile over 1/2" solid sheathing. The living area is conventionally framed with 2x6 rafters spaced at 24" on center with 2x6 purlins supported at no more than 9'-0" on center by 2x4 struts bearing on walls below. The garage area is framed with 2x6 rafters spaced at 24" on center and 2x6 cross ties spaced at 4'-0" on center.

CONCLUSIONS:

Roof:
The living and garage areas lack sufficient structural capacity for the applied live and dead loads.

Assembly

Paul Zacher – Structural Engineers
4701 Lakeside Way
Fair Oaks, CA 95628

TEL: 916.961.3960
FAX: 916.961.6552

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.

Living Area

1. Scab a 2x12 DF#2 x 12'-0" long purlin to the existing 2x6 purlin which spans 9'-0". Attach it with 16d's @ 3" on center. Support the 2x12 to the bearing walls below with 2x4 struts. See details 1 and 2.

Garage:

2. Scab a 1 3/4" x 11 7/8" LVL beam to the existing 2x6 crosstie and nail together with 16d's @ 12" oc. The ends of the LVL may be clipped as required to meet the slope of the rafters. The support at the interior wall shall be a 2x8 x 2'-8" long ledger attached to the double top plate with 16d's @ 2" oc staggered. Support the existing ridge/ valley/ hip connections to the LVL beam with 2x4 struts. See details 1, 3 and 4.

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

DESIGN LOADING:

Roof Pitch	4	in 12
Pitch Adjustment Factor	1.05	

LOCATION: ROOF

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.00	psf
Roofing felt	0.30	psf
1/2" OSB/ plywood	1.50	psf
1x4 skip sht'g	1.09	psf
2x6 rafters @ 24" oc	<u>1.00</u>	psf
	Load	10.9 psf
Roof Pitch Adjustment	<u>0.59</u>	psf
Total Load	11.5	psf

...cher - Structural Engineers
 1701 Lakeside Way
 Fair Oaks
 TEL: (916) 961-3960
 FAX: (916) 961-6552

Title :
 Dsgnr :
 Description :
 Scope :

Job #
 Date: 3:46PM, 25 JUL 00

Rev: 8/10/04
 User: RW:0602344, Ver 5.1.3, 22 Jun 1999, Win32
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Timber Beam & Joist

c:\enercalc\test.ecw.Calculations

Description RAFTERS AND BEAMS

Timber Member Information Calculations are designed to 1997 NDS and 1997 UBC Requirements

	rafter	B1	B2	purlin	LVL
Timber Section	2x6	4x12	4x10	2x12	LVL:1.750x
Beam Width	in 1.500	3.500	3.500	1.500	1.750
Beam Depth	in 5.500	11.250	9.250	11.250	11.875
Le: Unbraced Length	ft 0.00	0.00	0.00	0.00	0.00
Timber Grade	Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch, Douglas Fir - Larch, Russ Joist - MacMil				
Fb - Basic Allow	psi 875.0	875.0	875.0	875.0	2,600.0
Fv - Basic Allow	psi 95.0	95.0	95.0	95.0	285.0
Elastic Modulus	ksi 1,600.0	1,600.0	1,600.0	1,600.0	1,900.0
Load Duration Factor	1.250	1.250	1.250	1.250	1.250
Member Type	Sawn	Sawn	Sawn	Sawn	Manuf/Pine
Repetitive Status	Repetitive	No	No	No	No

Center Span Data

	ft	ft	ft	ft	ft
Span	12.00	16.00	14.50	9.00	21.00
Dead Load	#/ft 23.00	81.00	40.00	101.00	
Live Load	#/ft 32.00	112.00	56.00	140.00	
Point #1 DL	lbs				736.00
LL	lbs				1,024.00
@ X	ft				9.000

Results

Ratio = 0.9607 0.8344 0.4622 0.8461 0.8115

Mmax @ Center	in-k	11.88	74.11	30.28	29.28	108.47
@ X =	ft	6.00	8.00	7.25	4.50	8.99
Fb: Actual	psi	1,570.9	1,003.8	606.6	925.4	2,637.3
Fb Allowable	psi	1,635.2	1,203.1	1,312.5	1,093.8	3,250.0
		Bending OK	Bending OK	Bending OK	Bending OK	Bending OK
Fv: Actual	psi	55.7	52.2	28.9	76.3	72.6
Fv Allowable	psi	118.8	118.8	118.8	118.8	356.3
		Shear OK	Shear OK	Shear OK	Shear OK	Shear OK

Reactions

@ Left End DL	lbs	138.00	648.00	290.00	454.50	420.57
LL	lbs	192.00	896.00	406.00	630.00	585.14
Max. DL+LL	lbs	330.00	1,544.00	696.00	1,084.50	1,005.71
@ Right End DL	lbs	138.00	648.00	290.00	454.50	315.43
LL	lbs	192.00	896.00	406.00	630.00	438.86
Max. DL+LL	lbs	330.00	1,544.00	696.00	1,084.50	754.29

Deflections

Ratio OK Deflection OK Deflection OK Deflection OK Deflection OK

Center DL Defl	in	-0.322	-0.180	-0.108	-0.052	-0.515
L/Defl Ratio		446.5	1,068.1	1,615.4	2,062.8	489.6
Center LL Defl	in	-0.449	-0.249	-0.151	-0.073	-0.716
L/Defl Ratio		320.9	772.5	1,153.9	1,488.1	351.9
Center Total Defl	in	-0.771	-0.428	-0.259	-0.125	-1.231
Location	ft	6.000	8.000	7.250	4.500	10.080
L/Defl Ratio		186.7	448.3	673.1	864.5	204.7