CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0111011
Insp Area: 1
Thos Bros: 297G6

Site Address: 1633 37TH ST SAC
Parcel No: 008-0451-019

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

CONTRACTOR
MILLS BUILDERS INC
3959 H STREET
SACRAMENTO CA 95819

OWNER
TAUTZ
1633 37TH ST
SAC CA 95816

ARCHITECT

Nature of Work: 1ST 134-SF; & 2ND STORY 1019-SF ADD'N; AND KITCHEN REMODEL.

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'sAddress_____

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 782869 Date 10-19-01 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 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_____

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 improvements 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 herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 10-19-01 Applicant/Agent 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 COMPENSATION INS FUND Policy Number 713-0006158-00 Exp Date 10/01/2001

_____ (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 10-19-01 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.

Certificate of Compliance
School District Development Fees

(Print or Type) If Printing, press hard for four copies

PART I To be completed by the APPLICANT (MUST BE FILLED OUT COMPLETELY)

OWNER'S NAME Jones

OWNER'S ADDRESS 3959 H St

PROJECT ADDRESS 1633 37th St

PARCEL NUMBER 008-0451-019 LOT NO.

SUBDIVISION NAME

NUMBER OF UNITS

Upon payment of the fees listed below, a 90-day approval period commences upon which the applicant paying the fees may protest such fees. Any failure to file such protest within the 90-day period shall result in forfeiture of any rights to challenge such fees, through litigation or otherwise.

APPLICANT'S SIGNATURE

TITLE OF APPLICANT Owner

DATE PHONE NUMBER

PART II To be completed by BUILDING DEPARTMENT

PLAN IDENTIFICATION NUMBER 011011

BUILDING TYPE

RESIDENTIAL (X) APARTMENT/CONDOMINIUM ( ) COMMERCIAL/INDUSTRIAL ( )

SQUARE FEET OF CHARGEABLE BUILDING AREA 1153 SQ. FT

SIGNATURE Lyubov Vlasenko

TITLE Build. Tech DATE 10-18-01

PART III To be completed by SCHOOL DISTRICT

SCHOOL DISTRICT

DISTRICT CERTIFICATION NO.

EXEMPT COMMENTS

RESIDENTIAL/APT/CONDO SQ FT X $ = $

COMMERCIAL/INDUSTRIAL SQ FT X $ = $

OTHER FEE TYPE SQ FT X $ = $

TOTAL FEES COLLECTED = $ 1983.16

This Certification covers only the amount of square footage indicated above. Any additions or corrections to the square footage for this project will require an amendment to the Certificate of Compliance.

As the authorized school district official, I hereby certify that the requirements of Government Code Section 65995 and any other authorized requirements have been complied with by the above signed applicant.

AUTHORIZED SCHOOL DISTRICT OFFICIAL

SIGNATURE

TITLE DATE 10/19/01

Original: School District 1st copy: School District 2nd copy: Building Department 3rd copy: Applicant

Revised 12/12/96

REQUEST FOR PLANNING STAFF REVIEW

. . . . . to be filled out by Building staff . . . . . .

CUSTOMER NAME: Tim Tautz

PROJECT ADDRESS: 1633 37th Street

PROJECT DESCRIPTION: 2nd story Addition, Downstairs remodel

DOES THE PROJECT INCLUDE ANY OF THE FOLLOWING TYPES OF WORK ?

New Buildings OR Exterior Work to Existing Buildings	(YES)	NO
Site Work (changes to Parking, outdoor Equipment, etc)	(YES)	NO
Change in Use OR Expansion of Existing Use	(YES)	NO

If customer answers "YES" to any of the above questions, application requires Planning review. Planning staff to fill out reverse side of this form.

If customer answers "NO" to ALL of the above questions, do not send application to Planning.

Confirmed by Building staff: DATE: 8/27/01 BY: AR

If, in reviewing the project plans for Building Permit application, there are any issues identified by Building staff that appear to require Planning staff review, please indicate those issues below and send the customer to Planning.

BUILDING STAFF COMMENTS: _____

_____ DATE: _____ BY: _____

PLANNING AND ZONING REVIEW

..... to be filled out by Planning staff .....

ADDRESS: 1633 - 37TH ST

APN: 008-045|-019 ZONING: R-1

DESIGN REVIEW AREA: No

PREVIOUS FILES RELATED TO SITE: NONE

EXISTING LAND USE: SFR

PROPOSED USE: 2ND STORY ADDITION, KITCHEN REMODEL, EXPANSION OF 150 SQ.FT. AT NORTH SIDE GROUND FLOOR.

COMMENTS: NEW FOOTPRINT (WITH DETACHED STRUCTURES FOOTPRINTS) DOES NOT EXCEED MAX. 40% LOT COVERAGE. NORTH SIDE INTERIOR SIDE SETBACK SHALL NOT BE LESS THAN 5-FT. OVERALL HEIGHT DOES NOT EXCEED 35-FT.

DATE: 8/27/01 BY: DH

DOES IT APPEAR THAT THE PROJECT WILL REQUIRE A PLANNING APPLICATION?

YES (NO) (If yes, circle applications needed below)

.....Staff.....ZA.....Planning Commission.....Design Review.....Preservation Review.....

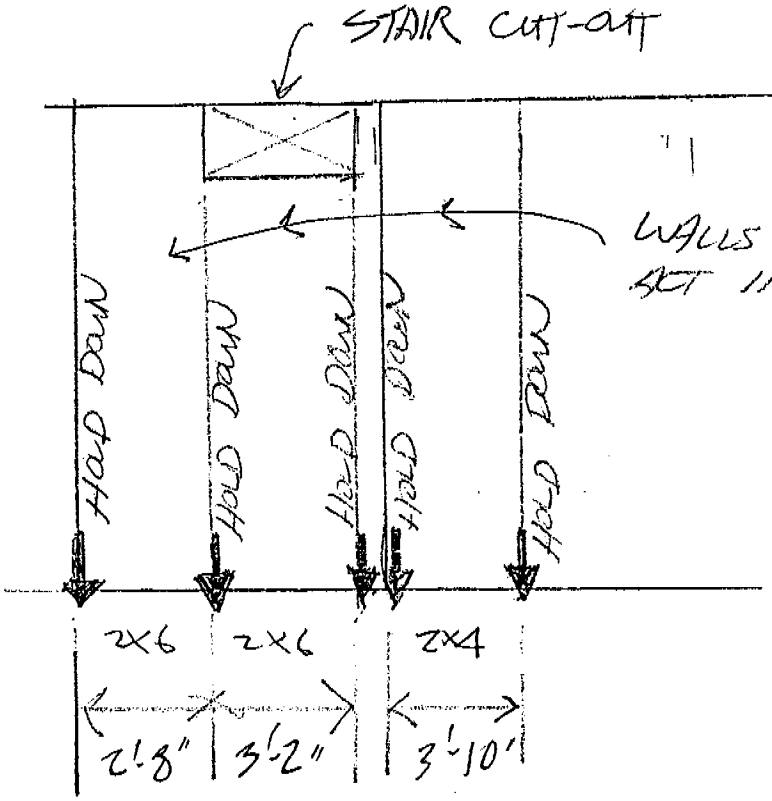
CONCLUSION: NO PLANNING ENTITLEMENT IS REQUIRED.

DATE: 8/27/01 BY: D. HUNG

REV. 4/12/02

REVISION - SHEAR WALL UNDER STAIRS

(LINE 7, 11.5' SHEAR WALL)



SHEAR WALL LAYOUT (ELEVATION VIEW)

SUBSTITUTE FOR 11.5' SHEAR WALL SHOWN ON PLAN. SEE REVISED CALCS.

HOLD DOWN - PHD2 SDS3 w/ 5/8" THD. ROD EPOXY DOWN IN 3/4" x 8" DEEP HOLE.

SHEAR WALL (343 PLF) 1/2" CDX OR OSB w/ 8d COMMON @ 4" EDGES, 8" FIELD.

Matt Parisek, P.E.
1881 Calaveras Drive, El Dorado Hills, CA 95762
Ph (916) 939-3525 Fax (916) 939-3547

Project: Tautz Residence
1633 37th Street
Sacramento, CA

Sheet:

Date: 8/23/01

LATERAL FORCES

Wind Force

Projected Area Method ('97 UBC Sec. 1621.3)

$P = C_e C_q q_s I_w$

Wind:	75 mph	C_e (max 15') =	0.62		
Exposure:	B	" (max 20') =	0.67		
C_q =	1.3	" (max 25') =	0.72		
q_s (psf) =	14.5	" (max 30') =	0.76		
I_w =	1.0	" (max 40') =	0.84		

Values of C_e

Ce*Cq*qs*Iw* [1]

15' =	11.69	psf
15'-20' =	12.63	psf
20'-25' =	13.57	psf
25'-30' =	14.33	psf
30'-40' =	15.83	psf

Seismic Force

$V = \frac{2.5\, C_a\, I}{R}$ (UBC 30-5)

Zone: 3
Z = 0.3

Soil Type: SE
Ca = 0.36
R = 5.5
I = 1.0

Rev. 4| 12/02 MP

For allowable stress design:
$F = \frac{E}{1.4}$ (UBC 12-16)

Notes for lateral forcel calcs. (superscript refs. appearing on this and following sheets)

1. Values used in spreadsheet to calculate wind pressure.
2. " w" is width of diaphragm facing direction of force, "d" is depth.
3. Heights are measured above ground. Height at top of roof is averaged.
4. Tributary width resisted by shear wall line.
5. Seismic forces are unreduced for r. See following sheets for calculaiton of r.

Continued on next sheet

Continued from previous sheet Sheet:

Roof Diaphragm Forces

Date: 8/23/01

Dphm No.	Force Dir.	Dimensions[2] w (ft)	Dimensions[2] d (ft)	Wind Force Height[3] (ft) Bot.	Wind Force Height[3] (ft) Top	Wind Force F_w (lbs)	Seismic Force D.L. (psf)	Seismic Force $\frac{2.5\,C_a}{1.4\,R}$	Seismic Force $F_{e.q.}$ (lbs)	Dist. Forces to Wall Lines Wall Line	Trib[4] (ft)	Wind (lbs)	E.Q.[5] (lbs)
1	n-s	31.5	40.0	17.0	25.0	3,331	25	0.117	3,682	1	16.5	1,745	1,929
										2	15.0	1,586	1,753
												-	-
												-	-
1	e-w	40.0	31.5	17.0	28.5	6,236	25	0.117	3,682	3	7.5	1,169	690
										4	20.0	3,118	1,841
										5	12.5	1,949	1,151
												-	-

Story Shear due to Seismic Forces 3,682

2nd Floor Diaphragm Forces

Date:

Dphm No.	Force Dir.	Dimensions[2] w (ft)	Dimensions[2] d (ft)	Wind Force Height[3] (ft) Bot.	Wind Force Height[3] (ft) Top	Wind Force F_w (lbs)	Seismic Force D.L. (psf)	Seismic Force $\frac{2.5\,C_a}{1.4\,R}$	Seismic Force $F_{e.q.}$ (lbs)	Dist. Forces to Wall Lines Wall Line	Trib[4] (ft)	Wind (lbs)	E.Q.[5] (lbs)
2	n-s	43.5	40.0	5.0	17.0	6,184	25	0.117	5,084	7	15.5	2,203	1,812
										8	13.0	1,848	1,519
										9	6.0	853	701
												-	-
2	e-w	40.0	43.5	5.0	17.0	5,686	25	0.117	5,084	10	9.0	1,279	1,144
										11	20.0	2,843	2,542
										12	11.0	1,564	1,398
												-	-

Story Shear due to Seismic Forces 8,766

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Project: Tautz Residence
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Sacramento, CA

Sheet:

Date: 8/23/01

SHEAR WALL FORCES

Formulas for redundancy calculations

$$E = \rho E_h \qquad \text{(UBC 30-1)}$$

$$\rho = 2 - \frac{20}{r_{max}\sqrt{A_B}} \qquad \text{(UBC 30-3)}$$

and $1.0 < \rho < 1.5$ UBC Sec. 1630.1.1

$$r_i = \left[\frac{\text{wall shear} \times \frac{10}{\ell_w}}{\text{story shear}} \right] \qquad \text{(UBC Sec. 1630.1.1- shear walls)}$$

$$r_i = \left[\frac{\text{max. sum of shear in any 2 adjoining columns}}{\text{story shear}} \right] \qquad \text{(UBC Sec. 1630.1.1- moment frames)}$$

Area of ground floor

$A_B =$ 2,200 sq. ft. (includes overhang & projections)

Notes for shear wall calcs. (superscript refs. appearing on following sheets)

1. "Source" is either a diaphragm or another wall line
2. "ρ" is the max. calculated, based on the max. "r" value for the story being calculated

Continued on next sheet

Continued from previous sheet

Sheet:
Date: 8/23/01

Shear Walls for Roof Diaphragm **N-S Forces** Story Shear = 3,682

Wall Line No.	Lateral Force (lbs) Source[1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	Redundancy Calc.[2] ρ -	Redundancy Calc.[2] Adj EQ (plf)	Controlling Force Type (W/EQ)	Controlling Force Force (plf)
1	D1	1,745	1,929	7.2							
		-	-	2.5							
		-	-	-							
		-	-	-							
	Σ	1,745	1,929	9.7	180	199	0.540	1.21	241	EQ	241
2	D1	1,586	1,753	9.5							
		-	-	12.6							
		-	-	-							
		-	-	-							
	Σ	1,586	1,753	22.1	72	79	0.215	1.21	96	EQ	96

Shear Walls for Roof Diaphragm **E-W Forces** Story Shear = 3,682

Wall Line No.	Lateral Force (lbs) Source[1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	Redundancy Calc.[2] ρ -	Redundancy Calc.[2] Adj EQ (plf)	Controlling Force Type (W/EQ)	Controlling Force Force (plf)
3	D1	1,169	690	13.0							
		-	-	6.2							
		-	-	-							
		-	-	-							
	Σ	1,169	690	19.2	61	36	0.098	1.00	36	W	61
4	D1	3,118	1,841	14.6							
		-	-	-							
		-	-	-							
		-	-	-							
	Σ	3,118	1,841	14.6	214	126	0.342	1.00	126	W	214
5	D2	1,949	1,151	10.5							
		-	-	-							
		-	-	-							
		-	-	-							
	Σ	1,949	1,151	10.5	186	110	0.298	1.00	110	W	186

Continued on next sheet

Continued from previous sheet

Sheet:
Date: 8/23/01

Shear Walls for 2nd Floor Diaph. **N-S Forces** Story Shear = 8,766

Wall Line No.	Lateral Force (lbs) Source [1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	ρ -	Adj EQ (plf)	Controlling Force Type (W/EQ)	Force (plf)
7	D2	2,203	1,812	2.7							
	L1	1,745	1,929	3.1							
		-	-	2.9							
		-	-	2.8							
	Σ	3,948	3,741	11.5	343	325	0.371	1.00	325	W	343
8	D2	1,848	1,519	10.7							
	L2	1,586	1,753	8.0							
		-	-	-							
		-	-	-							
	Σ	3,434	3,272	18.7	184	175	0.200	1.00	175	W	184
9	D2	853	701	4.5							
		-	-	-							
		-	-	-							
		-	-	-							
	Σ	853	701	4.5	190	156	0.178	1.00	156	W	190

Shear Walls for 2nd Floor Diaph. **E-W Forces** Story Shear = 8,766

Wall Line No.	Lateral Force (lbs) Source [1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	ρ -	Adj EQ (plf)	Controlling Force Type (W/EQ)	Force (plf)
10	D2	1,279	1,144	5.4							
	L3	1,169	690	7.5							
		-	-	-							
		-	-	-							
	Σ	2,448	1,834	12.9	190	142	0.162	1.10	156	W	190
11	D2	2,843	2,542	10.6							
	L4	3,118	1,841	-							
		-	-	-							
		-	-	-							
	Σ	5,961	4,383	10.6	562	413	0.472	1.10	453	W	562
12	D2	1,564	1,398	7.4							
	L5	1,949	1,406	4.6							
		-	-	-							
		-	-	-							
	Σ	3,513	2,804	12.0	293	234	0.267	1.10	256	W	293

Continued on next sheet

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Sheet:
Date: 8/23/01

Uplift- Walls Resisting Roof Diaph. **N-S Forces**

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift: Uplift [1] (lbs)	Additional Uplift: Source [2] -	Additional Uplift: Uplift (lbs)	Resisting Force: D.L. (plf)	Resisting Force: Factor 0.67	Resisting Force: Force (lbs)	Net Uplift (lbs)
1	7.2	6.0	241	1,444			248	0.67	(598)	846
	2.5	6.0	241	1,444			248	0.67	(208)	1,237
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
2	9.5	6.0	96	576			248	0.67	(789)	(213)
	12.6	6.0	96	576			248	0.67	(1,047)	(471)
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-

Uplift- Walls Resisting Roof Diaph. **E-W Forces**

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift: Uplift [1] (lbs)	Additional Uplift: Source [2] -	Additional Uplift: Uplift (lbs)	Resisting Force: D.L. (plf)	Resisting Force: Factor 0.67	Resisting Force: Force (lbs)	Net Uplift (lbs)
3	13.0	6.0	61	365			110	0.67	(479)	(114)
	6.2	6.0	61	365			110	0.67	(228)	137
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
4	14.6	6.0	214	1,281			80	0.67	(391)	890
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
5	10.5	6.0	186	1,114			110	0.67	(387)	727
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-

Continued on next sheet

Continued from previous sheet

Sheet:
Date: 8/23/01

Uplift- Walls Resisting 2nd Floor Diaph. ***N-S Forces***

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift Uplift [1] (lbs)	Source [2] -	Uplift (lbs)	Resisting Force D.L. (plf)	Factor 0.67	Force (lbs)	Net Uplift (lbs)
7	2.7	6.0	343	2,060			80	0.67	(72)	1,987
	3.1	6.0	343	2,060	L1	1,979	170	0.67	(177)	3,862
	2.9	6.0	343	2,060				0.67	-	2,060
	2.8	6.0	343	2,060				0.67	-	2,060
8	10.7	6.0	184	1,102			140	0.67	(502)	600
	8.0	6.0	184	1,102			140	0.67	(375)	727
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
9	4.5	6.0	190	1,137			60	0.67	(90)	1,047
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-

Sheet:
Date: 8/23/01

Uplift- Walls Resisting 2nd Floor Diaph. ***E-W Forces***

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift Uplift [1] (lbs)	Source [2] -	Uplift (lbs)	Resisting Force D.L. (plf)	Factor 0.67	Force (lbs)	Net Uplift (lbs)
10	5.4	6.0	190	1,139			110	0.67	(199)	940
	7.5	6.0	190	1,139			110	0.67	(276)	862
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
11	10.6	6.0	562	3,374			80	0.67	(284)	3,090
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
12	7.4	6.0	293	1,757			110	0.67	(273)	1,484
	4.6	6.0	293	1,757			110	0.67	(170)	1,587
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-

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Project: Tautz Residence
1633 37th Street
Sacramento, CA

Sheet:

Date: 8/23/01

SHEAR WALL FORCES

Formulas for redundancy calculations

$$E = \rho E_h \qquad \text{(UBC 30-1)}$$

$$\rho = 2 - \frac{20}{r_{max}\sqrt{A_B}} \qquad \text{(UBC 30-3)}$$

and $1.0 < \rho < 1.5$ UBC Sec. 1630.1.1

$$r_i = \left[\frac{\text{wall shear} \times \frac{10}{\ell_w}}{\text{story shear}} \right] \qquad \text{(UBC Sec. 1630.1.1- shear walls)}$$

$$r_i = \left[\frac{\text{max. sum of shear in any 2 adjoining columns}}{\text{story shear}} \right] \qquad \text{(UBC Sec. 1630.1.1- moment frames)}$$

Area of ground floor

$A_B =$ 2,200 sq. ft. (includes overhang & projections)

Notes for shear wall calcs. (superscript refs. appearing on following sheets)

1. "Source" is either a diaphragm or another wall line
2. "ρ" is the max. calculated, based on the max. "r" value for the story being calculated

Continued on next sheet

Continued from previous sheet

Sheet:
Date: 8/23/01

Shear Walls for Roof Diaphragm ***N-S Forces*** *Story Shear = 3,682*

Wall Line No.	Lateral Force (lbs) Source[1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	ρ -	Adj EQ (plf)	Controlling Force Type (W/EQ)	Force (plf)
1	D1	1,745	1,929	7.2							
		-	-	2.5							
		-	-	-							
		-	-	-							
	Σ	1,745	1,929	9.7	180	199	0.540	1.21	241	EQ	241
2	D1	1,586	1,753	9.5							
		-	-	12.6							
		-	-	-							
		-	-	-							
	Σ	1,586	1,753	22.1	72	79	0.215	1.21	96	EQ	96

Shear Walls for Roof Diaphragm ***E-W Forces*** *Story Shear = 3,682*

Wall Line No.	Lateral Force (lbs) Source[1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	ρ -	Adj EQ (plf)	Controlling Force Type (W/EQ)	Force (plf)
3	D1	1,169	690	13.0							
		-	-	6.2							
		-	-	-							
		-	-	-							
	Σ	1,169	690	19.2	61	36	0.098	1.00	36	W	61
4	D1	3,118	1,841	14.6							
		-	-	-							
		-	-	-							
		-	-	-							
	Σ	3,118	1,841	14.6	214	126	0.342	1.00	126	W	214
5	D2	1,949	1,151	10.5							
		-	-	-							
		-	-	-							
		-	-	-							
	Σ	1,949	1,151	10.5	186	110	0.298	1.00	110	W	186

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Shear Walls for 2nd Floor Diaph. ***N-S Forces*** *Story Shear = 8,766*

Wall Line No.	Lateral Force (lbs) Source [1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	ρ -	Adj EQ (plf)	Controlling Force Type (W/EQ)	Force (plf)
7	D2	2,203	1,812	2.7							
	L1	1,745	1,929	3.1							
		-	-	2.9							
		-	-	2.8							
	Σ	3,948	3,741	11.5	343	325	0.371	1.00	325	W	343
8	D2	1,848	1,519	10.7							
	L2	1,586	1,753	8.0							
		-	-	-							
		-	-	-							
	Σ	3,434	3,272	18.7	184	175	0.200	1.00	175	W	184
9	D2	853	701	4.5							
		-	-	-							
		-	-	-							
		-	-	-							
	Σ	853	701	4.5	190	156	0.178	1.00	156	W	190

Shear Walls for 2nd Floor Diaph. ***E-W Forces*** *Story Shear = 8,766*

Wall Line No.	Lateral Force (lbs) Source [1]	Wind (lbs)	E.Q. (lbs)	Wall Length (ft)	Preliminary Wind (plf)	Preliminary E.Q (plf)	Redundancy Calc.[2] r_i -	ρ -	Adj EQ (plf)	Controlling Force Type (W/EQ)	Force (plf)
10	D2	1,279	1,144	5.4							
	L3	1,169	690	7.5							
		-	-	-							
		-	-	-							
	Σ	2,448	1,834	12.9	190	142	0.162	1.10	156	W	190
11	D2	2,843	2,542	10.6							
	L4	3,118	1,841	-							
		-	-	-							
		-	-	-							
	Σ	5,961	4,383	10.6	562	413	0.472	1.10	453	W	562
12	D2	1,564	1,398	7.4							
	L5	1,949	1,406	4.6							
		-	-	-							
		-	-	-							
	Σ	3,513	2,804	12.0	293	234	0.267	1.10	256	W	293

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Uplift- Walls Resisting Roof Diaph. **N-S Forces**

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift Uplift [1] (lbs)	Source [2] -	Uplift (lbs)	Resisting Force D.L. (plf)	Factor 0.67	Force (lbs)	Net Uplift (lbs)
1	7.2	10.0	241	2,407			248	0.67	(598)	1,809
	2.5	10.0	241	2,407			248	0.67	(208)	2,200
	-	10.0	-	-				-	-	-
	-	-	-	-				-	-	-
2	9.5	10.0	96	960			248	0.67	(789)	171
	12.6	10.0	96	960			248	0.67	(1,047)	(87)
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-

Uplift- Walls Resisting Roof Diaph. **E-W Forces**

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift Uplift [1] (lbs)	Source [2] -	Uplift (lbs)	Resisting Force D.L. (plf)	Factor 0.67	Force (lbs)	Net Uplift (lbs)
3	13.0	10.0	61	609			110	0.67	(479)	130
	6.2	10.0	61	609			110	0.67	(228)	380
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
4	14.6	10.0	214	2,136			80	0.67	(391)	1,744
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
5	10.5	10.0	186	1,856			110	0.67	(387)	1,469
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-

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Uplift- Walls Resisting 2nd Floor Diaph. ***N-S Forces***

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift Uplift [1] (lbs)	Source [2] -	Uplift (lbs)	Resisting Force D.L. (plf)	Factor 0.67	Force (lbs)	Net Uplift (lbs)
7	2.7	10.0	343	3,433			80	0.67	(72)	3,361
	3.1	10.0	343	3,433			170	0.67	(177)	3,256
	2.9	10.0	343	3,433			80	0.67	(78)	3,355
	2.8	10.0	343	3,433	L1	1,979	80	0.67	(75)	5,337
8	10.7	10.0	184	1,836			140	0.67	(502)	1,335
	8.0	10.0	184	1,836			140	0.67	(375)	1,461
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
9	4.5	10.0	190	1,896			60	0.67	(90)	1,805
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-

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Uplift- Walls Resisting 2nd Floor Diaph. ***E-W Forces***

Wall Line No.	Wall Length (ft)	Wall Height (ft)	Shear Force (plf)	Additional Uplift Uplift [1] (lbs)	Source [2] -	Uplift (lbs)	Resisting Force D.L. (plf)	Factor 0.67	Force (lbs)	Net Uplift (lbs)
10	5.4	10.0	190	1,898			110	0.67	(199)	1,699
	7.5	10.0	190	1,898			110	0.67	(276)	1,621
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
11	10.6	10.0	562	5,624			80	0.67	(284)	5,340
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-
12	7.4	10.0	293	2,928			110	0.67	(273)	2,655
	4.6	10.0	293	2,928			110	0.67	(170)	2,758
	-	-	-	-				-	-	-
	-	-	-	-				-	-	-