

5531 SW BUDDINGTON ST. RS01-1394661.

RS.O1. 139466

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CITY OF
PORTLAND, OREGON

OFFICE OF PLANNING AND DEVELOPMENT REVIEW
1900 SW 4th Ave, Suite 5000
Portland, OR 97201



STATUS CHECK	Residential 1 & 2 Family Permit	Application # 01-139466-000-00-RS
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Status Date: May 16, 2001

IVR Number: **2102016**

APPLICANT	FRANK BORGES-SILVA	Phone: (503) 519-5354
OWNER	FRANK BORGES-SILVA & KRISTEN BORGES-SILVA	Phone: (503) 519-5354
CONTRACTOR	EMMERT INDUSTRIAL CORP	Phone:

PROJECT INFORMATION

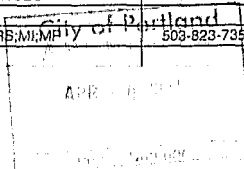
Description of Work: **MOVE SFR TO VACANT LOT**

Street
Address

Occupancy Group	Construction Type	Sub Type	Work Proposed
R3	V-N	Single Family Dwelling	Move

This report shows those reviews which have been assigned as of May 16, 2001 at 3:38 pm. Technical reviews may trigger additional review assignments.

Review Type/Process	Mandatory	Status	Action Date	Reviewer	Phone
Completeness Check - RS	<input checked="" type="checkbox"/>	Closed Open	5/16/01	Nys, Steve	503-823-7717
Assign plan and file location	<input checked="" type="checkbox"/>	Open		DOCUMENT SERVICES	503-823-7357
Assign Reviews - RS	<input checked="" type="checkbox"/>	Open			
Corrections Received - RS	<input checked="" type="checkbox"/>	Open		DOCUMENT SERVICES	503-823-7357
Planning and Zoning Review	<input checked="" type="checkbox"/>	Open		DSC PLANNING	503-823-7526
Erosion Control Plan Review	<input checked="" type="checkbox"/>	Open		DSC PLANNING	503-823-7526
Life Safety Review	<input checked="" type="checkbox"/>	Open	5/18	LIFE SAFETY Step Helmar	GED
Structural Review	<input checked="" type="checkbox"/>	Open		STRUCTURAL	503-823-7301
Residential Plumbing Review	<input checked="" type="checkbox"/>	Open		Ebeling, Mike	503-823-7247
Residential Subsurface Site Evaluation	<input checked="" type="checkbox"/>	Open		COMMERCIAL/RESIDENTIAL PLUMB	
BES Sanitary Review	<input checked="" type="checkbox"/>	Open		BES	503-823-7761
BES Stormwater Review	<input checked="" type="checkbox"/>	Open		BES	503-823-7761
BES - SDC Review	<input checked="" type="checkbox"/>	Open		BES	503-823-7761
Transportation SDC - review	<input checked="" type="checkbox"/>	Open		PDOT	503-823-7002
Parks SDC Review	<input checked="" type="checkbox"/>	Open		Hamilton, Joan	503-823-5105
Trans - Street Systems Review	<input checked="" type="checkbox"/>	Open		PDOT	503-823-7002
Street Systems - Assign Reviews	<input checked="" type="checkbox"/>	Open		PDOT	503-823-7002
Water available	<input checked="" type="checkbox"/>	Open		WATER	503-823-7479
Urban Forestry Review	<input checked="" type="checkbox"/>	Open		Black, Myles	503-823-4018
Send Letter of intent to expire	<input checked="" type="checkbox"/>	Open		DOCUMENT SERVICES	503-823-7357
Plans checked out to Applicant	<input checked="" type="checkbox"/>	Open			
Pre-issuance check	<input checked="" type="checkbox"/>	Open		PRE-ISSUANCE REVIEW	503-823-7357
Payment Received	<input checked="" type="checkbox"/>	Open			





CITY OF
PORTLAND, OREGON
OFFICE OF PLANNING AND DEVELOPMENT REVIEW
PO Box 8120
Portland, OR 97207-8120



LIFE SAFETY CHECKSHEET

Review Date: February 25, 2002

Application #: 01-139466-000-00-RS
IVR #: 2102016

To:	OWNER	FRANK BORGES-SILVA 11320 SW CAPITOL HWY PORTLAND, OR 97219-7245	Cellular:	503 519-5354 ext.
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From:	PLANS EXAMINER	NANCY HETTMAN	Phone:	503-823-7360
			Fax:	
			e-mail:	hettmann@ci.portland.or.us

cc:	OWNER	FRANK BORGES-SILVA & KRISTEN BORGES-SILVA 11320 SW CAPITOL HWY PORTLAND, OR 97219-7245	Cellular:	(503) 519-5354
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PROJECT INFORMATION

Street Address:	5531 SW BIRD ST PORTLAND, OR 97205					
Description of Work:	MOVE SFR FROM LOT 10 TO LOT 11. See comments See case #01-176799 HS					
The following assumptions were made when reviewing your project:						
Occupancy group	Construction Type	Square Footage	Stories	Sprinklers	Alarms	Detection
R3	V-N	2760	N/A	N/A	N/A	N/A

PLAN REVIEW

Based on the plans submitted, the following items appear to be missing or not in conformance with: ☐ Oregon Structural Specialty Code OR ☐ Oregon 1&2 Family Dwelling Specialty Code, and/or other city, state, or federal requirements:

Item #	Location on plans	Code Section	Clarification / Correction Required
1			Please provide Housing Violation Letter if you were given one.
2	Pgs. 2-4	112.1 IOTFDC	Planning has requested that you add more glazing to your front wall. Please make this correction and have your engineer show how the lateral bracing will be affected.
3	Pgs. 2-4	112.1 IOTFDC	Make all plans and elevations agree on the size and location of the windows. Clarify window sizes and opening styles on the floor plans.
4	Pgs. 2-3	112.1 IOTFDC	Show total overall dimensions on the floor plans. Include all sub-dimensions or window dimensions. FLOOR PLANS HAVE NOT BEEN DIMENSIONED. SHOW OVERALL DIMENSIONS AND CLARIFY SPACING BETWEEN POSTS, BEAMS AND JOISTS.
5	Pg. 3	112.1	Page 3 has information too faint to read or microfiche. Please confirm what

		IOTFDC	text is missing below the title lines for the "Foundation and Framing Plans".
6		412.4 IOTFDC	Photocopy to a construction size sheet the "General Notes" pages from the Engineering packet.
7	Pg.-2	412.4 IOTFDC	Show the stairs at the 2 nd Floor.
8	Pg.-2-4	303/310 IOTFDC	Clarify the window sizes and the type of opening system for each.
9		303.6 IOTFDC	Indicate the type of heating system (gas, electric).
10	Pg.-4	305 IOTFDC	Clearly indicate the floor to ceiling heights for each floor. It appears that the window sills at the bedrooms are more than 44" above the floor surface. This does not meet egress code.
11	Pg.-1-&4	312.4 IOTFDC	Your entrance/exist and slider doors are far more than 8" above grade so porches, decks etc. are required. Show the required decks, etc. on the Site, floor and elevation plans.
12-		312.4 IOTFDC	Provide deck details that correspond to this site's issues. Include bracing for decks over 4' from grade to floor of deck. Be sure to include on the detail, size of all members; nail/bolt sizes and spacing, connection hardware etc. INFORMATION IS INCOMPLETE. PROVIDE DIMENSIONS OF THE DECK FLOOR; HEIGHT OF THE POSTS FROM GRADE TO DECK; SIZE OF BEAMS SUPPORTING DECK JOISTS; DEPTH OF FOOTINGS BELOW GRADE; CROSS BRACING SUPPORT FOR THE DECK AND THE REQUIRED NAILING OF THE CROSS BRACING AT THE DECK AND FOOTING CONNECTIONS AND WHERE THE BRACING CROSSES; SHOW THE LEDGER SIZE AT THE HOUSE/DECK CONNECTION AND THE SIZE, NUMBER AND SPACING OF THE CONNECTING NAILS TO MAKE POSITIVE CONNECTION WITH THE WALL STUDS.
13-		314/315 IOTFDC	Please provide stair, handrail and guardrail details that show construction of both the interior and exterior stair systems to meet code requirements. Be sure to include support information at the second floor and at the base of the stairs. FOR THE DECK GUARDRAIL INCLUDE INTERMEDIATE POSTS, CORNER POSTS, BOTTOM RAIL AND SHOW CONNECTION OF THE POSTS TO THE DECK. BE SURE TO SHOW HARDWARE AND THE NUMBER AND TYPE OF CONNECTORS. THE DECK GUARDRAIL MUST BE DESIGNED TO WITHSTAND 200# OF LIVE LOAD.
14	Pg.-2	807 IOTFDC	Show the location of the attic access.
15		Chapter 10 & Fig. 1003.1 IOTFDC	Is the fireplace an existing feature for the second floor? If not provide: a. A detail of the chimney construction. b. Clarify the roof construction at and around the new chimney.
16		Structure	Photocopy to a construction size sheet the "Basement Wall Detail". Add to and show: a. The exterior wall sheathing, impervious membrane, and wall cover. b. The interior walls insulated to R-21 and the interior wall cover. c. How the upper floor is attached to the lower floor with straps, anchor bolts, and holdowns. Include sizes and types of all hardware. SEE ITEM #22.
17		Structure	Photocopy to a construction size sheet the "Footing, Slab and Chimney" details from the Engineering Packet.
18-		Oregon	Show insulation minimums of R-38 at ceiling, R 21 at walls above grade

		Energy Code	and R-15 beneath slab or below grade. (If walls of moved portion of residence do not have interior finish or exterior cover removed then they are not required to be upgraded to R-21.) Show new windows as U-40. PROVIDE DETAIL OF FUR OUT OF FOUNDATION WALL TO SHOW INSULATION OF WALLS BELOW GRADE AS WELL AS ABOVE.
19		Lateral Eng.	Page 13 of the Engineering Packet mentions holdowns. Please clarify the size, type and location of these holdowns. THE LOWER FLOOR WALLS NEED TO BE ENGINEERED FOR LATERAL BRACING. PROVIDE ENGINEER STAMPED LATERAL CALCULATIONS, UPLIFT CALCULATIONS, DETAILS AND SHOW SHEAR WALL AND HOLDOWN TYPES AND LOCATIONS. INCLUDE SHEAR WALL AND HOLDOWN SCHEDULES. ALL SCHEDULES, DETAILS AND LOCATIONS MUST BE SHOWN ON CONSTRUCTION PLANS. SEE ITEM #22.
20		Beam Calculations	I have figured a worse case scenario of 300# of tributary load on the (2) 2x12 floor beams for a 15.5' span and I do not see how they will pass for bending. I multiplied 300x15.5 squared, multiplied by 12, divided by 8 and then divided by the Fb of 900 to get a required Section Modulus of 120. Even 2 times the allowed Sec. of 31.63 for each 2x12 does not come to the required 120. Please clarify. I figured floor load @ 50 # x 6 ft of trib.
24		Structural	Redraw Bedroom #3 exterior wall to show the correct size of the door to deck.
22		Structural	<p>Items #16 and #19 have not sufficiently addressed the required lateral Engineering. As per our engineer, the following will need to be addressed:</p> <ul style="list-style-type: none"> • Please provide a detailed design that demonstrates the structure can withstand current code wind and seismic loads. • The calculations provided are for a FEMA 178 quick check. This level of design is inappropriate for current code requirements. • For example, it appears that the exterior gable end walls are overloaded in shear and tension. It, also, appears that the holdowns should be located at the jambs of the openings and specified on the plans. Please review the lateral loads to current code. • The construction of the elevated deck appears unable to withstand the lateral loads. Please specify the sheathing and its attachment. Also, there are no straps to the house to assist the deck in resisting side lateral loads. Please review.

To respond to this checklist, come to Document Services (the second floor of 1900 SW Fourth Ave., between 7:30 a.m. and 3:00 p.m.) and update all four sets of the originally submitted drawings. To update the drawings, you may either replace the original sheets with new sheets, or edit the originally submitted sheets. (Specific instructions for updating plans are posted in Document Services.)

Please complete the attached Checklist Response Form and include it with your re-submittal.

If you have specific questions concerning this Checklist, please call me at 503-823-7360. To check the status of your project, please call 503 823-7000 and select option 4. Your Plan Review Status will be faxed to you, so please be ready to provide a fax number. If you don't have a fax number you may dial 503 823-7357 to request a Plan Review Status or visit Document Services.

Life Safty Checksheet Response for Permit Application 01-139466-RS

1. I have not gotten a violation letter.
2. There is more than 4' on the corner the engineer says the lateral bracing will not be affected. Pg. 2-4
3. Redline the first floor windows to show proper egress at less than 44". I will show the opening type and sizes, make plans match. Page 2-4
4. I will show all dimensions overall and include widows and sub-dimensions.
5. Clarified text on foundation and framing plan. Pg. 3
6. Photocopy of engineering attached to back set of plans (construction size)
7. Stairs shown in proper location Pg. 2
8. Window sizes specified. Pg. 2
9. Electric Furnace and Hot water heater Pg. 2
10. Ceiling height 8'-0" typ.
11. Decks are shown in proper locations.
12. Deck details are provided on construction size paper attached to back.
13. Stair and hand rail details are also provided on construction size paper in back.
14. Attic access in hallway by bedrooms. Pg. 2
15. Fireplace is existing.
16. Basement wall detail with a.b.c. are included on construction size sheet in back.
17. "Footing, Slab, and Chimney" details are included on construction size sheet in back.
18. No wall coverings will be removed to the moved portion of the house; Proper insulation values have been added to basement.
19. Hold downs to be MA6's @ 6" o.c. and 1'-0" form all corners.
20. Note from engineer attached to each set.

If you have any questions please call (Art Duhon) @ 503-649-9329 or 503-317-5653
Or Frank Borges-Silva anytime @ 503-519-5343 or 503-254-8982.



CITY OF
PORTLAND, OREGON
OFFICE OF PLANNING AND DEVELOPMENT REVIEW
PO Box 8120
Portland, OR 97207-8120



LIFE SAFETY CHECKSHEET

Review Date: January 25, 2002

Application #: 01-139466-000-00-RS
IVR #: 2102016

To:	OWNER	FRANK BORGES-SILVA 11320 SW CAPITOL HWY PORTLAND, OR 97219-7245	Cellular:	503 519-5354 ext.
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From:	PLANS EXAMINER	NANCY HETTMAN	Phone:	503-823-7360
			Fax:	hettmann@ci.portland.or.us
			e-mail:	

cc:	OWNER	FRANK BORGES-SILVA & KRISTEN BORGES-SILVA 11320 SW CAPITOL HWY PORTLAND, OR 97219-7245	Cellular:	(503) 519-5354
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You may receive separate Checksheets from other City agencies that will require separate responses.



CITY OF
PORTLAND, OREGON
OFFICE OF PLANNING AND DEVELOPMENT REVIEW
PO Box 8120
Portland, OR 97207-8120



LIFE SAFETY CHECKSHEET

Review Date: July 9, 2001

Application #: 01-139466-000-00-RS
IVR #: 2102016

To:	OWNER	FRANK BORGES-SILVA 11320 SW CAPITOL HWY PORTLAND, OR 97219-7245	Cellular:	503 519-5354 ext.
From:	PLANS EXAMINER	NANCY HETTMAN	Phone: Fax: e-mail:	503-823-7360 503 823-7692 hettmann@ci.portland.or.us
cc:	OWNER	FRANK BORGES-SILVA & KRISTEN BORGES-SILVA 11320 SW CAPITOL HWY PORTLAND, OR 97219-7245	Cellular:	(503) 519-5354

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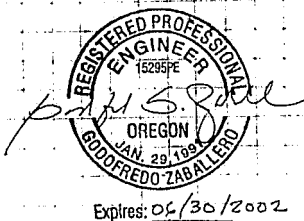
NORTHWEST ENGINEERING
Consulting Engineers

2^m

FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 11/15/01

SUBJECT WOOD LIGHT FRAME BUILDING BY GSZ

HOUSE NO. 1
EMMERT INTERNATIONAL
STRUCTURAL COMPUTATION



PREPARED BY:

NORTHWEST ENGINEERING
4110 NE 122nd AVE.
PORTLAND, OR 97230

City of Portland
APR 1 0 2002
Permit Number

01-139466-RS



FOR EMMERT INTERNATIONAL

JOB No. 2778

DATE 11/15/01

SUBJECT SPECIFICATION 1

BY G32

GENERAL NOTES:

A. DESIGN CRITERIA

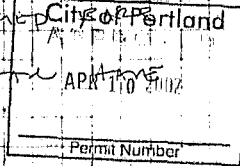
1. SEISMIC: ZONE 3
2. WIND: 80 MPH EXPOSURE "B"
3. ROOF LIVE LOAD: 25 PSF
4. FIRST FLOOR LIVE LOAD: 40 PSF
5. SOIL BEARING CAPACITY: 1500 PSF
6. UBC, 1997 EDITION

B. EXCAVATION, BACKFILL & COMPACTION

1. 1' 0" \pm OF NATIVE MATERIAL SHALL BE REMOVED TO ELIMINATE ORGANIC AND DEBRIS ON ALL LOCATIONS TO REVEAL THE FOUNDATIONS AND SLAB.
2. STRUCTURAL FILL UNDER SLAB SHALL BE GRANULAR FILL 3/4" (-) CRUSHED ALTRIMATE.
3. SUB-GRADE SHALL BE WELL COMPACTED BEFORE STRUCTURAL FILL UNDER SLAB IS PLACED.

C. CONCRETE CAST IN PLACE

1. DESIGN, MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ACI 318-89 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
2. CONCRETE SHALL DEVELOP 3000 PSI COMPRESSIVE STRENGTH IN 28 DAYS.
 - a. SLUMP SHALL BE 4"
 - b. COARSE AGGREGATE SIZE 3/4" MAX.
 - c. CEMENT SHALL BE TYPE II
3. REINFORCING STEEL SHALL BE DEFORMED CONFORMING TO ASTM A615 GRADE 60.
4. SLAB FINISHES - FLOOR SLABS SHALL BE HARD TROWEL, SMOOTH FINISH.





FOR EMHART INTERNATIONAL

JOB No. 2778 DATE 1/15/01

SUBJECT SPECIFICATION

BY GSS

D. LUMBER

1. ALL LUMBER, STRUCTURAL PANEL, SHEATHING, SIDING SHALL CONFORM TO THE APPLICABLE STANDARD AND GRADING RULES SPECIFIED AND SO IDENTIFIED BY GRADE MARK ISSUED BY AN APPROVED AGENCY.
2. ALL PRESERVATIVELY TREATED WOOD REQUIRED TO BE TREATED SHALL BE IDENTIFIED BY THE QUALITY MARK OF AN INSPECTION AGENCY.
3. THE NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION, REVISED 1991 EDITION SHALL APPLY TO THE DESIGN AND CONSTRUCTION OF WOOD STRUCTURES.
4. ALL LUMBER SHALL BE DOUGLASS FIR - LARCH SELECT STRUCTURAL, VISUALLY GRADED.
5. ALL ANCHORING SYSTEMS SHALL BE SIMCON STRUCK-TIE CONNECTORS.

E. PROVIDE SMOKE DETECTION DEVICES LOCATED IN ACCORDANCE WITH THE PROVISIONS OF THE STATE BUILDING CODE.

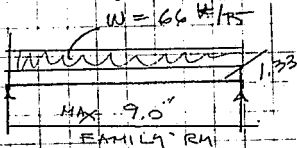


NORWES ENGINEERING
Consulting Engineers

FOR EMMERT INTERNATIONAL JOB NO. 2778 DATE 1/8/01

SUBJECT CHECK EXIST FLOOR JOIST BY GS2

2" x 6" DOUGLAS FIR - LARCH, NO. 2 VISUALLY GRADO WUPA
NORMAL DURATION.



$$W = 66 \text{ #/FT}$$

$$LL = 40 \text{ #/ft} (1.33) = 53.2 \text{ #/ft}$$

$$DL = \text{JOIST} = 2.0 \text{ #/ft}$$

$$= \text{FLOORING} = 10.0 \text{ #/ft}$$

$$= \text{MISC.}$$

$$W = 65.2 \text{ #/ft}$$

$$V = \frac{66(9.0)}{2} = 297 \text{ #}$$

$$\text{SM } W = 66 \text{ #/ft}$$

$$F_v = \frac{1.5V}{A} = \frac{1.5(297)}{8.25} = 54 \text{ #/in}^2 < 90 \text{ #/in}^2 \text{ OK}$$

$$M = \frac{66(8.5)^2}{8} = 596 \text{ #ft}$$

$$F'_b = \frac{M}{S} = \frac{596 \text{ #ft} (12)^{1/4}}{7.56} = 946 \text{ #/in}^2 < 1,310 \text{ #/in}^2 \text{ OK}$$

$$\Delta = \frac{5WL^4}{384EI} = \frac{(5)66 \text{ #/ft} (8.5)^4 \times (12)^3}{384(1,600,000 \text{ #/in}^2) 20.79 \text{ in}^4} = 0.24 \text{ #/in}$$

$$\Delta_{\text{ALLOW}} = \frac{L}{240} = \frac{9 \text{ (ft)}}{240} = 0.45 \text{ #/in} > 0.24 \text{ #/in} \text{ OK}$$

City of Portland

APR 10 2002

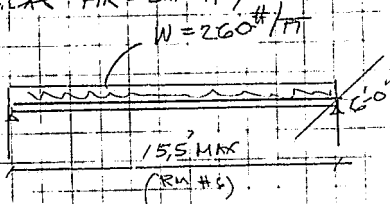
Permit Number



FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 1/8/01

SUBJECT DESIGN OF NEW STRINGER BY G32

TRY 2-2"x12" SELECT STRUCTURAL, VISUALLY GRADED WUPA
DOUGLAS FIR-LARCH, NORMAL DURATION



$$LL1 = 40(6) = 240 \text{ \#/ft}$$

$$DL (\text{STRINGER}) = 18.2$$

$$\frac{12\text{-JOIST } 2(6)}{15.5} = 1.0$$

$$V = \frac{260(15.5)}{2} = 2015 \text{ \#}$$

$$W12 = 258.2 \text{ \#/ft}$$

$$\text{SAY } W = 260 \text{ \#/ft}$$

$$F_v' = \frac{1.5(2015)}{2(16.87)} = 89.6 \text{ \#/ft} < 90 \text{ \#/ft} \quad \text{OK}$$

$$M = \frac{260(15.5)^2}{8} = 7808 \text{ \#}$$

$$F_b' = \frac{M}{S} = \frac{7808(12)}{2(31.63)} = 1481 \text{ \#/ft} < 1670 \text{ \#/ft} \quad \text{OK}$$

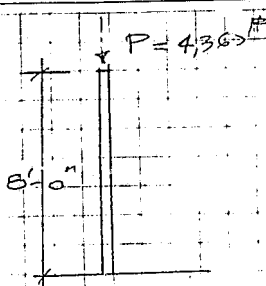
$$\Delta = \frac{5WL^4}{384EI} = \frac{5(260)(15.5)^4(12)^3}{384(1,900,000)(2(164.8))} = 0.54"$$

$$\Delta_{\text{allow}} = \frac{15.5(12)}{240} = 0.78" > 0.53" \quad \text{OK}$$



FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 1/9/01

SUBJECT DESIGN OF COLUMNS. BY GSR



$$TR \ 4" \times 4" \quad A = 12,250"$$
$$P_{min} = \frac{24' (335) \ #/ft}{2} = 4,355 \ #$$

$$USE \ P = 4360 \ #$$

$$SLENDerness \ RATIO = \frac{1.2(8)12}{3.5} = 33 = C_c$$

$$SLENDerness \ FACTOR = \frac{0.274 E}{C_c^2} \times \frac{DRY \ SERVICE \ CONDITION}{F_c K_{sc} L_D}$$

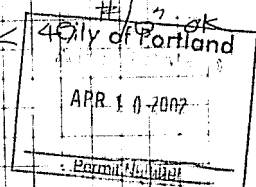
$$C_R = \frac{0.274 (1,720,000)}{(33)^2} \times \frac{1}{1.199 (1) (1)}$$
$$= 0.393$$

$$F'_c = F_c C_R = 1200 (0.393) = 471 \ #/ft^2$$

$$F'_c = \frac{4360 \ #}{12,250} + 356 \ #/ft^2 \leq 450 \ #/ft^2 \text{ (OK)}$$

$$A \ FOOTING \ REQ'D = \frac{4360}{1500} = 2.9 \ ft^2$$

$$USE \ FOOTING = 20' \times 20'$$





NORWES ENGINEERING
Consulting Engineers

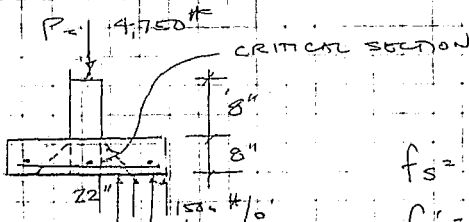
FOR EMMERT INTERNATIONAL

JOB No. 2778

DATE

1/9/01

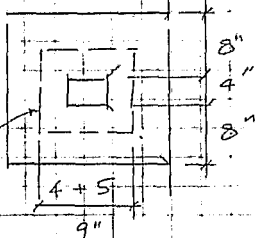
SUBJECT DESIGN OF ISOLATED FOOTING BY G52



$$f_s = 24,000 \text{ psi}$$

$$f_c' = 3000 \text{ psi}$$

$$\text{SOIL PRESSURE} = 1500 \text{ #/ft}^2$$



DIAGONAL PUNCHING SHEAR

$$V_c = 4 \sqrt{f_c'} b_o d = 4 \sqrt{3000} (48) 5 = 9,859$$

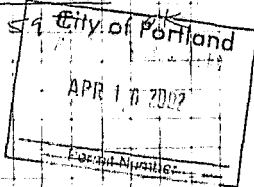
$$V_s = \frac{A_v f_y d}{s} = \frac{0.20 (60,000) 5}{8} = 7,500$$

$$V_u = V_c + V_s = 17,359$$

$$\phi = \frac{500 (8) (48) (5)}{144} = 333$$

$$\phi \text{ req'd} = 2 < 5 \text{ OK}$$

NO NEED TO CHECK FURTHER

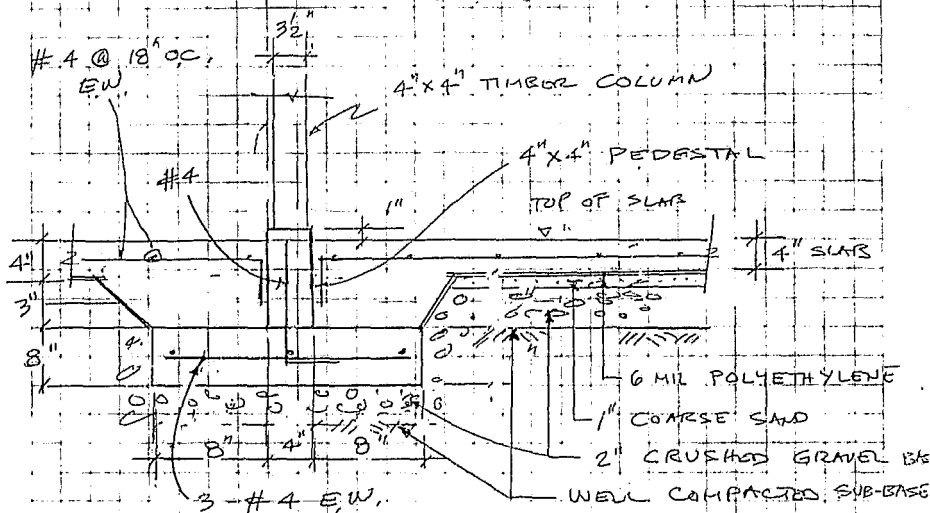




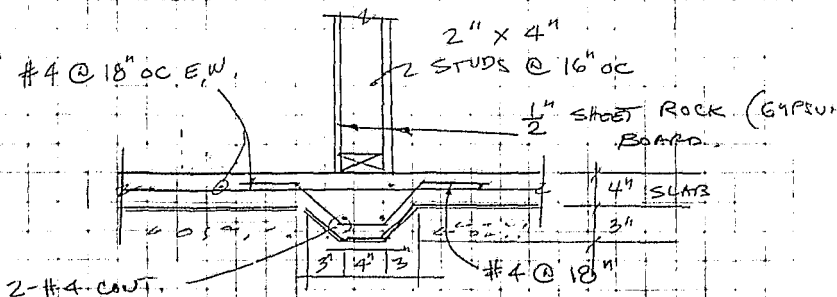
NORWEST ENGINEERING
Consulting Engineers

FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 11/10/01

SUBJECT FOOTING & SLAB DETAIL BY GSD



COLUMN FOOTING & SLAB DETAIL (TYP.)



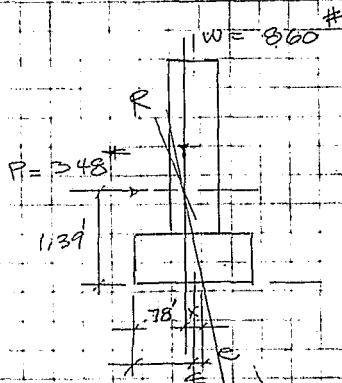
SHEAR WALL (STUD) FOOTING TYP. (SEE PLAN)



NORWEST ENGINEERING
Consulting Engineers

FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 1/10/01

SUBJECT DESIGN OF BASEMENT WALL BY G52

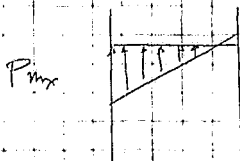


$$\frac{2.0}{6} = .33 \checkmark$$

$$\frac{X}{1.39} = \frac{348}{860} \quad X = .56$$

$$e = (.78 + .56) - 1.0 = 0.34'$$

∴ R FALLS OUTSIDE MIDDLE 3M



$$P_{max} = \frac{2W}{3 \left(1 - \left(\frac{B}{2} - e \right) \right)}$$

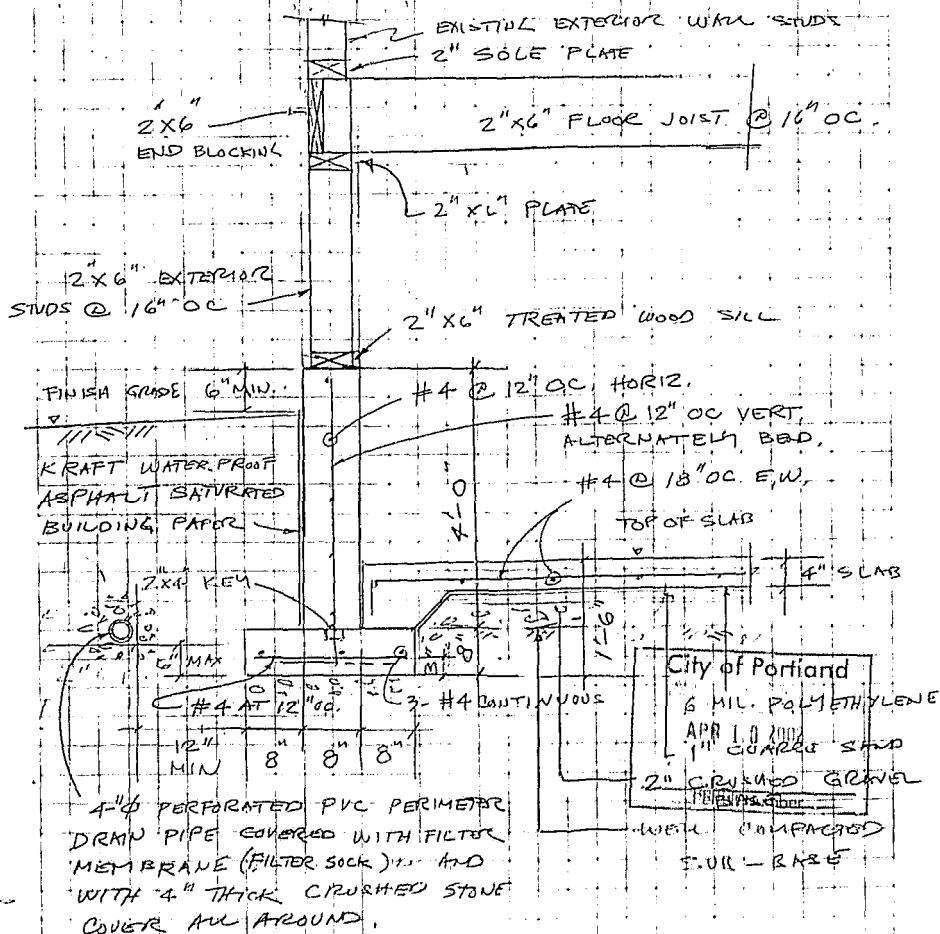
$$= \frac{2(1) \left(\frac{2.0}{2} - .34 \right)}{3 \left(1 - \left(\frac{2.0}{2} - .34 \right) \right)} = 869 \text{ #/0'} < 1500 \text{ #/0'}$$

OK



DATE 1/11/01

BY G S Z



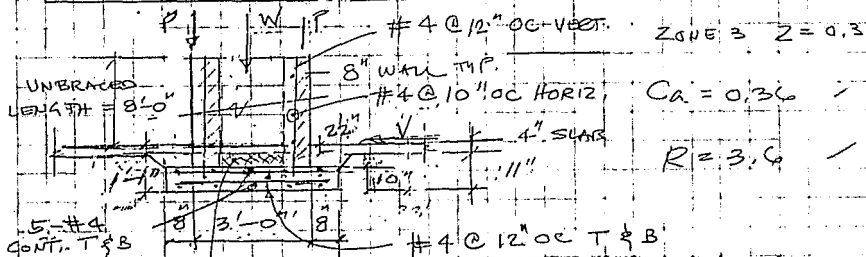
N.T.S.



FOR ERMERT INTERNATIONAL JOB No. 2778 DATE 1/12/01

SUBJECT CHIMNEY FOUNDATION BY GSS

DESIGN OF CHIMNEY FOUNDATION



$$\text{SEISMIC LOAD } V = \frac{2.5 C_a I W}{R}$$

$$\text{FIRE BRICK} = \frac{2.5 (0.36) W}{3.6} = 0.25 W$$

$$P = \text{REACTION FROM FLOOR JOIST} = 300 \text{ #/FT}$$

$$W = \left[\left(\frac{16}{12} \right) (1.8') + (1.08) (4.33') \right] 144 = 2209 \text{ #/FT}$$

$$V = 0.25 (2209) = 552 \text{ #/FT}$$

$$M_o = 552 (1.25) = 690 \text{ #}$$

$$M_R = 2209 (2.16') = 4771 \text{ #} > 690 \text{ # OK}$$

$$F.S.O = \frac{4771}{690} = 6 > 2 \text{ OK}$$

$$L_{P.F.B.D} = \frac{2209 + 2(300)}{1.5} = 1.9' < 4.3' \text{ OK}$$



FOR EMBERT INTERNATIONAL JOB No. 2778 DATE 1/12/01

SUBJECT CHIMNEY FOUNDATION BY G.S.Z.

A WALLS
VERTICAL REINF.

$$A_s = 0.0015 (8) 12 = 0.15 \text{ in}^2$$

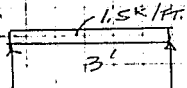
USE #4 @ 12" OC $A_s = 0.20 \text{ in}^2$ O.K.

HORIZ. REINF.

$$A_s = 0.0025 (8) 12 = 0.24 \text{ in}^2$$

USE #4 @ 10" OC $A_s = 0.24 \text{ in}^2$ ✓

B. FOOTING



$$V = \frac{1.5(3)}{2} = 2.25 \text{ ft}$$

$$V_n = V_c + V_s$$

$$V_c = 2 \sqrt{f_c} b_w d = 2 \sqrt{3000} (12) 7 = 9,200 \text{ #}$$

$$V_s = \frac{A_v f_y d}{s} = \frac{(0.30) 60,000 (7)}{12} = 10,500 \text{ #}$$

$$V_n = V_c + V_s = 19,700 \text{ #} > 2,250$$

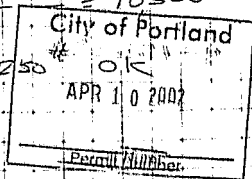
$$M = \frac{1.5(3)^2}{8} = 1.7 \text{ K}$$

$$d \text{ req. } D = 3"$$

USE TOTAL THICKNESS = 10"

$$A_s = \frac{M}{a d} = \frac{1.7}{1.76 (7)} = 0.14$$

USE #4 AT 12 OC T & B

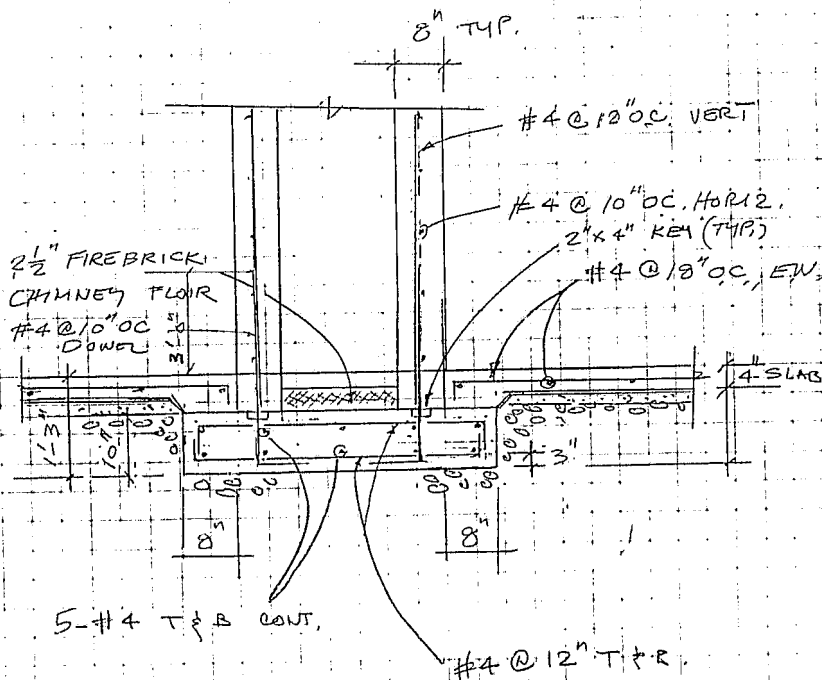




NORWEST ENGINEERING
Consulting Engineers

FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 1/12/01

SUBJECT CHIMNEY FOUNDATION BY GSS





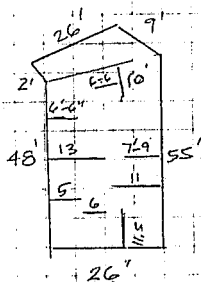
FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 11/15/01

SUBJECT SUMMARY BY GSS

BUILDING TYPE 1: WOOD, LIGHT FRAME BUILDINGS

$$\text{TOTAL 1ST FLOOR AREA} = \left(\frac{48+55}{2} \right) 26 + \left(\frac{27+9}{2} \right) 26$$

$$= 1482 \text{ SQ. FT.}$$



LENGTH OF EXTERNAL BASEMENT SHEAR
WALLS ARE 1/2" PLYWOOD
SHEATED WITH PROPER NAILING
= 166'

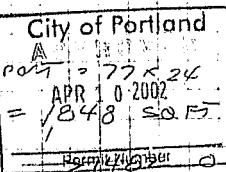
EXTERIOR SHEAR WALL CAN
SUPPORT 166 (100) = 16,600 SQ. FT. OR

LENGTH OF INTERIOR SHEAR WALLS SHEATED WITH
1/2" SHEETROCK (GYPSUM BOARD)

11'-6"
11'-0"
11'-0"
13'-0"
7'-9"
6'-6"
6'-6"
10'-0"

} 77'

INTERIOR SHEAR WALLS CAN SUPPORT = 77 x 24



SUMMARY: THE BUILDING SATISFIES THE QUICK CHECK
OF THE SHEARING STRESS IN WOOD SHEAR WALLS



FOR EMMERT INTERNATIONAL JOB No. 2778 DATE 1/15/01

SUBJECT FEATURES BY G.S.Z.

FEATURES:

1. DIAPHRAGM HAS COMPLETE SYSTEM WITH CHORDS AND COLLECTORS TO DELIVER THE LATERAL LOADS.
2. ALL WALLS SUPPORTING MORE THAN 100 SQ. FT. PER FOOT OF WM. ARE PLYWOOD SHEATHED WITH PROPER BRACING AND HAVE A HEIGHT TO DEPTH H/D RATIO OF 1 TO 1 OR LESS, AND HAVE PROPERLY

DETAILED HOLD DOWNS.

SHOROCK SHEAR WALLS SUPPORT LESS THAN 24' SQ. FT. / FT. OF WM.

PLYWOOD TYPICALLY CAN SUPPORT UP TO 100 SQ. FT. PER FOOT OF WM.

HOLD-DOWNS RESIST OVERTURNING FORCES

ALL EXTERIOR TIMBER WALLS BELOW THE FIRST FLOOR LEVEL ARE RIGID TO THE CONC. BASEMENT WALL WITH SHEAR ELEMENTS. THE BASEMENT WALL ARE DOWNED TO THE FOUNDATION.

NONE OF THE EXISTING WOOD MEMBERS SHOW SIGNS OF DECAY, SHRINKAGE, SPLITTING, FIRE DAMAGE OR SAGGING.

SFR

01-139466-RV

Simplified Approach to the SW Mitigation Management of Facilities

The city has produced this form to assist with a quick and simple approach to manage stormwater quality and flow control on projects. Application of these facilities using the specified sizing factor is required for use of this form. These facilities, when designed according to the required criteria, are considered to cover both quality and flow. Alternative design and sizing will not be considered under this simple approach.

INSTRUCTIONS

1. Enter square footage of non-mitigated impervious area (total impervious area less or, from the Mitigation Form, Box C) in Box 1 at the bottom of column 1.

2. Select the desired management measure(s). In Column 1, enter the amount of impervious area that will be managed by the facility(ies).

3. Add all facility impervious areas in column 1 and enter in Box 2. Note: Box 1 and Box 2 areas must be equal.

4. Multiply the unmitigated sf in column 1 by the sizing factor in column 2 for each facility.

5. Use the required facility surface area sf in column 3 to design the facility(ies).

6. Go to the "Design Requirements" for facility design and other requirements.

Soakaway trenches are sized for stormwater disposal and water quality, and therefore cannot be reduced in size with mitigation. Revised September 1, 2000

Column 1

Column 2

Column 3

Landscape Swale

_____ sf x 0.05 = _____ sf

Vegetative Filter

_____ sf x 0.065 = _____ sf

Stormwater Planter

_____ sf x 0.045 = _____ sf

Landscape Infiltration

_____ sf x 0.04 = _____ sf

Sand Filter

_____ sf x 0.045 = _____ sf

*East Side Soakage Trench

_____ sf x 0.05 = _____ sf

X *West Side Soakage Trench

¹⁵⁶⁰
2608 sf x 0.075 = 75 P.I. sf
117

Total Areas

_____ Box 2

Total non-mitigated impervious area

_____ Box 1

Total impervious area on the site, or the amount of non-mitigated impervious area in Box C, Form MIT



CITY OF

PORTLAND, OREGON

OFFICE OF PLANNING AND DEVELOPMENT REVIEW

1900 S.W. 4th Avenue, Suite 5000
Portland, Oregon 97201
(503) 823-7300
FAX: (503) 823-6983
TDD: (503) 823-6868
<http://www.opdr.ci.portland.or.us>

NOTICE OF VIOLATION -- PROPERTY MAINTENANCE CODE HOUSE MOVE PROGRESS REPORT

December 28, 2001

FRANK & KRISTEN BORGES-SILVA
11320 SW CAPITAL HWY
PORTLAND OR 97219

HOUSE ORIGINALLY INSPECTED AT: 11811 SE 212TH AVE

HOUSE TO BE MOVED TO:
LEGAL ADDRESS:

5531 SW BUDDINGTON ST
SECTION 311 S1E; TL 600 0.41 ACRES;
1S1E31BD-00600

TAX# R991310690

CASE# 01-176799-HS

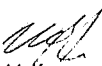
On December 26th, 2001 as part of the City of Portland's house move requirements, a City Inspected the (2) one story, wood frame, single family dwelling, located at 11811 SE 212th Ave and found it to be in violation of the City Property Maintenance Code. This code requires that all residential structures moved to a new site within the City of Portland City limits must be maintained in a safe, sound and sanitary condition. A list of the code violations is enclosed with this Notice.

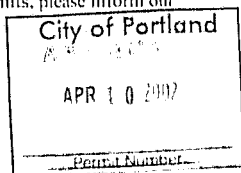
Once the above house is located at the new site of 5531 SW Buddington St, call the undersigned inspector for a 'new site' inspection.

Because your house is vacant, the code violation must be corrected and approved before the building can be reoccupied at the new site. Failure to follow this rule will result in a \$500 penalty. Enclosed is information sheet explaining all fees, penalties, exceptions and appeals.

If you're ready to arrange a 'new site' inspection, or you have any question regarding this letter, please call the inspector whose name and number is shown, below.

Note: If you choose not to move the house into the Portland City limits, please inform our office as soon as possible regarding your change of plans.


Mitch McKee
Housing Inspector (503) 823-7347



LISTS OF VIOLATIONS FOR HOUSE MOVE REQUIREMENTS:

MAIN HOUSE (PRIMARY DWELLING)

1. Structure lacks a foundation. 29.30.060(a)
2. Structure lacks connection to required utilities. 29.30.190(a), 29.30.190
3. Portions of kitchen cabinets/cupboards are damaged and/or missing. 29.30.270(a,b), 29.30.110(a)
4. Several windows panes are broken and/or missing. 29.30.100(d)
5. Front and rear exterior door is poorly fitted, allowing weather entry. 29.30.100(d)
6. Several interior doors are broken, deteriorated, and/or missing. 29.30.100(c)
7. Bathroom shower door is broken. 29.30.110(a)
8. Portions of bathroom floor coverings are damaged and deteriorated, resulting in a possible moisture perpetration of the subflooring and the inability to maintain the floor in a clean and sanitary condition. 29.30.110(a,b)
9. Portions of wall covering and ceiling coverings are damages and deteriorated. 29.30.110(a)
10. Portions of roof covering are deteriorated, damaged and/or missing, resulting in possible weather entry. 29.30.030
11. Portions of gutters and/or downspouts are damaged, deteriorated and /or missing. 29.30.030
12. Gutters and downspouts are not connected to an approved disposal system. 29.30.030
13. Dwelling lacks required approved heating facilities capable of maintaining a room temperature of 68 degrees Fahrenheit at a point 3 feet above the floor in all habitable rooms. 29.30.180(b)

ACCESSORY UNIT (FORMERLY 21880)

14. Structure lacks required foundation. 29.30.060(a)
15. Structure lacks required utilities. 29.30.170(a), 29.30.190
16. Dwelling lacks required approved heating facilities capable of maintaining a room temperature of 68 degrees Fahrenheit at a point 3 feet above the floor in all habitable rooms. 29.30.180(b)
17. Portions of front and rear exterior door(s) are broken and damaged. 29.30.100(d)
18. Several interior doors do not fit within their frames. 29.30.100(e)
19. Portions of wall and ceiling covering are damaged and deteriorated. 29.30.110(a)
20. Electrical outlets and/or switches lack cover plates. 29.30.190
21. Dwelling lacks approved hot water heater installation. 29.30.170
22. Portions of gutters and/or downspouts are damaged, deteriorated, and/or missing. 29.30.030
23. Gutters and downspouts are not connected to an approved disposal system. 269.30.030

CC: Namev Heltman, DSC

7-23-01

ATTN NANCY

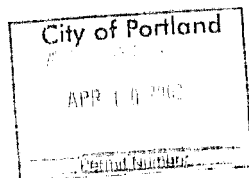
From FRANK

139 466

NANCY- THIS ~~IS~~ WHAT IS HAS
BEEN SENT BACK BY THE
ENGINEER FOR \$20 ON
MY CHECK SHEET. LET ME
KNOW IF THIS CORRECTS \$20.



THANK YOU
Frank





Norwest Engineering

4110 NE 112nd Avenue, Suite 207
Portland, Oregon 97230

Consulting Engineers

Office (503) 254-0110
Fax (503) 256-1239

FAX TRANSMITTAL

Date: July 17, 2001

From: G. S. ZABALLERO, P.E.

To: MS NANCY HETTMAN
PLANS EXAMINER
FAX 503-823-7692

Re: APPLICATION #: 01-139466
- 000-00-RS

IVR #: 2102016

OWNER: FRANK BORGES-SILVA

Total Number Of Pages, Including Cover Page = 2

PLAN REVIEW: ITEM # 20 BEAM CALCULATIONS

PLEASE SEE ATTACHED 1997 UBC PAGE 2-324
TABLE 23-IV-V-1, DESIGN VALUE IN BENDING " F_b "
FOR DOUGLASS FIR-LARCH, SELECT STRUCTURAL, 2x12,
NORMAL DURATION (WWPA) = 1670 psi.

$$S_{REQ'D} = \frac{M}{F_b} = \frac{288 (15.5)^2 12}{8 (1670)} = 62.2 \text{ psi} < 63.26 \text{ psi} \quad \text{OK}$$

NOTE:

ACTUAL FLOOR JOIST DISTANCE = 11.5'

ACTUAL STRINGER DISTANCE = 15.2'

ACTUAL TRIBUTARY LOAD = 288 #/FT.

Attn: Frank
Silva

TABLE 23-IV-V-1

1997 UNIFORM BUILDING CODE

TABLE 23-IV-V-1—VALUES FOR JOISTS AND RAFTERS—VISUALLY GRADED LUMBER—(Continued)

SPECIES AND GRADE	SIZE (Inches) x 25.4 for mm	DESIGN VALUE IN BENDING F_b , psi			MODULUS OF ELASTICITY E , psi	GRADING RULES AGENCY
		Normal Duration	Snow Loading	Tabular Loading x 0.00690 for Norm#		
COTTONWOOD						
Select Structural	2 x 4	1,510	1,735	1,885	1,200,000	NSLB
No. 1		1,080	1,240	1,350	1,200,000	
No. 2		1,080	1,240	1,350	1,100,000	
No. 3		605	695	755	1,000,000	
Stud		600	690	750	1,000,000	
Construction		805	925	1,005	1,000,000	
Standard		460	530	575	900,000	
Utility		230	230	250	900,000	
Select Structural	2 x 6	1,510	1,735	1,885	1,200,000	
No. 1		1,080	1,240	1,350	1,200,000	
No. 2		1,080	1,240	1,350	1,100,000	
No. 3		605	695	755	1,000,000	
Stud		600	690	750	1,000,000	
Construction		805	925	1,005	1,000,000	
Standard		460	530	575	900,000	
Utility		230	230	250	900,000	
Select Structural	2 x 8	1,510	1,735	1,885	1,200,000	
No. 1		1,080	1,240	1,350	1,200,000	
No. 2		1,080	1,240	1,350	1,100,000	
No. 3		605	695	755	1,000,000	
Stud		600	690	750	1,000,000	
Construction		805	925	1,005	1,000,000	
Standard		460	530	575	900,000	
Utility		230	230	250	900,000	
Select Structural	2 x 10	1,510	1,735	1,885	1,200,000	
No. 1		1,080	1,240	1,350	1,200,000	
No. 2		1,080	1,240	1,350	1,100,000	
No. 3		605	695	755	1,000,000	
Stud		600	690	750	1,000,000	
Construction		805	925	1,005	1,000,000	
Standard		460	530	575	900,000	
Utility		230	230	250	900,000	
Select Structural	2 x 12	1,510	1,735	1,885	1,200,000	
No. 1		1,080	1,240	1,350	1,200,000	
No. 2		1,080	1,240	1,350	1,100,000	
No. 3		605	695	755	1,000,000	
Stud		600	690	750	1,000,000	
Construction		805	925	1,005	1,000,000	
Standard		460	530	575	900,000	
Utility		230	230	250	900,000	
DOUGLAS FIR-LARCH						
Select Structural	2 x 4	2,500	2,875	3,125	1,900,000	WCLJB WWPA
No. 1 and better		1,985	2,280	2,450	1,600,000	
No. 1		1,725	1,985	2,150	1,700,000	
No. 2		1,510	1,735	1,885	1,600,000	
No. 3		865	990	1,080	1,400,000	
Stud		855	980	1,065	1,400,000	
Construction		1,150	1,325	1,440	1,500,000	
Standard		635	725	790	1,400,000	
Utility	315	365	395	1,300,000		
Select Structural	2 x 6	2,170	2,495	2,710	1,500,000	
No. 1 and better		1,720	1,975	2,150	1,800,000	
No. 1		1,495	1,720	1,870	1,700,000	
No. 2		1,310	1,505	1,635	1,600,000	
No. 3		750	860	935	1,400,000	
Stud		775	895	970	1,400,000	
Construction		1,000	1,150	1,260	1,500,000	
Standard		515	590	640	1,400,000	
Select Structural	2 x 8	2,000	2,300	2,500	1,900,000	
No. 1 and better		1,585	1,825	1,985	1,800,000	
No. 1		1,380	1,585	1,725	1,700,000	
No. 2		1,210	1,390	1,510	1,600,000	
No. 3		690	795	865	1,400,000	
Stud		675	775	840	1,400,000	
Construction		880	1,000	1,100	1,500,000	
Standard		450	510	550	1,400,000	
Select Structural	2 x 10	1,835	2,110	2,295	1,900,000	
No. 1 and better		1,455	1,675	1,820	1,800,000	
No. 1		1,265	1,455	1,580	1,700,000	
No. 2		1,105	1,275	1,385	1,600,000	
No. 3		635	725	790	1,400,000	
Stud		620	710	770	1,400,000	
Construction		820	940	1,030	1,500,000	
Standard		420	480	520	1,400,000	
Select Structural	2 x 12	1,670	1,920	2,085	1,900,000	
No. 1 and better		1,325	1,520	1,655	1,800,000	
No. 1		1,150	1,325	1,440	1,700,000	
No. 2		1,005	1,155	1,260	1,600,000	
No. 3		575	660	720	1,400,000	
Stud		560	640	700	1,400,000	
Construction		760	880	970	1,500,000	
Standard		390	450	490	1,400,000	

(Continued)

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Operation & Maintenance Agreement

OPDR
DOCUMENT SERVICES
JUL 18, 2001

PROJECT NAME:

Borges-Silva

P/O 7-11-01

SITE LOCATED AT:

5531 S.W. Buddington

BUILDING PERMIT NUMBER:

139466 (SFR) 139468 (ADU)

LEGAL PROPERTY DESCRIPTION

Map 4123 section 31 1S 1E TL69

FOR LEGAL DESCRIPTION REFER TO DOCUMENT #
BOOK 2562 PAGE 794 RECORDED 7-8-92

I. DESCRIPTION OF FACILITIES AND HOW THEY OPERATE

- Single family residence and accessory dwelling unit.
- I propose to use two west soakage trenches. Rain drains into silt basins into soakage trenches.

II. OPERATIONS AND MAINTENANCE

- The components for the proposed system are a rain drain, a silt basin and a soakage trench.
- The rain drains and silt basin will be checked twice a year and cleaned out, if necessary. These systems will also be checked after each storm event and cleaned if necessary.
- Maintenance includes visual inspection of the rain drains for clogging. If clogged they will be cleaned out. When the debris or silt builds up in the silt basin it will be completely emptied. This will be visually checked also.

III. MAINTENANCE SCHEDULE

First Year: Check water quality system components biannually. Maintain a log to establish an ongoing maintenance schedule regime.

Second Year: Review first year's log and revise maintenance schedule based on required frequency noted in first year.

IV. FINANCIAL RESPONSIBILITY AND ENFORCEMENT

The total costs associated with the maintenance and repairs required under Section II (above) shall be borne by the owner/operator of this site. However, in the event that any repair is required, solely as a direct result of an act or omission by the owner/operator, their tenant, or invitee, the owner/operator may seek reimbursement for any and all such costs from the responsible party.

Recorded in the County of Multnomah, Oregon

C. Swick, Deputy Clerk

Total : 24.00

2001-105959 07/11/2001 02:03:48pm ATSP

E05	2	REC	SUR	DOR	CLIS
		10.00	3.00	10.00	1.00

139468-RS
01
201-1 39466-RS

IN WITNESS WHEREOF, the party hereto has executed this operation and maintenance agreement for the water quality and/or source pollutant control system(s) at this property, [address assigned by City of Portland].

Frank Borges-Silva
[Owner's name]
Kristen Borges-Silva

7-10-01
DATE
7-10-01

State of Oregon
County of Multnomah

This instrument was acknowledged before me this 11th day of July, 2001, by [Owner's name]. Frank Borges-Silva and Kristen Borges-Silva.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal the day and year last above written.

Michelle Matesi
Notary Public of Oregon
My commission Expires: 11/19/01

NOTARY SEAL:



Life safety checksheet response for permit 01-139466-rs

4. Dimensions have been drawn on plans.

12. Dimensions of decks were on site plan. Also added to plans. Height of post are 7'-6" from grade to deck on 3 of the decks and 18" on the lower deck. 4X8 beam supports deck joists. Depth of footings is 12". Nail 16d @ 3" on center. The cross bracing is shown as 2x6 connection to posts by 16d-5) req. Ledger size to be 2X8 p.t. use 3" lag bolts @ 16" o/c.

13. Deck guardrails to have 4x4 corner and intermediate posts. Bottom rail to be 2x4. Connection to deck via A44 (2) per intermediate posts an (2) per corner posts.

16. Refer to 1st checksheet response.

18. Refer to 1st checksheet response. Detail of fur out on last sheet

19. Made note of MA6's @ 6'-0" o.c. and drew on foundation plan. *ALSO SEE PAGE 12 & 13 IN ENGINEERING PACKAGE FOR SHEAR WALLS.*

21. Do not need to redraw bedroom #3 exterior wall to show the correct size of the door to deck. Size is as shown 6/8 x 6/0. Just relabeled call out.

MICRO

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APR 04 2002

01-13466-R3

OPDR

DOCUMENT SERVICES

LATERAL ANALYSIS

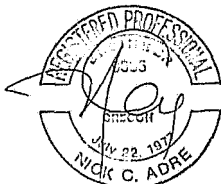
PLAN: DCD -0203

DESIGN CRITERIA

Wind ----- 80 MPH Exp. "B"

Seismic ----- Zone 3

Code ----- UBC 97



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City of Portland

APR 10 2002

Permit Number

A. Wind: 80 mph exp. "B"

Design wind pressure, $P = CeCqQslw$

$$lw = 1$$

$$Qs = 16.4$$

$$Cq = 1.3 \text{ hor. (method 2)}$$

$$Ce = \text{exp. "B"}$$

$$0 - 15 = 0.62$$

$$20 = 0.67$$

$$25 = 0.72$$

$$P = 0.62 \times 1.3 \times 16.4 \times 1 = 13.2 \text{ psf to } 15'$$

$$P = 0.67 \times 1.3 \times 16.4 \times 1 = 14.3 \text{ psf to } 20'$$

$$P = 0.72 \times 1.3 \times 16.4 \times 1 = 15.3 \text{ psf to } 25'$$

$$Pr = 15.3 \times 1 + 14.3 \times 5 + 13.2 \times 3 = 126 \text{ \#/ft}$$

$$Pf = 126 + 13.2 \times 8 = 232 \text{ \#/ft}$$

Design of deck floor joist: (span = 8'-0")

Loading: LL = 60psf
DL = 12psf

$$W(d+l) = 72\text{psf}$$

Assume joist space at 16" o.c.
Wgt in #/ft = $72 \times 1.33 = 96\text{#/ft}$

$$\text{Max. M} = 96 \times 8^2 / 8 = 768\text{ft}\cdot\text{#}$$

Section modulus $S = 768 \times 12 / 1,105 = 8.3\text{in}^3$

Try 2" x 10" P.T. DFL #2 Fb = 1,105psi

$$E = 1,600,000\text{psi}$$

floor joist; $S = 21.39\text{in}^3$

Area $A = 13.88\text{in}^2$

$$I = 98.93\text{in}^4$$

Check for deflection:

$$\text{Allow. Def.} = 8 \times 12 / 240 = 0.40"$$

$$\text{Actual deflection} = (5 \times 96 \times 8^4 \times 12^3) / (384 \times 1,600,000 \times 98.93) = 0.06" < 0.40" \text{ ok}$$

Check for shear: $F_v = 85\text{psi}$

$$\text{Max. V} = 8 \times 96 / 2 = 384\text{#}$$

$$v = 1.5 \times 384 / 13.88 = 41\text{psi} < 85\text{psi o.c.}$$

Use 2" x 10" joist.

$$D/t = 11.25 / 1.5 = 6.17 \text{ provide solid bridging at mid-span.}$$

Design of Post:

Load carried by post $P = 72 \times 4 \times 4 = 1,152\text{#}$ (add 20% for railing and other incidental)

Use $P = 1,383\text{#}$ too small assume 6"x6" col. is too conservative.

$L_e = 8'-0"$ Max. use of 4"x4" DFL #1 $F_c = 1,000\text{psi}$

$$L_e/d = 8 \times 12 / 3.5 = 27.4 > 11$$

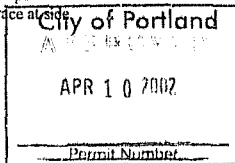
$$> k = 0.671 \{ (1,600,000 / 1000) \}^{1/2} = 26.84$$

Use Long col. formula:

$$F_c = 0.30 \times 1,600,000 / (27.4)^2 = 639\text{psi}$$

$$\text{Cap.} = 3.5 \times 2 \times 639 = 7,828\text{#} > 1,383\text{#} \text{ ok use 4"x4" post}$$

Provide cross bracing at front and knee brace at side



B. Seismic zone 3 (97 UBC)

Design base shear $V = 3.0 C_v W/R$ (Simplified design base shear)

$C_v = 0.36$ (soil properties not known table 16-Q

-type Sd Seismic Zone 3)

$R = 5.5$ (table 16-N)

$$V = 3 \times .36 W/5.5 = 0.196W$$

$$W = W_r + W_f$$

$$W_r = [(38 \times 48 \times 8 \times 28)12 + 180 \times 12 \times 4]/1.4$$

$$= 23,726\#$$

$$W_f = [(51 \times 18 + 64 \times 50)12 + 260 \times 12 \times 9]/1.4$$

$$= 47,326\#$$

$$W = 69,052\#$$

$$23,726 \times 17 = 403,342$$

$$47,326 \times 9 = 407,934$$

$$\text{Total} = 811,276\#$$

$$V = 0.196 \times 69,052 = 13,534\#$$

$$V_r = 13,534 \times 403,342/811,276 = 6,729\#$$

$$V_f = 13,534 \times 407,934/811,276 = 6,805\#$$

Unit shear:

Transversal force:

$$v_r = 6,729/34 = 198\#/\text{ft} < 229\#/\text{ft wind governed}$$

$$v_f = 198 + 6,805/61.5 = 308\#/\text{ft} < 396\#/\text{ft wind governed}$$

Longitudinal force:

$$v_r = 6,805/14 = 155\#/\text{ft} < 229\#/\text{ft wind governed}$$

$$v_f = 155 + 6,805/66 = 258\#/\text{ft} < 396\#/\text{ft wind governed}$$

B Seismic zone 3 (97 UBC)

Design base shear $V = 3.0 C_v W/R$ (Simplified design base shear)

$C_v = 0.36$ (soil properties not known table 16-Q

-type Sd Seismic Zone 3)

$R = 5.5$ (table 16-N)

$$V = 3 \times .36 W/5.5 = 0.196W$$

$$W = W_r + W_f$$

$$W_r = [29 \times 62 \times 12 + 170 \times 12 \times 4.5]/1.4$$

$$= 29,969\#$$

$$W_f = [25 \times 58 \times 12 + 170 \times 12 \times 8]/1.4$$

$$= 24,086\#$$

$$W = 46,055\#$$

$$29,969 \times 17 = 509,473$$

$$24,086 \times 8 = 192,688$$

$$\text{Total} = 702,161\#$$

$$V = 0.196 \times 46,055 = 9,027\#$$

$$V_r = 9,027 \times 509,473 / 702,161 = 6,550\#$$

$$V_f = 9,027 \times 192,688 / 702,161 = 2,477\#$$

Unit shear

Transversal force

$$v_r = 6,550/25 = 262\#/\text{ft} < 126\#/\text{ft} \text{ seismic governed}$$

$$v_f = 262 + 2,477/25 = 361\#/\text{ft} < 232\#/\text{ft} \text{ seismic governed}$$

Longitudinal force

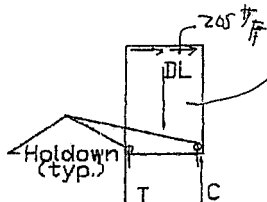
$$v_r = 6,550/58 = 113\#/\text{ft} < 126\#/\text{ft} \text{ wind governed}$$

$$v_f = 113 + 2,477/58 = 155\#/\text{ft} < 232\#/\text{ft} \text{ wind governed}$$

Shear wall [bet. roof & main floor]

SW1 [length = 16'-0"]

RS = $3,275/16 = 205\#/ft$



Use $\frac{1}{2}$ " APA rated sheathing with 8d comm. nails
@ 6" o.c. @ panel edges on a 2"x4" studs
@ 16" o.c typ. [block all edges]

$T=C=205 \times 8 - 16 \times 12 \times 8/2 = 872\#$ use CS20
coiled strap or approved equal on 2-2"x4" end studs
typ. at end of shear walls.

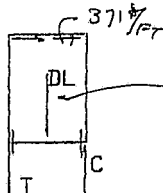
SW2 [length = 16'-0" (perforated shear wall)]

Percent full hgt sheathing = $10/16 \times 100 = 62.5\%$

Max. opening hgt ratio = $3/8 = 0.375$ (h/3)

Use shear resistance factor ($C_o=1$)

RS = $3,712/10 = 371\#/ft$

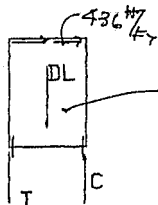


Use $\frac{1}{2}$ " APA rated sheathing with 8d comm. nails
at 4" o.c. at panel edges on a 2-2"x4" studs at
16" o.c. typ. [block all edges]

$T=C=371 \times 8 - 10 \times 12 \times 8/2 = 2,488\#$ use MST48
strap ties or approved equal on 2-2"x4" end studs
typ. at end of shear wall.

SW3 [length = 10'-6"]

RS = $3,969/10.5 \cos 30 = 436\#/ft$



Use $\frac{1}{2}$ " APA rated sheathing with 8d comm. nails
at 3" o.c. at panel edges on a 2"x4" studs at 16" o.c.
typ. [block all edges]

$T=C=436 \times 8 - 10.5 \times 12 \times 8/2 = 2,984\#$ use MST48
strap ties or approved equal on 2-2"x4" end studs
typ. at shear wall.

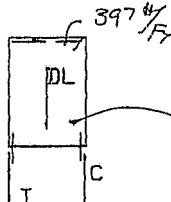
SW4 [Length = 16'-0" (perforated shear wall)]

Percent full hgt sheathing = $10/16 \times 100 = 62.5\%$

Max. hgt ratio = $3/8 = 0.375$ (h/3)

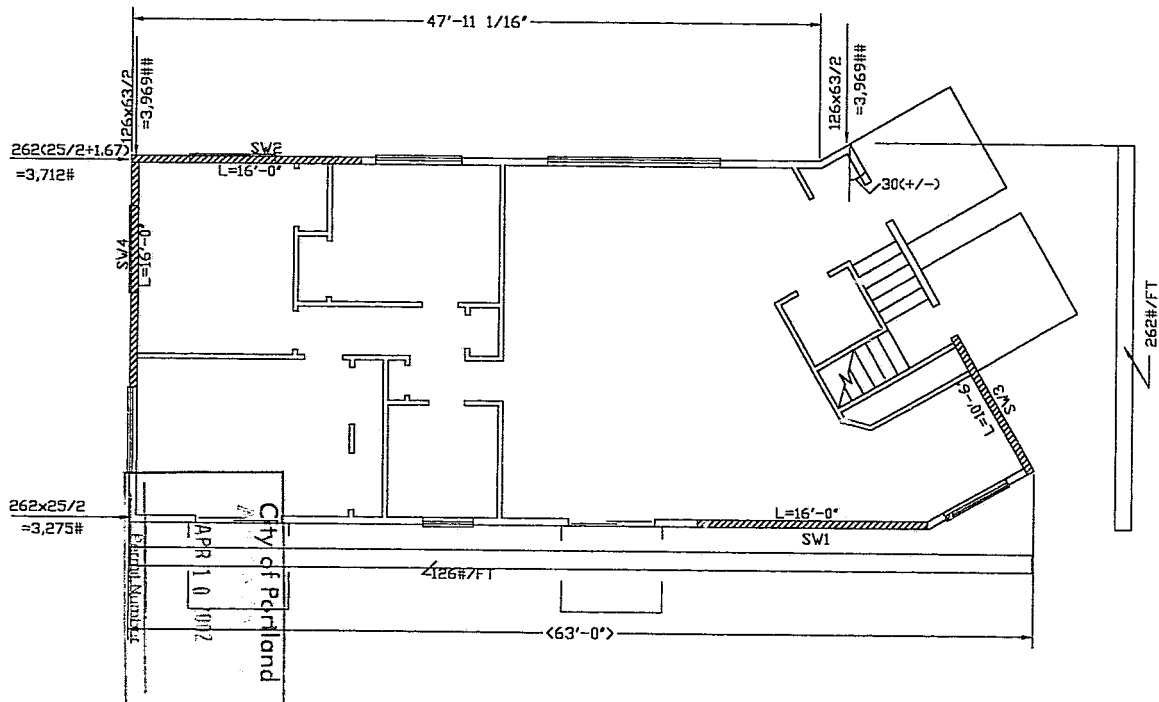
Use shear resistance adjustment factor ($C_o=1$)

RS = $3,969/10 = 397\#/ft$



Use $\frac{1}{2}$ " APA rated sheathing with 8d comm. nails
at 4" o.c. at panel edges on 2"x4" studs at 16" o.c.
typ. [block all edges]

$T=C=397 \times 8 - 10 \times 12 \times 8/2 = 2,696\#$ use MST48
strap ties or approved equal on 2-2"x4" end studs
typ. at shear wall.



MAIN FLOOR PLAN

Shear wall (bet. main & basement floor)

SW5 [length = 16'-0" (perforated shear wall)]

Percent full-hgt sheathing = $\frac{10'6" \times 100}{16'0"} = 62.5\%$

Max. opening hgt ratio = $\frac{3/8}{0.375} = h/3$

Shear resistance adjustment factor (Co=1)

RS = $4,512/10 = 451\#/ft$

Use 1/2" APA rated sheathing with 8d comm. nails

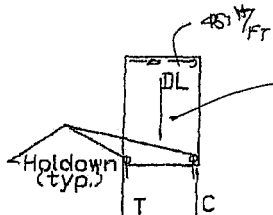
@ 3" o.c. @ panel edges or 16"x6" studs

@ 16" o.c. typ. [block all edges]

T=C=205x17+253x8-10x12 = 4,489# use HD6A

holdown or approved equivalent 1-2"x6" end studs

typ. at end of shear walls.



SW6 [length = 16'-0" (perforated shear wall)]

Percent full hgt sheathing = $\frac{10'6" \times 100}{16'0"} = 62.5\%$

Max. opening hgt ratio = $\frac{3/8}{0.375} = h/3$

Use shear resistance factor (Co=1)

RS = $7,308/10 = 730\#/ft$

Use 1/2" APA rated sheathing with 8d comm. nails

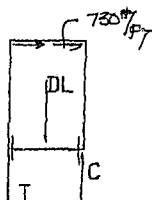
at 4" o.c. at panel edges on a 16"x6" studs at

16" o.c. typ. [double sheathing - block all edges]

T=C=371x17+359x8-10x12 = 8,159# use HD10A

holdown or approved equivalent 1-2"x6" end studs

typ. at end of shear wall.



SW7 [length = 10'-6" (perforated shear wall)]

Percent full-hgt sheathing = $\frac{5'6" \times 100}{10'6"} = 61.9\%$

Max. opening hgt. Ratio = $\frac{3'7"}{6'0"} = 1/4$

Use shear resistance factor (Co=1)

RS = $7,308/6.5 \cos 30 = 1,296\#/ft$

Use 1/2" APA rated sheathing with 8d comm. nails

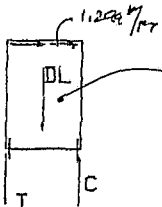
at 2" o.c. (slaggered) at panel edges on a 3"x6" studs

@ 16" o.c. typ. [double sheathing - block all edges]

T=C=436x17+862x8-6.5x12 = 13,645# use HD14A

holdown or approved equivalent 1-2"x6" end studs

typ. at shear wall.



SW8 [Length = 16'-0" (perforated shear wall)]

Percent full hgt sheathing = $\frac{10'6" \times 100}{16'0"} = 62.5\%$

Max. hgt ratio = $\frac{3/8}{0.375} = h/3$

Use shear resistance adjustment factor (Co=1)

RS = $7,308/10 = 730\#/ft$

Use 1/2" APA rated sheathing with 8d comm. nails

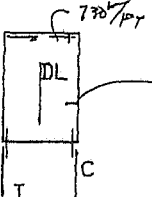
at 4" o.c. at panel edges on 16" studs at 16" o.c.

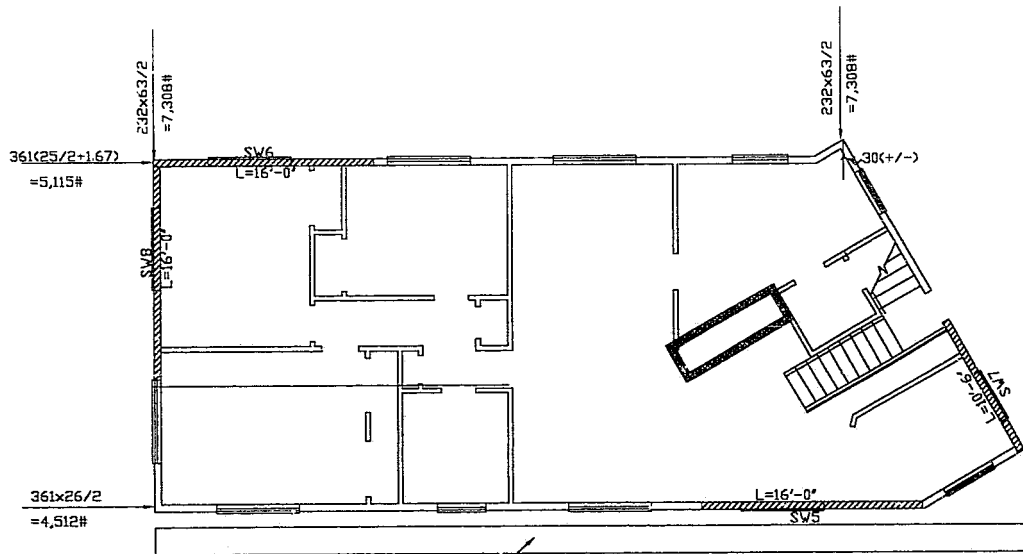
typ. [double sheathing - block all edges]

T=C=397x17+333x8-10x12 = 8,393# use HD10A

holdown or approved equivalent 1-2"x6" end studs

typ. at shear wall.





232# / ft
BASEMENT FLOOR PLAN

14/19C

Design of Diaphragm with stair opening:

Total shear at the end $V = 7,308/\cos 30 = 8,438\#$

Length of diaphragm edge less opening $= 26 - 10 = 16'-0"$

Unit shear $= 8,438/16 = 527\#/\text{ft}$

Use 1/2" APA rated sheathing with 8d comm.
nails @ 3"o.c. @ panel edge along the side of wall
and at 6"o.c. on other panel edges. Block all edges.

Provide LTP4 framing angles and plates at 15"o.c.
between rim joist, blocking and top plate of studs.

At edge of opening, a 2 - 2"x6" provided as a rim joist,
act as a chord, check for tension and compression, due
to opening the diaphragm act like a cantilever beam.

Max. moment $M = 232 \times 11.5^2 / 2 \times \cos 30 = 17,714\#$

$T = C = 17,714/8.5 = 2,084\#$

$f_t = 1,050\text{psi}$ for DFL #1 or better

$f_t = 1,050 \times 1.33 = 1,396\text{psi}$ (increase 33% due wind load)

Area $A = 1.5 \times 5.5 = 8.25 \text{ in.}^2$ (one only)

Cap. $= 8.25 \times 1,396 = 11,517\# > 2,084\#$ o.k. conservative

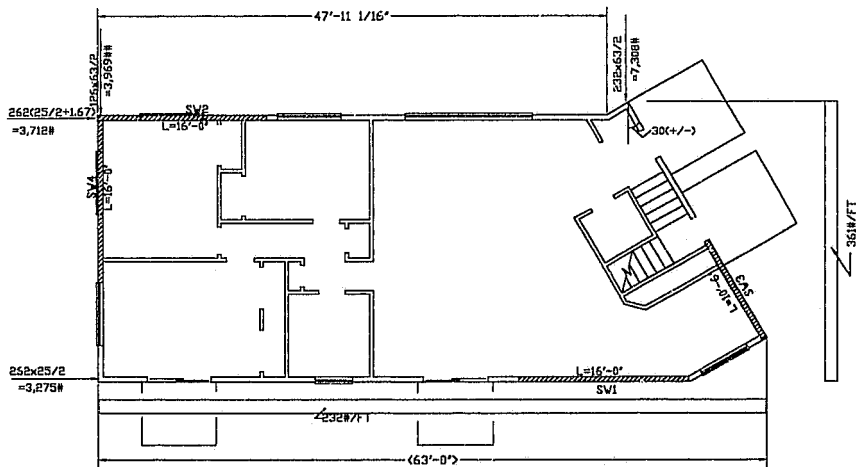
Nailing of diaphragm sheathing along the edge:

Unit shear $= 2,084/11.6 = 181\#/\text{ft}$. use 1/2" APA rated sheathing
with 8d comm. nails at 6"o.c. at panel edges typ., block all
edges.

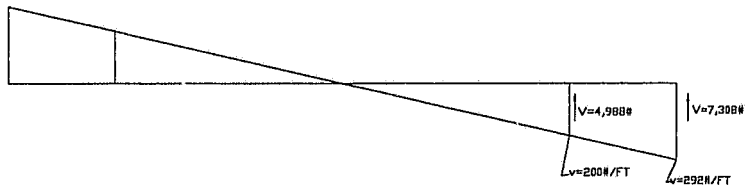
At perpendicular edge of the opening the 2"x6" continuous joist will act as collector.

The shear $V = 4,988/\cos 30 = 5,759\#$

Unit shear $v = 5,759/26 = 221\#/\text{ft}$, use 8d comm. nails at 6"o.c.



MAIN FLOOR PLAN



SHEAR WALL SCHEDULE

SW	: STUDS	: SHEATHING	: LENGHT	: NAILING	: HOLDOWN [2-2" studs]
SW1	: 2"x4" @	: 1/2" APA rated	: 16'-0"	: 8d -6"oc	: CS20 coiled straps [or approved equal]
SW2	: 2"x 4" @	: 1/2" APA rated	: 16'-0"	: 4"o.c	: MST48 strap ties [or approved equal]
SW3	: 2"x 4" @	: 1/2" APA rated	: 10'-6"	: 3"o.c.	: MST48 strap ties [or approved equal]
SW4	: 2"x4" @	: 1/2" APA rated	: 16'-0"	: 4"o.c.	: MST48 strap ties [or approved equal]
SW5	: 2"x6" @	: 1/2" APA rated	: 16' -0"	: 3"o.c.	: HD6A holdown [or approved equal]
SW6	: 2"x6" @	: 1/2" APA rated	: 16'-0"	: 4"o.c.	: HD10A holdown [or approved equal]
SW7	: 2"x6" @	: 1/2" APA rated	: 10'-6"	: 2"o.c.	: HD1-1A holdown (6"x6" end studs)
	16"o.c.	[double sheathing]		[staggered]	[or approved equal]
SW8	: 2"x6" @	: 1/2" APA rated	: 16'-0"	: 3"o.c.	: HD10A holdown [or approved equal]
	16"o.c.				

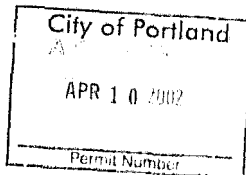
NOTE: Block all edges.

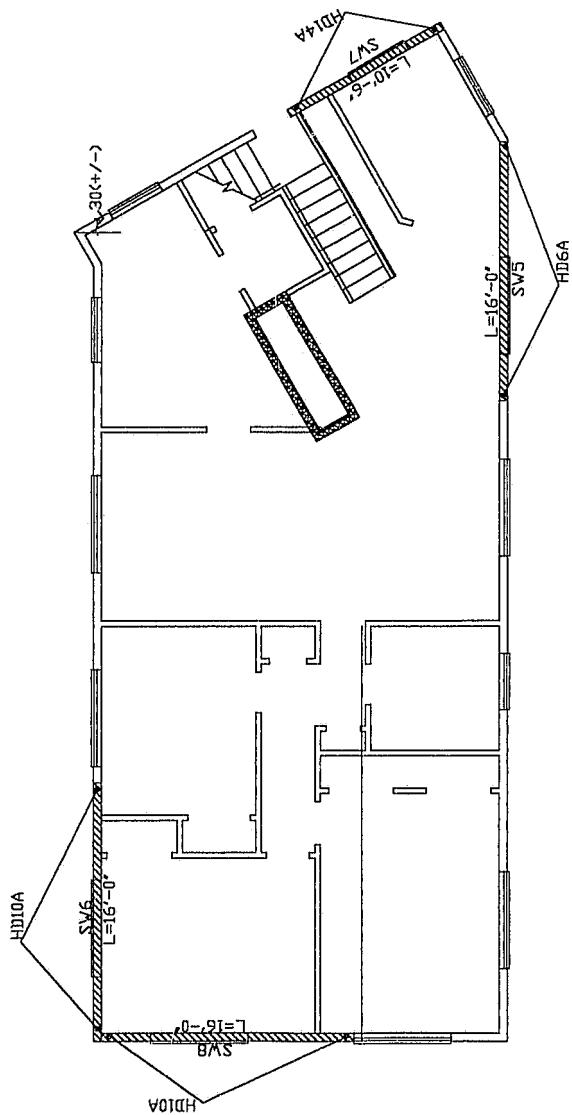
Provide framing anchors LPT4 at 30'o.c. around the outside wall perimeter stud top plates, blocking and rim joist typ.

Anchor bolts for holdown:

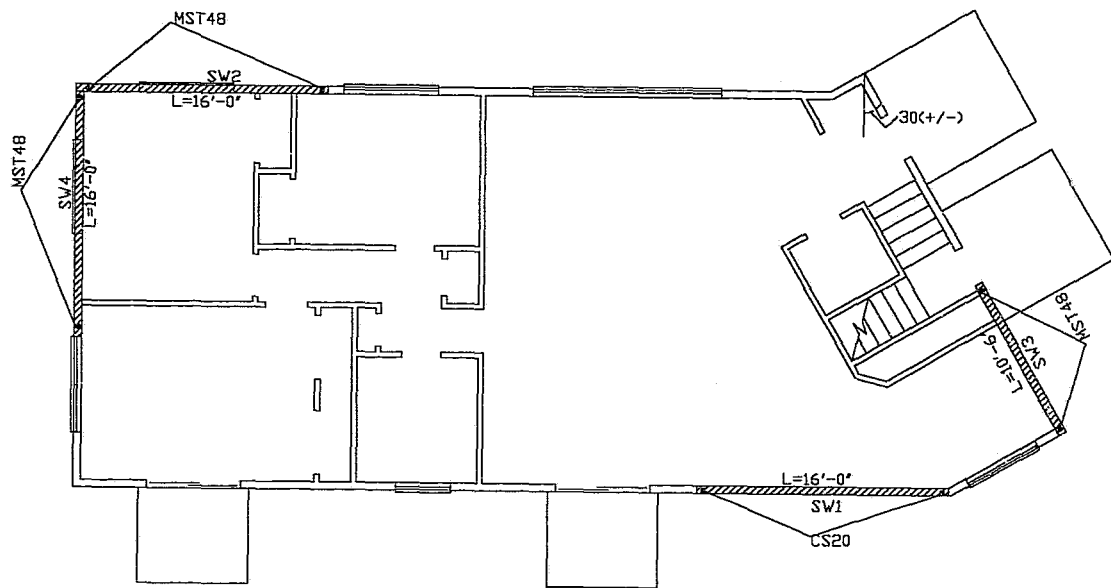
HD6A use SSTB16 or approved equal.

HD10A& HD14A use SSTB28 or approved equal.





BASEMENT FLOOR PLAN



MAIN FLOOR PLAN

Design of Diaphragm with stair opening:

Total shear at the end $V = 7,308/\cos 30 = 8,438\#$

Length of diaphragm edge less opening = $26 - 10 = 16'-0"$

Unit shear = $8,438/16 = 527\#/\text{ft}$

Use 1/2" APA rated sheathing with 8d comm.
nails @ 3"o.c. @ panel edge along the side of wall
and at 6"o.c. on other panel edges - block all edges.

Provide LTP4 framing angles and plates at 15"o.c.
between rim joist, blocking and top plate of studs.

At edge of opening, a 2 - 2"x6" provided as a rim joist,
act as a chord, check for tension and compression, due
to opening the diaphragm act like a cantilever beam.

Max. moment $M = 232 \times 11.5^2/2 \times \cos 30 = 17,714\#$

$T = C = 17,714/8.5 = 2,084\#$

$f_t = 1,050\text{psi}$ for DFL #1 or better

$f_t = 1,050 \times 1.33 = 1,396\text{psi}$ (increase 33% due wind load)

Area $A = 1.5 \times 5.5 = 8.25 \text{ in.}^2$ (one only)

Cap. = $8.25 \times 1,396 = 11,517\# > 2,084\#$ o.k. conservative

Nailing of diaphragm sheathing along the edge:

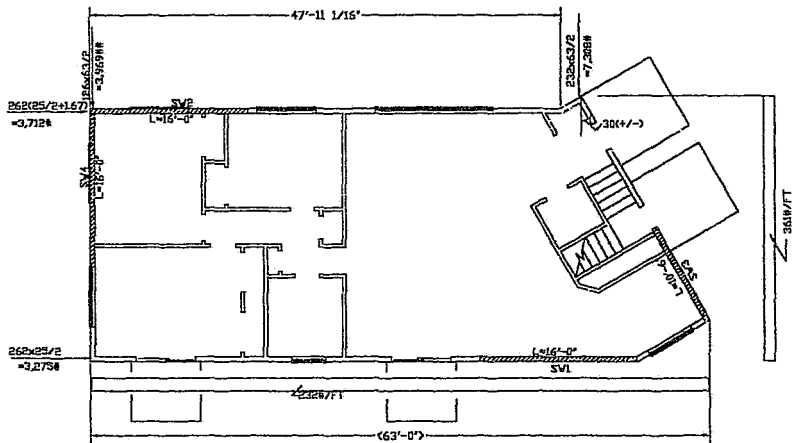
Unit shear = $2,084/11.6 = 181\#/\text{ft}$. use 1/2" AP. 2d sheathing

with 8d comm. nails at 6"o.c. at panel edges typ., block all
edges.

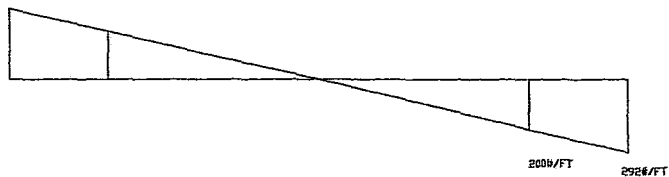
At perpendicular edge of the opening the 2"x6" continuous joist will act as collector.

The shear $V = 4,988/\cos 30 = 5,759\#$

Unit shear $v = 5,759/26 = 221\#/\text{ft}$, use 8d comm. nails at 6"o.c.



MAIN FLOOR PLAN



DO NOT REMOVE

Approval criteria for Zoning must be attached to plans on construction site.

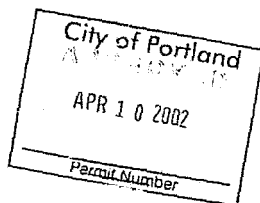
1 copy to each set of plans
1 copy to DSC filePlancheck # 01-139466 RSPlanner: K. Miller**ONE & TWO FAMILY RESIDENTIAL PLAN REVIEW SHEET**Date: 13 June 01 Zone: R1 Addition and Lot: _____LUR History: 97-1169, 97-1170 in 2nd deniedSubstandard Lot Y (N) ADU (Y) N
PUD/Cluster Y (N) Detached Access. Structure (Y) NLot size: 18,000 sq ft Plan District: None

<u>Minimum</u>	<u>Required</u>	<u>Proposed</u>
Front Setback	<u>20'</u>	<u>20' (house)</u>
Side Setback	<u>10'</u>	<u>W=37' (house) U=24.5' (garage)</u>
Rear Setback	<u>10'</u>	<u>E=36' (house) S=24' (garage)</u>
Parking Setback	<u>18'</u>	<u>100'+</u>
Outdoor Area	<u>-</u>	<u>-</u>
* Trees (preservation, planting, or fund)	<u>36"</u>	<u>48" preserved</u>

<u>Maximum</u>		
Vehicle Paving	<u>40% 800 sq ft</u>	<u>240 sq ft 12%</u>
Building Coverage	<u>30% 5400 sq ft</u>	<u>2522 sq ft 14% (Foundation)</u>
Height	<u>30'</u>	<u>19'</u>
Impervious Surface	<u>- %</u>	<u>- %</u>

Base Zone Design Standards yesMain Entrance OK - faces street* Street Facing Façade added 5x7 window* Length of Garage Wall OKStreet Lot Line Setbacks OK - garage 95' behind houseOther Reg./Notes

City of Portland Office of Planning and Development Review	By <u>Shelly</u> Date <u>7/19/01</u>
	Approved by Planning and Zoning Review



RECEIVED

Recorded in the County of Multnomah, Oregon
C. Suick, Deputy Clerk
Total : 19.00
2001-105960 07/11/2001 02:03:48pm ATSMF
C37 1 REC SUR DOR OLIS
5.00 3.00 10.00 1.00

File # 01-139466

Driveway/Parking Area
Covenant for Future Compliance With Zoning & Building Regulations

[Record and have document returned to: OPDR, Development Service Center, 299/5000]

P/O 7-11-01

FRANK BORGES-SILVA AND KRISTEN BORGES-SILVA
as owners of record of 5531 SW BUILDING TON ST.

(address of property)
MAP # 4123 SECTION 31 T15E TL69 Parcel # R- 991310690

FOR LEGAL DESCRIPTION RECORDED 7-8-99 Book 2562 Page 794
have applied to the City of Portland for authorization to construct or improve a driveway or parking area on the above property. The installation or use of unpaved parking or maneuvering areas for passenger vehicles is not permitted by Titles 33 and 24 of the Code of the City of Portland.

In consideration of the covenants contained herein and the granting of permits by the City to the owner(s), owner(s) covenant:

1. Owner(s) will improve and maintain the property in accordance with the permits issued by the City.
2. Owner(s) will pave the areas used for parking and maneuvering of vehicles to the paving standards then in effect in the City Code within six (6) months of the time the right of way abutting the property being improved.

The covenants herein are to run with the land, shall be binding on Owners and all parties and persons claiming through or under them, and may at any time be specifically enforced by the City unless an instrument executed by the City and Owners has been recorded agreeing to change these covenants in whole or in part.

Done this 10TH day of JULY, 2001.
Signed Frank Borges-Silva

Signed X Kristen Borges-Silva

Done this 11TH day of July, 2001

State of Oregon)
County of Multnomah)

On July 11, 2001, personally appeared the
above named Frank Borges-Silva

and acknowledged the foregoing instrument to be a voluntary
act and deed.

Before me:
Michelle Matesi
Notary Public for Oregon
My commission expires: 11/19/01



(Please see reverse for instructions)

LT - forms-covenant driveway or parking area 800.doc

State of Oregon)
County of Multnomah)

On July 11, 2001, personally appeared the
above named Kristen Borges-Silva

and acknowledged the foregoing instrument to be a voluntary
act and deed.

Before me:
Michelle Matesi
Notary Public for Oregon
My commission expires: 11/19/01



01-139466-RS 01-139468-RS