August 09, 2000

RECEIVED
AUG 9 2000
Comm Dev Admin

Katheleen Gager,
Associate planner
Community Development
City of Corvallis
Corvallis OR, 97330

REF: Porch Demolition and reconstruction at 635 SW 3rd Street, Corvallis OR 97330.

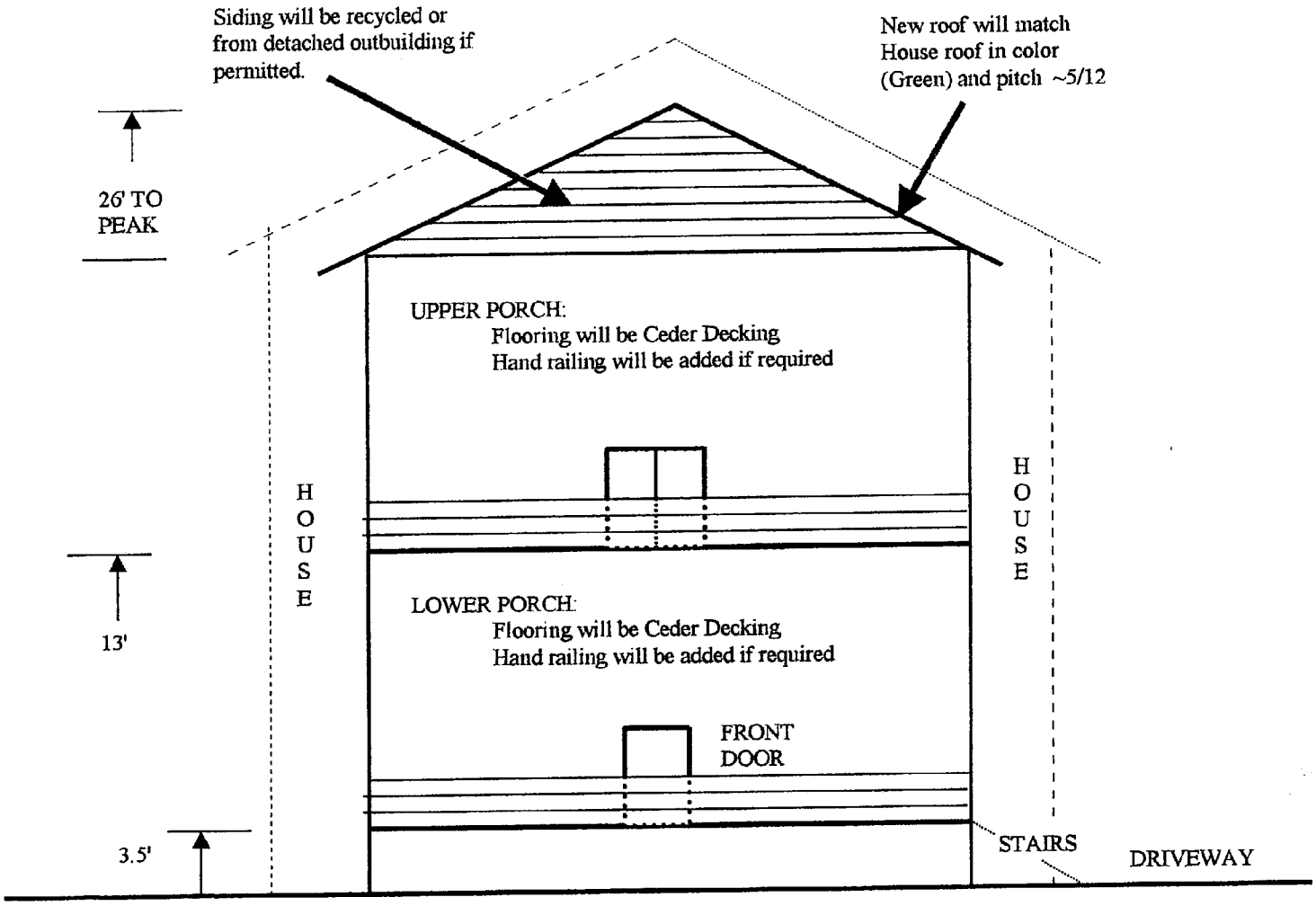
As per City municipal code, the porch in question has been declared dangerous. During the last few year I owned the house, I attempted several times to repair the porch but because of lack of foundation and extensive dry rot it was not feasible. All the contractors that I dealt with recommended its demolition and replacement if necessary.

For public safety reasons, I requested a demolition permit from the city of Corvallis on July 24th, 2000 but my request was denied because the structure is within a Historical district. On July 28th, I met with the city inspector at the property and he agreed that the porch is dangerous (See attached letter City of Corvallis) and it needs to be demolished or repaired at the owner option. After this inspection, I requested the demotion permit again but it was denied for the second time for the same reason. on August 1st, 2000, I invited other contractors to try to save the porch but they all recommended demolition (see letter from Gaffney Construction).

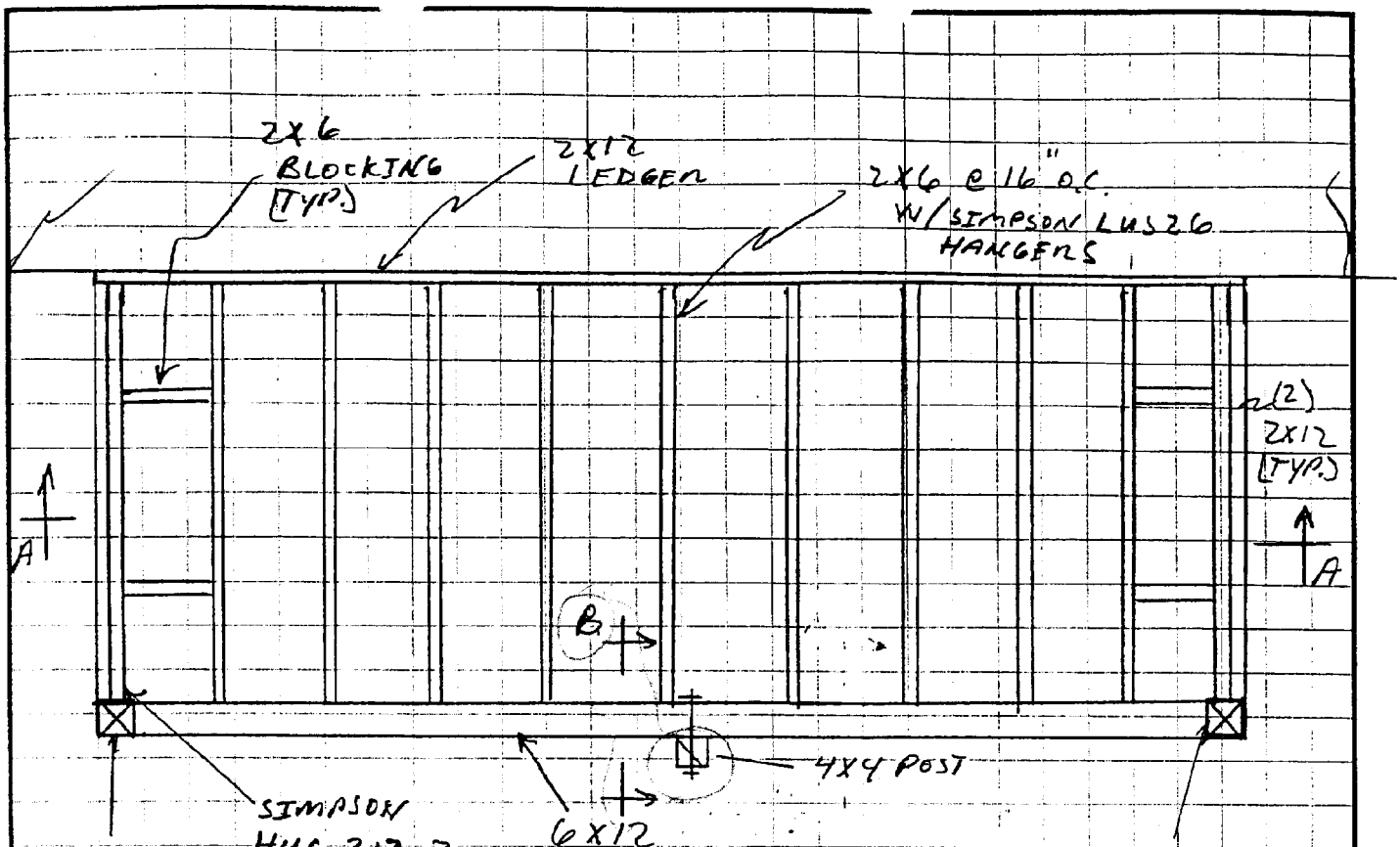
I hereby formally ask for an immediate demotion permit and a reconstruction authorization. I will accommodate the reconstruction recommendations from the Historical Preservation Advisory Board within my financial constraints. Demolition and start of reconstruction will be immediate. Depending on demolition cost, Advisory recommendations and reconstruction costs, the time line to finish reconstruction is not clear at this moment. Although my financial situation is not favorable, I would like to commit, with hardship, to is an initial amount of $5,000.00 and one half of the monthly rents from the house thereafter until satisfactory reconstruction is finished.

Sincerely,

Smida Abdelli



635 SW 3RD PORCH (Front View)



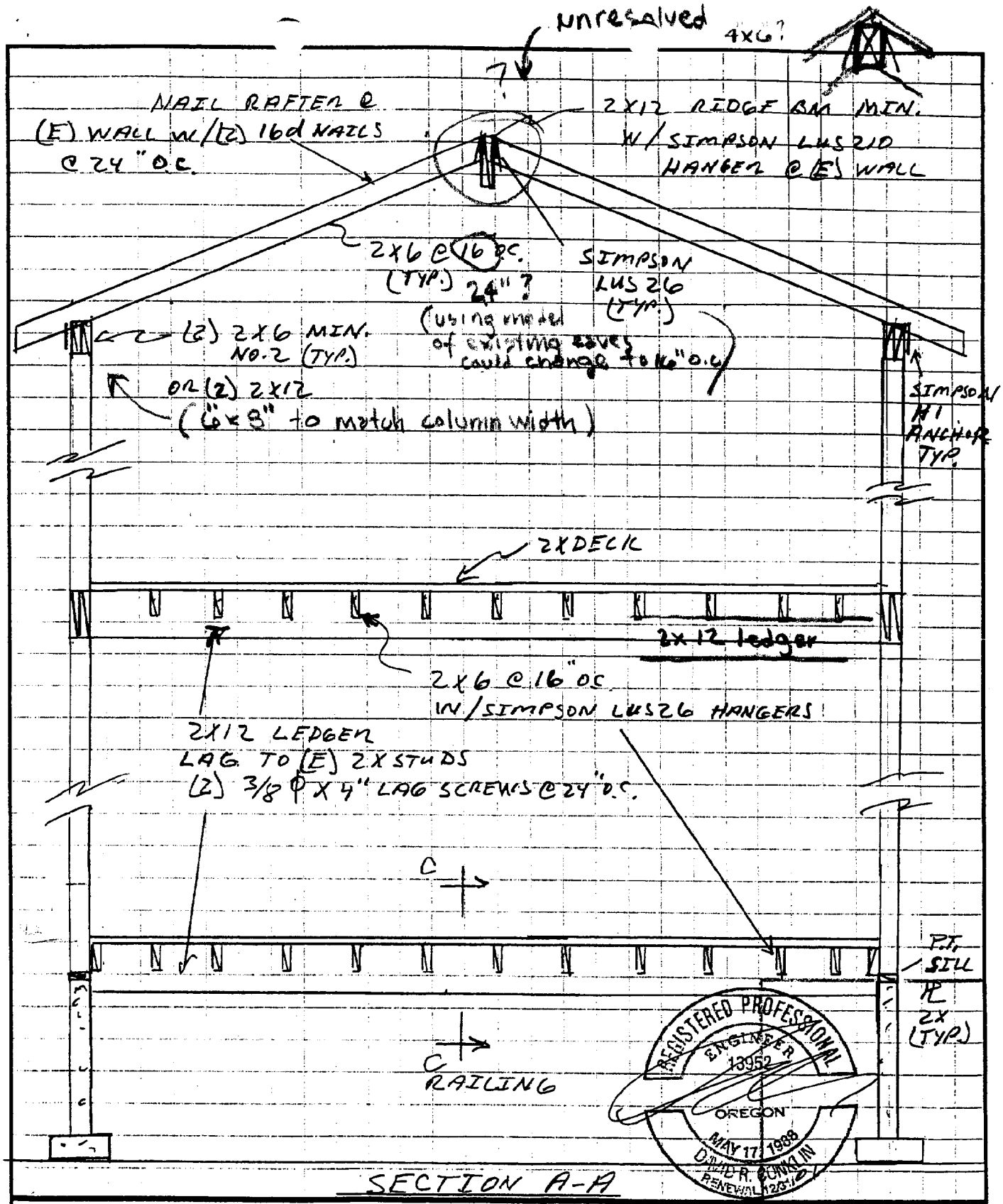
2ND FLOOR PLAN

NOTES:

1) MINIMUM NAILING PER UBC 1997 W/ 1998 OREGON SPECIALTY CODE

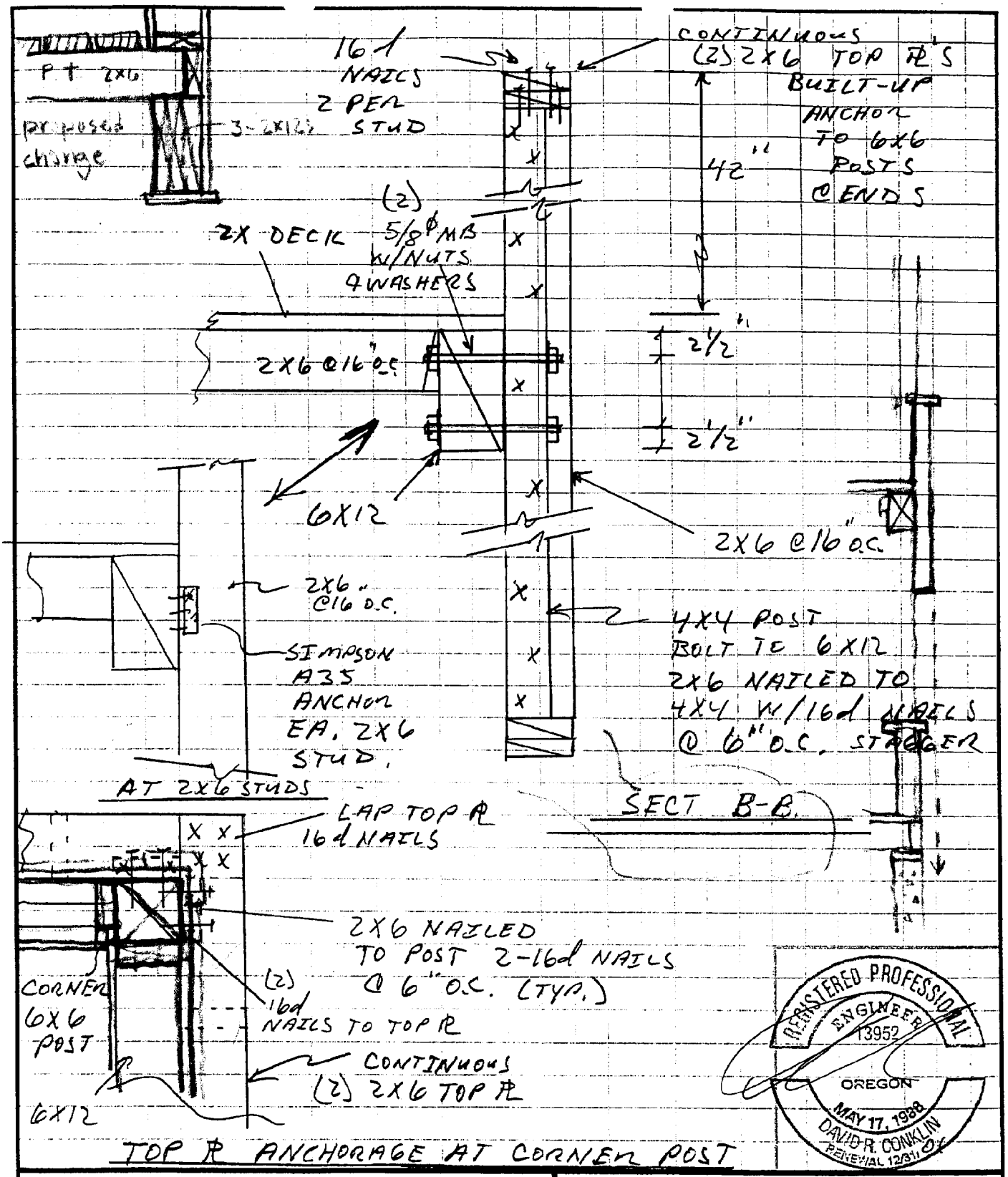
REGISTERED PROFESSIONAL ENGINEER 13952 OREGON MAY 17, 1998 DAVID R. CONKLIN RENEWAL 12/31/00

Project: 635 SW 3RD ST - PORCH	**CSE Engineering, Inc.**
Project No: 00-20 Design: DRC	460 S.W. Madison Ave., Suite 1 Phone: (541) 752-9648
Date: AUG '00 Rev. Page No.: SK-1	Corvallis, OR 97333 Fax: (541) 752-7065

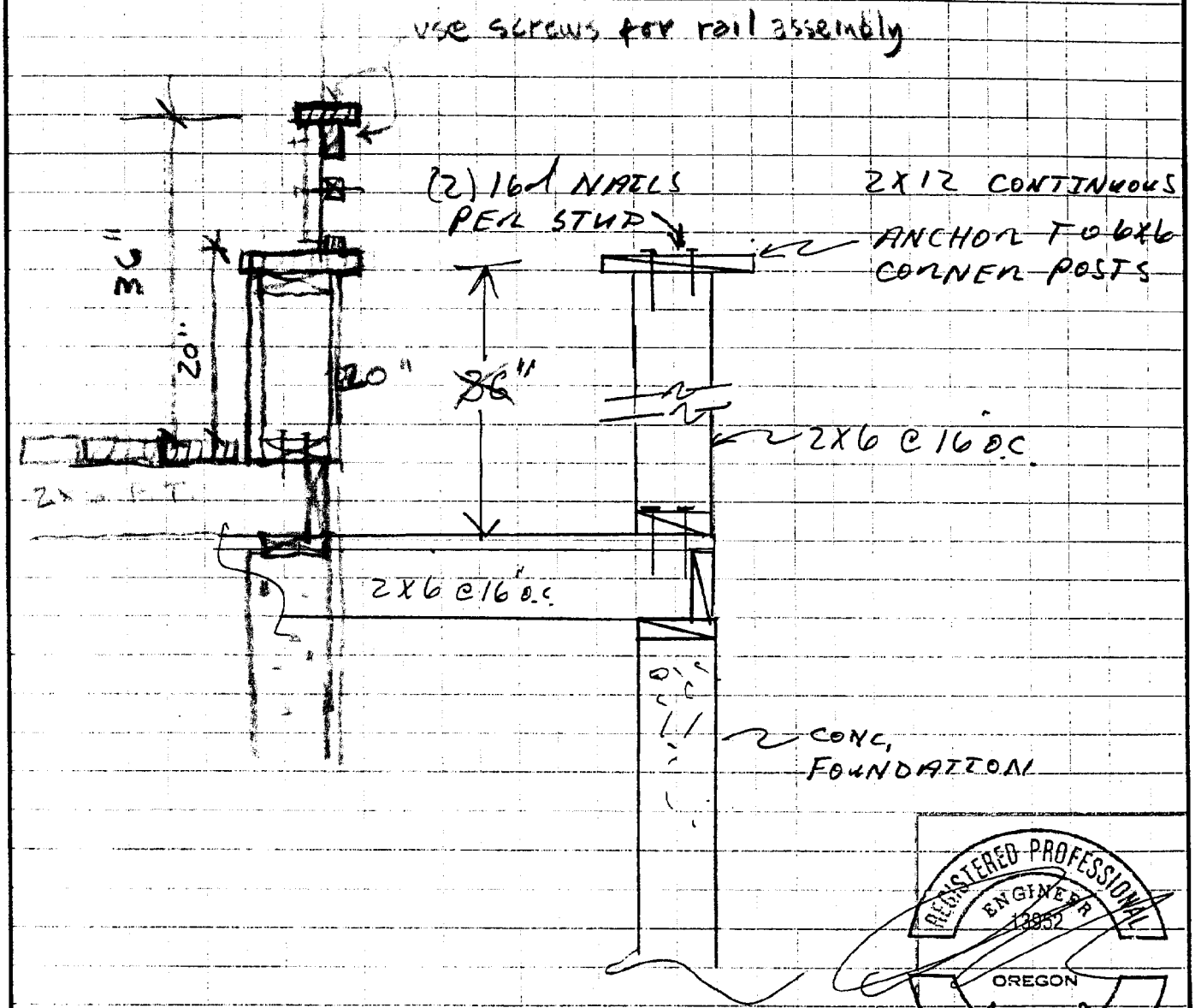


SECTION A-A

Project: 635 SW 3RD - PORCH	**CSE Engineering, Inc.**
Project No: 00-20 Design: DRC	460 S.W. Madison Ave., Suite 1 Phone: (541) 752-9648
Date: AUG '00 Rev. Page No.: SK-2	Corvallis, OR 97333 Fax: (541) 752-7065



Project: 635 SW 3RD - PORCH	**CSE Engineering, Inc.**
Project No: 00-20 Design: DRC	460 S.W. Madison Ave., Suite 1 Corvallis, OR 97333
Date: AUG '00 Rev. Page No.: SK-3	Phone: (541) 752-9648 Fax: (541) 752-7065

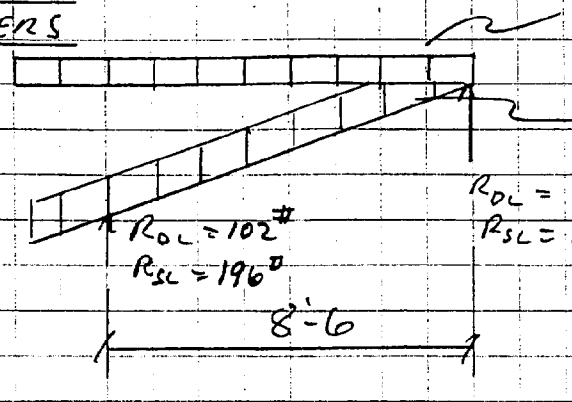


SECTION C-C

REGISTERED PROFESSIONAL ENGINEER 13952 OREGON MAY 17, 1988 DAVID R. CONKLIN RENEWAL 12/31

Project: 635 SW 3RD - PORCH	**CSE Engineering, Inc.**
Project No: 00-20 Design: DRC	460 S.W. Madison Ave., Suite 1 Phone: (541) 752-9648
Date: AUG '00 Rev. Page No.:	Corvallis, OR 97333 Fax: (541) 752-7065

DESIGN ROOF RAFTERS

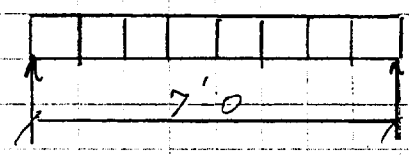


$W_{SL} = 25 PSF \times 16/12 = 33 \#/'$

$W_{DL} = 12 PSF \times 16/12 = 16 \#/'$

SEE ATTACHED CALC. SHT
2X6 NO. 2 @ 16" O.C.

RAFTER SUPPORT BM

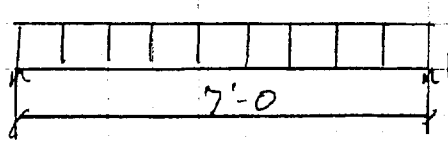


$W_{DL} = 77 \#/'$
$W_{SL} = 147 \#/'$

$R_{DL} = 284^{\#}$
$R_{SL} = 515^{\#}$

USE (2) 2X6 NO. 2
SEE OUTPUT.

FLOOR JOIST



$W_{LL} = 40 PSF \times 16/12 = 53.3 \#/'$

$W_{DL} = 12 PSF \times 16/12 = 16 \#/'$

USE 2X6 NO. 2 @ 16" O.C.
SEE OUTPUT

REGISTERED PROFESSIONAL ENGINEER 13962 OREGON MAY 17, 1988 DAVID R. CONKLIN RENEWAL 12/31/00

Project: 635 SW 3RD - PORCH	**CSE Engineering, Inc.**
Project No: 00-20 Design: DRC	460 S.W. Madison Ave., Suite 1 Phone: (541) 752-9648
Date: AUG '00 Rev. Page No.: 1	Corvallis, OR 97333 Fax: (541) 752-7065

Roof Rafter[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: Roof rafter

Summary:

1.50 IN x 5.50 IN x 10.0 FT (Actual 10.833 FT) @ 16.00 O.C. / #2 - DOUGLAS FIR-LARCH - Dry Use
Section Adequate By: 96.3% Controlling Factor: Area / Depth Required 3.78 In
* Notch depth exceeds recommended maximum depth of d / 10

Deflections:			
Dead Load:	DLD=	0.07	IN
Live Load:	LLD=	0.13	IN = L/865
Total Load:	TLD=	0.19	IN = L/569
Rafter End Loads and Reactions:	LOADS:	RXNS:	
Upper Live Load:	106 PLF	142 LB	
Upper Dead Load:	54 PLF	71 LB	
Upper Total Load:	160 PLF	213 LB	
Lower Live Load:	147 PLF	196 LB	
Lower Dead Load:	76 PLF	102 LB	
Lower Total Load:	224 PLF	298 LB	
Upper Equiv. Tributary Width:	UTWeq=	4.604	FT
Lower Equiv. Tributary Width:	LTWeq=	6.373	FT
Rafter Data:			
Interior Span:	L=	8.5	FT
Cantilever Span:	CS1=	1.5	FT
Live Load Deflect. Criteria:	L/	240	
Total Load Deflect. Criteria:	L/	180	
	NDbase=	1.00	IN
Rafter Spacing:	SPC=	16.00	IN O.C.
Rafter Loads:			
Roof Live Load:	LL=	25	PSF
Roof Dead Load:	DL=	12	PSF
Rafter Pitch:	RP=	5.00	: 12
Rafter Unbraced Length:	Lu=	0.0	FT
Roof Duration Factor:	Cd=	1.15	
Slope Adjusted Spans And Loads:			
Interior Span:	Ladj=	9.2	FT
Cantilever Span:	CS1adj=	1.6	FT
Rafter Live Load:	wL=	28	PLF
Rafter Dead Load:	wD=	15	PLF
Rafter Total Load:	wT=	43	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties			
Fb' (Tension):	Fb'=	1504	PSI
Adjustment Factors: Cd=1.15 Cf=1.30 Cr=1.15			
Fv':	Fv'=	109	PSI
Adjustment Factors: Cd=1.15			
Design Requirements:			
Maximum Moment(Interior Span):	Mcent=	448	FT-LB
At Location(From Upper Support):	X=	4.555	FT
Moment At Cantilever:	Mcant=	57	FT-LB
Maximum Shear:	Vmax=	205	LB
Shear At Peak:	Vpeak=	197	LB
Required Cantilever Depth:	D(cant)=	1.35	IN
Comparisons With Required Sections:			
Section Modulus:	Sreq=	3.6	IN3
	S=	7.5	IN3
Area:	Areq=	2.9	IN2
	A=	5.5	IN2
Moment of Inertia:	Ireq=	6.6	IN4
	I=	20.7	IN4

Roof Beam[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: Roof rafter support bm.

Summary:

(2) 1.50 IN x 5.50 IN x 7.0 FT / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 18.1% Controlling Factor: Section Modulus / Depth Required 5.06 In

Deflections:			
Dead Load:	DLD=	0.07	IN
Live Load:	LLD=	0.12	IN = L/704
Total Load:	TLD=	0.19	IN = L/454
Reactions (Each End):			
Live Load:	RL=	515	LB
Dead Load:	RD=	284	LB
Total Load:	RT=	798	LB
Bearing Length Reqd.:	BL=	0.43	IN
Beam Data:			
Span:	L=	7.0	FT
Maximum Unbraced Span:	Lu=	0.0	FT
Pitch Of Roof:	RP=	0.00	: 12
Live Load Deflect. Criteria:	L/	240	
Total Load Deflect. Criteria:	L/	180	
Beam Loading:			
Live Load:	LL=	147	PSF
Side One: Roof Dead Load:	DL1=	77	PSF
Roof Rafter Tributary Width:	TW1=	1.0	FT
Side Two: Roof Dead Load:	DL2=	0	PSF
Roof Rafter Tributary Width:	TW2=	0.0	FT
Roof Duration Factor:	Cd=	1.15	
Slope Adjusted Lengths and Loads:			
Adjusted Beam Length:	Ladj=	7.0	FT
Beam Live Load W/ Slope Red'n:	wL=	147	PLF
Beam Self Weight:	BSW=	4	PLF
Beam Total Dead Load:	wD=	81	PLF
Total Maximum Load:	wT=	228	PLF
Controlling Total Design Load:	wTcont=	228	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties:			
Fb' (Tension):	Fb'=	1308	PSI
Adjustment Factors: Cd=1.15 Cf=1.30			
Fv':	Fv'=	109	PSI
Adjustment Factors: Cd=1.15			
Design Requirements:			
Maximum Moment:	M=	1397	FT-LB
Shear (@ d from beam end):	V=	694	LB
Comparisons With Required Sections:			
Section Modulus:	Sreq=	12.9	IN3
	S=	15.1	IN3
Area:	Areq=	9.6	IN2
	A=	16.5	IN2
Moment of Inertia:	Ireq=	16.5	IN4
	I=	41.5	IN4

Roof Beam[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: Roof rafter ridge bm.

Summary:

1.50 IN x 11.25 IN x 7.0 FT / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 0.7% Controlling Factor: Section Modulus / Depth Required 11.21 In

Deflections:			
Dead Load:	DLD=	0.03	IN
Live Load:	LLD=	0.05	IN = L/1559
Total Load:	TLD=	0.08	IN = L/1029
Reactions (Each End):			
Live Load:	RL=	994	LB
Dead Load:	RD=	511	LB
Total Load:	RT=	1505	LB
Bearing Length Reqd.:	BL=	1.61	IN
Beam Data:			
Span:	L=	7.0	FT
Maximum Unbraced Span:	Lu=	0.0	FT
Pitch Of Roof:	RP=	0.00	: 12
Live Load Deflect. Criteria:	L/	240	
Total Load Deflect. Criteria:	L/	180	
Beam Loading:			
Live Load:	LL=	284	PSF
Side One: Roof Dead Load:	DL1=	142	PSF
Roof Rafter Tributary Width:	TW1=	1.0	FT
Side Two: Roof Dead Load:	DL2=	0	PSF
Roof Rafter Tributary Width:	TW2=	0.0	FT
Roof Duration Factor:	Cd=	1.15	
Slope Adjusted Lengths and Loads:			
Adjusted Beam Length:	Ladj=	7.0	FT
Beam Live Load W/ Slope Red'n:	wL=	284	PLF
Beam Self Weight:	BSW=	4	PLF
Beam Total Dead Load:	wD=	146	PLF
Total Maximum Load:	wT=	430	PLF
Controlling Total Design Load:	wTcont=	430	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties:			
Fb' (Tension):	Fb'=	1006	PSI
Adjustment Factors: Cd=1.15 Cf=1.00			
Fv':	Fv'=	109	PSI
Adjustment Factors: Cd=1.15			
Design Requirements:			
Maximum Moment:	M=	2634	FT-LB
Shear (@ d from beam end):	V=	1102	LB
Comparisons With Required Sections:			
Section Modulus:	Sreq=	31.5	IN3
	S=	31.6	IN3
Area:	Areq=	15.2	IN2
	A=	16.8	IN2
Moment of Inertia:	Ireq=	31.2	IN4
	I=	177.9	IN4

Floor Joist[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: Floor joist

Summary:

1.50 IN x 5.50 IN x 7.0 FT @ 16.00 O.C. / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 94.1% Controlling Factor: Section Modulus / Depth Required 4.35 In

Deflections:			
Interior Span Live Load:	LLD=	0.09	IN = L/970
Interior Span Total Load:	TLD=	0.11	IN = L/746
Bearing Length Reqd.:	BL1=	0.26	IN
Bearing Length Reqd.:	BL2=	0.26	IN
Equivalent Wall Loadings:			
Left End:	WTL1=	182	PLF
Right End:	WTL2=	182	PLF
Joist Reactions:			
Left End Total Load Reactions:	R1max=	243	LB
	R1min=	0	LB
Right End Total Load Reactions:	R2max=	243	LB
	R2min=	0	LB
Joist Data:			
Span:	L=	7.0	FT
Maximum Unbraced Length:	Lu=	0.0	FT
Live Load Deflect. Criteria:	L/	480	
Total Load Deflect. Criteria:	L/	360	
Joist Loading:			
Uniform Live Load:	LL=	40	PSF
Floor Duration Factor:	Cd=	1.00	
Code Required Concentrated Live Load:	LLconc=	0	LB
Uniform Dead Load:	DL=	12	PSF
Joist Live Load:	wL=	53	PLF
Joist Dead Load:	wD=	16	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties			
Fb' (Tension):	Fb'=	1308	PSI
Adjustment Factors: Cd=1.00 Cf=1.30 Cr=1.15			
Fv':	Fv'=	95	PSI
Adjustment Factors: Cd=1.00			
Design Requirements:			
Maximum Shear:	V=	243	LB
Note: Critical V created by combining all dead loads and w live loads.			
Maximum Moment:	M=	425	FT-LB
Note: Critical M created by combining all dead loads and w live loads.			
Comparisons With Required Sections:			
Section Modulus:	Sreq=	3.9	IN3
	S=	7.5	IN3
Area:	Areq=	3.9	IN2
	A=	8.2	IN2
	Ireq=	10.3	IN4
Moment of Inertia:	I=	20.7	IN4

Uniformly Loaded Floor Beam[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: Floor Bm.

Summary:

(3) 1.50 IN x 11.25 IN x 17.0 FT / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 13.4% Controlling Factor: Section Modulus / Depth Required 10.56 In

Deflections:			
Dead Load:	DLD=	0.12	IN
Live Load:	LLD=	0.31	IN = L/662
Total Load:	TLD=	0.43	IN = L/477
Reactions (Each End):			
Live Load:	RL=	1190	LB
Dead Load:	RD=	462	LB
Total Load:	RT=	1652	LB
Bearing Length Reqd.:	BL=	0.59	IN
Beam Data:			
Span:	L=	17.0	FT
Maximum Unbraced Span:	Lu=	0.0	FT
Live Load Deflect. Criteria:	L/	360	
Total Load Deflect. Criteria:	L/	240	
Floor Loading:			
Floor Dead Load:	DL=	12	PSF
Side One: Floor Live Load:	LL1=	40	PSF
Tributary Load Span(Side One):	TW1=	3.5	FT
Side Two: Floor Live Load:	LL2=	0	PSF
Tributary Load Span(Side Two):	TW2=	0.0	FT
Live Load Duration Factor:	Cd=	1.00	
Wall Load:	WALL=	0	PLF
Average Uniform Live Load:	LLave=	40	PSF
Beam Loading:			
Beam Total Live Load:	wL=	140	PLF
Beam Self Weight:	BSW=	12	PLF
Beam Total Dead Load:	wD=	54	PLF
Total Maximum Load:	wT=	194	PLF
Controlling Total Design Load:	wTcont=	194	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties:			
Fb' (Tension):	Fb'=	1006	PSI
Adjustment Factors: Cd=1.00 Cf=1.00 Cr=1.15			
Fv':	Fv'=	95	PSI
Adjustment Factors: Cd=1.00			
Design Requirements:			
Maximum Moment:	M=	7019	FT-LB
Shear (@ d from beam end):	V=	1469	LB
Comparisons With Required Sections:			
Section Modulus:	Sreq=	83.8	IN3
	S=	94.9	IN3
Area:	Areq=	23.3	IN2
	A=	50.6	IN2
Moment of Inertia:	Ireq=	290.2	IN4
	I=	533.9	IN4

Uniformly Loaded Floor Beam[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: Floor Bm.

Summary:

5.50 IN x 11.50 IN x 17.0 FT / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 24.0% Controlling Factor: Section Modulus / Depth Required 10.33 In

Deflections:			
Dead Load:	DLD=	0.12	IN
Live Load:	LLD=	0.29	IN = L/703
Total Load:	TLD=	0.41	IN = L/498
Reactions (Each End):			
Live Load:	RL=	1190	LB
Dead Load:	RD=	488	LB
Total Load:	RT=	1678	LB
Bearing Length Reqd.:	BL=	0.49	IN
Beam Data:			
Span:	L=	17.0	FT
Maximum Unbraced Span:	Lu=	0.0	FT
Live Load Deflect. Criteria:	L/	360	
Total Load Deflect. Criteria:	L/	240	
Floor Loading:			
Floor Dead Load:	DL=	12	PSF
Side One: Floor Live Load:	LL1=	40	PSF
Tributary Load Span(Side One):	TW1=	3.5	FT
Side Two: Floor Live Load:	LL2=	0	PSF
Tributary Load Span(Side Two):	TW2=	0.0	FT
Live Load Duration Factor:	Cd=	1.00	
Wall Load:	WALL=	0	PLF
Average Uniform Live Load:	LLave=	40	PSF
Beam Loading:			
Beam Total Live Load:	wL=	140	PLF
Beam Self Weight:	BSW=	15	PLF
Beam Total Dead Load:	wD=	57	PLF
Total Maximum Load:	wT=	197	PLF
Controlling Total Design Load:	wTcont=	197	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	85	PSI
Modulus of Elasticity:	E=	1300000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties:			
Fb' (Tension):	Fb'=	875	PSI
Adjustment Factors: Cd=1.00 Cf=1.00			
Fv':	Fv'=	85	PSI
Adjustment Factors: Cd=1.00			
Design Requirements:			
Maximum Moment:	M=	7130	FT-LB
Shear (@ d from beam end):	V=	1489	LB
Comparisons With Required Sections:			
Section Modulus:	Sreq=	97.8	IN3
	S=	121.2	IN3
Area:	Areq=	26.3	IN2
	A=	63.2	IN2
Moment of Inertia:	Ireq=	357.2	IN4
	I=	697.0	IN4

Column[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: Corner Post

Summary:

5.50 x 5.50 x 13.0 FT / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 70.1%

Base Reactions:			
Live:	RL=	2000	LB
Dead:	RD=	1109	LB
Total:	RT=	3109	LB
Axial Loads:			
Live Loads:	PL=	2000	LB
Dead Loads:	PD=	1000	LB
Total Loads:	PT=	3000	LB
Column Data:			
Length:	L=	13.0	FT
Column End Condition:	Ke=	1.0	
Maximum Unbraced Length (X Axis):	Lx=	13.0	FT
Maximum Unbraced Length (Y Axis):	Ly=	13.0	FT
Eccentricity (X Axis):	ex=	0.00	IN
Eccentricity (Y Axis):	ey=	0.00	IN
Column Design Stresses:			
Compressive Stress:	Fc=	475	PSI
Modulus of Elasticity:	E=	1300000	PSI
Bending Stress (X Axis):	Fbx=	700	PSI
Bending Stress (Y Axis):	Fby=	700	PSI
Adjusted Properties:			
Fbx':	Fbx'=	700	PSI
Adjustment Factors: Cd=1.00 Cf=1.00			
Fby':	Fby'=	700	PSI
Adjustment Factors: Cd=1.00 Cf=1.00			
Fc'(parallel):	Fc'_parl=	332	PSI
Adjustment Factors: Cd=1.00 Cp=0.70			
Controlling Direction:		(Y Axis)	
Compressive Stress:	fc=	99	PSI
Allowable Compressive Stress:	Fc'=	332	PSI
Column Properties:			
Column Section (X Axis):	dx=	5.50	IN
Column Section (Y Axis):	dy=	5.50	IN
Area:	A=	30.25	IN2
Section Modulus (X Axis):	Sx=	27.7	IN3
Section Modulus (Y Axis):	Sy=	27.7	IN3
Length Depth Ratio:	Lex/dx=	28.4	
	Ley/dy=	28.4	
Column Bending Calculations:			
Combined Stress Factor:	CSF=	0.30	

Uniformly Loaded Floor Beam[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

Project: 00-20 - Location: 1rst floor top rail

Summary:

1.50 IN x 11.25 IN x 17.0 FT / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 165.0% Controlling Factor: Section Modulus / Depth Required 6.92 In

Deflections:			
Dead Load:	DLD=	0.03	IN
Live Load:	LLD=	0.13	IN = L/1546
Total Load:	TLD=	0.16	IN = L/1283
Reactions (Each End):			
Live Load:	RL=	170	LB
Dead Load:	RD=	35	LB
Total Load:	RT=	205	LB
Bearing Length Reqd.:	BL=	0.22	IN
Beam Data:			
Span:	L=	17.0	FT
Maximum Unbraced Span:	Lu=	0.0	FT
Live Load Deflect. Criteria:	L/	360	
Total Load Deflect. Criteria:	L/	240	
Floor Loading:			
Floor Dead Load:	DL=	0	PSF
Side One: Floor Live Load:	LL1=	20	PSF
Tributary Load Span(Side One):	TW1=	1.0	FT
Side Two: Floor Live Load:	LL2=	0	PSF
Tributary Load Span(Side Two):	TW2=	0.0	FT
Live Load Duration Factor:	Cd=	1.00	
Wall Load:	WALL=	0	PLF
Average Uniform Live Load:	LLave=	20	PSF
Beam Loading:			
Beam Total Live Load:	wL=	20	PLF
Beam Self Weight:	BSW=	4	PLF
Beam Total Dead Load:	wD=	4	PLF
Total Maximum Load:	wT=	24	PLF
Controlling Total Design Load:	wTcont=	24	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties:			
Fb' (Tension):	Fb'=	875	PSI
Adjustment Factors: Cd=1.00 Cf=1.00			
Fv':	Fv'=	95	PSI
Adjustment Factors: Cd=1.00			
Design Requirements:			
Maximum Moment:	M=	871	FT-LB
Shear (@ d from beam end):	V=	182	LB
Comparisons With Required Sections:			
Section Modulus:	Sreq=	12.0	IN3
	S=	31.6	IN3
Area:	Areq=	2.9	IN2
	A=	16.8	IN2
Moment of Inertia:	Ireq=	41.5	IN4
	I=	177.9	IN4

Uniformly Loaded Floor Beam[97 UBC (91 NDS)] StruCalc 4.06
By: David R. Conklin, CSE Engineering, Inc. on: 08-31-2000

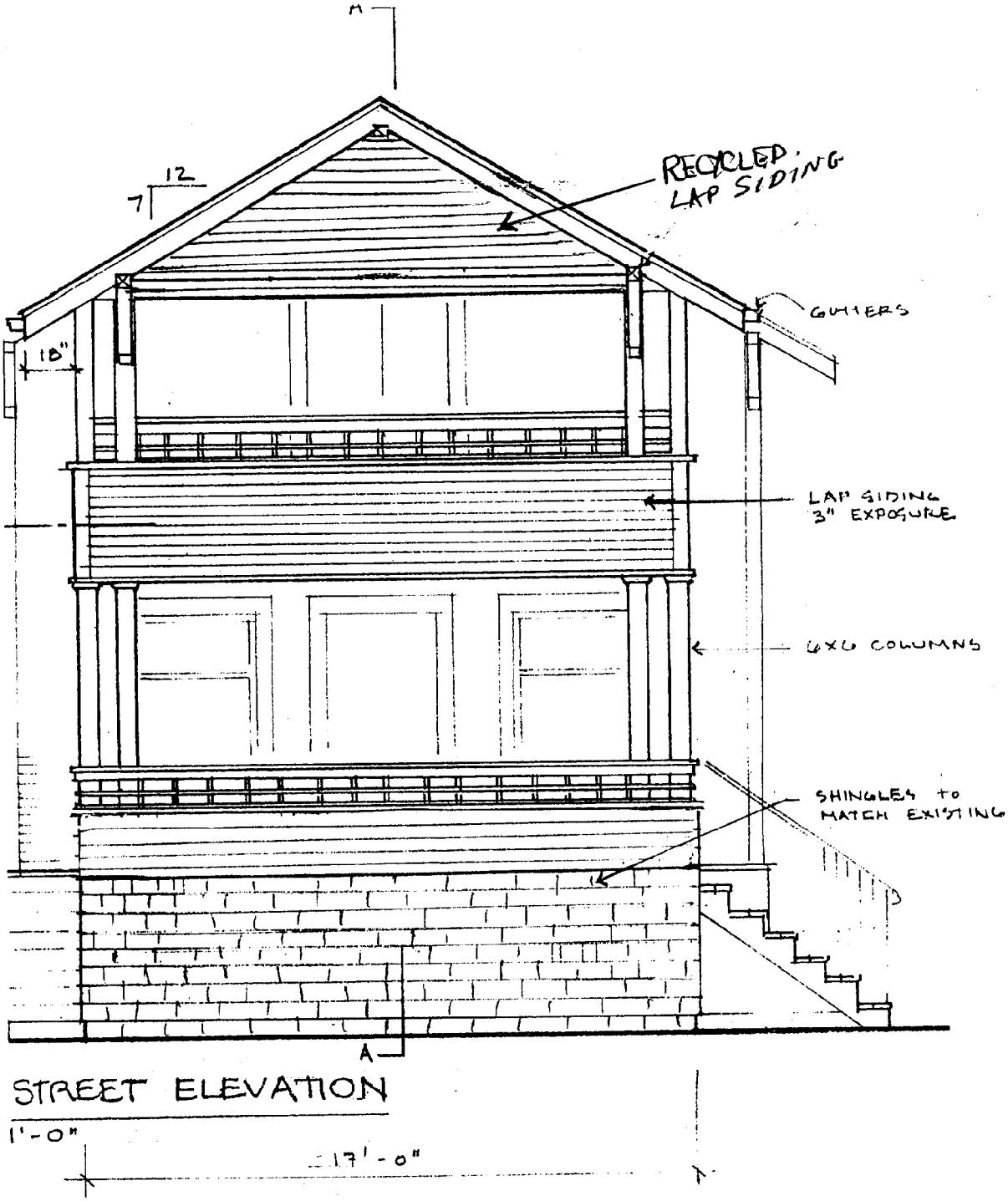
Project: 00-20 - Location: Balcony Top railing

Summary:

(2) 1.50 IN x 5.50 IN x 8.5 FT / #2 - DOUGLAS FIR-LARCH - Dry Use

Section Adequate By: 68.9% Controlling Factor: Section Modulus / Depth Required 4.54 In

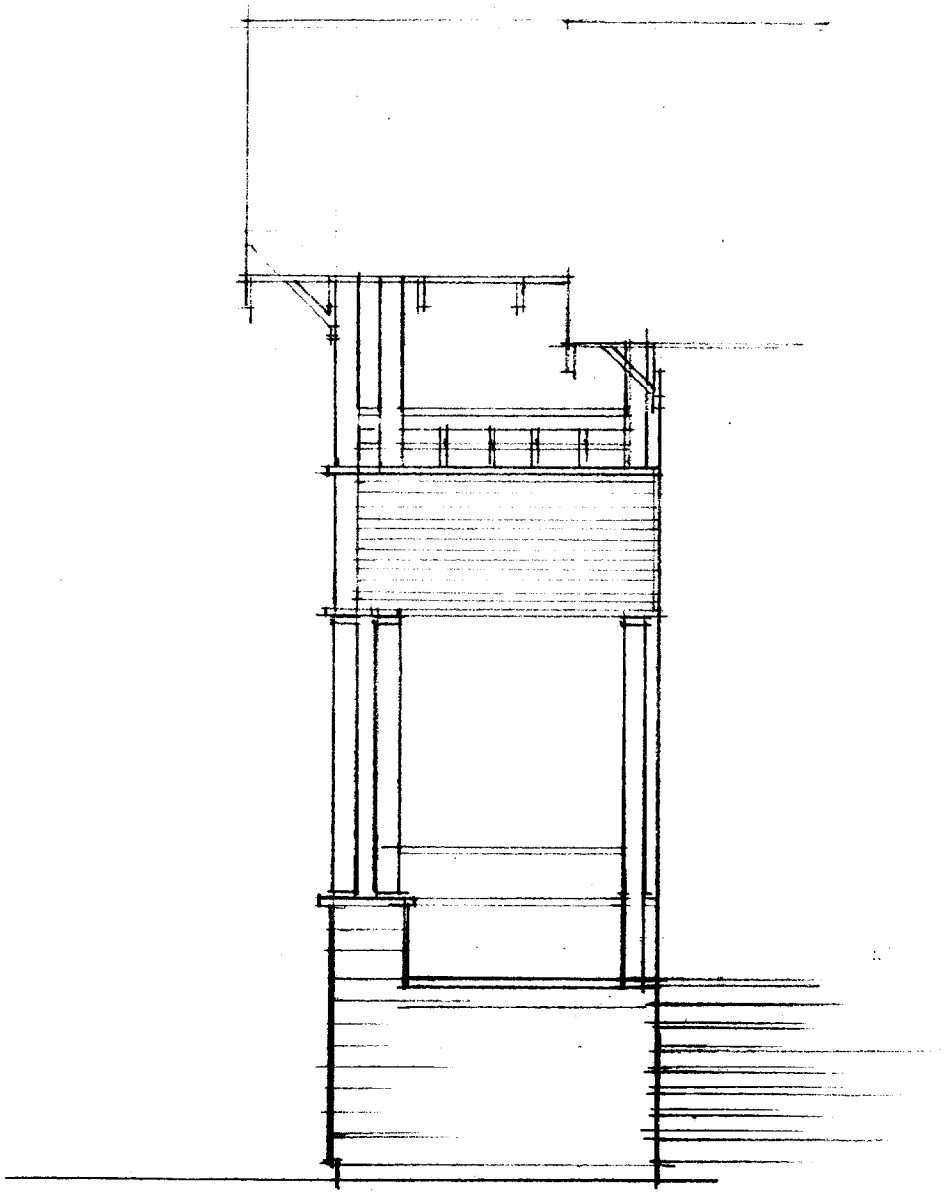
Deflections:			
Dead Load:	DLD=	0.01	IN
Live Load:	LLD=	0.16	IN = L/642
Total Load:	TLD=	0.17	IN = L/615
Reactions (Each End):			
Live Load:	RL=	383	LB
Dead Load:	RD=	17	LB
Total Load:	RT=	400	LB
Bearing Length Reqd.:	BL=	0.21	IN
Beam Data:			
Span:	L=	8.5	FT
Maximum Unbraced Span:	Lu=	0.0	FT
Live Load Deflect. Criteria:	L/	360	
Total Load Deflect. Criteria:	L/	240	
Floor Loading:			
Floor Dead Load:	DL=	0	PSF
Side One: Floor Live Load:	LL1=	90	PSF
Tributary Load Span(Side One):	TW1=	1.0	FT
Side Two: Floor Live Load:	LL2=	0	PSF
Tributary Load Span(Side Two):	TW2=	0.0	FT
Live Load Duration Factor:	Cd=	1.00	
Wall Load:	WALL=	0	PLF
Average Uniform Live Load:	LLave=	90	PSF
Beam Loading:			
Beam Total Live Load:	wL=	90	PLF
Beam Self Weight:	BSW=	4	PLF
Beam Total Dead Load:	wD=	4	PLF
Total Maximum Load:	wT=	94	PLF
Controlling Total Design Load:	wTcont=	94	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties:			
Fb' (Tension):	Fb'=	1138	PSI
Adjustment Factors: Cd=1.00 Cf=1.30			
Fv':	Fv'=	95	PSI
Adjustment Factors: Cd=1.00			
Design Requirements:			
Maximum Moment:	M=	849	FT-LB
Shear (@ d from beam end):	V=	356	LB
Comparisons With Required Sections:			
Section Modulus:	Sreq=	9.0	IN3
	S=	15.1	IN3
Area:	Areq=	5.7	IN2
	A=	16.5	IN2
Moment of Inertia:	Ireq=	23.4	IN4
	I=	41.5	IN4



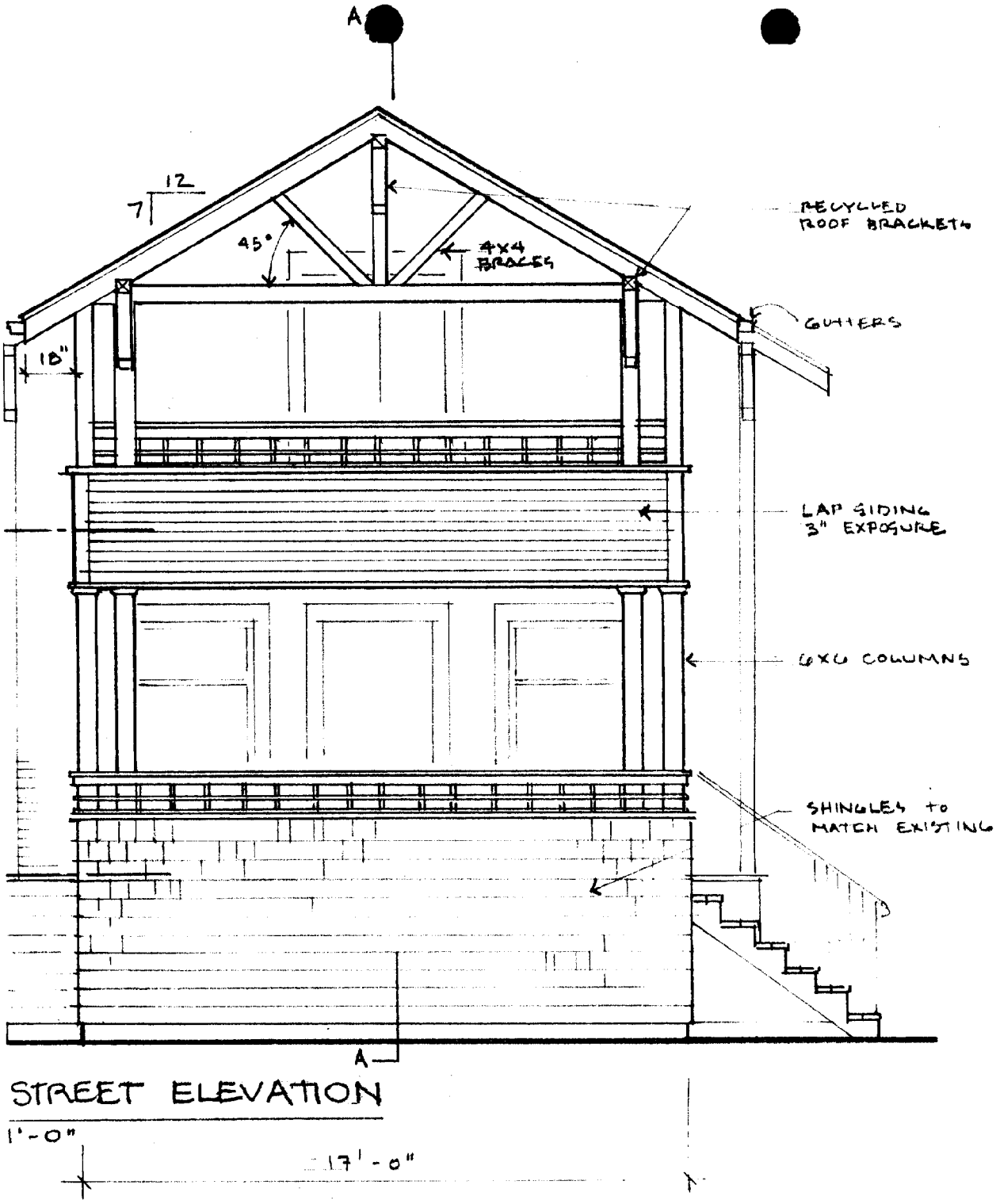
STREET ELEVATION

)R 635 SW 3RD STREET

9/7/2000



South Elevation



STREET ELEVATION

1'-0"

)R 635 SW 3RD STREET

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