CITY OF SANTA ANA

BUILDING PERMIT WORKSHEET

PLEASE PRINT			1/14/09:for	ms/Bldg.App.Worksheet			
PROJECT ADDRESS: 1702 2	E. FAIRHAVEN	SUITE:	SAPIN#/O	17/102			
USE OF BUILDING: RESIDEN	TIAL COMMERCIAL	INDUSTRIAL OTHER	₹				
			MASTER ID#				
NATURE OF WORK: NEW AD	DD ALTER/T.I. DI	EMO REROOF REP	AIR SIGN MIS	SC			
NEW/ADDITION/ALTERATION:							
	1ST FL SF BASEMENT: YES/NOSF N						
2ND FL		. PATIO:SF	BLDG. HEIGHT:				
TOTAL OF OTHER FLS:			PROPOSED USE:				
GARAGE/CARPORT:		SF	O FYTTERING F	44 - T / - K/			
JOB DESCRIPTION (non-resident	MAY FROM SECU	DWD FLOOR STA	1R FOR CONVER	VIENCE ONLY			
		•					
NOTREQUIRED BY CO	WE, NO ADDITION	ONAL S.F., IN OIR	PER IMPROVEM	ENS			
BUILDING OWNER'S NAME: FAIRHAVEN MEMORIA	2 PARK,		PHONE NO: 714-922-	2920			
ADDRESS:	AVEN	CITY: SANTA ANA	STATE: CA	92705			
TENANT'S NAME (Comm/Ind):	·		PHONE NO:				
CONTRACTOR'S NAME:		STATE CONTR. #:	LICENSE CLASS:	PHONE NO:			
ADDRESS:		CITY:	STATE:	ZIP:			
WORKERS COMP. POLICY#:	EXP. DATE:	INSURANCE COMPANY:	.IC. #:				
ANDERSON & ASS	DEJATES	STATE LICENSE #: C - 25/99	PHONE NO: 714-632-9055				
ADDRESS: 1311 N- TUSTIN	AVE	CITY: ANAHEIM	STATE:	ZIP: 92807			
CONTACT NAME: MIKE T	PADIAN	PHONE NO: 9	49-370-97	78			
E-MAIL ADDRESS: PADIAN	TEAM @ AOL.C						
OFFICE USE ONLY: ACC OF SI	PC (CIRCLE ONE)	HRS PER 2000	BLDG. FEE \$				
OCC. GROUP:	RECEIPT #:		P/C FEE PD \$	0200			
TYPE OF CONSTR:	YPE OF CONSTR: VALUATION: \$ 7,000						
FIRE SPKR: YES / NO A/C: YES /	NO FLOOD ZONE:_		PROCESSED	Barr			
RES. DEV. FEE: YES / NO PRIOR	DWELLING UNIT: YES/	NO COMMENTS:					
PLANNING OK TO CHECK & DATE —		BLDG. DEPT. APPROVA	L & DATE ————				
PLNG CONDITIONS:							

PLEASE CHECK ALL THAT APPLY TO YOUR PROJECT

JUB	DESCRIPTION CHECKLIST:		
	Additional square footage		Partition walls
	Awnings		Rated corridors
	Canopy		Rated shafts
	Ceiling work		Roof mounted equipment
	Change of occupancy (use)		Security bars
	Disabled accessible (H/C) restrooms		Screening for equipment
	Dust collector		Skylights
	Elevator shaft	X	Stairs
X	Exterior doors or windows		Storefront/facade improvements
	Equipment pads		Storage racks or shelving over 5'-9"
	Interior demo		Walk-in coolers
	Kitchen equipment		
ITEM	IS REQUIRING SEPARATE BUILDING PERMIT APPLIC	· ATIC	MC.
		JAIIC	JNS.
	Block wall		
	Card readers		
	Complete demo		
	Fence		
	Fire signaling system		
	Fire sprinklers		
	Flagpole		
	Lawn sprinkler system		
	Light Standards		
	Parking lot repaving		
	Parking lot restriping		
	Pedestrian protection		
	Pool/Spa		
	Signs		
	Spray booth		
	Temporary power pole		
	Trash enclosure		

SEP 26 2011
Chy of Samo Ana



September 15, 2011

Mr. Fred Heidari, Deputy Building Official City of Santa Ana Planning & Building Agency (M-190) 20 Civic Center Plaza Santa Ana, CA 92702

RE:

Request for Extension

Plan Check No. 10171102

Address:

1702 E. Fairhaven

Submittal Date:

04/07/2011

Current Expiration Date:

10/04/2011

Dear Mr. Heidari

On behalf of Fairhaven Memorial Park, and as a follow-up to your correspondence of September 1, 2011 (copy attached), the purpose of this letter is to request an extension of the plan check period for the above subject project for 180 days. By my calculations, the revised deadline to pull a building permit would be March 30, 2012.

The reason for the delay in pulling the permit has been the inability to find a reasonable proposal for the construction. Fairhaven has put the project out to bid several times, and believes it now has an acceptable bidder. Fairhaven is currently reviewing this contractor's background and credentials, and while they are confident that the contract will be awarded shortly, having the full extension of 180 days will provide adequate time for another round of bidding if necessary.

If you have any questions about this issue, please contact me at 949-370-9778, or the owner, Mr. Leo O'Connor, at 714-633-1442.

Respectfully,

Mike Padian

Padian Team Consulting, Inc.

CC: Leo O'Connor, Fairhaven Memorial

Accepted Sion offices

Extension 1. 2. in

Lew 64

MAYOR
Miguel A. Pulido
MAYOR PRO TEM
Claudia C. Alvarez
COUNCILMEMBERS
P. David Benavides
Carlos Bustamante
Michele Martinez
Vincent F. Sarmiento
Sal Tinajero



CITY MANAGER
David N. Ream
CITY ATTORNEY
Joseph W. Fletcher
CLERK OF THE COUNCIL
Maria D. Huizar

PLANNING & BUILDING AGENCY
20 Civic Center Plaza • P.O. Box 1988
Santa Ana, California 92702

www.santa-ana.org

September 01, 2011 Mike Padian

14 Crucillo

Rancho Santa Margarita, CA 92688

dear Plan Check Contact:

plan check no:

10171102

address of job site:

1702 E Fairhaven Ave

date of submittal:

04/07/2011

expiration date:

10/04/2011

The subject plan(s) and related paperwork have been on file over 145 days since the date of submittal. In accordance with the 2007 California Building Code (CBC), Appendix Chapter 1, Section 105.3.2, as amended by Santa Ana Municipal Code Section 8-43, the plan check(s) will be expiring.

The Building Official may extend the plan check(s) for a period not exceeding 180 days. If you would like to extend your plan check(s), please send your request to:

Mr. Fred Heidari, Deputy Building Official City of Santa Ana Planning & Building Agency (M-19) 20 Civic Center Plaza Santa Ana, CA 92702

If you submitted electrical, plumbing and mechanical plans on the same date, they will also expire.

If you do not want to extend your plan check, the plans and and/or paperwork may be discarded by: 11/03/2011

Should you desire to resubmit your expired plan(s), you may do so upon payment of new plan check fees. A new plan check number will be assigned. New submittal of plan(s) must comply with all applicable regulations effective at the time of the new submittal.

If you have any questions, please call a Permit Technician at (714) 647-5800, Monday through Friday between the hours of 8 a.m. and 4 p.m.

Sincerely,

Patricia Link Permit Supervisor

9/12

CITY OF SANTA ANA PLAN CHECK - CHECKLIST

JOB ADDRES	ss: 1702 9 tankar	·la								
TRACKING #	· · · · · · · · · · · · · · · · · · ·	4-7-11								
	FOR PLANCHECK STATUS CALL (714) 6	47-5800								
PLEASE INIT	TAL EACH ITEM BELOW									
MP.										
<u>′///\</u> 1.	I agree to pay a plancheck fee established for this project payment is not a guarantee that a permit will be issued a once a plancheck has commenced.	ct with the understanding that this and that this fee is not refundable								
<u>M</u> 2.	I understand that I may request an "Accelerated Planch This plancheck will be performed by an in-house plan che plancheck time for the Building & Safety Division.	neck" at an additional cost to me. ecker with the intention of reducing								
3.	I understand that the project valuation (from which calculated) will be reviewed during the plancheck proces adjusted up or down in accordance with established fee co	s and that said valuation shall be								
A-4.	I understand that I shall submit separate plans, applicate following when plan check is required:	ions and plancheck fees for the								
	- A CONTRACTOR OF THE CONTRACT	ical Plans - 2 complete sets Plans - 3 complete sets								
<u>p</u> 5.	I understand that I shall visit the Public Works Depainspection of the property is required. I understand that permit I am required to obtain Public Works Agency appro\$30,000 or has added plumbing fixtures, or added bedroor	rior to the issuance of the Building val if my project valuation exceeds								
AGREED TO B	BY APPLICANT OR AGENT									
Applicant's Sign	nature Mu Pollom									
		CILLO, RSM, CA								
Telephone Num	nber 949-370-9778 Fax									
FOR OFFICE U	JSE ONLY: "Checklist of items discussed" APPROVAL	S & FEES REQUIRED: Y/N								
3. Fire Depart4. Police Dep5. School Dist	tks Agency / 6 87itle 24 (Disabled Access) tmemt 9 Roof Mounted Equip / 6 partment 10 List of Subcontr.	14 Constr. Act. Req. 15 Res. Dev. Fees - 1 0 16 SMIP 17 Microfilming 18 Const. Debris Recyc. 19 FCWP Surcharge - 1 0 20 LOA/Owner-Builder Ver.								
DEDMIT TECHN	NICIAN AUCA	endote to the second se								

STRUCTURAL CALCULATIONS

Exterior Stair

PROJECT:

Fairhaven Memorial Park & Mortuary 1702 East Fairhaven, Santa Ana CA 92705

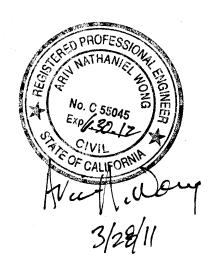
Prepared For Anderson Associates 1211 N. Tustin Avenue Anaheim, CA 92807

RECEIVED

APR 0.7 2011 City of Santa Ana

Prepared By
A. N. Wong
WA Consulting Engineers

Project No.: AA 011-00**14**Date: March 15, 2011



WA Consulting Engineers	Project	Fairhaven	Prepared sb By:	Date	3/14/2011
180 S. Prospect Ave., Suite 110	Subject		Checked		
Tustin, CA 92780			By:		į
(714) 838-9898 ph. (714) 838-9899 tx.	Job No.	011-0024	Sheet No.	Rev. No.	

Stair Loads

Dead Load:

1.5" concrete fill18.0 psfsteel pan3.0 psfStringer C Channel10.5 psfGuardrail, wiremesh etc3.0 psf

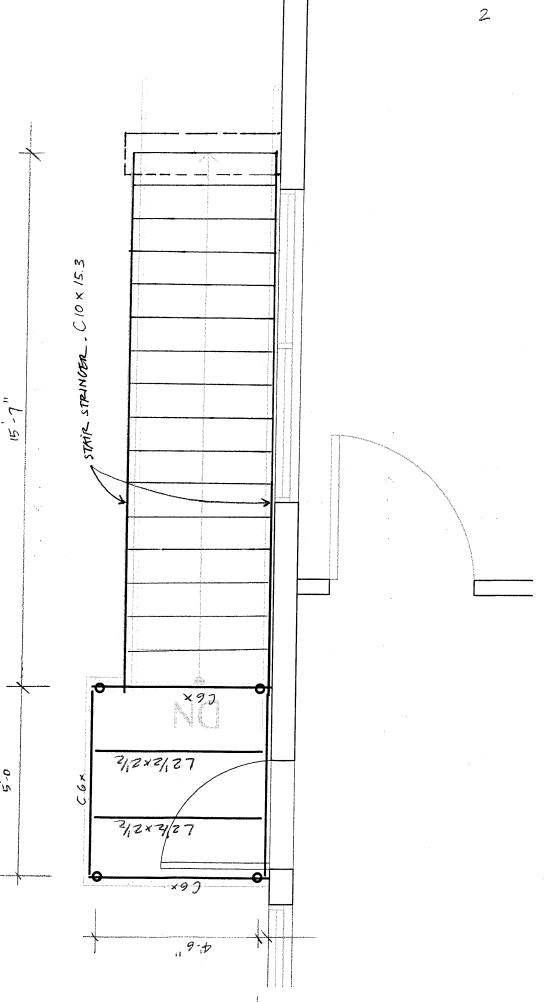
Total Dead Loads = 34.5 psf Use = 35.0 psf

Live Load:

Stair Live Loads

100.0 psf





WONG & ASSOCIATES

CONSULTING ENGINEERS, INC. 180 S. Prospect Ave., Suite 110

Tustin, CA 92780

Project Name Project No.

Date

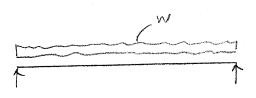
Page

: FAIR HAVEN

:011-0024

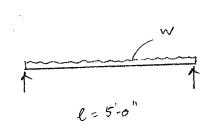
: 3/14/2011

STAIR STRINGER



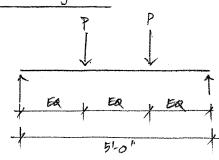
:. Use C10×15.3

L 21/2×z1/2 at londing.



:. use L 2/2 x 21/2 x 1/4

C6x8.2 , Longside.



... WE C6×8.2.

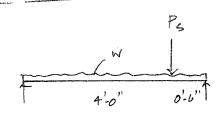
WONG & ASSOCIATES

CONSULTING ENGINEERS, INC. 180 S. Prospect Ave., Suite 110 Tustin, CA 92780 Project Name Project No. Date

Page

: FAIR HAVEN : 011-0024 : 3/15/2011

C6x8.2 at stringer



$$W_{DL} = \frac{1.67}{2} \times 35 \text{ psf} = 29 \text{ pef}$$

... use C6x8.2

Pipe Column

T X

LANDING

STRINGETL

$$P_{\text{U}} = \left(\frac{5}{2} \times \frac{4.5}{2} \times 35 \,\text{psp}\right) + \left(546 \,\text{lbs}\right) = 743 \,\text{lbs}$$

$$P_{\text{U}} = \left(\frac{5}{2} \times \frac{4.5}{2} \times 100 \,\text{psp}\right) + \left(1560 \,\text{lbs}\right) = 2123 \,\text{lbs}.$$

:. WE 3" P STD PIPE

Title: Fair Haven Dsgnr:

Project Desc.:

Job # 011-0024

5

Printed: 15 MAR 2011, 1:53PM

Project Notes:

Steel Beam

File: J:\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6 ENERCALC, INC. 1983-2011, Ver. 6.2.00, N:12783

Lic. # : KW-06006227

Licensee:

Description:

Stair Stringer C10x15.3

Material Properties

Calculations per AISC 360-05, IBC 2009, CBC 2010, ASCE 7-05

Fy: Steel Yield:

36.0 ksi

E: Modulus :

29,000.0 ksi

Analysis Method: Allowable Stress Design Beam Bracing: Completely Unbraced Bending Axis: Major Axis Bending Load Combination 2006 IBC & ASCE 7-05

Span = 15.60 ft

C10X15.3

0.666:1

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Values in KIPS

Uniform Load: D = 0.070, L = 0.20 k/ft, Tributary Width = 1.0 ft

DESIGN SUMMARY Maximum Bending Stress Ratio = Section used for this span Mu: Applied Mn / Omega: Allowable

C10X15.3 8.213 k-ft 12.340 k-ft +D+L+H Location of maximum on span 7.800ft Span # where maximum occurs Span #1

Vn/Omega: Allowable Load Combination Location of maximum on span Span # where maximum occurs

Section used for this span

Vu : Applied

Maximum Shear Stress Ratio =

31.042 k +D+L+H 0.000 ft Span #1

Design OK

C10X15.3

0.068:1

2.106 k

Maximum Deflection Max Downward L+Lr+S Deflection

Load Combination

Max Upward L+Lr+S Deflection Max Downward Total Deflection Max Upward Total Deflection

0.138 in Ratio = 1360 0.000 in Ratio = 0 <360 0.186 in Ratio = 1007 0.000 in Ratio = 0 < 240

Load Combination		Max Stress	Ratios			Summary of Mo	oment Valu	ies			Summa	ary of Sh	ear Values
Segment Length	Span #	M	٧	Mmax +	Mmax -	Ma - Max	Mnx	Mnx/Omega	Cb	Rm	Va Max	Vnx	Vnx/Omeg
Overall MAXimum Envelop	e												
Dsgn. L = 15.60 ft	1	0.666	0.068	8.21		8.21	20.61	12.34	1.14	1.00	2.11	51.84	31.04
+D													
Dsgn. L = 15.60 ft	1	0.173	0.018	2.13		2.13	20.61	12.34	1.14	1.00	0.55	51.84	31.04
+D+L+H													
Dsgn. L = 15.60 ft	1	0.666	0.068	8.21		8.21	20.61	12.34	1.14	1.00	2.11	51.84	31.04

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination		Max. "+" Defl	Location in Span
D+L	1	0.1858	7.878	- III - V - III -		0.0000	0.000
Maximum Deflections for	Load Combin	nations - Unfac	ctored Loads				
Load Combination	Span	Max. Downward I	Defl Location in S	pan	Max. Upward Defl	Location in Span	
D Only	1	0.0482	7.87	8	0.0000	0.000	
L Only	1	0.1376	7.87	8	0.0000	0.000	
D+L	1	0.1858	7.87	8	0.0000	0.000	

Support notation: Far left is #1

Vertical Reactions - Ur	nfactored	
Load Combination	Support 1	Support 2
Overall MAXimum	2.106	2.106
D Only	0.546	0.546
L Only	1.560	1.560
D+L	2.106	2.106

Title: Fair Haven Dsgnr: sb Project Desc.:

Project Notes:

Job # 011-0024

6

Printed: 15 MAR 2011, 1:53PM File: J:\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6
ENERCALC, INC. 1983-2011, Ver. 6.2.00, N:12783
Licensee: Steel Beam Lic. # : KW-06006227

Description:

Stair Stringer C10x15.3

Depth	=	10.000 in	l xx	₫	67.30 in^4	J	=	0.209 in^4
Web Thick	=	0.240 in	S xx		13.50 in^3	Cw	=	45.50 in^6
Flange Width	=	2.600 in	R xx	=	3.870 in	Ro	=	4.190 in
Flange Thick	=	0.436 in	Zx	=	15.900 in^3	Н	=	0.884 in
Area	=	4.480 in^2	i yy	=	2.270 in^4			
Veight	=	15.300 plf	S yy	=	1.150 in^3	Wno	=	7.480 in^2
Kdesign	=	1.000 in	R yy	=	0.711 in	Sw	=	2.550 in^4
			Zy	=	2.340 in^3	Qf	=	5.030 in^3
ts	=	0.869 in				Qw	=	8.030 in^3
′cg	=	5.000 in				Wn2	=	4.380
Ccg	=	0.634 in				Sw2	=	1.680
(р	=	0.224 in				Sw3	=	0.840
Eo	=	0.796 in						

Title: Fair Haven Dsgnr:

Project Desc.:

Job # 011-0024

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Printed: 15 MAR 2011, 1:58PM

Design OK

L2-1/2X2-1/2X1/4

0.070:1

0.5650 k

+D+L+H

Span #1

8.084 k

0.000 ft

Project Notes:

Steel Beam

File: J:\2011 PROJECTS\AA\AA 011 0024 Fair Haven\Calculation\stair stringer.ec6 ENERCALC, INC. 1983-2011, Ver. 6.2.00, N.12783

Lic. # : KW-06006227

L 2 1/2 x2 1/2 x 1/4 Description:

Material Properties

Analysis Method: Allowable Stress Design

Beam Bracing: Completely Unbraced Bending Axis: Major Axis Bending Load Combination 2006 IBC & ASCE 7-05 Calculations per AISC 360-05, IBC 2009, CBC 2010, ASCE 7-05

Fy: Steel Yield:

36.0 ksi

E: Modulus:

29,000.0 ksi





Span = 5.0 ft

L2-1/2X2-1/2X1/4

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Uniform Load: D = 0.0590, L = 0.1670 k/ft, Tributary Width = 1.0 ft

DESIGN SUMMARY

Maximum Bending Stress Ratio = 0.847:1 Section used for this span

Mu : Applied Mn / Omega: Allowable Load Combination

Location of maximum on span Span # where maximum occurs Maximum Deflection

Max Downward L+Lr+S Deflection Max Upward L+Lr+S Deflection Max Downward Total Deflection Max Upward Total Deflection

L2-1/2X2-1/2X1/4 0.706 k-ft

0.834 k-ft +D+L+H 2.500ft

Span #1

0.118 in Ratio =

0.000 in Ratio =

0.160 in Ratio =

0.000 in Ratio =

508 0 < 360

Maximum Shear Stress Ratio =

Load Combination

Section used for this span

Location of maximum on span

Span # where maximum occurs

Vn/Omega: Allowable

Vu : Applied

375 0 < 240

Load Combina	ation		Max Stress	Ratios			Summary of Mo	oment Valu	ies			Summa	ary of She	ear Values
Segmen	t Length	Span #	M	V	Mmax +	Mmax -	Ma - Max	Mnx	Mnx/Omega	Cb	Rm	Va Max	Vnx	Vnx/Omega
Overall MAXin	num Envelo	pe				***************************************			-					
Dsgn. L = +D	5.00 ft	1	0.847	0.070	0.71		0.71	1.39	0.83	1.14	1.00	0.57	13.50	8.08
Dsgn. L = +D+L+H	5.00 ft	1	0.221	0.018	0.18		0.18	1.39	0.83	1.14	1.00	0.15	13.50	8.08
Dsgn. L =	5.00 ft	1	0.847	0.070	0.71	ecodor	0.71	1.39	0.83	1.14	1.00	0.57	13.50	8.08

Overall Maximum Deflections - Unfactored Loads

Load Combination	Span	Max. "-" Defi	Location in Span	Load Combination	Max. "+" Defl	Location in Span
D+L	1	0.1596	2.525		0.0000	0.000

Maximum Deflections for Load Combinations - Unfactored Loads

Load Combination	Span	Max. Downward Defl	Location in Span	Max. Upward Defi	Location in Span
D Only	1	0.0417	2.525	0.0000	0.000
L Only	1	0.1180	2.525	0.0000	0.000
D+L	1	0.1596	2.525	0.0000	0.000
Vertical Reactions - Unfa	actored		Support notation : Far left is #1		Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	0.565	0.565
D Only	0.148	0.148
L Only	0.418	0.418
D+L	0.565	0.565

Title: Fair Haven Dsgnr: sb Project Desc.:

Project Notes:

Job # 011-0024

Printed: 15 MAR 2011, 1:58PM

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Steel Beam

File: J.12011 PROJECTS\AA\AA 011 0024 Fair Haven\Calculation\stair stringer.ec6 ENERCALC, INC. 1983-2011, Ver. 6.2.00, N:12783 Licensee:

Lic. #: KW-06006227

Description:

L 2 1/2 x2 1/2 x 1/4

Steel Section	Properties	: L2-1/2X2-1/2	X1/4					
Depth	=	2.500 in	l xx	Ξ	0.69 in^4	J	=	0.026 in^4
			S xx		0.39 in^3	Cw	=	0.01 in^6
Leg Width	=	2.500 in	R xx	=	0.764 in	Ro	=	1.360 in
Thickness	=	0.250 in	Zx	=	0.695 in^3			
Area	=	1.190 in^2	l yy	=	0.692 in^4			
Weight	=	4.100 plf	S yy	=	0.387 in^3			
Kdesign	=	0.500 in	R yy	=	0.764 in			
Ycg	=	0.711 in	Qs	=	1.000			
			lz	=	0.275 in^4			
			Sz	=	0.156 in^3			
Υp	=	0.237 in	Rz	=	0.482 in			
			$Tan_{\!oldsymbol{lpha}}$	=	1.00 deg			
Eo	=	0.237 in						

Dsgnr: sb Project Desc.:

9

JOD # U11-UU24

Project Notes:

Printed: 16 MAR 2011, 9:41AM

Steel Beam

File: J\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer ec6 ENERCALC, INC. 1983-2011, Ver. 6.2.00, N:12783

Lic. #: KW-06006227

Description: C 6 x 8.2 @ 3 sides, long side

Material Properties

Calculations per AISC 360-05, IBC 2009, CBC 2010, ASCE 7-05

Fy: Steel Yield:

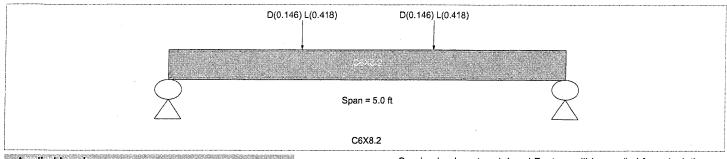
36.0 ksi

E: Modulus :

29,000.0 ksi

Beam Bracing: Completely Unbraced
Bending Axis: Major Axis Bending
Load Combination 2006 IBC & ASCE 7-05

Analysis Method: Allowable Stress Design



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Load(s) for Span Number 1

Point Load: D = 0.1460, L = 0.4180 k @ 1.670 ft Point Load: D = 0.1460, L = 0.4180 k @ 3.330 ft

DESIGN SUMMARY			Design OK
Maximum Bending Stress Ratio = Section used for this span Mu : Applied Mn / Omega : Allowable	0.105 : 1 M:	aximum Shear Stress Ratio =	0.036 : 1
	C6X8.2	Section used for this span	C6X8.2
	0.942 k-ft	Vu : Applied	0.5640 k
	8.973 k-ft	Vn/Omega : Allowable	15.521 k
Load Combination Location of maximum on span Span # where maximum occurs	+D+L+H	Load Combination	+D+L+H
	2.500ft	Location of maximum on span	0.000 ft
	Span # 1	Span # where maximum occurs	Span#1
Maximum Deflection Max Downward L+Lr+S Deflection Max Upward L+Lr+S Deflection Max Downward Total Deflection Max Upward Total Deflection	0.009 in Ratio = 0.000 in Ratio = 0.011 in Ratio = 0.000 in Ratio =	0 <360	

Load Combination		Max Stre	ss Ratios		:	Summary of M	oment Val	ues			Sumn	ary of She	ear Values
Segment Length	Span #	М	V	Mmax +	Mmax -	Ma - Max	Mnx	Mnx/Omega	Cb	Rm	Va Max	Vnx	Vnx/Omeg
Overall MAXimum Envelope					******								
Dsgn. L = 5.00 ft +D	1	0.105	0.036	0.94		0.94	14.99	8.97	1.14	1.00	0.56	25.92	15.5
Dsgn. L = 5.00 ft +D+L+H	1	0.027	0.009	0.24		0.24	14.99	8.97	1.14	1.00	0.15	25.92	15.5
Dsgn. L = 5.00 ft	1	0.105	0.036	0.94		0.94	14.99	8.97	1.14	1.00	0.56	25.92	15.52
Overall Maximum De	eflections	- Unfacto	red Loads										
Load Combination		Span	Max. "-" Defl	Location	on in Span	Load Com	bination			Max	. "+" Defl	Location	in Span
D+L		1	0.0115		2.525						0.0000		0.000
Maximum Deflection	is for Load	d Combin	ations - Uni	actored	l Loads								
Load Combination		Span	Max. Downwa	rd Defi	Location in	Span		Max. Upward D)efl	Locati	on in Span		
D Only		1	0.003	10	2.5	25		0.0000			0.000		
L Only		1	0.008	5	2.5	25		0.0000			0.000		
D+L		1	0.011	5	2.5	25		0.0000			0.000		
Vertical Reactions -	Unfactore	d			Support	notation : Far I	left is #1			Values ir	n KIPS		
Load Combination		Support 1	Support 2										
Overall MAXimum		0.564	0.564										
D Only		0.146	0.146										
L Only		0.418	0.418										
D+L		0.564	0.564										

Εo

0.599 in

Title: Fair Haven Dsgnr: sb Project Desc.: Job# 011-0024

10

Project Notes:

Printed: 16 MAR 2011, 9:41AM

File: J:\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6 **Steel Beam** ENERCALC, INC. 1983-2011, Ver. 6.2.00, N.12783 Lic. #: KW-06006227 Description: C 6 x 8.2 @ 3 sides, long side Steel Section Properties : C6X8.2 ≣ Depth 6.000 in 13.10 in^4 0.074 in^4 1 xx J = Web Thick 0.200 in Sxx 4.35 in^3 Cw 4.70 in^6 = = Flange Width 1.920 in R_{xx} 2.340 in Ro Ξ 2.650 in = = Flange Thick 0.343 in Н = Zx = 5.160 in^3 = 0.824 in Area = 2.390 in^2 = 0.687 in^4 l yy Weight = 8.200 plf S yy = 0.488 in^3 Wno = 3.170 in^2 Kdesign = 0.813 in R yy = 0.536 in = 0.610 in^4 Sw Zy 0.987 in^3 Qf = 1.720 in^3 0.643 in rts = Qw = 2.620 in^3 3.000 in Ycg = Wn2 = 1.980 0.370 Xcg 0.512 in Sw2 Ξ 0.199 in Χр = Sw3 = 0.190

Title: Fair Haven Dsgnr:

Project Desc.:

Project Notes:

11

Job # 011-0024

Printed: 15 MAR 2011, 2:01PM

Steel Beam

File: J:\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6 ENERCALC, INC. 1983-2011, Ver: 6.2.00, N:12783

Lic. #: KW-06006227

C6x8.2@x Stringer. Description:

Material Properties

Analysis Method: Allowable Stress Design Beam Bracing: Completely Unbraced Bending Axis: Major Axis Bending

Load Combination 2006 IBC & ASCE 7-05

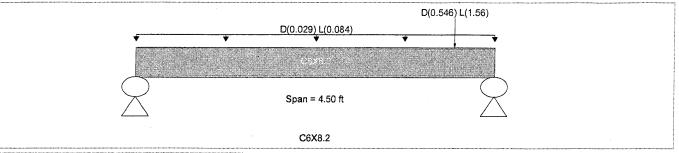
Calculations per AISC 360-05, IBC 2009, CBC 2010, ASCE 7-05

Fy: Steel Yield:

36.0 ksi

E: Modulus :

29,000.0 ksi



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Uniform Load : D = 0.0290, L = 0.0840 k/ft, Tributary Width = 1.0 ft Point Load : D = 0.5460, L = 1.560 k @ 4.0 ft

DESIGN SUMMARY			Design OK
Maximum Bending Stress Ratio = Section used for this span Mu : Applied Mn / Omega : Allowable	0.113:1 M C6X8.2 1.048 k-ft 9.269 k-ft	aximum Shear Stress Ratio = Section used for this span Vu : Applied Vn/Omega : Allowable	0.137 : 1 C6X8.2 2.126 k 15.521 k
Load Combination Location of maximum on span Span # where maximum occurs	+D+L+H 3.983ft Span # 1	Load Combination Location of maximum on span Span # where maximum occurs	+D+L+H 4,500 ft Span #1
Maximum Deflection Max Downward L+Lr+S Deflection Max Upward L+Lr+S Deflection Max Downward Total Deflection Max Upward Total Deflection	0.007 in Ratio = 0.000 in Ratio = 0.009 in Ratio = 0.000 in Ratio =	0 <360 6091	

Max Upward Total	Deflection	1		0.000	in Ratio =	0 <2	40							
Maximum Forces & :	Stresses	for Load C	Combination	ıs										
Load Combination		Max Stress Ratios				Summary of M	oment Valu	ues			Sumn	Summary of Shear Values		
Segment Length	Span#	М	V	Mmax +	Mmax -	Ma - Max	Mnx	Mnx/Omega	Cb	Rm	Va Max	Vnx	Vnx/Omega	
Overall MAXimum Envelope								***************************************						
Dsgn. L = 4.50 ft	1	0.113	0.137	1.05		1.05	15.48	9.27	1.27	1.00	2.13	25.92	15.5	
+D														
Dsgn. L = 4.50 ft	7	0.029	0.035	0.27		0.27	15.48	9.27	1.27	1.00	0.55	25.92	15.52	
+D+L+H Dsgn. L = 4.50 ft	1	0.113	0.137	1.05		1.05	15.48	9.27	1.27	1.00	2.13	25.92	15.52	
Overall Maximum De	flections	di Godenno dospesso processo consciusoro												
Load Combination	nections	Span	Max. "-" Defi	Location	on in Span	Load Com	hination			Max	. "+" Defl	Location	n in Span	
		- Opan		Localic		Load Com	Ullation			IVIAA				
D+L		1	0.0089		2.475						0.0000		0.000	
Maximum Deflection	s for Load	d Combina	ations - Uni	actored	Loads									
Load Combination		Span	Max. Downwa	rd Defl	Location in	Span	1	Max. Upward [Defl	Locati	on in Span			
D Only		1	0.002	23	2.4	75		0.0000			0.000			
L Only		1	0.008		2.4			0.0000			0.000			
D+L		1	0.008	9	2.4	75		0.0000			0.000			
Vertical Reactions - I	Unfactore	d			Support	notation : Far	left is #1			Values in	KIPS			
Load Combination		Support 1	Support 2											
Overall MAXimum		0.488	2.126											
D Only		0.126	0.551											
L Only		0.362	1.576											
D+L		0.488	2.126											

Εo

0.599 in

Title: Fair Haven Dsgnr:

Project Desc.:

Job # 011-0024

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Project Notes:

Printed: 15 MAR 2011, 2:01PM

File: J-\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer ec6 ENERCALC, INC. 1983-2011, Ver. 6.2.00, N:12783 **Steel Beam** Lic. #: KW-06006227 C 6 x 8.2 @ 3 sides Description: Steel Section Properties : C6X8.2 Depth 6.000 in 13.10 in^4 0.074 in^4 J l xx = Web Thick = 0.200 in S xx Cw 4.35 in^3 = 4.70 in^6 Flange Width = 1.920 in R xx = 2.340 in Ro = 2.650 in Flange Thick = 0.343 in = 5.160 in^3 Zx Н = 0.824 in Area = 2.390 in^2 = 0.687 in^4 Ιуу Weight = 0.488 in^3 3.170 in^2 = 8.200 plf Ѕуу Wno = Kdesign 0.813 in = = R yy 0.536 in Sw = 0.610 in^4 0.987 in^3 Qf 1.720 in^3 Zy = rts = 0.643 in Qw 2.620 in^3 = Ycg 3.000 in = Wn2 = 1.980 Sw2 0.370 Xcg 0.512 in = = Хр 0.199 in Sw3 0.190

Little: Fair Haven Dsgnr:

Project Desc.:

JOD # U11-UU24

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Project Notes:

Printed: 15 MAR 2011, 2:02PM File: J\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6 Steel Column ENERCALC, INC. 1983-2011, Ver. 6.2.00, N. 12783 Licensee: Lic. #: KW-06006227 3 " dia Std. Pipe Column Description: Calculations per AISC 360-05, IBC 2009, CBC 2010, ASCE 7-05 General Information Steel Section Name: Pipe3 Std Overall Column Height 9.50 ft 2006 IBC & ASCE 7-05 Top & Bottom Fixity Top & Bottom Pinned Analysis Method: Steel Stress Grade Brace condition for deflection (buckling) along columns: Fy: Steel Yield 35.0 ksi X-X (width) axis: Unbraced Length for X-X Axis buckling = 9.5 ft, K = 1.0 E: Elastic Bending Modulus 29,000.0 ksi Y-Y (depth) axis: Unbraced Length for Y-Y Axis buckling = 9.5 ft, K = 1.0 Load Combination: Allowable Stress Service loads entered. Load Factors will be applied for calculations. Applied Loads Column self weight included: 72.010 lbs * Dead Load Factor AXIAL LOADS . . . Axial Load at 9.50 ft, D = 0.7430, L = 2.123 k DESIGN SUMMARY Bending & Shear Check Results Maximum SERVICE Load Reactions . . PASS Max. Axial+Bending Stress Ratio = 0.1095 : 1 +D+L+H 0.0 kLoad Combination Top along X-X Location of max.above base 0.0 ft 0.0 kBottom along X-X At maximum location values are . . . Top along Y-Y 0.0 kPu : Axial 2.938 k Bottom along Y-Y 0.0 kPn / Omega: Allowable 26.828 k Maximum SERVICE Load Deflections . . . Mu-x: Applied 0.0 k-ft 0.0 in at 0.0ft above base Alona Y-Y Mn-x / Omega: Allowable 3.825 k-ft for load combination: Mu-y: Applied 0.0 k-ft 0.0ft above base 0.0 in at Along X-X Mn-y / Omega: Allowable 3.825 k-ft for load combination: 0.0:1 PASS Maximum Shear Stress Ratio = Load Combination Location of max.above base 0.0 ft At maximum location values are . . . Vu : Applied Vn / Omega: Allowable 0.0 k Load Combination Results Maximum Shear Ratios Maximum Axial + Bending Stress Ratios Stress Ratio Status Stress Ratio Status Location Location Load Combination Maximum Reactions - Unfactored Note: Only non-zero reactions are listed. Axial Reaction X-X Axis Reaction Y-Y Axis Reaction Load Combination @ Top @ Base @ Base @ Top @ Base

Max. Y-Y Deflection

Distance

Maximum Deflections for Load Combinations - Unfactored Loads

Pipe3 Std

Load Combination

Steel Section Properties:

Max. X-X Deflection

Distance

Ycg

0.000 in

Title: Fair Haven

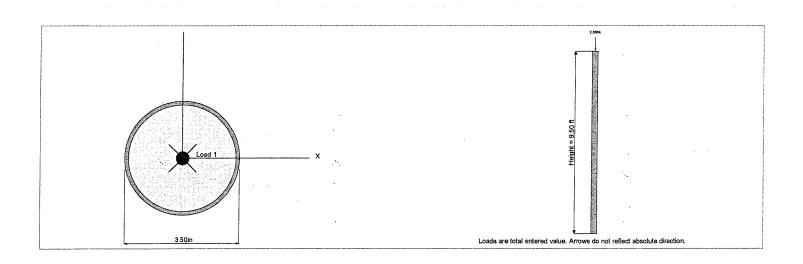
Dsgnr: Project Desc.:

Job # U11-UU24

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Project Notes:

Printed: 15 MAR 2011, 2:02PM File: J.\2011 PROJECTS\AA\AA 011 0024 Fair Haven\Calculation\stair stringer.ec6 Steel Column ENERCALC, INC. 1983-2011, Ver. 6,2.00, N.12783 Lic. #: KW-06006227 3 " dia Std. Pipe Column Description: Steel Section Properties: Pipe3 Std Depth 3.500 in 2.85 in^4 5.690 in^4 l xx Web Thick 0.000 in Sxx = 1.63 in^3 Flange Width = 3.500 in R xx 1.170 in Flange Thick 0.216 in = Area 2.080 in^2 2.850 in^4 l yy Weight 7.580 plf 1.630 in^3 Ѕуу 1.170 in R yy



WONG & ASSOCIATES

CONSULTING ENGINEERS, INC. 180 S. Prospect Ave., Suite 110

Tustin, CA 92780

Project Name

: MR HAVEN

Project No.

: 011-0024

Date Page : 3/15/2011

FOOTING AT STRINGER

$$P_{LL} = \frac{15.6}{2} \times 4 \times 35 \text{ psf} = 1092 \text{ lbs}$$

$$P_{LL} = \frac{15.6}{2} \times 4 \times 100 \text{ psf} = \frac{3120 \text{ lbs}}{2}$$

$$P_{LL} = 4212 \text{ lbs}$$

ASSUME ALLOWARDS SOIL PRESSURE = 1500 psf

Aregia =
$$\frac{4212 \text{ lbs}}{1500 \text{ lbs/h}^2}$$
 = 2.81 SqFT

ON-

TOOTING AT Pipe column

use 2'0" x 2'-0" x 12" thick w/ 2- # 4 EM. WAY.

Title: Fair Haven

Dsgnr: Project Desc.:

Project Notes:

Job# 011-0024

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General Footing

Printed: 15 MAR 2011, 2:14PM File; J:\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6 ENERCALC, INC. 1983-2011, Ver. 6.2.00, N:12783

Lic. #: KW-06006227

Description: Pad Footing at Pipe Column General Information

Calculations per ACI 318-08, IBC 2009, CBC 2010, ASCE 7-05

Material Properties fc : Concrete 28 day strength fy : Rebar Yield Ec : Concrete Elastic Modulus	= =	2.50 ksi 60.0 ksi 2.850.0 ksi	Soil Design Values Allowable Soil Bearing = Increase Bearing By Footing Weight = Soil Passive Resistance (for Sliding) =	250.0
Concrete Density	=	145.0 pcf	Soil/Concrete Friction Coeff.	0.00'
φ Values Flexure	=	0.90		
Shear	=	0.750	Increases based on footing Depth	
Analysis Settings			Footing base depth below soil surface =	ft
Min Steel % Bending Reinf.	=	0.00140	Allowable pressure increase per foot of depti=	ksf
Min Allow % Temp Reinf.	=	0.0	when footing base is below =	ff
Min. Overturning Safety Factor	=	1.50 : 1	mich looking base is below	ıt
Min. Sliding Safety Factor	=	1.50 : 1	Increases based on footing plan dimension	
Add Ftg Wt for Soil Pressure	:	Yes	Allowable pressure increase per foot of dept =	ksf
Use ftg wt for stability, moments & sh	nears:	Yes	when maximum length or width is greater#	ft
Include Pedestal Weight as DL	•	No		THE RESIDENCE OF STREET

Dimensions

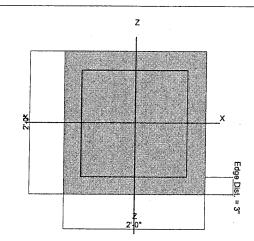
=	2.0 ft 12.0 in
ing center = =	0 in 0 in
= = = Concrete	in in in .
	ing center

Reinforcing

Bars along X-X Axis Number of Bars	=	2.0
Reinforcing Bar Size	=	# 4
Bars along Z-Z Axis		
Number of Bars	=	2.0
Reinforcing Bar Size	=	# 4

Bandwidth Distribution Check (ACI 15.4.4.2)

Direction Requiring Closer Separation	n/a
# Bars required within zone	n/a
# Bars required on each side of zone	n/a







Applied Loads

		D	Lr	L	S	W	E	Н
P : Column Load	=	0.7430		2.123				k
OB : Overburden	=							ksf
M-xx M-zz	=							k-ft
M-zz	=							k-ft
V-x	=							k
V-z	=							k

Title: Fair Haven Dsgnr: Project Desc.:

Project Notes:

Job# 011-0024

17

General Footing

Printed: 15 MAR 2011, 2:14PM File: J.\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6
ENERCALC, INC. 1983-2011, Ver. 6.2.00, N:12783
Licensee:

Lic. #: KW-06006227

Description:

Pad Footing at Pipe Column

Description.	i ad i ooting a	er po column							
DESIGN SU								Desigr	
	Min. Ratio	Item	Applied		С	apacity		overning Load	Combination
PASS	0.5743	Soil Bearing	0.	8615 ksf		1.50 ksf	+D+L+H		
PASS	n/a	Overturning - X-X		0.0 k-ft		0.0 k-ft	No Overti	0	
PASS	n/a	Overturning - Z-Z		0.0 k-ft		0.0 k-ft	No Overtu	urning	
PASS	n/a	Sliding - X-X		0.0 k		0.0 k	No Slidino	,	
PASS	n/a	Sliding - Z-Z		0.0 k		0.0 k	No Sliding	3	
PASS	n/a	Uplift		0.0 k		0.0 k	No Uplift		
PASS	0.06794	Z Flexure (+X)	0.	5360 k-ft		7.888 k-ft	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.06794	Z Flexure (-X)	0.	5360 k-ft		7.888 k-ft	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.06794	X Flexure (+Z)	0.	5360 k-ft		7.888 k-ft	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.06794	X Flexure (-Z)	0.	5360 k-ft		7.888 k-ft	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.03177	1-way Shear (+X)	2	2.382 psi		75.0 psi	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.03177	1-way Shear (-X)	2	2.382 psi		75.0 psi	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.03177	1-way Shear (+Z)	2	2.382 psi		75.0 psi	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.03177	1-way Shear (-Z)	2	.382 psi		75.0 psi	+1.20D+0	.50Lr+1.60L+1.	60H
PASS	0.07505	2-way Punching	11	.257 psi		150.0 psi	+1.20D+0	.50Lr+1.60L+1.	60H
etailed Re	sults					·			
oil Bearing						Actual Cail Ba	navina Ctunna	A _ 4.	.al / Allausalala
otation Axis Load Co	& mbination	Gross Allowable	Xecc	Zecc	+Z	Actual Soil Be +Z	-X	-X	ual / Allowable Ratio
(-X. +D		1.50	n/a	0.0	0.3308	0.3308	n/a	n/a	0.221
-X. +D+L+H	*	1.50	n/a	0.0	0.8615	0.8615	n/a	n/a	0.574
-Z. +D		1.50	0.0	n/a	n/a		0.3308	0.3308 0.8615	0.221 0.574
-Z. +D+L+H Overturning \$	Stability	1.50	0.0	n/a	n/a	n/a	0.8615	0.00.10	0.374
otation Axis Load Cor	& nbination		Overturning	Moment		Resisting Moment	Stabili	ty Ratio	Status
ooting Has N	O Overturning								
liding Stabil								A	Il units k
orce Applica Load Cor	tion Axis nbination		Sliding F	orce		Resisting Force	Sliding S	afetyRatio	Status
ooting Has N									
-		Mu Whic	ch Tension	@ Bot.	As Reg'd	Gvrn. As A	ctual As	Phi*Mn	Status
exure Axis &	Load Combinat	ion k-ft Side	? or T	op?	in^2	in^2	in^2	k-ft	
-X, +1.40D		0.13	+Z Botto	om	0.15	Bendina	0.2	7.888	(
-X, +1.40D		0.13	-7 Botto	om	0.15	Bendina	0.2	7.888	(
).50Lr+1.60L+1.60		+Z Botto		0.15	Bendina	0.2	7.888	(
).50Lr+1.60L+1.60		-Z Botto		0.15	Bending Bending	0.2 0.2	7.888 7.888	(
	.60L+0.50S+1.60 .60L+0.50S+1.60		+Z Botto		0.15 0.15	Bendina Bendina	0.2	7.888 7.888	(
-X, +1.20D+1 -X, +1.20D+1		0.2441	+Z Botto		0.15	Bending	0.2	7.888	
(-X +1 20D+1		0.2441	-Z Botto		0.15	Bendina	0.2	7.888	

Flexure Axis & Load Combination	Mu k-ft	Which Side ?	Tension @ Bot. or Top ?	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X. +1.40D	0.13	+Z	Bottom	0.15	Bending	0.2	7.888	OK
X-X, +1,40D	0.13	-Z	Bottom	0.15	Bending	0.2	7.888	OK
X-X. +1.20D+0.50Lr+1.60L+1.60H	0.536	+Z	Bottom	0.15	Bendina	0.2	7.888	OK
X-X, +1.20D+0.50Lr+1.60L+1.60H	0.536	-Z	Bottom	0.15	Bending	0.2	7.888	OK
X-X, +1.20D+1.60L+0.50S+1.60H	0.536	+Z	Bottom	0.15	Bendina	0.2	7.888	OK
X-X. +1.20D+1.60L+0.50S+1.60H	0.536		Bottom	0.15	Bending	0.2	7.888	OK
X-X, +1,20D+1,60Lr+0,50L	0.2441	+Z	Bottom	0.15	Bendina	0.2	7.888	OK
X-X, +1.20D+1.60Lr+0.50L	0.2441	-Z	Bottom	0.15	Bending	0.2	7.888	OK
X-X, +1.20D+0.50L+1.60S	0.2441	+Z	Bottom	0.15	Bending	0.2	7.888	OK
X-X, +1.20D+0.50L+1.60S	0.2441	-Z	Bottom	0.15	Bending	0.2	7.888	OK
X-X, +1.20D+0.50Lr+0.50L+1.60W	0.2441	+Z	Bottom	0.15	Bendina	0.2	7.888	OK
X-X, +1.20D+0.50Lr+0.50L+1.60W	0.2441	-Ž	Bottom	0.15	Bending	0.2	7.888	ÓK
X-X. +1.20D+0.50L+0.50S+1.60W	0.2441	+Z	Bottom	0.15	Bendina	0.2	7.888	OK
X-X, +1.20D+0.50L+0.50S+1.60W	0.2441	-Z	Bottom	0.15	Bendina	0.2	7.888	OK
X-X. +1.20D+0.50L+0.20S+E	0.2441	+Z	Bottom	0.15	Bendina	0.2	7.888	ŎK
X-X. +1.20D+0.50L+0.20S+E	0.2441	-Ž	Bottom	0.15	Bendina	0.2	7.888	OK
Z-Z. +1.40D	0.13	-X	Bottom	0.15	Bending	0.2	7.888	OK
Z-Z. +1.40D	0.13	+X	Bottom	0.15	Bendina	0.2	7.888	ŎŔ
7-Z. +1.20D+0.50Lr+1.60L+1.60H	0.536	-X	Bottom	0.15	Bendina	0.2	7.888	ŎŔ.
Z-Z, +1,20D+0,50Lr+1,60L+1,60H	0.536	+X	Bottom	0.15	Bendina	0.2	7.888	OK
Z-Z, +1,20D+0.50E+1.60E+1.60H	0.536	-X	Bottom	0.15	Bending	0.2	7.888	ŎŔ
Z-Z, - 1,200 - 1,002 - 0,000 - 1,0011	0.000	^	Dottom	3,70		5.2		2

Title: Fair Haven Dsgnr: sb Project Desc.:

Job# 011-0024

Project Notes:

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							Printed: 15 MAR	
General Footing					File: J:\2011 PROJEC	TSVAAVAA 011.0024 Fair H		
Lic. #: KW-06006227		37 ° 2.				ENERCALU, INC	. 1983-2011, Ver. 6.2.0	CONTROL CONTRO
								Licensee:
Description: Pad Footing at Pipe Co	olumn							
Z-Z, +1,20D+1,60L+0,50S+1,60H	0.536	+X	Bottom	0.15	Bendina	0.2	7.888	OK
Z-Z. +1.20D+1.60Lr+0.50L	0.2441	-X	Bottom	0.15	Bendina	0.2	7.888	ŎŔ
Z-Z. +1.20D+1.60Lr+0.50L	0.2441	+X	Bottom	0.15	Bending	0.2	7.888	OK OK
2-2, 11.20D 11.00L1 10.00L	0.2771	'//	DOLLOTT	0.10	Dending	0.2	7.000	ON

Title: Fair Haven Dsgnr: sb Project Desc.:

Project Notes:

Job # 011-0024

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Printed: 15 MAR 2011, 2:14PM

General Footing

Lic. #: KW-06006227

Description:

Pad Footing at Pipe Column

File: J\2011 PROJECTS\AA\AA 011.0024 Fair Haven\Calculation\stair stringer.ec6 ENERCALC, INC, 1983-2011, Ver. 6.2.00, N.12783

Footing Flexure Which Side ? Tension @ Bot. As Req'd or Top? in^2 Phi*Mn Mu Gvrn. As **Actual As** Status Flexure Axis & Load Combination in^2 in^2 k-ft 0.2441 0.2441 0.2441 Z-Z. +1.20D+0.50L+1.60S Z-Z. +1.20D+0.50L+1.60S OK OK OK OK **Bottom** 0.15 Bendina 0.2 0.2 0.2 0.2 0.2 0.2 0.2 7.888 -X +X +X +X +X -X 7.888 7.888 **Bottom** 0.15 Bending Z-Z. +1.20D+0.50Lr+0.50L+1.60W 0.15 Bendina **Bottom** Z-Z. +1.20D+0.50Lr+0.50L+1.60W Z-Z. +1.20D+0.50L+0.50S+1.60W Z-Z. +1.20D+0.50L+0.50S+1.60W Z-Z. +1.20D+0.50L+0.50S+1.60W Z-Z. +1.20D+0.50L+0.20S+E Z-Z. +1.20D+0.50L+0.20S+E One Way Shear 0.2441 0.2441 0.2441 7.888 **Bottom** 0.15 Bending 7.888 7.888 Bottom 0.15 Bending Bottom 0.15 Bendina 0.2441 0.15 7.888 OK Bottom Bending 0.2441 Bottom 0.15 Bendina 7.888 OK

Load Combination	Vu @ -X	Vu @ +X	Vu @ -Z	Vu @ +Z	Vu:Max	Phi Vn	V	u / Phi*Vn	Status
+1.40D	0.5779 psi		75 psi	0.007705	OK				
+1.20D+0.50Lr+1.60L+1.60H	2.382 psi		75 psi	0.03177	OK				
+1.20D+1.60L+0.50S+1.60H	2.382 psi		75 psi	0.03177	OK				
+1.20D+1.60Lr+0.50L	1.085 psi		75 psi	0.01447	OK				
+1.20D+0.50L+1.60S	1.085 psi		75 psi	0.01447	OK				
+1.20D+0.50Lr+0.50L+1.60W	1.085 psi	iaq 280.1	1.085 psi	1.085 psi	1.085 psi		75 psi	0.01447	OK
+1.20D+0.50L+0.50S+1.60W	1.085 psi		75 psi	0.01447	OK				
+1.20D+0.50L+0.20S+E	1.085 psi		75 psi	0.01447	OK				
Punching Shear								All units	k

Load Combination	Vu	Phi*Vn	Vu / Phi*Vn	Status
+1.40D	2.73 psi	150 psi	0.0182	OK
+1.20D+0.50Lr+1.60L+1.60H	11.257 psi	150 psi	0.07505	OK
+1.20D+1.60L+0.50S+1.60H	11.257 psi	150 psi	0.07505	- OK
+1,20D+1,60Lr+0.50L	5.127 psi	150 psi	0.03418	OK
+1.20D+0.50L+1.60S	5.127 psi	150 psi	0.03418	· OK
+1.20D+0.50Lr+0.50L+1.60W	5.127 psi	150 psi	0.03418	OK
+1,20D+0,50L+0,50S+1,60W	5.127 psi	150 psi	0.03418	OK
+1.20D+0.50L+0.20S+E	5.127 psi	150 psi	0.03418	OK

seismic design parameter

Fair Haven Tue Mar 15 11:04:53 PDT 2011

Conterminous 48 States
2009 International Building Code
Latitude = 33.77278
Longitude = -117.84231
Spectral Response Accelerations Ss and S1
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0, Fv = 1.0
Data are based on a 0.01 deg grid spacing
Period Sa
(sec) (g)
0.2 1.387 (Ss, Site Class B)
1.0 0.499 (S1, Site Class B)

Conterminous 48 States
2009 International Building Code
Latitude = 33.77278
Longitude = -117.84231
Spectral Response Accelerations SMs and SM1
SMs = Fa x Ss and SM1 = Fv x S1
Site Class D - Fa = 1.0 ,Fv = 1.501

Period Sa (sec) (g) 0.2 1.387 (SMs, Site Class D) 1.0 0.749 (SM1, Site Class D)

Conterminous 48 States
2009 International Building Code
Latitude = 33.77278
Longitude = -117.84231
Design Spectral Response Accelerations SDs and SD1
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class D - Fa = 1.0 ,Fv = 1.501

Period Sa (sec) (g) 0.2 0.925 (SDs, Site Class D) 1.0 0.499 (SD1, Site Class D)

WA Consulting Engineers 180 S. Prospect Ave., #110	ct Fair Haven	Prepared sb By:	Date	3/15/2011
Tustin, CA 92780 Subje (714) 838-9898 ph.	ct LATERAL ANALYSIS	Checked By:		·
(714) 838-9899 fx. Job N	o. 011-0024	Sheet No. 2	Rev. No.	

LATERAL ANALYSIS

CODE: ASCE 7-05

IMPORTANCE FACTOR	1=	1.0	
SOIL PROFILE TYPE	Site Class	D	
MCE AT SHORT PERIOD 0.2s	S _s = 1.3	87	
MCE AT PERIOD OF 1.0s	S ₁ = 0.4	99	
SITE COEFFICIENT AT 0.2s	Fa = 1.0	00	
SITE COEFFICIENT AT 1.0s	Fv = 1.5	01	
ADJUSTED MCE SPECTRAL			
RESPONSE ACCELERATION AT 0.2s	S _{MS} = 1.3	87	
ADJUSTED MCE SPECTRAL			
RESPONSE ACCELERATION AT 1.0s	S _{M1} = 0.7	49	
DESIGN SPECTRAL RESPONSE			
ACCELERATION PARAMETERS AT 0.2s	S _{DS} = 0.9	25	
DESIGN SPECTRAL RESPONSE			
ACCELERATION PARAMETERS AT 1.0s	S _{D1} = 0.4	99	
BUILDING HEIGHT	h _n = 12.	00 ft	
SEISMIC PERIOD COEFFICIENT	C _t = 0.0	20	
SEISMIC DESIGN CATEGORY	·	D	••.
	x= 0.	7 5	
TL	=	8	
$T = C_t * h_0^x$	= 0.1	29 sec	EQ 12.8-7
1 -1	- . 0.12	10 000	_0 12.0-1

DESIGN BASE SHEAR

STRUCTURAL SYSTEM FACTOR R =			3.00 All other S	teel Resisting System Table 15.4-2
W = TOTAL SEISMIC WEIGHT				
$C_{S} = S_{DS}/(R/I)$ $C_{Smax} = S_{D1}/T(R/I)$ CS_{min}		= =	0.308 1.291 T≤T _L 0.01	EQ 12.8-2 EQ 12.8-3
V = Cs * W		=	0.308 W	EQ 12.8-1
	V =		0.308 W	AT STRENGTH LEVEL

V = 0.308 * 0.7 = 0.216 W AT WORKING STRESS LEVEL

WONG & ASSOCIATES

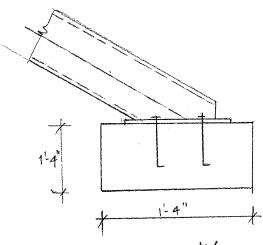
CONSULTING ENGINEERS, INC. 180 S. Prospect Ave., Suite 110 Tustin, CA 92780

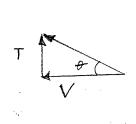
Project Name Project No. Date Page

· FAIRHAVEN : 011-0024 : 3/15/2011 : 22 of

THE STAIR DEAD WAD OF

LATERAL SEISMIC DEAD LOAD IS TRANSFERED TO THE FOOTING





$$tan \theta = \frac{6.6}{10} = 0.66$$

 $\theta = 33.42^{\circ}$

$$V_{s} = 0.308 \times 10^{-308} \times 2972 \text{ lbs} = 915 \text{ lbs}$$
 (STRENOTH LEVEL)

$$V_S = 0.308 \times 2972 \text{ lbs} = 641 \text{ lbs} (ASD).$$

$$V_S = 0.7 \times 0.308 \times 2972 \text{ lbs} = 641 \text{ lbs} (STRENGTH$$

$$V_S = 0.7 \times 0.308 \times 20/2$$
 is = 604 lbs. (STRENGTH LEVER)
$$T_S = V_S \times \tan \theta = 915 \times 0.66 = 604$$
 lbs. (ASD)

$$T_s = V_s \times can \theta = 0.7 \times 915 \times 0.66 = 423 \text{ lbs} (ASD).$$

$$T_s = 0.7 \times 915 \times 0.66 = 423 \text{ lbs} (ASD).$$

WONG & ASSOCIATES

CONSULTING ENGINEERS, INC. 180 S. Prospect Ave., Suite 110

Tustin, CA 92780

Project Name Project No.

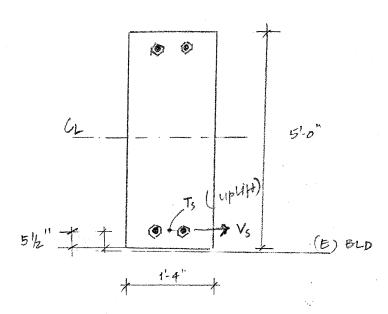
Date

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ANCHOR BOLT DESIGN



LATERAL LOAD AT EA STRINGER

$$V_s = \frac{1}{2} \times 915$$
 lbs = 458 lbs STRENGTH LEVEL
 $T_c = \frac{1}{2} \times 604$ lbs = 302 lbs STRENGTH LEVEL

.. Use 5 4 ANCHOR BOLT F1854 A36

Anchor Selector (Version 4.3.0.0)

Job Name: Fair Haven

Date/Time: 3/15/2011 5:42:57 PM

1) Input

Calculation Method: ACI 318 Appendix D For Cracked Concrete

Calculation Type: Analysis

a) Layout

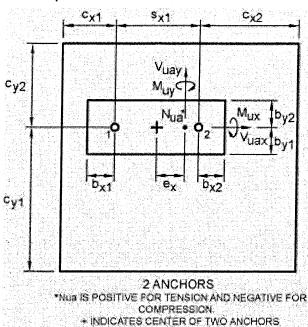
Anchor: 5/8" L-Bolt

Number of Anchors: 2

Steel Grade: F1554 GR. 36

Embedment Depth: 9 in

Built-up Grout Pads: No



Anchor Layout Dimensions:

 c_{x1} : 5 in

c_{x2}: 5 in

c_{y1} : 24 in

c_{v2}: 5.5 in

b_{x1}: 1.5 in

b_{x2}: 1.5 in

b_{y1} : 1.5 in

b_{v2}: 1.5 in

 s_{x1} : 6 in

b) Base Material

Concrete: Normal weight

f'_c: 2500.0 psi

Cracked Concrete: Yes

 $\Psi_{\text{c,V}}$: 1.00

Condition: B tension and shear

φF_n: 1381.3 psi

25

Thickness, h: 16 in

Supplementary edge reinforcement: No

c) Factored Loads

Load factor source: ACI 318 Section 9.2

 $N_{\mu a}$: 302 lb

V_{uax}: 458 lb

M_{ux}: 0 lb*ft

V_{uav}: 0 lb

M_{uv}: 0 lb*ft

 $e_x : 0 in$

e_v : 0 in

Moderate/high seismic risk or intermediate/high design category: Yes

Apply entire shear load at front row for breakout: No

d) Anchor Parameters

 $d_0 = 0.625 \text{ in}$ Anchor Model = LB62

Category = N/A

 $h_{ef} = 8.375 in$

 $h_{min} = 9.75 in$

 $c_{ac} = 12.5625 \text{ in}$

 $c_{min} = 3.75 in$

 $s_{min} = 3.75 in$

Ductile = Yes

2) Tension Force on Each Individual Anchor

Anchor #1 $N_{ua1} = 151.00 lb$

Anchor #2 $N_{ua2} = 151.00 lb$

Sum of Anchor Tension $\Sigma N_{Ua} = 302.00 \text{ lb}$

 $a_{v} = 0.00 \text{ in}$

 $a_v = 0.00 \text{ in}$

 $e'_{Nx} = 0.00 in$

 $e'_{Nv} = 0.00 in$

3) Shear Force on Each Individual Anchor

Resultant shear forces in each anchor:

Anchor #1 V_{ua1} = 229.00 lb (V_{ua1x} = 229.00 lb , V_{ua1y} = 0.00 lb)

Anchor #2 V_{ua2} = 229.00 lb (V_{ua2x} = 229.00 lb , V_{ua2y} = 0.00 lb)

Sum of Anchor Shear ΣV_{uax} = 458.00 lb, ΣV_{uay} = 0.00 lb

 $e'_{Vx} = 0.00 in$

 $e'_{Vv} = 0.00 in$

4) Steel Strength of Anchor in Tension [Sec. D.5.1]

$$N_{sa} = nA_{se}f_{uta}$$
 [Eq. D-3]

Number of anchors acting in tension, n = 2

N_{sa} = 13100 lb (for each individual anchor)

$$\phi = 0.75 [D.4.4]$$

 $\phi N_{sa} = 9825.00$ lb (for each individual anchor)

5) Concrete Breakout Strength of Anchor Group in Tension [Sec. D.5.2]

$$N_{cbg} = A_{Nc}/A_{Nco}\Psi_{ec,N}\Psi_{ed,N}\Psi_{c,N}\Psi_{co,N}N_b$$
 [Eq. D-5]

Number of influencing edges = 3

 h_{ef} (adjusted for edges per D.5.2.3) = 3.667 in

$$A_{Nco} = 121.00 \text{ in}^2 \text{ [Eq. D-6]}$$

$$A_{Nc} = 176.00 \text{ in}^2$$

$$\Psi_{ec.Nx}$$
 = 1.0000 [Eq. D-9]

$$\Psi_{ec,N_V}$$
 = 1.0000 [Eq. D-9]

$$\Psi_{ec,N}$$
 = 1.0000 (Combination of x-axis & y-axis eccentricity factors.)

$$\Psi_{\text{ed N}} = 0.9727 \text{ [Eq. D-10 or D-11]}$$

Note: Cracking shall be controlled per D.5.2.6

$$\Psi_{c,N}$$
 = 1.0000 [Sec. D.5.2.6]

$$\Psi_{cp,N}$$
 = 1.0000 [Eq. D-12 or D-13]

$$N_b = k_c \sqrt{f'_c h_{ef}^{1.5}} = 8425.36 \text{ lb [Eq. D-7]}$$

$$k_c = 24$$
 [Sec. D.5.2.6]

$$N_{cbq} = 11920.84 \text{ lb [Eq. D-5]}$$

$$\phi = 0.70 [D.4.4]$$

$$\phi_{\text{seis}} = 0.75$$

$$\phi N_{cbg} = 6258.44$$
 lb (for the anchor group)

6) Pullout Strength of Anchor in Tension [Sec. D.5.3]

$$N_p = 0.9 f_c e_h d_o [Eq. D-16]$$

$$e_h = 3d_0 = 1.8750$$
 in

$$N_{pn} = \Psi_{c,p} N_p$$
 [Eq. D-14]

$$\Psi_{c,p} = 1.0 [D.5.3.6]$$

$$N_{pp} = 2636.72 \text{ lb}$$

$$\phi = 0.70 [D.4.4]$$

$$\phi_{\text{seis}} = 0.75$$

$$\phi N_{pn} = \phi N_{eq} = 1384.28$$
 lb (for each individual anchor)

7) Side Face Blowout of Anchor in Tension [Sec. D.5.4]

Concrete side face blowout strength is only calculated for headed anchors in tension close to an edge, $c_{a1} < 0.4h_{ef}$. Not applicable in this case.

8) Steel Strength of Anchor in Shear [Sec D.6.1]

V_{eq} = 7865.00 lb (for each individual anchor)

$$\phi = 0.65 [D.4.4]$$

$$\phi$$
 V_{eq} = 5112.25 lb (for each individual anchor)

9) Concrete Breakout Strength of Anchor Group in Shear [Sec D.6.2]

Case 1: Anchor(s) closest to edge checked against sum of anchor shear loads at the edge In x-direction...

$$V_{cbx} = A_{vcx}/A_{vcox}\Psi_{ed,V}\Psi_{c,V}V_{bx}$$
 [Eq. D-21]

$$c_{a1} = 5.00 in$$

$$A_{vcx} = 97.50 \text{ in}^2$$

$$A_{vcox} = 112.50 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{\text{ed.V}}$$
 = 0.9200 [Eq. D-27 or D-28]

$$\Psi_{cV}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{bx} = 7(I_e/d_o)^{0.2} \sqrt{d_o \sqrt{f_c(c_{a1})^{1.5}}}$$
 [Eq. D-24]

$$I_{\rm p} = 5.00 \text{ in}$$

$$V_{bx} = 4689.01 \text{ lb}$$

$$V_{cbx} = 3738.70 \text{ lb [Eq. D-22]}$$

$$\phi = 0.70$$

$$\phi_{seis} = 0.75$$

$$\phi V_{chx} = 1962.82$$
 lb (for a single anchor)

In y-direction...

$$V_{cbgy} = A_{vcy}/A_{vcoy}\Psi_{ec,V}\Psi_{ed,V}\Psi_{c,V}V_{by} \text{ [Eq. D-22]}$$

$$c_{a1} = 5.50 in$$

$$A_{ycy} = 132.00 \text{ in}^2$$

$$A_{vcov} = 136.13 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{ec,V} = 1.0000$$
 [Eq. D-26]

$$\Psi_{ed \ V} = 0.8818$$
 [Eq. D-27 or D-28]

$$\Psi_{c,V}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{bv} = 7(I_e/d_o)^{0.2} \sqrt{d_o \sqrt{f_c(c_{a1})^{1.5}}}$$
 [Eq. D-24]

$$I_e = 5.00 \text{ in}$$

$$V_{bv} = 5409.66 \text{ lb}$$

$$V_{cbgy} = 4625.78 \text{ lb } [Eq. D-22]$$

$$\phi = 0.70$$

$$\phi_{\text{seis}} = 0.75$$

$$\phi V_{cbgy}$$
 = 2428.54 lb (for the anchor group)

$$\phi V_{cby}$$
 = 1214.27 lb (for a single anchor - divided ϕV_{cbgy} by 2)

Case 2: Anchor(s) furthest from edge checked against total shear load In x-direction...

$$V_{cbx} = A_{vcx}/A_{vcox}\Psi_{ed,V}\Psi_{c,V}V_{bx}$$
 [Eq. D-21]

$$c_{a1} = 11.00 in$$

$$A_{vcx} = 352.00 \text{ in}^2$$

$$A_{vcox} = 544.50 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{\rm ed,V}$$
 = 0.8000 [Eq. D-27 or D-28]

$$\Psi_{c,V}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{bx} = 7(I_e/d_o)^{0.2} \sqrt{d_o \sqrt{f_c(c_{a1})^{1.5}}}$$
 [Eq. D-24]

$$I_{\rm p} = 5.00 \text{ in}$$

$$V_{bx} = 15300.83 \text{ lb}$$

$$V_{cbx} = 7913.16 lb [Eq. D-22]$$

$$\phi = 0.70$$

$$\phi_{seis} = 0.75$$

$$\phi V_{cbx}$$
 = 4154.41 lb (for a single anchor)

In y-direction...

$$V_{cbgy} = A_{vcy}/A_{vcoy}\Psi_{ec,V}\Psi_{ed,V}\Psi_{c,V}V_{by}$$
 [Eq. D-22]

$$c_{a1} = 5.50 in$$

$$A_{vcv} = 132.00 \text{ in}^2$$

$$A_{vcov} = 136.13 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{ec \ V} = 1.0000 \text{ [Eq. D-26]}$$

$$\Psi_{\text{ed.V}}$$
 = 0.8818 [Eq. D-27 or D-28]

$$\Psi_{c,V}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{bv} = 7(I_e/d_0)^{0.2} \sqrt{d_0} \sqrt{f_c(c_{a1})^{1.5}}$$
 [Eq. D-24]

$$I_{e} = 5.00 \text{ in}$$

$$V_{bv} = 5409.66 \text{ lb}$$

$$V_{cbgy} = 4625.78 \text{ lb } [Eq. D-22]$$

$$\phi = 0.70$$

$$\phi_{seis} = 0.75$$

$$\phi V_{cbqv}$$
 = 2428.54 lb (for the entire anchor group)

Case 3: Anchor(s) closest to edge checked for parallel to edge condition Check anchors at $\mathbf{c}_{\mathbf{x}1}$ edge

$$V_{cbx} = A_{vcx}/A_{vcox}\Psi_{ed,V}\Psi_{c,V}V_{bx}$$
 [Eq. D-21]

$$c_{a1} = 5.00 in$$

$$A_{vcx} = 97.50 \text{ in}^2$$

$$A_{vcox} = 112.50 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{\text{ed.V}}$$
 = 1.0000 [Sec. D.6.2.1(c)]

$$\Psi_{CV}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{bx} = 7(I_e/d_o)^{0.2} \sqrt{d_o \sqrt{f_c(c_{a1})^{1.5}}}$$
 [Eq. D-24]

$$I_{e} = 5.00 \text{ in}$$

$$V_{bx} = 4689.01 lb$$

$$V_{cbx} = 4063.81$$
 lb [Eq. D-22]

$$V_{cby} = 2 * V_{cbx} [Sec. D.6.2.1(c)]$$

$$V_{cby} = 8127.62 \text{ lb}$$

$$\phi = 0.70$$

$$\phi_{\text{seis}} = 0.75$$

$$\phi V_{cby} = 4267.00$$
 lb (for a single anchor)

Check anchors at c_{v1} edge

$$V_{cbgy} = A_{vcy}/A_{vcoy}\Psi_{ec,V}\Psi_{ed,V}\Psi_{c,V}V_{by}$$
 [Eq. D-22]

 c_{a1} = 10.67 in (adjusted for edges per D.6.2.4)

$$A_{vcv} = 256.00 \text{ in}^2$$

$$A_{vcov} = 512.00 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{ec \ V} = 1.0000 \text{ [Eq. D-26]}$$

$$\Psi_{ed,V}$$
 = 1.0000 [Sec. D.6.2.1(c)]

$$\Psi_{c,V}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{by} = 7(I_e/d_o)^{0.2} \sqrt{d_o \sqrt{f_c(c_{a1})^{1.5}}}$$
 [Eq. D-24]

$$I_e = 5.00 \text{ in}$$

$$V_{bv} = 14610.64 \text{ lb}$$

$$V_{cbgy} = 7305.32 \text{ lb [Eq. D-22]}$$

$$V_{cbgx} = 2 * V_{cbgy} [Sec. D.6.2.1(c)]$$

$$V_{cbgx} = 14610.64 \text{ lb}$$

$$\phi = 0.70$$

$$\phi_{seis} = 0.75$$

$$\phi V_{cbgx} = 7670.58$$
 lb (for the anchor group)

Check anchors at cx2 edge

$$V_{cbx} = A_{vcx}/A_{vcox}\Psi_{ed,V}\Psi_{c,V}V_{bx}$$
 [Eq. D-21]

$$c_{a1} = 5.00 in$$

$$A_{vcx} = 97.50 \text{ in}^2$$

$$A_{vcox} = 112.50 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{\text{ed V}}$$
 = 1.0000 [Eq. D-27 or D-28] [Sec. D.6.2.1(c)]

$$\Psi_{\text{CV}}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{bx} = 7(I_e/d_0)^{0.2} \sqrt{d_0} \sqrt{f_c(c_{a1})^{1.5}}$$
 [Eq. D-24]

$$l_e = 5.00 in$$

$$V_{bx} = 4689.01 \text{ lb}$$

$$V_{cbx} = 4063.81$$
 lb [Eq. D-22]

$$V_{cby} = 2 * V_{cbx} [Sec. D.6.2.1(c)]$$

$$V_{cby} = 8127.62 \text{ lb}$$

$$\phi = 0.70$$

$$\phi_{seis} = 0.75$$

$$\phi V_{cby} = 4267.00$$
 lb (for a single anchor)

Check anchors at c_{v2} edge

$$V_{cbgy} = A_{vcy}/A_{vcoy}\Psi_{ec,V}\Psi_{ed,V}\Psi_{c,V}V_{by}$$
 [Eq. D-22]

$$c_{a1} = 5.50 in$$

$$A_{vcv} = 132.00 \text{ in}^2$$

$$A_{vcov} = 136.13 \text{ in}^2 \text{ [Eq. D-23]}$$

$$\Psi_{ec,V}$$
 = 1.0000 [Eq. D-26]

$$\Psi_{ed,V}$$
 = 1.0000 [Sec. D.6.2.1(c)]

$$\Psi_{c,V}$$
 = 1.0000 [Sec. D.6.2.7]

$$V_{bv} = 7(I_e/d_o)^{0.2} \sqrt{d_o \sqrt{f_c(c_{a1})^{1.5}}}$$
 [Eq. D-24]

$$I_{\rm e} = 5.00 \, \rm in$$

$$V_{bv} = 5409.66 \text{ lb}$$

$$V_{cbgy} = 5245.73 \text{ lb [Eq. D-22]}$$

$$V_{cbgx} = 2 * V_{cbgy} [Sec. D.6.2.1(c)]$$

$$V_{\rm cbgx} = 10491.46 \; \text{lb}$$

$$\phi = 0.70$$

```
\phi_{seis} = 0.75 
 \phi V_{cbgx} = 5508.02 lb (for the anchor group)
```

10) Concrete Pryout Strength of Anchor Group in Shear [Sec. D.6.3]

$$V_{cpg} = k_{cp} N_{cbg}$$
 [Eq. D-30]

$$k_{cp} = 2 [Sec. D.6.3.1]$$

 e'_{Vx} = 0.00 in (Applied shear load eccentricity relative to anchor group c.g.)

 e'_{Vv} = 0.00 in (Applied shear load eccentricity relative to anchor group c.g.)

 $\Psi_{ec,Nx}$ = 1.0000 [Eq. D-9] (Calulated using applied shear load eccentricity)

 $\Psi_{ec,Ny}$ = 1.0000 [Eq. D-9] (Calulated using applied shear load eccentricity)

 $\Psi_{ec,N'}$ = 1.0000 (Combination of x-axis & y-axis eccentricity factors)

 $N_{cbg} = (A_{Nca}/A_{Nc})(\Psi_{ec,N}/\Psi_{ec,N})N_{cbg}$

 N_{cba} = 11920.84 lb (from Section (5) of calculations)

 $A_{N_C} = 176.00 \text{ in}^2 \text{ (from Section (5) of calculations)}$

 $A_{Nca} = 176.00 \text{ in}^2$ (considering all anchors)

 $\Psi_{ec.N}$ = 1.0000 (from Section(5) of calculations)

N_{cba} = 11920.84 lb (considering all anchors)

 $V_{cpg} = 23841.68 \text{ lb}$

 $\phi = 0.70 [D.4.4]$

 $\phi_{\text{seis}} = 0.75$

 ϕV_{cpg} = 12516.88 lb (for the anchor group)

11) Check Demand/Capacity Ratios [Sec. D.7]

Tension

- Steel: 0.0154

- Breakout: 0.0483

- Pullout: 0.1091

- Sideface Blowout : N/A

Shear

- Steel: 0.0448

- Breakout (case 1): 0.1167

- Breakout (case 2): 0.1102

- Breakout (case 3): 0.0832

- Pryout: 0.0366

V.Max(0.12) <= 0.2 and T.Max(0.11) <= 1.0 [Sec D.7.1]

Interaction check: PASS

Use 5/8" diameter F1554 GR. 36 L-Bolt anchor(s) with 9 in. embedment

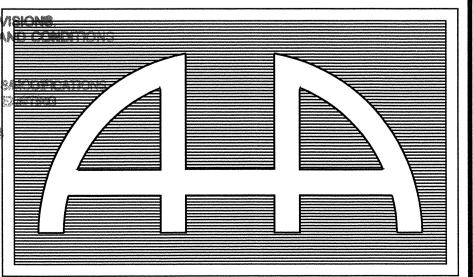
BRITTLE FAILURE GOVERNS: Governing anchor failure mode is brittle failure. Per 2006 IBC Section 1908.1.16, anchors shall be governed by a ductile steel element in structures

assigned to Seismic Design Category C, D, E, or F. Alternatively the minimum design strength of the anchor(s) shall be at least 2.5 times the factored forces or the anchor attachment to the structure shall undergo ductile yielding at a load level less than the design strength of the anchor(s). Designer must exercise own judgement to determine if this design is suitable.



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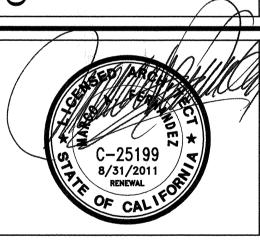
G SCREENING MENURS U SUSMIT LATTUSCAPS ADD emergency stair case at rear of Reof



ALL IDEAS, DESIGNS, AND ARRANGEMENTS INDICATED ON THESE DRAWINGS ARE THE PROPERTY OF ANDESON ASSOCIATES AND ARE INTENDED TO BE USED IN CONNECTION WITH THIS SPECIFIC PROJECT ONLY AND SHALL NOT OTHERWISE BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF ANDRISON-ASSOCIATES.

THERE SHALL BE NO CHANGES OR DEVIATIONS FROM THESI DRAWINGS OR THE ACCOMPANYING SPECIFICATIONS WITHOUT THE WRITTEN CONSENT OF ANDERSON-ASSOCIATES.





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BOLD-FACE REVISIONS APPLY TO THIS SHEET					

COVER SHEET

A-1.0

BID OR CONSTRUCTION CONTRACT NEGOTIATION REQUIREMENTS:

- GENERAL CONTRACTOR, BY SUBMITTING THE BID PACKAGE, IN ACCEPTING ALL THE BID REQUIREMENTS, CONTRACTOR RESPONSIBILITIES, AND AGREES TO CARRY THE CONSTRUCTION PER BID DOCUMENTS TO COMPLETE THE JOB ("TURN KEY") WITHIN THE TIME PERIOD AGREED UPON (WHETHER THE AGREEMENT IS IN WRITING OR VERBAL) AND OBTAIN THE CERTIFICATE OF OCCUPANCY (BEFORE THE OCCUPANCY DATE) FROM THE GOVERNMENTAL AGENCIES WHICH HAVE JURISDICTION OVER THIS PROJECT.
- B. BUILDING OWNER/TENANT AND/OR ANY AGENT OF EITHER PARTY WHICH IN ACCEPTING THE BID PACKAGE FROM THE GENERAL CONTRACTOR, AGREES TO ALL BID CONDITIONS, CONTRACT DOCUMENTS AND SPECIFICATIONS.
- C. GENERAL CONTRACTOR SHALL INCLUDE IN HIS/HER BID SUBMITTAL, ALLOWANCE FOR HIRING A QUALIFIED DESIGN-BUILD FIRE SPRINKLER SUBCONTRACTOR FOR PREPARATION OF REQUIRED DOCUMENTS AND SUBMITTALS TO THE PROPER GOVERNMENTAL AGENCIES FOR REVIEW AND APPROVAL. THE FIRE SPRINKLER SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED PERMIT(S) AND INSTALLATION OF NEW FIRE SPRINKLERS OR MODIFICATION OF EXISTING, AS APPLICABLE TO THIS PROJECT, IN A TIMELY MANNER. THE ENTIRE PROCESS OF THE FIRE SPRINKLER DOCUMENT PREPARATION, SUBMITTAL AND EXECUTION OF WORK SHALL NOT INTERFER WITH CONSTRUCTION SCHEDULE AND/OR TIMELY OCCUPANCY OF PROJECT BY OWNER/ TENANT. FIRE SPRINKLER SYSTEM(S) SUBMITTAL SHALL BE PER THE LATEST ADOPTED STANDARDS OF THE CBC AND NEPA OF THE GOVERNMENTAL AGENCY HAVE JURISDICTION OVER THIS PROJECT
- D. THE GENERAL CONTRACTOR SHALL, BEFORE SUBMITTING THE BID PACKAGE, EXAMINE ALL BID DOCUMENTATION AND EXAMINE THE JOB SITE WITH HIS/HER SUBCONTRACTOR AND ANY TRADE OR AGENCY WHICH WOULD BE NECESSARY TO PERFORM A COMPLETE JOB. IF THERE IS ANY CONSTRUCTION ITEM OR FIELD TRADE (NEEDED TO ACCOMMODATE FIELD CONDITIONS) NOT COVERED BY THE BID DOCUMENTS WHICH, IN THE GENERAL CONTRACTOR'S OPINION WOULD PREVENT HIM/HER FROM PERFORMING A COMPLETE JOB, THEN THE GENERAL CONTRACTOR SHALL SUBMIT AN ITEMIZED, PRICED "EXCLUSIONS" ATTACHED TO THE ORIGINAL BID PACKAGE. THESE ADDITIONAL ITEM AND/OR TRADES AND THE ORIGINAL BID PACKAGE SHALL REPRESENT THE TOTAL ANTICIPATED CONSTRUCTION BUDGET INCLUDING THE LABOR NECESSARY, MATERIALS OF THE SAME QUALITY AS PRESCRIBED IN THE BID DOCUMENTS AND WITHIN THE TIME PERIOD AS AGREED UPON.
- THE GENERAL CONTRACTOR SHALL COMPARE ALL DRAWINGS, SPECIFICATIONS AND ALL VERIFICATIONS REQUIRED BY CONSTRUCTION DOCUMENTS AGAINST FIELD CONDITIONS BEFORE SUBMITTING THE BID PACKAGE. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE BID DOCUMENTS AND FIELD CONDITIONS, BASED ON THE CONTRACTOR'S FINDINGS AND REQUIRED FIELD VERIFICATIONS, THEN HE/SHE SHALL NOTIFY ANDERSON ASSOCIATES IMMEDIATELY IN WRITING AND SHALL INCLUDE SUCH ITEMS IN HIS/HER EXCLUSION BID PACKAGE AS MENTIONED ABOVE.
- F. THE CONTRACTOR'S SUBMITTED CONSTRUCTION COST SHALL BE FIXED. THE GENERAL CONTRACTOR SHALL NOT SUBMIT ANY CHANGE ORDER WHICH WOULD BE AN INCREASE TO CONSTRUCTION COST OR A REDUCTION TO QUALITY OF MATERIAL OR AN INCREASE IN THE SET CONSTRUCTION TIME UNLESS A CHANGE HAS BEEN ISSUED BY THE ARCHITECT AND APPROVED BY THE OWNER.
- THE GENERAL CONTRACTOR SHALL NOT HOLD ANDERSON ASSOCIATES, ANY OF ITS EMPLOYEES OR AGENTS AND/ OR ANY ENGINEERING CONSULTING FIRM WHICH HAS A DIRECT CONTRACT WITH ANDERSON ASSOCIATES RESPONSIBLE FOR ANY FIELD CONDITION AND/OR NEGLIGENCE OF CONTRACTOR FOR NOT FIELD VERIFYING PROPERLY AS REQUIRED ABOVE, BEFORE SUBMITTING BID PACKAGE.
- THE BUILDING OWNER/TENANT AND/OR ANY AGENT OF EITHER PARTY OR ANY ENGINEERING CONSULTING FIRM WHICH DOES OR DOES NOT HAVE A DIRECT CONTRACT WITH ANDERSON ASSOCIATES SHALL NOT HOLD ANDERSON ASSOCIATES RESPONSIBLE FOR ANY FIELD CONDITIONS AND/OR NEGLIGENCE OF THE CONTRACT FOR NOT FIELD VERIFYING PROPERTY AS REQUIRED PER ABOVE NOTES, OR FOR FAILURE OF THE OWNER/TENANT TO SUPPLY PROPER REQUESTED INFORMATION TO ANDERSON ASSOCIATES.
- THE BUILDING OWNER/TENANT AND/OR ANY AGENT OF EITHER PARTY OR ANY ENGINEERING CONSULTING FIRM WHICH DOES OR DOES NOT HAVE A DIRECT CONTRACT WITH ANDERSON ASSOCIATES SHALL NOT HOLD ANDERSON ASSOCIATES RESPONSIBLE FOR ERRORS/OMISSIONS OF CONSULTING ENGINEERS IN PREPARATION OF BID DOCUMENTS OR ERRORS/OMISSIONS IN FIELD BY DESIGN-BUILD (SUB) CONTRACTOR.
- ANY PARTY THAT RECEIVES A COPY OF BID DOCUMENTS SHALL RESPOND IN WRITING TO ANDERSON ASSOCIATES IF THE PARTY HAS AN OBJECTION OR FEELS THERE IS A POSSIBLE CODE ISSUE/VIOLATION, WITHIN THEIR SCOPE OF SPECIALIZATION OR WITHIN ANOTHER PARTY'S SCOPE OF WORK/SPECIALIZATION, WITHIN THREE DAYS OF RECEIVING THE DOCUMENTS.
- K. THE CONTRACTOR WILL SUBMIT, TWO WEEKS PRIOR TO THE FIRST PAYMENT REQUEST, A COMPLETE SCHEDULE OF VALUES OF EVERY TRADE AND ALL WORK TO BE PERFORMED. THE TOTAL SHALL BE LISTED AT THE BOTTOM, AND THE TOTAL SHALL EQUAL THE CONTRACT AMOUNT. THIS WILL BE USED TO EVALUATE CONTRACTORS PAYMENT REQUESTS.

CONTRACTOR QUALIFICATION REQUIREMENTS :

THE GENERAL CONTRACTOR(S) AND HIS SUBCONTRACTORS MUST HAVE AT LEAST 5 YEARS EXPERIENCE IN THE TYPE OF CONSTRUCTION SPECIFIED WITHIN THESE CONSTRUCTION DOCUMENTS. THE FOLLOWING ITEMS MUST BE PROVIDED, PRIOR TO SUBMITTAL OF BID, FOR REVIEW BY THE OWNER AND HIS CONSULTANTS:

- A. PROJECT LIST OF SIMILAR PROJECTS COMPLETED WITHIN THE LAST FIVE YEARS INCLUDING PROJECT NAME, DOLLAR VALUATION, OWNERS COMPANY NAME AND CONTACT WITH A PHONE NUMBER.
- B. PROJECT LIST OF SIMILAR PROJECTS CURRENTLY UNDER CONSTRUCTION INCLUDING PROJECT NAME, DOLLAR VALUATION, OWNERS COMPANY NAME AND CONTACT WITH PHONE NUMBER.
- C. LIST OF PROPOSED SUBCONTRACTOR AND THEIR LIST OF PROJECTS AS INDICATED IN PREVIOUS ITEMS.
- D. PROPOSED SUPERINTENDENTS NAME AND LIST OF SIMILAR PROJECTS PERFORMED
- WITHIN THE LAST 5 YEARS.

UPON REVIEW OF THE AFOREMENTIONED THE OWNER SHALL APPROVE OR DECLINE GENERAL CONTRACTOR(S) FOR BIDDING OF PROJECT.

CONTRACTOR RESPONSIBILITIES:

I. EXAMINATION OF THE SITE AND THE CONTRACT DOCUMENTS:

BEFORE SUBMITTING A BID, THE BIDDERS SHALL CAREFULLY EXAMINE THE

CONTRACT DOCUMENTS, SHALL VISIT THE SITE, AND SHALL FULLY INFORM

THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS AND SHALL

INCLUDE IN THEIR PROPOSAL A SUM TO COVER ALL ITEMS INCLUDED IN THE

CONTRACT DOCUMENTS.

CONTRACTOR RESPONSIBILITIES CONT'D:

- 2a. EXAMINATION OF THE SITE AND PORTIONS THEREOF WHICH WILL AFFECT HIS WORK SHALL BE MADE BY THE GENERAL CONTRACTOR WHO SHALL COMPARE HIS FINDINGS WITH THE DRAWING AND SATISFY HIMSELF AS TO THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. HE SHALL, AT SUCH TIMES, ASCERTAIN AND CHECK LOCATION OF EXISTING STRUCTURES OR EQUIPMENT WHICH MAY AFFECT HIS WORK. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE IN HIS BEHALF FOR ANY EXPENSE TO WHICH HE MAY BE PUT DUE TO FAILURE OR NEGLECT ON HIS PART TO MAKE SUCH AN EXAMINATION. ANY CONFLICTS OR OMISSIONS, ETC., SHALL BE REPORTED TO ANDERSON ASSOCIATES PRIOR TO BID DATE.
- 2b. LOCATION AND MARKING/SURVEYING TO LOCATE ALL NEW BUILDINGS/STRUCTURES SHALL BE THE GENERAL CONTRACTORS RESPONSIBILITY
- 2c. ALL SCAFFOLDING, SHORING, TEMPORARY STRUCTURES ARE THE COMPLETE RESPONSIBILITY OF THE GENERAL CONTRACTORS.
 - LEAVE AREA CLEAN AND FREE OF DEBRIS AT THE END OF EACH DAY. THE
 CONTRACTOR SHALL ARRANGE FOR THE PREMISES TO BE MAINTAINED IN AN
 ORDERLY MANNER THROUGHOUT THE COURSE OF THE JOB. MAINTAIN CLEANLINESS
 THROUGHOUT. DO NOT BLOCK ENTRANCES, EXITS, LOBBIES, CORRIDORS, ETC.
 25.
- MATERIALS ARE SPECIFIED BY THEIR BRAND NAMES TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE. ANY REQUEST FOR SUBSTITUTION SHALL BE SUBMITTED TO ANDERSON ASSOCIATES WITHIN FIVE (5) DAYS OF THE AWARD OF CONTRACT FOR REVIEW FOR EQUAL QUALITY AND PERFORMANCE AND SHALL NOT BE PURCHASED OR INSTALLED WITHOUT ANDERSON ASSOCIATES WRITTEN APPROVAL. ALL PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING WITH ALL COMPONENTS LISTED THAT DIFFER FROM THAT SPECIFIED.
- ALL CONSTRUCTION WORK, ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION, ETC., SHALL CONFORM TO THE LATEST ADOPTED EDITION OF THE CALIFORNIA BUILDING CODE, AND ANY OTHER APPLICABLE LOCAL AND STATE CODE. (WHICH HAS BEEN ADOPTED BY LOCAL AGENCY)
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL LEFT- OVER MATERIALS, DEBRIS, TOOLS AND EQUIPMENT INVOLVED IN HIS OPERATIONS AT THE CONCLUSION OF THE INSTALLATION. HE SHALL LEAVE ALL AREAS CLEAN AND IN PERFECT CONDITION, INCLUDING THE CLEANING OF ALL NEW AND EXISTING MINI-BLINDS.
- . UNLESS OTHERWISE SPECIFICALLY NOTED, THE CONTRACTOR(S) SHALL PROVIDE AND PAY FOR ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, UTILITIES, AND OTHER SERVICES AND RELATED TAXES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
- THE CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK WITH THE ARCHITECTURAL DRAWINGS BEFORE PROCEEDING WITH BUILDING LOCATION INSTALLATION OF CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WORK. SHOULD THERE BE ANY DISCREPANCIES BETWEEN THE ARCHITECT'S AND THE CONSULTING ENGINEER'S DRAWINGS AND SPECIFICATIONS THAT WOULD CAUSE A CONFLICT, IT SHALL BE BROUGHT TO ANDERSON ASSOCIATES ATTENTION FOR CLARIFICATION PRIOR TO INSTALLATION OF SAID WORK. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE AND AT NO ADDITIONAL EXPENSE TO THE OWNER OR ANDERSON ASSOCIATES.
- NO SUBSTITUTIONS WILL BE CONSIDERED UNLESS WRITTEN REQUEST IS SUBMITTED TO ANDERSON ASSOCIATES DURING THE BIDDING OF THE PROJECT. EACH SUCH REQUEST SHALL INCLUDE A COMPLETE DESCRIPTION OF THE PROPOSED SUBSTITUTE, THE NAME OF THE MATERIAL OR EQUIPMENT FOR WHICH IT IS TO BE SUBSTITUTED, DRAWINGS, CUTS, PERFORMANCE AND TEST DATA NECESSARY FOR A COMPLETE EVALUATION. ALL APPROVALS SHALL BE GIVEN IN WRITING BY ANDERSON ASSOCIATES.
- THE CONTRACTOR, IMMEDIATELY AFTER BEING AWARDED THE CONTRACT, SHALL PREPARE AND SUBMIT TO ANDERSON ASSOCIATES FOR APPROVAL, AN ESTIMATED **PROGRESS** SCHEDULE OF THE WORK.
- THE CONTRACTOR(S) SHALL SECURE AND PAY FOR ALL PERMITS, GOVERNMENTAL FEES AND LICENSES NECESSARY FOR THE PROPER EXECUTIVE AND COMPLETION OF THE WORK. THE CONTRACTOR(S) SHALL REQUEST ALL INSPECTIONS REQUIRED BY LOCAL GOVERNMENTAL AGENCIES AND COORDINATE HIS WORK ACCORDINGLY
- DO NOT SCALE DRAWINGS. CALL THE ARCHITECT FOR A CALCULATED DIMENSION IF ONE IS MISSING. WRITTEN DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALE DIMENSIONS. IF ANY DISCREPANCY OCCURS IN DIMENSIONAL INFORMATION, CONTACT ANDERSON ASSOCIATES FOR CLARIFICATION PRIOR TO PROCEEDING WITH ANY CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR(S) ARE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE, AND TO CROSS-CHECK DETAILS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS WY THE RELATED REQUIREMENTS OF THE STRUCTURAL, SPRINKLER, MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS PRIOR TO CONSTRUCTION. DISCREPANCIES INVOR BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO ANDERSON ASSOCIATES. CORRECTED DRAWINGS OR INSTRUCTIONS SHALL BE ISSUED BY THE OWNER PRIOR TO THE INSTALLATION OF ANY WORK. ALL DIMENSIONS ARE TO BE ROUGH UNLESS OTHERWISE NOTED.
- IF THE CONTRACTOR WISHES TO MAKE A CLAIM FOR AN INCREASE IN THE CONTRACT SUM OR TIME, HE SHALL GIVE ANDERSON ASSOCIATES WRITTEN NOTICE THEREOF WITHIN FIVE (5) DAYS AFTER THE OCCURRENCE OF THE EVENT GIVING RISE TO SUCH CLAIM. THIS NOTICE SHALL BE GIVEN BY THE CONTRACTOR BEFORE PROCEEDING TO EXECUTE THE WORK, EXCEPT IN AN EMERGENCY ENDANGERING LIFE OR PROPERTY. ANY CHANGE IN THE CONTRACT SUM RESULTING FROM SUCH CLAIM SHALL BE AUTHORIZED BY A WRITTEN CHANGE
- ALL WORK SHALL BE DONE IN A QUALITY WORKMANSHIP LIKE MANNER UTILIZING, UNLESS OTHERWISE NOTED, ONLY NEW HIGH QUALITY MATERIALS CONSISTENT WITH SPECIFICATIONS AS INDICATED. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AND GOVERNMENTAL REGULATIONS.
- IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY FOR THE APPROVAL OF ANDERSON ASSOCIATES AND AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL TAKE ALL REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOST TO: (a) ALL EMPLOYEES ON THE WORK AND ALL OTHERS WHO MAY BE AFFECTED THEREBY, AND (b) THE MATERIALS TO BE USED IN THE CONSTRUCTION BEFORE, DURING AND AFTER INSTALLATION AND THE WORK AND MATERIALS OF ALL OTHER TRADES OR EXISTING CONSTRUCTION OR PROPERTY.
- MHEN NECESSARY, DEMOLITION WORK SHALL INCLUDE REMOVING ALL ITEMS NECESSARY TO COMPLETE THE WORK. PROPERLY REINSTALL, MODIFY OR RELOCATE AS REQUIRED ALL NECESSARY ITEMS AT THE COMPLETION OF THE WORK. THOSE ITEMS PERMANENTLY REMOVED SHOULD BE SORTED AS DIRECTED BY THE OWNER OR PROPERLY DISPOSED OF AWAY FROM THE SITE.
- ALL MATERIALS, FIXTURES, EQUIPMENT, ACCESSORIES OR ITEMS CALLED FOR ON THE DRAWINGS WILL BE INSTALLED BY EXPERIENCED CONTRACTORS TO THE QUALITY LEVEL EXPECTED BY THE MANUFACTURER AND AS EXPECTED BY THOSE WHO SET STANDARDS OF QUALITY FOR THE INDUSTRY. WHEN THIS IS NOT THE CASE, THE CONTRACTOR AGREES TO REMOVE AND REINSTALL TO SAID STANDARD. ALSO, ALL INSTALLATIONS AND WORKMANSHIP WILL BE PER THE MANUFACTURER'S WRITTEN SPECIFICATION. THIS IS EXPECTED AND WILL BE REQUIRED FOR EXCEPTANCE OF ALL WORK.
- THE CONTRACTOR SHALL, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS OPERATIONS AND/OR HIS SUBCONTRACTORS. IN ADDITION TO THE REQUIREMENTS OF OTHER SECTIONS OR HEADINGS, AND PRIOR TO THE ACCEPTANCE OF THE WORK OR PORTIONS THEREOF, THOROUGHLY CLEAN AND REMOVE ALL LABELS, PAINT, PUTTY SPOTS AND OTHER DEFACEMENTS. LEAVE THE WORK AREA IN "BROOM-CLEAN"

CONTRACTOR RESPONSIBILITIES CONT'D:

- 21. CONTRACTOR SHALL NOTIFY THE ARCHITECT AT LEAST TWO (2) DAYS PRIOR TO LAYOUT OF WORK IF ADDITIONAL DATA WILL BE REQUIRED.
- 22. LOCATION AND ELEVATIONS OF ALL STRUCTURES, GRADES AND ELEVATIONS TO BE CONSTRUCTED UNDER THIS CONTRACT ARE SHOWN ON THE DRAWINGS AND UNLESS ANY DISCREPANCIES THEREIN ARE BROUGHT IN WRITING, TO THE ATTENTION OF THE ARCHITECT PRIOR TO BEGINNING OF CONSTRUCTION, CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER LOCATIONS AND ELEVATIONS AS SHOWN AND AS INTENDED. ALL SURVEYING FOR THE ABOVE SHALL BE COVERED WITHIN THE CONTRACTORS COSTS AND RESPONSIBILITIES.
- 23. CONTRACTOR SHALL LAYOUT THE WORK AND SHALL ESTABLISH AND MAINTAIN NECESSARY MARKERS, AUXILIARY BENCH MARKS, STAKES AND BATTER BOARDS, AND SHALL BE RESPONSIBLE FOR THE ACCURACY OF SAME.
- 24. CONTRACTOR SHALL LAYOUT, AS A GUIDE TO ALL TRADES AND TO HIS SUBCONTRACTOR, THE EXACT LOCATIONS OF ALL WALLS, PARTITIONS, FLOORS, CEILINGS, DOORS, WINDOWS, AND OPENINGS.
- SCAFFOLDING AND TEMPORARY CONSTRUCTION:
 PROVIDE TEMPORARY CONSTRUCTION SUCH AS SCAFFOLDING, STAIRS, HOISTS
 AND SIMILAR STRUCTURES AS REQUIRED FOR ALL TRADES. EMPLOY AND PAY
 FOR A LICENSED ENGINEER TO DESIGN AND SUPERVISE TEMPORARY STRUCTURES
 INCLUDING BRACING, SHORING, CRANE CAPACITY, CRANE SUPPORT, SCAFFOLDING
 AND SIMILAR CONSTRUCTION. VISITS TO THE SITE BY ARCHITECT OR STRUCTURAL
 ENGINEER SHALL NOT INCLUDE INSPECTION OR CERTIFICATION OF THESE ITEMS.
- 26. BARRICADES:

 THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN FOR THE DURATION OF THE CONTRACT AN EFFECTIVE BARRICADE AROUND THE PERIMETER OF ALL WORK IN PROGRESS, SUBJECT TO FIRE MARSHAL APPROVAL
- INTERRUPTION OF SERVICES:
 THE CONTRACTOR SHALL COORDINATE THE WORK OF THE SEVERAL TRADES TO KEEP THE INTERRUPTION OF SERVICES, PARTICULARLY WATER, GAS, ELECTRIC, SEWER, ETC., TO A MINIMUM. CHARGES IN UTILITY SERVICE SHALL BE COORDINATED WITH THE OWNER. SHOULD IT BE NECESSARY TO INTERRUPT SERVICES, THE CONTRACTOR IS REQUIRED TO GIVE THE OWNER 24 HOURS WRITTEN NOTICE.
- 26. WHEN CONTRACTORS WORK IS NEARING COMPLETION, HE SHALL NOTIFY ANDERSON ASSOCIATES ACCORDINGLY IN WRITING. UPON INSPECTION, ANDERSON ASSOCIATES SHALL PREPARE A FINAL "PUNCH LIST" OUTLINING INCOMPLETE OR UNACCEPTABLE WORK. THE PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL ALL ITEMS ON THE PUNCH LIST HAVE BEEN RESOLVED.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PREPARATION OF ALL WALL, FLOOR, AND CEILING SURFACES TO RECEIVE FINISHES NOTED, AND TO COORDINATE THIS PREPARATION AND ACCEPTANCE WITH ALL TRADES CONTRACTED DIRECTLY BY THEM OR INDIRECTLY BY OTHERS TO COMPLETE THE FINISH WORK.
- CONTRACTOR SHALL EXAMINE ALL AREAS AND CONDITIONS PRIOR TO ANY FINISH INSTALLATION. CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF WORK AND THOSE CONDITIONS NOT MEETING MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION SHALL BE CORRECTED PRIOR TO COMMENCEMENT OF WORK.
- 31. PRIOR TO COMPLETION, THE CONTRACTOR SHALL SUBMIT TO **OWNER/TENANT** IN DUPLICATE ON BEHALF OF HIMSELF AND HIS RESPECTIVE SUBCONTRACTORS, A ONE (I) YEAR WRITTEN GUARANTEE AGAINST DEFECTIVE WORKMANSHIP AND/OR MATERIALS, AND COMPLETE OPERATING AND MAINTENANCE INSTRUCTION FOR ALL MECHANICAL AND ELECTRICAL PORTIONS OF THE WORK.
- 32. UPON COMPLETION OF WORK, CONTRACTOR SHALL SUBMIT TO ANDERSON ASSOCIATES, PROOF OF FINAL INSPECTION, SIGN-OFFS BY THE LOCAL BUILDING DEPARTMENT, FIRE DEPARTMENT, AND POLICE DEPARTMENT, AND ANY OTHER AGENCY HAVING REVIEW OR JURISDICTION. THIS INCLUDES AGENCIES SIGN-OFF CARDS, ALL AGENCY APPROVED, STAMPED AND SIGNED JOBSITE PLAN SETS WILL BE SUBMITTED TO ANDERSON ASSOCIATES.
- 33. CONTRACTOR SHALL PROVIDE AND INSTALL ALL STIFFENERS, BRACINGS,
 BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION
 OF ALL TOILET ROOM ACCESSORIES AND PARTITIONS, CASEMORK, STAIR RAILING
 AND OF ALL WALL MOUNTED OR SUSPENDED MECHANICAL, ELECTRICAL OR
 MISCELLANEOUS EQUIPMENT.
- 34. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING ABBREVIATIONS OR THEIR EXACT MEANING, ANDERSON ASSOCIATES SHALL BE NOTIFIED FOR CLARIFICATION.
- 35. DETAILS MARKED "TYPICAL" SHALL APPLY IN ALL SIMILAR CASES UNLESS SPECIFICALLY INDICATED OTHERWISE.
- 36. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH GENERAL CONDITIONS PARAGRAPH
- 37. ALL METAL FRAMING MEMBERS SHALL BE SO ARRANGED AND SPACED AS TO PERMIT INSTALLATION OF PIPE CONDUITS AND DUCTWORK WITH A MINIMUM OF CUTTING. SHAFT WALLS SHALL BE PROVIDED WITH NECESSARY FRAMES, BRACING, AND SEALANT AROUND THE OPENING.
- 8. OFFSET STUDS WHERE REQUIRED SO THAT FINISH WALL SURFACE WILL BE FLUSH.
- GYPSUM BOARDS SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE AT ALL COLUMNS AND EXTERIOR PERIMETER WALLS UNLESS OTHERWISE NOTED. WELD FURRING CHANNELS TO STEEL COLUMN PRIOR TO FIRE PROOFING WHEN REQ.
- 40. THERE SHALL BE NO TRENCHES OR EXCAVATIONS 5' OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND UNLESS A PERMIT IS OBTAINED FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. (IPC b.8)
- 41. THE CONSTRUCTION OR DEMOLITION OF ANY BUILDING, STRUCTURE, SCAFFOLDING OR FALSEWORK MORE THAN 3 STORIES OR 36' IN HEIGHT, REQUIRES A PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. (IPC.b.9)
- 42. SEPARATE PERMITS SHALL BE OBTAINED FOR SIGNS, FENCES, TRASH ENCLOSURES, RETAINING WALLS, PLANTERS, AND POOLS.
- 43. NO CHANGES ARE TO BE MADE ON THESE PLANS WITHOUT THE KNOWLEDGE OR
- CONSENT OF THE ARCHITECT/ENGINEER WHOSE SIGNATURES APPEARS HEREON.
- 44. CONTRACTORS SHALL PROVIDE AND INSTALL ALL CONCRETE PADS FOR MECHANICAL AND ELECTRICAL EQUIPMENT, AS REQUIRED.
- ALL SUBCONTRACTORS SHALL CHECK DIMENSIONAL LOCATION OF THIS WORK
 (BUILDING) PRIOR TO ACCEPTING AND INHERITING PREVIOUS PROBLEMS. THE
 GRADING CONTRACTOR CONCRETE CONTRACTOR JOBSITE SUPERINTENDENT SHALL
 CHECK BUILDING SETBACKS & LOCATION MARKED BY THE GENERAL
 CONTRACTORS SURVEYOR, OR THEY ALL SHARE THE COST TO CORRECT.

GENERAL NOTES:

- IA. ALL DIMENSIONS ARE TO FACE OF CONCRETE, FACE OF CONCRETE MASONRY UNITS, CENTERLINE OF COLUMNS AND BEAMS, OR FACE OF WALL (GYP. BRD.) UNLESS OTHERWISE NOTED. FINISH FLOOR ELEVATIONS ARE TO THE TOP OF THE CONCRETE SLAB OR TOP OF INTERIOR PAVING UNLESS OTHERWISE NOTED. CEILING HEIGHT DIMENSIONS ARE TO FINISH SURFACES UNLESS OTHERWISE STATED
- PRIOR TO **INSTALLING NEW STUDWALLS**, AND IF NOT NOTED ON DRAWINGS, THE SUPERINTENDENT SHALL CALL THE ARCHITECT FOR THE **LAYOUT STARTING POINT**.

 WALL LAYOUT SHALL BE CHALKED ON THE FLOOR SLAB FOR ARCHITECTS REVIEW PRIOR TO STUD INSULATION.
- DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN THE WALL AS SHOWN OR SHALL BE LOCATED AT MINIMUM REQUIRED FROM FINISH WALL TO FINISH JAMB.

GENERAL NOTES CONT'D

- 3. FINAL PROPOSED LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT, PANEL BOARDS, METERS, FIXTURES, FLUES, VENTS, ETC., SHALL BE INDICATED BY CONTRACTOR, REVIEWED AND APPROVED BY ANDERSON ASSOCIATES.
- 4. WHERE INDICATED ON PLANS, ALIGN NEW WALLS WITH THE FACE OF EXISTING WALLS, COLUMNS, AND FURRING FOR A FLUSH CONDITION. REPAIR, PATCH AND FINISH.
- ALL NEW SURFACES AND PATCHED SURFACES SHALL BE SMOOTH, CONTINUOUSLY FREE OF IMPERFECTIONS AND IN PROPER CONDITION TO RECEIVE FINISH AS SPECIFIED. IN PATCHED AREAS OR ANY AREAS WHERE A FINISH IS NOT SPECIFIED, THEY SHALL MATCH ADJACENT MATERIAL IN CONSTRUCTION, COLOR, TEXTURE AND MANUFACTURER. ANY FINISH WORK DAMAGED OR STAINED SHALL BE REPAIRED OR REPLACED AS NECESSARY WITH THE NEW MATCHING MATERIAL
- 6. ALL INTERIOR WALLS AND PARTITIONS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST ALL LOADS TO WHICH THEY ARE SUBJECTED, BUT NOT LESS THAN A FORCE OF FIVE POUNDS PER SQUARE FOOT APPLIED PERPENDICULAR TO THE INTERIOR WALLS AND 15 POUNDS PER SQUARE FOOT FOR EXTERIOR WALLS.
 - ALL GLAZING SHALL COMPLY WITH C.P.S.C. 16 C.F.R. AND CBC.
- 8. ROOFING SYSTEM AND ALL MANUFACTURED MATERIALS USED SHALL BEAR THE APPROPRIATE U.L. LABEL.
- GLASS DOORS, ADJACENT PANELS AND ALL GLAZED OPENINGS WITHIN 18" OF THE ADJACENT FLOOR SHALL BE GLASS APPROVED FOR IMPACT HAZARD.
- THE ADDRESS NUMBER OF THE BUILDING SHALL BE LOCATED AND DISPLAYED SO THAT IT SHALL BE EASILY VISIBLE FROM THE STREET. THE NUMERAL IN THE NUMBERS SHALL BE NO LESS THAN SIX (6) INCHES IN HEIGHT AND BE OF A COLOR CONTRASTING TO THE BACKGROUND. IN ADDITION, VEHICULAR ACCESS TO THE REAR THROUGH ANY DRIVEWAY, ALLEYWAY OR PARKING LOT SHALL ALSO DISPLAY THE SAME NUMBERS ON THE REAR OF THE BUILDING.
 - DUCTS PENETRATING STUD WALLS OR SHAFT WALLS SHALL BE PROVIDED WITH NECESSARY FRAMES, BRACING AND SEALANT AROUND THE OPENING.
- 2. INSTALL METAL CORNER BEADS AT ALL EXPOSED WALLBOARD EDGES. INSTALL CASING BEADS WHEREVER WALLBOARD, PLASTER, ETC. ABUTS A DISSIMILAR FINISH MATERIAL AND PROVIDE SEALANT AS REQUIRED.
- CONTACT BETWEEN DISSIMILAR METAL SHALL BE PROTECTED. SEE
- SPECIFICATIONS.

 14. ALL GYPSUM WALL BOARD TO BE 5/8" THICK TYPE "X" UNLESS OTHERWISE NOTED OR REQUIRED FOR SPECIFIC WALL CONSTRUCTION.
- EXTEND PERIMETER WALLS OF CORE TO STRUCTURE ABOVE AND WITH THERMAL INSULATION PER MECHANICAL SPECIFICATIONS.
- INSULATION REQUIRED (PER FED. SPEC. HH-I-521E, TYPE III-FIRE RESISTANCE RATED WHERE EXPOSED IN THE EXTERIOR WALL AT THE CEILING PLENUM):
 - A. ROOF: MIN. R-19, 6" MINIMUM THICKNESS
 - B. EXTERIOR WALLS: UN.O. (SEE MECHANICAL SPECIFICATIONS) PROVIDE R-11, 3-1/2" MINIMUM THICKNESS UN.O. (SEE MECHANCIAL SPECIFICATIONS)
- SUSPENDING CEILING FRAMING SYSTEMS ARE TO BE DESIGNED FOR LATERAL FORCES PER DETAILS PROVIDED (SEE PLANS)
- PROVIDE TEMPERED GLASS AT LOCATIONS REQUIRED BY THE LATEST ADOPTED C.B.C. AND BY OTHER APPLICABLE CODE.
- 9. PUBLIC HALLWAYS AND EXIT COURT PASSAGEMAYS TO HAVE 7 FT. CLEAR HEIGHT TO LOWEST PROJECTION.
- OCCUPANCY LOAD SIGNS SHALL BE POSTED IN EACH CLASSROOM, ASSEMBLY ROOM, OR SIMILAR PURPOSE ROOM, HAVING AN OCCUPANT LOAD OF 50 OR MORE

GENERAL CONDITIONS

- THE INTENT OF THE CONTRACT DOCUMENTS SHALL FOLLOW THE REQUIREMENTS AS DEFINED BY AIA DOCUMENT A201, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION. ANY CONFLICTS BETWEEN A201 AND THESE CONTRACT DOCUMENTS, A201 REQUIREMENTS WILL PREVAIL.
- THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK, WORK NOT COVERED IN THE CONTRACT DOCUMENTS WILL NOT BE REQUIRED UNLESS IT IS CONSISTENT THERE WITH AND IS RESONABLY INFERABLE THERFROM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.
- THE TERM WORK INCLUDES ALL LABOR NECESSARY TO PRODUCE THE CONSTRUCTION REQUIRED ABOVE, AND ALL MATERIALS AND EQUIPMENT INCORPORATED OR TO BE INCORPORATED IN SUCH CONSTRUCTION.
- ALL REQUESTS FOR CLARIFICATION OF THESE DRAWINGS SHALL BE DIRECTED IN WRITING TO ANDERSON ASSOCIATES. ALL APPROVALS AND INSTRUCTIONS TO THE CONTRACTOR(S) SHALL BE ISSUED THROUGH ANDERSON ASSOCIATES IN THE FORM OF WRITTEN FIELD ORDERS, CLARIFICATION DRAWINGS AND OTHER WRITTEN CORRESPONDENCE.
- ABBREVIATIONS THROUGHOUT THE PLANS ARE THOSE IN COMMON USAGE.
 ANDERSON ASSOCIATES WILL DEFINE INTENT OF ANY IN QUESTION
- WITHIN TEN (IO) DAYS FROM AWARD OF CONTRACT, CONTRACTOR SHALL NOTIFY ANDERSON ASSOCIATES IN WRITING AS TO THE NAMES OF ALL SUBCONTRACTORS AND CERTIFY THAT ALL MATERIALS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THE PROJECT HAVE BEEN ORDER WITH CONFIRMED DELIVERY DATES COORDINATED WITH THE PROGRESS SCHEDULE. SUCH NOTIFICATION SHALL LIST ANY EXCEPTIONS INCLUDING THE CAUSE, I.E. REQUEST FOR SUBSTITUTION.
- IF ANY MODIFICATIONS NECESSITATED BY EITHER FIELD CONDITIONS, OWNER, OR BY THE LOCAL GOVERNING AUTHORITY, WHETHER OR NOT AN INCREASE TO THE WORK IN TERMS OF TIME, LABOR, OR MATERIALS ARE REQUIRED, THEY SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF ANDERSON ASSOCIATES, AND THE APPROPRIATE FIELD ORDER, PROPOSAL REQUEST, OR CHANGE ORDER WILL BE
- NO ITEM CONTAINED IN THESE DRAWINGS OR IN ANY ACCOMPANYING CONTRACT DOCUMENT SHALL CREATE ANY CONTRACTUAL RELATIONSHIP BETWEEN THE CONTRACTOR AND ANDERSON ASSOCIATES, AND IT IS UNDERSTOOD THAT ALL THE ABOVE GENERAL CONDITIONS ARE BASED ON ANDERSON ASSOCIATES ACTING AS OWNER REPRESENTATIVE.
- WHERE WORK OR EQUIPMENT IS INDICATED BY THE LETTERS N.I.C. OR "BY OTHER" ON THE DRAWINGS SUCH WORK AND/OR EQUIPMENT SHALL BE PROVIDED BY OTHERS.
- ANY SUBCONTRACTORS SHALL SUBMIT FIVE (5) COPIES OF ENGINEERING AND/OR SHOP DRAWINGS AND SAMPLES TO ANDERSON ASSOCIATES COVERING THE FOLLOWING CATEGORIES OF WORK: (a) CABINETRY AND MILLWORK (INCLUDING SAMPLE OF FINISH). (b) PREFABRICATED ASSEMBLIES OTHER THAN BUILDING STANDARD WORK. (c) HYAC. (d) MECHANICAL. (e) ELECTRICAL. BY SUBMITTING SHOP DRAWINGS THE CONSULTANT THEREBY REPRESENTS THAT HE HAS VERIFIED ALL FIELD MEASUREMENTS, METHOD OF ACCESS TO THE POINT OF INSTALLATION AND SIMILAR FIELD CRITERIA.

ANDERSON-ASSOCIATES

ISSUED TO

PROJECT TRACKING SCHEDULE

PROJECT TRACKING LEGEND

ABBREVIATIONS

EG ENGINEER GEOTECHNICAL GC GENERAL CONTRACTOR

"LETTER" DESIGNATION SIGNIFIES REVISION PRIOR TO

EA ENGINEER, ACOUSTICS

EE ENGINEER, ELECTRICAL

EM ENGINEER, MECHANICAL

EP ENGINEER, PLUMBING

EC ENGINEER, CIVIL

A) SUBMITTAL TO APPROVAL AGENCIES

AR ARCHITECT

CL CLIENT

DV DEVELOPER

BD BUILDING DEPARTMENT

CC CODE CONSULTANT

CO COASTAL COMMISSION

'NUMBER' DESIGNATION SIGNIFIES REVISION AFTER

LA LANDSCAPE ARCHITECT

PM PROJECT MANAGER

PW PUBLIC WORKS

SC SECURITY

PL PLANNING DEPARTMENT

SUBMITTAL TO APPROVAL AGENCIES

ES ENGINEER, STRUCTURAL

FD FIRE DEPARTMENT

HS HISTORICAL SOCIETY

ID INTERIOR DESIGNER

FS FIRE SPRINKLER

DESCRIPTION OF REVISION

REVISION

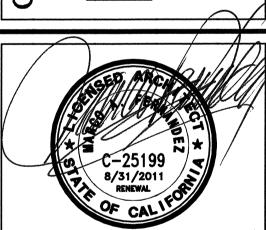
FROM

S, DESIGNS, AND ARRANGEMENTS INDICATED ON RAWINGS ARE THE PROPERTY OF IN-ASSOCIATESAND ARE INTENDED TO BE USED IN ION WITH THIS SPECIFIC PROJECT ONLY AND SHALL ERWISE BE USED FOR ANY PURPOSE WHATSOEVER THE WRITTEN CONSENT OF ANDBISON-ASSOCIATES.

ALL IDEAS, DESIGNS, AND ARRANGEMENTS INDICATED ON THESE DRAWINGS ARE THE PROPERTY OF ANDIESON-ASSOCIATESAND ARE INTENDED TO BE USED IN CONNECTION WITH THIS SPECIFIC PROJECT ONLY AND SHALL NOT OTHERWISE BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF ANDIESON-ASSOCIATES. THERE SHALL BE NO CHANGES OR DEVIATIONS FROM THESE DRAWINGS OR THE ACCOMPANYING SPECIFICATIONS WITHOUT THE WRITTEN CONSENT OF ANDIESON-ASSOCIATES.

FAIRHAVEN SANTA ANA, CALIFORNIA 92705





REV.	DATE	ISSUED FOR
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GENERAL NOTES

SHEET NUMBER:

A-1.1

NPDES NOTES: IN THE CASE OF EMERGENCY, CALL: _____. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER

EXECUTION REQUIREMENTS:

3.1 DOORS:

- SHALL BE PROVIDED, COMPLETE IN PLACE, AS SPECIFIED HEREIN. STRICT ADHERENCE TO SIZE, TYPE, DESIGN, GRADE, AND SPECIALTY FEATURES IS
- CLEARANCES FOR ACCEPTANCE OF THRESHOLDS, WEATHER-STRIPPING, GASKETING, CARPETING, ETC. ARE REQUIRED.
- ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
- AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.

AT WORK PHONE: ____

AT HOME PHONE: ____.

- CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY MATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
- POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS: FERTILIZERS, VEHICHLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT, OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL
- DEMATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
- GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
- THE PERMITEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
- THE PERMITEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
- THE PERMITEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT
- ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT. ALL REMOVEABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END
- OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS . SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE
- USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO THE STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.
- APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.

DIVISION THREE - DOORS AND FRAMES

- ALL DOORS, FRAMES AND ASSEMBLIES LISTED IN DOOR SCHEDULE OF DRAWINGS
- PROVISIONS TO RECEIVE HARDWARE OR ANY ADDITIONAL REINFORCEMENTS NECESSARY FOR HARDWARE ARE REQUIRED.
- FIRE-RATED DOOR AND ASSEMBLY ARE PROVIDED AS REQUIRED BY ANDERSON ASSOCIATES SPECIFICATIONS, TITLE 19 AND 24 OF THE CALIFORNIA HEALTH AND SAFETY CODE. LABELS AND IDENTIFICATION ARE PROVIDED ON DOOR AND ASSEMBLY. FIRE RATED DOORS ARE NOT TO BE CUT OUT IN ANY MANNER THAT WOULD VOID THEIR RATING. BALL BEARING HINGES ARE TO BE USED. ALL FIRE RATED DOORS SHALL HAVE IC.B.O. APPROVED INTUMESCENT SEALS/CLOSERS. INSTALLATION PER TEST REPORT. UNDER CUT 3/4" MAXIMUM.
- 3.1.5 DOORS ARE HUNG STRAIGHT, LEVEL AND PLUMB
- 3.1.6 DOOR FUNCTIONS SMOOTHLY AND EASILY, AND HARDWARE IS PROPERLY
- FACTORY FINISHED DOORS SHALL BE RETOUCHED IF NECESSARY. UNFINISHED SURFACES EFFECTS TO EXPOSURE OR ANY DEFACEMENTS REMOVED WITH THROUGH SANDING AND CLEANING BEFORE FINISH/SEALER COATS ARE APPLIED. ALL SIDES AND EDGES TO BE PROPERLY FINISHED.

3.2 FRAMES:

- SOUND-DEADENING TREATMENT IS PROVIDED IF REQUIRED. FIRE-RATED FRAMES HAVE LABELS AND PROPER IDENTIFICATION PER TITLE 19 AND 24 OF CALIFORNIA HEALTH AND SAFETY CODE.
- 3.2.2 FRAMES ARE PROVIDED WITH SPECIAL FEATURES SUCH AS SILENCER HOLES
- 3.2.3 FRAMES ARE INSTALLED STRAIGHT, LEVEL, AND PLUMB AND ADEQUATELY BRACED WHERE "BUILT IN".
- 3.2.4 FRAME IS GROUTED DURING INSTALLATION. FRAME IS CAULKED IF REQUIRED. IN CONCRETE OR MASONRY WALL.
- 3.2.5 SPECIAL LIGHT-PROOF, SOUNDPROOF, LEAD-LINED, ETC. FRAMES ARE PROVIDED WHERE SPECIFIED.
- 2.6 INSTALL PER MANUFACTURERS SPECIFICATIONS, ELASTOMERIC SEALANT INSIDE AND OUTSIDE INCLUDING ALL AROUND EXTERIOR DOORS. USE SEALANT MANUFACTURER SPECIFIES FOR GIVEN USE. APPROVED SEALANT: VULKEM 921/922 BY MAMCO INTERNATIONAL (COLOR TO MATCH DOOR FRAME)

DIVISION FOUR - HARDWARE AND SPECIALTIES

- HARDWARE IS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S TEMPLATES AND INSTRUCTIONS.
- FINISHES ARE AS REQUIRED AND FINISHES MATCH IN EACH AREA.
- HARDWARE IS REMOVED AND/OR PROTECTED DURING PAINTED AND CLEANING
- FIRE-DOOR HINGES ARE STEEL WITH BALL BEARINGS OR AN OTHERWISE APPROVED FOR A LABEL ASSEMBLY.
- 4.5 MORTISE-TYPE HINGES ARE MORTISED FLUSH.
- MORTISE HINGES ON DOOR LEAF TO 1/4" FROM STOP SIDE OF DOOR, AND JAMB LEAF 5/16" FROM STOP (3/8" AND 7/16" ON VERY THICK DOORS) UNLESS OTHERWISE REQUIRED.
- UNLESS OTHERWISE REQUIRED, TOP HINGE IS MOUNTED 5" BELOW FINISH DOOR FRAME AND BOTTOM HINGE IS MOUNTED IO" ABOVE FINISH FLOOR.
- CLOSERS ARE ATTACHED TO WOOD DOORS WITH THROUGH BOLTS AND GROMMET NUTS AND TO METAL DOORS WITH SEX BOLTS UNLESS OTHERWISE REQUIRED.
- CLOSERS ARE ADJUSTED BY HARDWARE SUPPLIER REPRESENTATIVE IF REQUIRED.
- 4.10 OBSERVE OPERATION OF CLOSERS AS SOON AS POSSIBLE AFTER INSTALLATION FOR PROPER OPERATION - SILENT CLOSING AND SMOOTH OPERATION AT ARC OPENING. PANIC DEVICES ARE PROPERLY LATCHING.
- EVERY DOOR SHALL BE PROVIDED WITH A DOOR STOP TO PROTECT DOORS. WALLS AND HARDWARE. A DOORSTOP IS MADE FOR EVERY CONDITION.
- 4.12 STOPS OR HOLDERS TO BE ATTACHED TO WALLBOARD, PLASTER, ETC. ARE SCREWED TO SOLID BLOCKING.
- 4.13 CENTERLINE OF PUSH PLATE IS 45" FROM FINISH FLOOR, AND CENTERLINE OF PULL PLATE IS 42" FROM FINISH FLOOR, UNLESS OTHERWISE REQUIRED.
- KICK PLATES CLEAR STOP ON PUSH SIDE OF DOOR AND NOT MORE THAN I" IS EXPOSED ON EACH EDGE OF DOOR UNLESS OTHERWISE REQUIRED.
- 4.15 THRESHOLDS ARE OF REQUIRED SIZE, TYPE, AND INTERLOCK AND ANCHORED AS REQUIRED. MAX I/2" HEIGHT IN I/4" INCREMENTS. INSTALLED IN FULL BED MASTIC.
- WEATHER STRIPPING AND SOUND STRIPPING ALLOW PROPER OPERATION OF
- ALL HARDWARE IS COMPLETE AND WITH REQUIRED TYPE AND NUMBER OF BOLTS,
- SCREMS, AND FASTENING DEVICES INSTALLED. 4.18 KEYING INSTRUCTIONS WITH OWNER ARE UNDERSTOOD, AND KEYS ARE DELIVERED TO OWNER AS REQUIRED. OBSERVE THAT CONSTRUCTION LOCKS ARE REMOVED

AND PERMANENT CORES ARE PROVIDED.

ENERGY CONSERVATION STANDARDS NOTES :

- (AS PER TITLE 24, PART 6, DIVISION T-20, CHAPTER 2, SUBCHAPTER 4, ARTICLE 2 OF THE CALIFORNIA ADMINISTRATIVE CODE)
- ALL METAL WINDOWS AND METAL SLIDING DOORS SHALL BE LABELED CERTIFYING COMPLIANCE
- ALL EXTERIOR DOORS SHALL COMPLY WITH SECTION T-20-1445 (d) OF THE STANDARDS.
 - a. DOOR HEADS, SILLS AND JAMBS MUST HAVE SEALS, ASTAGALS OR BAFFLES.
 - A MINIMUM ONE-INCH LAP AT JAMBS IS REQUIRED. DOORS REQUIRING VERTICAL TRACKS OR GUIDS, MUST USE A CONTINUOS
 - MOUNTING ANGLE, SEALED GASKETED OR WEATHER STRIPPED TO LIMIT AIR
 - DOORS MOUNTED BETWEEN THE JAMBS MUST HAVE A CONTINUOUS SEAL OR BAFFLE AT EACH JAMB.
 - SWINGING AND REVOLVING DOORS MUST BE WEATHER STRIPPED. ALL DOORS SHALL BE INCLUDED IN HEATING CALCULATIONS.
 - ALL DOORS SHALL BE INCLUDED IN COOLING CALCULATIONS.
 - ALL OPEN JOINTS ON THE EXTERIOR OF THE BUILDING MUST BE SEALED.
 - CAULKED, GASKETED OR WEATHER STRIPPED TO LIMIT AIR LEAKAGE.
 - ALL CALCULATION, REPORTS AND OTHER DOCUMENTS SHALL BE SIGNED BY THE LICENSED OR REGISTERED PERSON FOR THEIR PREPARATION.
 - PRIOR TO FINAL INSPECTION, A CERTIFICATE OF CONSTRUCTION COMPLIANCE SHALL BE MADE READY FOR THE INSPECTOR. THE CERTIFICATE SHALL STATE THAT "BASED ON PERSONAL KNOWLEDGE, THAT THE WORK APPEARS TO HAVE BEEN PERFORMED, AND THE MATERIALS USED AND INSTALLED APPEAR IN EVERY MATERIAL RESPECT IN COMPLIANCE WITH THE PLANS". THE CERTIFICATE MUST BE SIGNED BY ONE OR MORE OF THE FOLLOWING (a) OWNER, (b) GENERAL CONTRACTOR, (c) DESIGN ARCHITECT, (d) DESIGN ENGINEER, (e) AN APPROVED INDEPENDENT INSPECTOR OR INSPECTION

I VISUAL & AUDIBLE ALARMS:

(SHALL BE PROVIDED PER C.B.C. SECTION 3505.I AND 1114B.2.4)

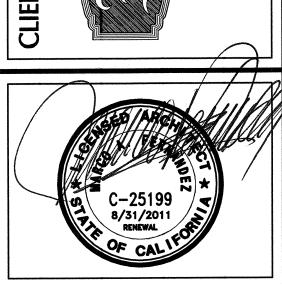
GENERAL - IF **EMERGENCY WARNING SYSTEMS** ARE PROVIDED OR REQUIRED, THEN THEY SHALL INCLUDE **BOTH AUDIDLE ALARMS**. IF EMERGENCY WARNING SYSTEMS ARE PROVIDED OR REQUIRED, AT A MINIMUM, YISUAL SIGNAL APPLIANCES SHALL BE PROVIDED IN BUILDINGS AND FACILITIES IN EACH OF THE FOLLOWING AREAS: RESTROOMS, CORRIDORS, MUSIC PRACTICE ROOMS, BAND ROOMS, GYTNASIUMS, MULTIPURPOSE ROOMS, OCCUPATIONAL SHOPS, OCCUPED ROOMS WHERE AMBIENT NOISE IMPAIRS HEARING OF THE FIRE ALARM, LOBBIES, MEET ROOMS AND ANY OTHER AREA OF COMMON USE. NOTE: IF SINGLE STATION AUDIELE ALARMS ARE PROVIDED, THEN SINGLE STATION YIGUAL ALARMS SHALL BE PROVIDED.

ENVIRONMENTAL ISSUES:

ALL MATERIALS, FIXTURES, EQUIPMENT, ETC., USED ON THIS PROJECT SHALL BE CAL OSHA APPROVED (ENVIRONMENTALLY FRIENDLY). ANY PRODUCT USED, NOT ENVIRONMENTALLY FRIENDLY, SHALL BE CONTRACTORS RESPONSIBILITY.



ALL IDEAS, DESIGNS, AND ARRANGEMENTS INDICATED ON THESE DRAWINGS ARE THE PROPERTY OF ANDERSON-ASSOCIATESAND ARE INTENDED TO BE USED IN CONNECTION WITH THIS SPECIFIC PROJECT ONLY AND SHALL NOT OTHERWISE BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF ANDERSON-ASSOCIATES. THERE SHALL BE NO CHANGES OR DEVIATIONS FROM THESE DRAWINGS OR THE ACCOMPANYING SPECIFICATIONS WITHOUT THE WRITTEN CONSENT OF ANDERSON-ASSOCIATES.



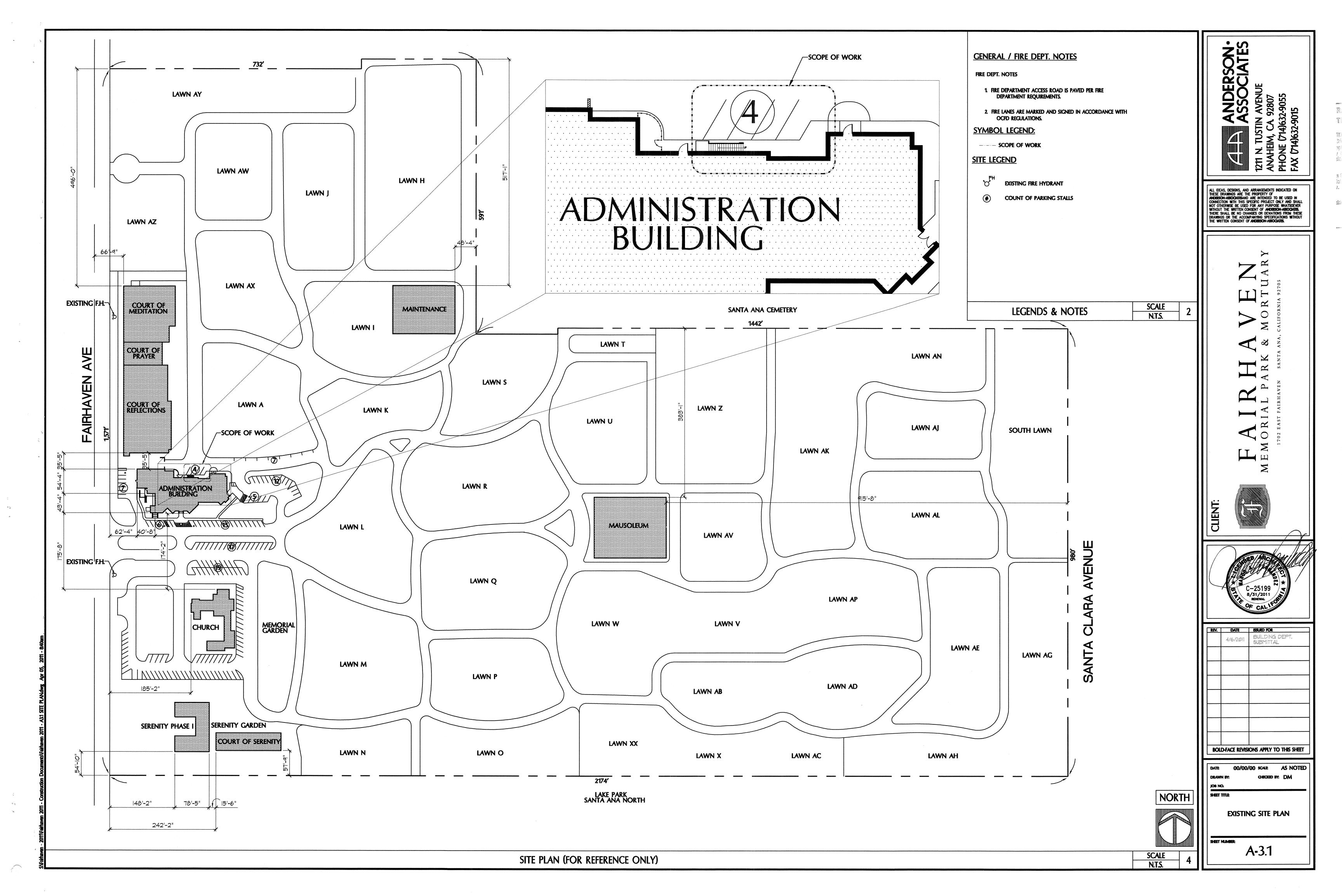
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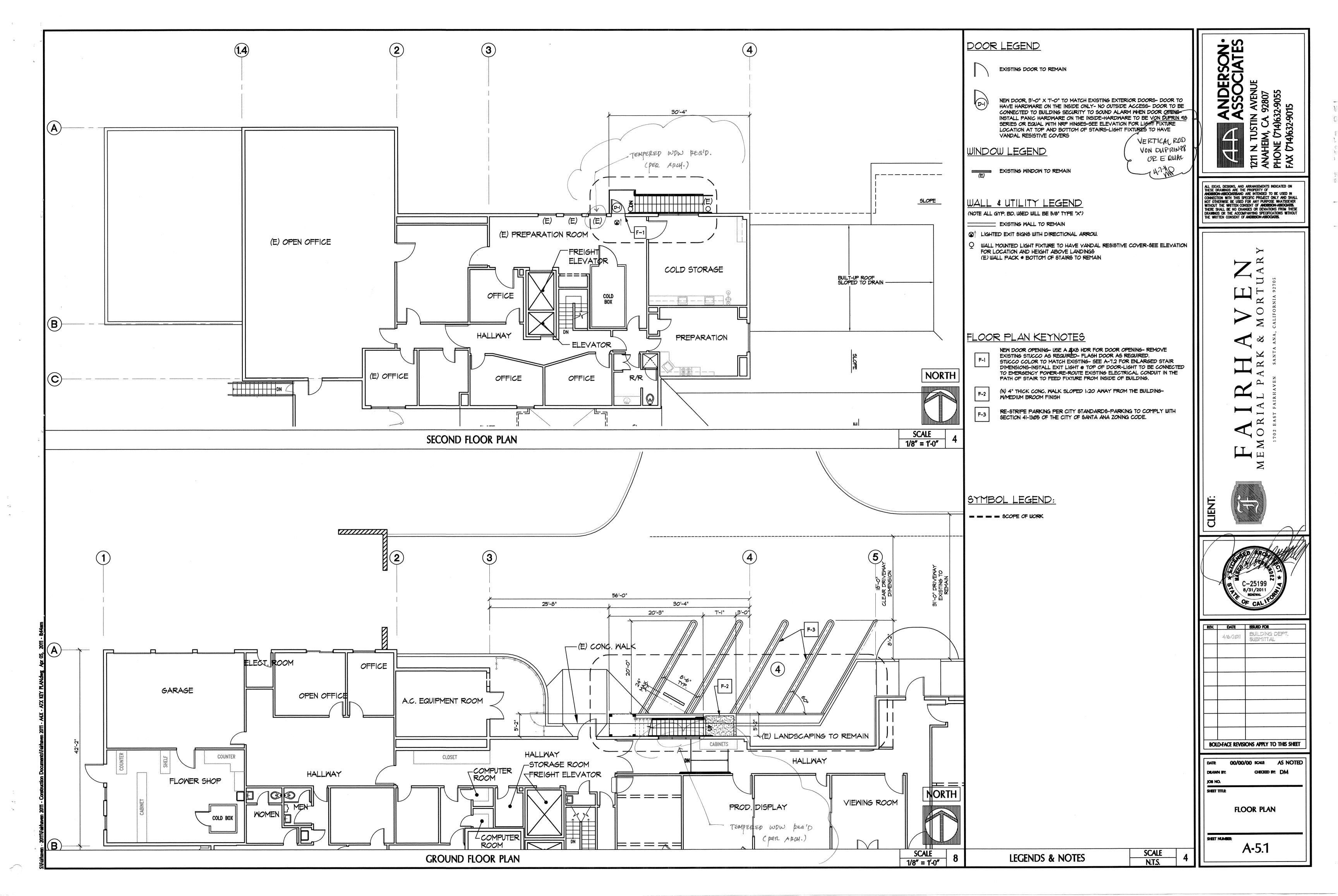
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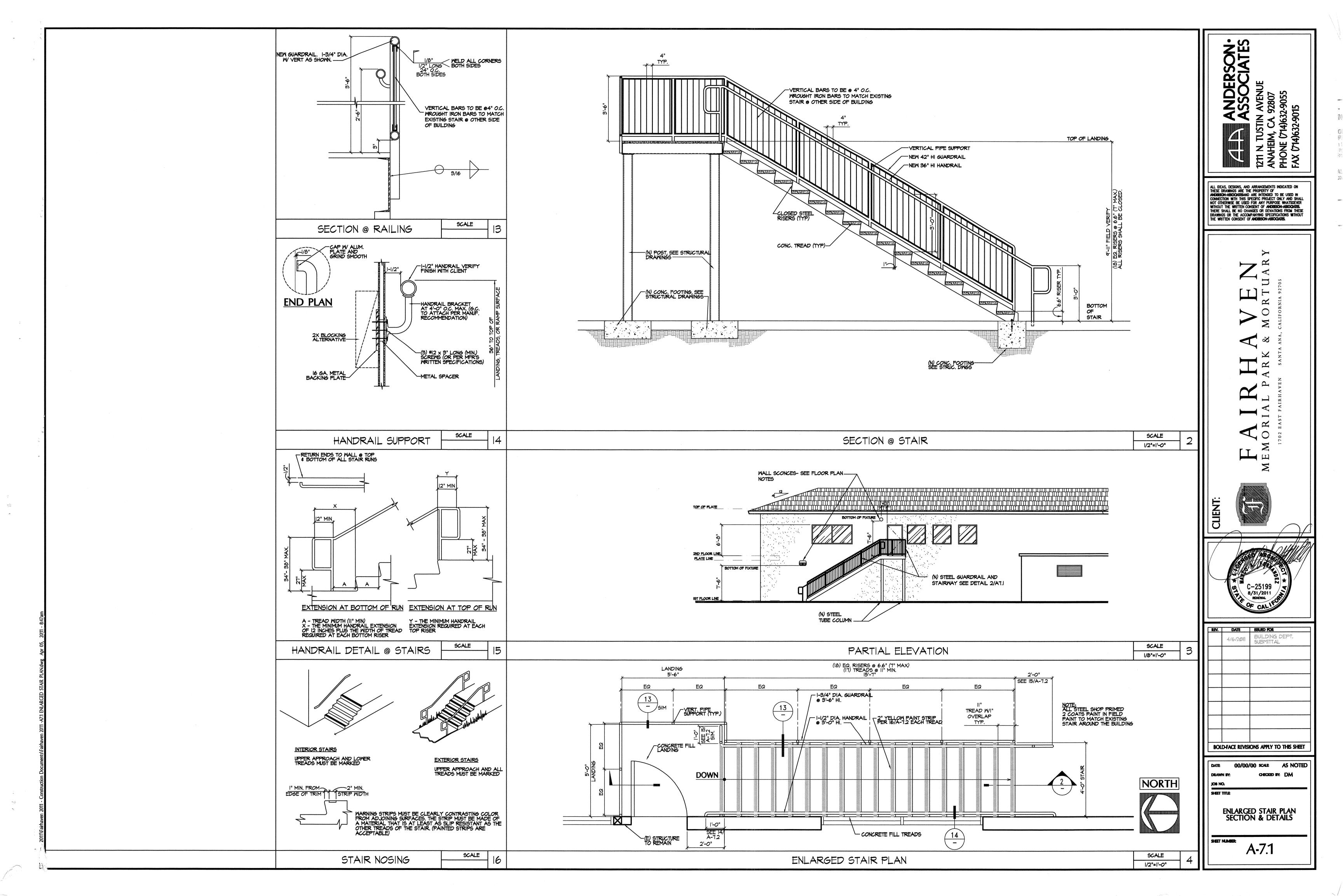
GENERAL INFORMATION/ **EXECUTION NOTES**

SHEET NUMBER:

A-1.2







A. GENERAL

- GENERAL CONTRACTORS SHALL VERIFY ALL GRADES, DIMENSIONS AND CONDITIONS AT THE JOB SITE WITH COMPLETE SET OF DRAWINGS PRIOR TO BIDDING AND COMMENCING CONSTRUCTION. THE ARCHITECT OR ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
- 2. ALL MATERIALS AND WORK PERFORMED SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2007 CALIFORNIA BUILDING CODE AND ANY OTHER APPLICABLE CODES AND ORDINANCES.
- 3. IN NO CASE SHALL DIMENSIONS BE SCALED FROM DRAWINGS AND/OR DETAILS. ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS AND THE ENGINEERS ATTENTION FOR CLARIFICATION PRIOR TO PROCEEDING. ANY WORK INSTALLED PRIOR TO AND/OR IN CONFLICT WITH SUCH CLARIFICATION SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
- WHERE A DETAIL, SECTION OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
- GENERAL CONTRACTOR TO NOTIFY ARCHITECT AND ENGINEER AS TO ANY DISCREPANCIES BETWEEN SPECIFICATIONS, GENERAL NOTES, STRUCTURAL PLANS AND DETAILS.
- 6. ALL MATERIALS SHALL BE FURNISHED AS SHOWN HEREIN UNLESS ALTERNATES ARE APPROVED IN WRITING BY THE ARCHITECT, OWNER, AND STRUCTURAL ENGINEER OF THE RECORD.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER INDICATED ON CONTRACT DRAWINGS OR NOT, AND TO PROTECT THEM FROM DAMAGE. REPAIR AND REPLACE OF SAID WORK SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
- UNLESS NOTED, SUBMIT SHOP DRAWINGS FOR ALL FABRICATED MATERIALS. SHOP DRAWINGS WILL NOT BE REVIEWED UNLESS, THEY ARE APPROVED AND ACCEPTED WITH A STAMP FROM
- GENERAL CONTRACTOR AS CONFORMING TO THE CONSTRUCTION DOCUMENTS. 9. UNLESS NOTED OTHERWISE, ELEVATIONS SHOWN ON THE DRAWINGS ARE TO TOP OF BEAMS

B. DESIGN CRITERIA

CODE: 2007 CBC
DESIGN LOADS:
STAIRS DEAD LOAD 23 PSF
STAIRS LIVE LOAD 100 PSF
SEISMIC :SDC= D

CALCULATED USING USGS COMPUTER PROGRAM.

	FACTOR/COEFFICENT	VALUE
SOIL PROFILE TYPE	SITE CLASS	D
MAPPED MCE 0.2s	S _s	1.908
MAPPED MCE 1.0s	S ₁	0.685
SITE COEFFICIENT 0.2s	Fa	1.0
SITE COEFFICIENT 1.0s	Fv	1.5
ADJUSTED MCE SPECTRAL RESPONSE	S _{MS}	1.908
ACCELERATION PARAMETER	S _{M1}	1.027
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER	Sps	1.272
	S _{p1}	0.685

C. FOUNDATION

- 1. FOUNDATION DESIGN IS ASSUMED 1500 PSF. NO SOIL REPORT IS PROVIDED.
- 2. ALL NEW BOTTOM OF FOOTING EXCAVATION SHALL BE AT LEAST 18" DEEP BELOW LOWEST GRADE AND SHALL BE COMPATED TO AT LEAST 90% COMPACTION.
- THE CONTRACTOR SHALL INFORM THE ARCHITECT AND ENGINEER OF LOCATION OF EXISTING UTILITIES AND COMMENCE WORK ONLY AFTER WRITTEN APPROVAL FROM THE
- 4. OWNER SHALL RETAIN GEOTECHNICAL ENIGNEER TO VERIFY SOIL CONDITION AT NEW FOOTING BEARING CONDITION DURING COMPACTION.

D. CONCRETE

- 1. ALL CONCRETE MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE LATEST ADOPTED EDITION OF THE ACI CODE AND SPECIFICATION (ACI-318-05 & ACI-301) AND APPLICABLE UNIFORM BUILDING CODE.
- 2. CONCRETE MIXES SHALL BE DESIGNED BY A RECOGNIZED TESTING LABORATORY AND COPIES OF DESIGN SHALL BE SUBMITTED TO THE ARCHITECT. 3. THE CONCRETE SUPPLIER SHALL BEAR THE RESPONSIBILITY THAT THE MIX DESIGN WILL ATTAIN
- REQUIRED SPECIFIED STRENGTH AND SHRINKAGE CHARACTERISTICS. ACCEPTANCE OF MIX DESIGN SHALL BE BASED ONLY ON CONFORMANCE OF SPECIFIED DESIGN STRENGTH AND DESIGN SLUMP.
- 4. UNLESS NOTED CEMENT SHALL BE TYPE V IN CONFORMANCE WITH ASTM C-150, WITH MAXIMUM 8% OF TRICALCIUM ALUMINATE (CA3AL).
- 5. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33. THE NOMINAL MAXIMUM SIZE OF THE AGGREGATES SHALL NOT EXCEED 1/3 SLAB THICKNESS, NOR 3/4" OF THE MINIMUM CLEAR SPACING BETWEEN REINFORCING BARS.
- 6. THE MAXIMUM SLUMP AT PLACEMENT SHALL NOT EXCEED 4 INCHES FOR ALL CONCRETE.
- 7. ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.
- 8. UNLESS NOTED THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE AS DESIGNATED BELOW;

GRADE BEAM/FOUNDATION	 2500	PSI	(W/C≤ 0.55)	

9. CONCRETE CURING SHALL COMPLY WITH ACI 308.

- 10. ALL REINFORCING BARS, WIRE MESH, ANCHOR BOLTS, HOLD DOWN ANCHORS AND OTHER CONCRETE INSERTS SHALL BE SECURED IN CORRECT PLACEMENT POSITION, AND APPROVED BY THE BUILDING INSPECTOR PRIOR TO PLACING CONCRETE.
- 11. PIPES, DUCTS, CONDUITS, ETC. SHALL NOT BE PLACED IN SLABS UNLESS APPROVED BY THE ENGINEER. AS A GUIDE, MATERIAL SIZE (O.D.) SHALL NOT EXCEED 0.5 SLAB THICKNESS AND SHALL BE LOCATED IN THE MIDDLE 1/3 OF THE SLAB. CLEAR SPACING BETWEEN ADJACENT CONDUITS OR PIPES SHALL BE A MINIMUM OF 2 TIMES THE LARGER (O.D.) MATERIAL SIZE.
- 12. INSTALL ALL POST ANCHORS (EPOXY AND/OR EXPANSION ANCHOR) AFTER CONCRETE ATTAINED A MINIMUM OF 28 DAYS STRENGTH.

E. REINFORCING STEEL

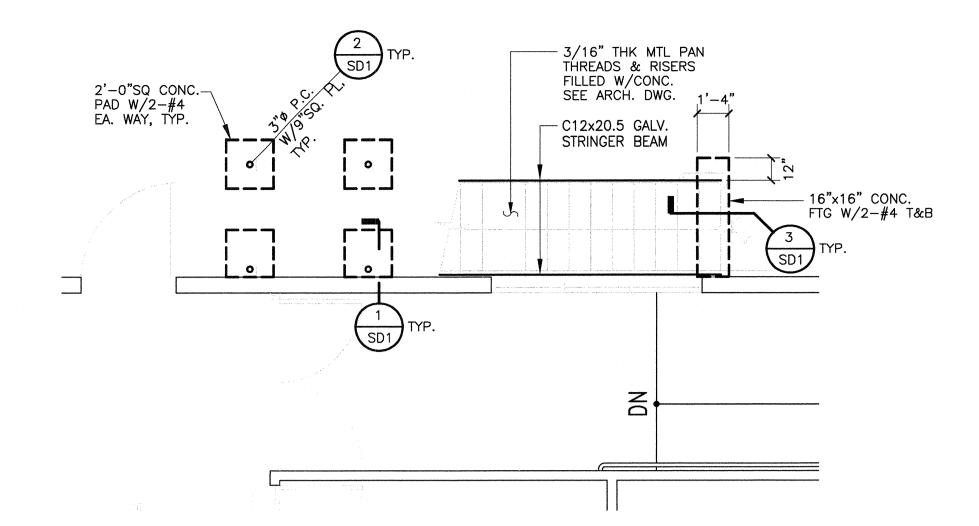
- ALL REINFORCING STEEL NO. 4 OR LARGER SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615, GRADE 60 AND NO. 3 OR SMALLER, SHALL CONFORM TO ASTM A615, GRADE 40 U.N.O.. ALL REINFORCING SHALL BEAR MILL STOCK IDENTIFICATION.
- 2. CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE AS FOLLOW:
 - A. CONCRETE CAST AGAINST EARTH
 - B. FORMED CONCRETE NOT INCLUDED
- BARS SHALL BE CLEAN OF RUST, MUD, OIL, GREASE OR OTHER COATING MATERIAL LIKELY TO IMPAIR BONDING.
- 4. GRADE 60 REINFORCING BARS SHALL NOT BE BENT WITHOUT THE APPROVAL OF THE
- 5. ALL REINFORCEMENT MUST BE CONTINUOUS EXCEPT AS DETAILED. ALL SPLICE AND LAP LOCATIONS SHALL BE VERIFIED WITH THE ENGINEER.
- CONTRACTOR SHALL NOT PLACE ANY REINFORCING UNTIL APPROVED SHOP DRAWINGS HAVE BEEN RECEIVED AT JOB SITE.

F. STRUCTURAL STEEL

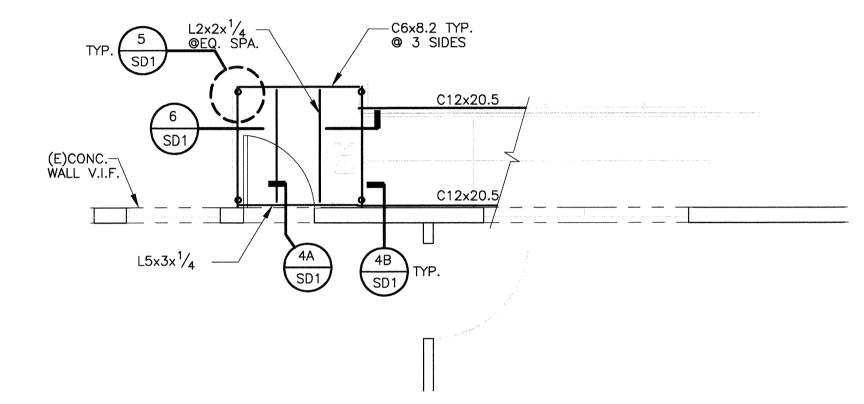
- 1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF AISC MANUAL OF STEEL CONSTRUCTION AND SHALL BE DETAILED, FABRICATED AND ERECTED IN CONFORMANCE WITH THE AISC SPECIFICATIONS.
- MATERIALS:
- \dots ASTM A572 GRADE 50 OR A992 (F_V=50KSI) ANGLES, CHANNELS, & PLATES ASTM A36
- 3. STRUCTURAL STEEL FABRICATORS SHALL FURNISH SHOP DRAWINGS OF ALL STEEL FOR REVIEW OF STRUCTURAL ENGINEER PRIOR TO FABRICATION.
- 4. ALL STEEL FABRICATION SHALL BE BY AN APPROVED LA CITY BLDG. DEPT. STEEL FABRICATOR AND PERFORMED IN A SHOP APPROVED BY LA CITY BUILDING DEPARTMENT.
- 5. ALL STEEL EXPOSED TO WEATHER SHALL BE GALVINIZED STEEL.
- 6. HOLES SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED ON DRAWINGS. STEEL MEMBERS SHALL BE SHORED WHEN PERMISSIBLE HOLES ARE CUT OR BURNED. BOLT HOLES SHALL CONFORM TO AISC SPECIFICATION, AND SHALL BE STANDARD HOLES UNLESS
- 7. ALL EXPOSED ENDS OF STEEL MEMBERS SHALL BE CAPPED WITH STEEL PLATE. $\frac{1}{4}$ " IN THICKNESS WITH GROUND SMOOTH WELD.
- 8. GROUTING OF BASE PLATES SHALL BE WITH NON-SHRINK GROUT OR DRY PACKED WITH MINIMUM COMPRESSIVE STRENGTH AS SPECIFIED IN THE CONCRETE SECTION OF NOTES. ALL SURFACES SHALL BE CLEAN OF FOREIGN MATERIAL PRIOR TO GROUTING.
- 9. BOLTS SHALL BE GALVANIZED BOLTS AND CONFORM TO ASTM A325.
- STRUCTURAL STEEL SHALL BE DELIVERED TO THE JOB SITE FREE OF RUST, MILL SCALE, GREASE, ETC.

G. WELDING

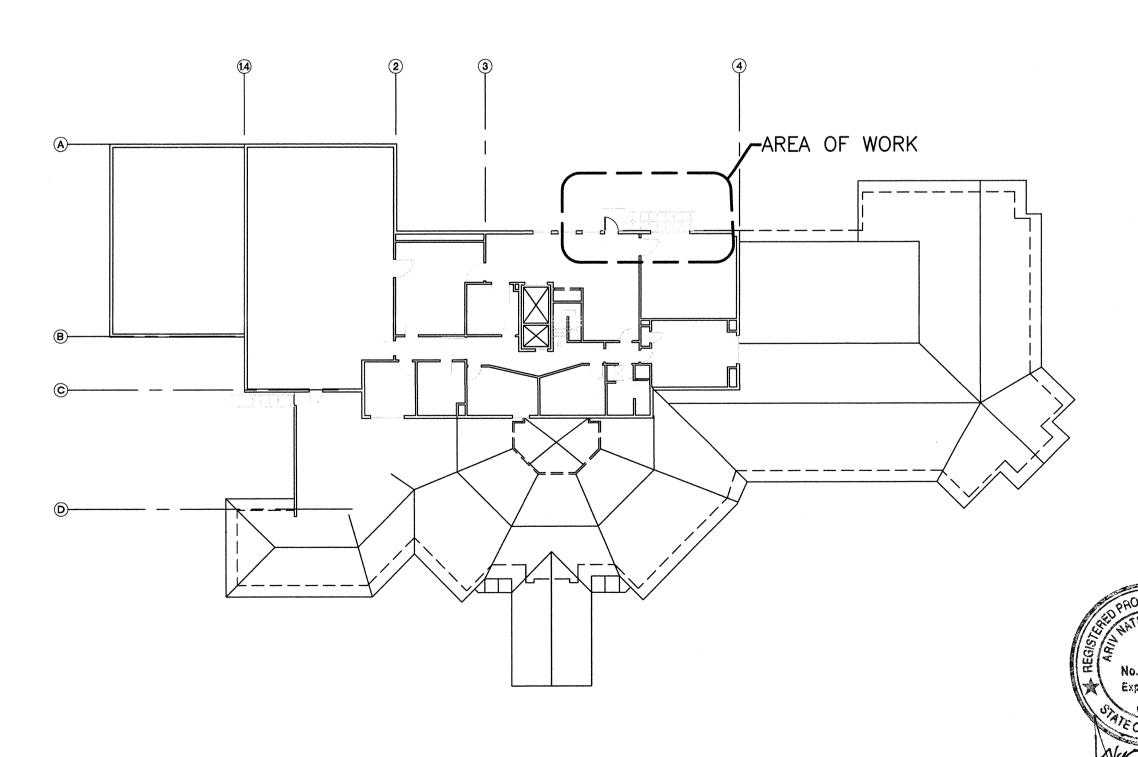
- ,1. ALL WELDING SHALL CONFORM TO THE LATEST EDITION OF THE STRUCTURAL WELDING CODE ANSI/AWS D1.1-2006
- 2. ALL WELDING SHALL BE PERFORMED USING THE SHIELDED METAL ARC WELDING PROCESS (MAW) WITH E70XX ELECTRODES OR THE SUBMERGED ARC WELDING PROCESS (SAW) WITH E70XX. LOW HYDROGEN ELECTRODES SHALL BE USED AND PARENT METALS SHALL BE PREHEATED
- 3. ALL WELDING SHALL BE PERFORMED BY A WELDER, CERTIFIED BY CITY BLDG. DEPT. ALL FIELD WELDING SHALL BE CONTINUOUSLY INSPECTED BY A REGISTERED DEPUTY INSPECTOR. ALL FIELD WELDING MUST BE INDICATED ON SHOP DRAWINGS, CITY BLDG, DEPT. LICENSED SHOP IS REQUIRED FOR SHOP WELDS.
- 4. ALL EXPOSED WELDED CONNECTIONS SHALL BE FILLED AND GROUND SMOOTH AND SUBJECT TO ARCHITECTS APPROVAL.
- 5. ALL WELDS NOT SPECIFIED SHALL BE CONTINUOUS FILLET WELDS. SIZE OF WELDS SHALL BE BASED ON AISC STANDARDS FOR THICKER MATERIAL CONNECTED.
- 6. INSPECTION IS REQUIRED FOR ALL FIELD WELDING. DEPUTY INSPECTOR SHALL SUBMIT ALL INSPECTION REPORTS TO LA BUILDING DEPARTMENT, OWNER, ARCHITECT/ENGINNER OF RECORDS.



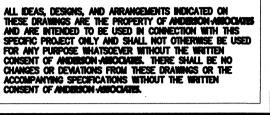


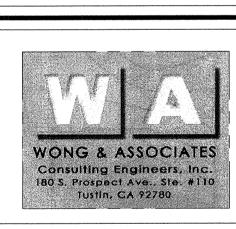






KEY PLAN SCALE: N.T.S.





ISSUED FOR BUILDING DEPT. SUBMITTAL 3/14/2011 **BOLD-FACE REVISIONS APPLY TO THIS SHEET** 00/00/00 SCALE AS NOTED

CHECKED BY: DM GENERAL STRUCTURAL NOTES & PLANS SHEET NUMBER:

