

**CITY OF SACRAMENTO**

1231 I Street, Sacramento, CA 95814

Permit No: 0401730

Insp Area: 4

Thos Bros: 257A4

Site Address: 2313 MABRY DR SAC

Parcel No: 201-0480-036

Sub-Type: RES

Housing (Y/N):

CONTRACTOR

OWNER

CHAN ELLEN D & HOWARD C  
2313 MABRY DR  
SACRAMENTO CA 95835

ARCHITECT

Nature of Work: GUNITE SWIMMING POOL FOR SFR - NO HEATER

**CONSTRUCTION LENDING AGENCY :** I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name

Lender's Address

**LICENSED CONTRACTORS DECLARATION:** I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class

License Number

Date

Contractor Signature

**OWNER-BUILDER DECLARATION:** I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. \_\_\_\_\_ B & PC for this reason: \_\_\_\_\_

Date

5/4/04

Owner Signature

**IN ISSUING THIS BUILDING PERMIT,** the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date

5/4/04

Applicant/Agent Signature

**WORKER'S COMPENSATION DECLARATION:** I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier

Policy Number

Exp Date

(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with these provisions.

Date

5/11/04

Applicant Signature

**WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.**

**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**

OWNER-BUILDER VERIFICATION

ATTENTION PROPERTY OWNERS

An owner-builder building permit has been applied for in your name and bearing your signature.

Please complete and return this information in the envelope provided at your earliest opportunity to avoid unnecessary delay in processing and issuing your building permit. No building permit will be issued until this verification is received.

1. I personally plan to provide the major labor and materials for construction of the proposed Improvement (yes or no) yes

2. I (have/have not) have signed an application for A building permit for the proposed work.

3. I have contracted with the following person (firm) to provide the proposed construction:

Name \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ Telephone \_\_\_\_\_

Contractors License No. \_\_\_\_\_

4. I plan to provide portions of the work, but I have hired the following person to coordinate, Supervise, and provide the major work.

Name JERRY POCKET POA Address \_\_\_\_\_

City \_\_\_\_\_ Telephone 916-215-7145

Contractors License No. \_\_\_\_\_

5. I will provide some of the work but I have contracted (hired) the following to provide the Work indicated:

Name	Address	Phone	Type of work

Signed [Signature]

Job Address 2313 MARY DR SAC, CA 95835

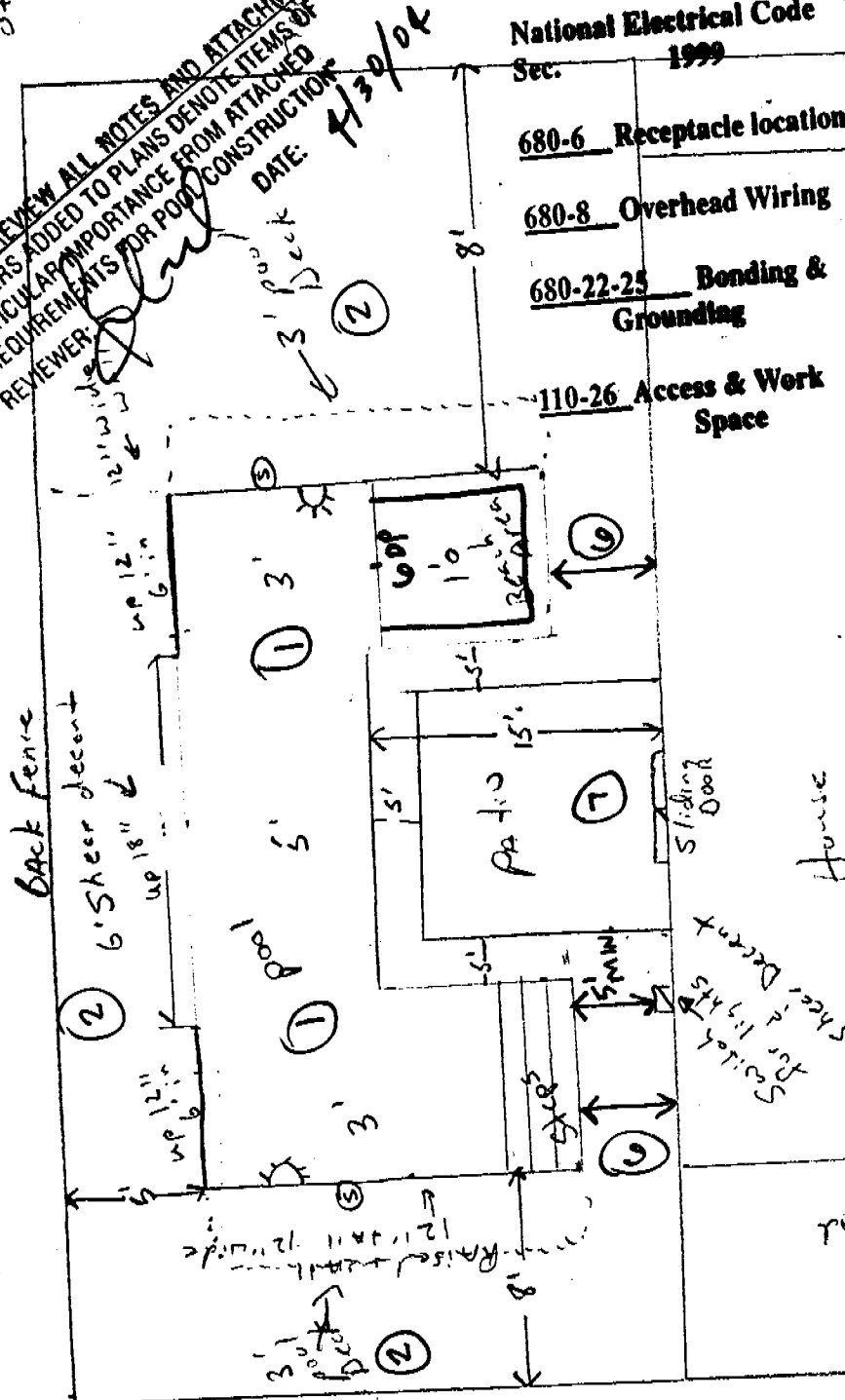
Permit No: 0401730

Howard Chen  
2313 Maybra  
Sac. CA  
WAtmas Arcs

### The approval of all Plumbing Mechanical and Electrical is subject to field inspection

84' perimeter  
550 Sq. ft.  
Decking none on back of pool  
3' on each side of pool  
Back wall of pool  
Raised 12" each end to 18" in center with a 6" sheer decent

**PLEASE REVIEW ALL NOTES AND ATTACHMENTS**  
NUMBERS ADDED TO PLANS DENOTE ITEMS OF PARTICULAR IMPORTANCE FROM ATTACHED REQUIREMENTS FOR POOL CONSTRUCTION



**ISSUED**  
MAY 04 2004  
Sacramento Building Division

This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.  
The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

- National Electrical Code Sec. 1999
- 680-6 Receptacle locations
- 680-8 Overhead Wiring
- 680-22-25 Bonding & Grounding
- 110-26 Access & Work Space

- MAXIMUM ALLOWED POOL EQUIPMENT SOUND LEVELS MEASURED WITHIN BOUNDARIES OF ADJACENT PROPERTIES:**
- 60 dBA 1' INSIDE PROPERTY LINE
  - 55 dBA 3' - 5' ABOVE GROUND IN CENTER OF ANY PATIO
  - 55 dBA OUTSIDE HOUSE WINDOW CLOSEST TO EQUIPMENT (PER SACRAMENTO CITY CODE SEC. 8.68.110)

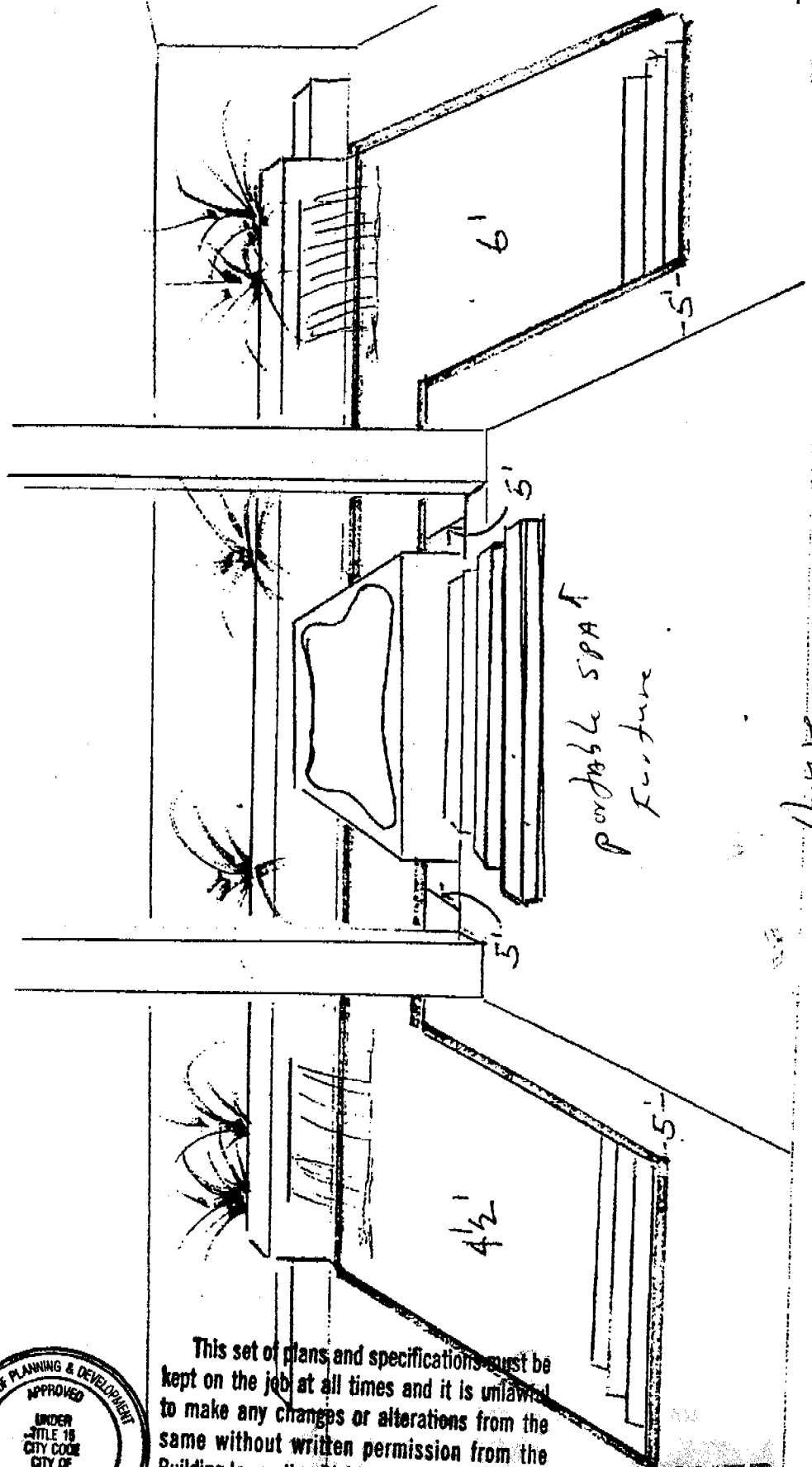
040171

215-7145

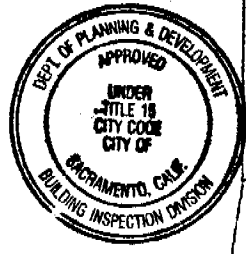
Howard Chan  
 2313 Maybra  
 SAC CA  
 R0401730

MA507

Back Fence



Fence



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.

The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

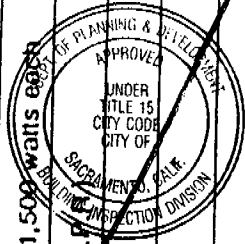
ISSUED  
 MAY 14 2004

Sacramento Building Division

# CITY OF SACRAMENTO

SUBMIT TWO COPIES

CONTRACTOR/OWNER		JOB ADDRESS:		LOAD CALCULATION - N.E.C. 220-30	
NUMBER	ITEM	WATTS	TOTAL SQ. FT.		
1680	Sq. ft @ 3 watts per sq. ft.	5040		Air conditioning example (Not heat pump)	
5	20 Amp. Appliances circuits @ 1,500 watts each	7500		Compressor 20 amps	
1	Range (Nameplate Rating - N.P.R.)	3600		Fan 5 amps	
1	Oven (N.P.R.)	4500		Unit Total Load - 25 amps x 240V	
1	Cooking Units (N.P.R.)	1200		Electric Furnace @ N.P.R. - 6,000 watts X 65%	
	Water Heater (N.P.R.)			3900 Watts	
	Dishwasher (N.P.R.)			Use 6000W since it is larger.	
	Disposal (N.P.R.)			Heat Pump Note:	
	Washer [1500 watts min. - N.P.R.]			Be careful when doing load calculations where heat pumps are installed. The load for most heat pumps that are equipped with auxiliary heat strips will be larger under the demand for heat. For the purposes of load calculations only, on heat pumps, use 100% of the heat pump compressor and fans and 65% of auxiliary heat load to show total heat pump load.	
	Dryer [5000 watts min. or N.P.R.]			Heat Pump Example	
	Motors (N.P.R.) Pump			Compressor 20 Amps	
	Other (N.P.R.) Light			Fan 5 amps	
	Other (N.P.R.) Garage			Heat Pump Load = 25A X 240V = 6,000	
	Air Conditioning Equipment			Aux. Heat Strip = 6,000W X 65% = 3,900W	
	Air Conditioning [cooling @ (N.P.R. X 100%)]			Total Heat Pump Load = 9,900W	
	Electrical Heating @ (N.P.R.) X 65% =			Sub-Total = 31,620	
	NOTE: USE THE LARGEST LOAD - HEAT OR COOL =			(Less 1st 10KW) - 10,000 @ 100% =	
	Heat pump (compressor & fans) X 100% =			Remainder @ 40% @ 40% =	
	Aux. heat strips (or elect. furnace) X 65% =			Total Air Cond. and/or heat pump load =	
	Total Heat Pump Load =			Total Service Load = 26,240 Watts	
	NOTE = AMPS X CIRCUIT VOLTAGE = WATTS			Total Service Load 26,240 W	
				Service Size 200 AMP FIELD VERIFY	
				watts + 240V = 107,377 Amps	



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without the written permission from the Building Inspection Division. The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

MAY 10 2004  
Sacramento Building Division

O.K. Seal 4/30/04

# Equipment to Be

- 1- 1/2 hp STA-Rite pump (pool)
- 1- 3/4 hp " " sheer decent pump for fall
- 1- 3/4 hp " " pool sweep
- 1- 300 lb Filter for pool
- 2- 500 watt American lights
- 2- 230 volt timers
- 1- 6' sheer decent water fall
- 3- pool returns
- 1- pool sweep return
- 1- pulens 280 pool sweep



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.

The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

**ISSUED**

MAY 6 4:2004

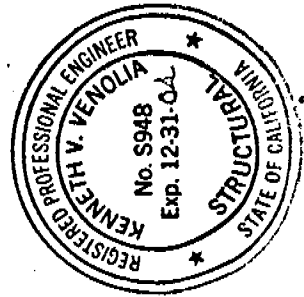
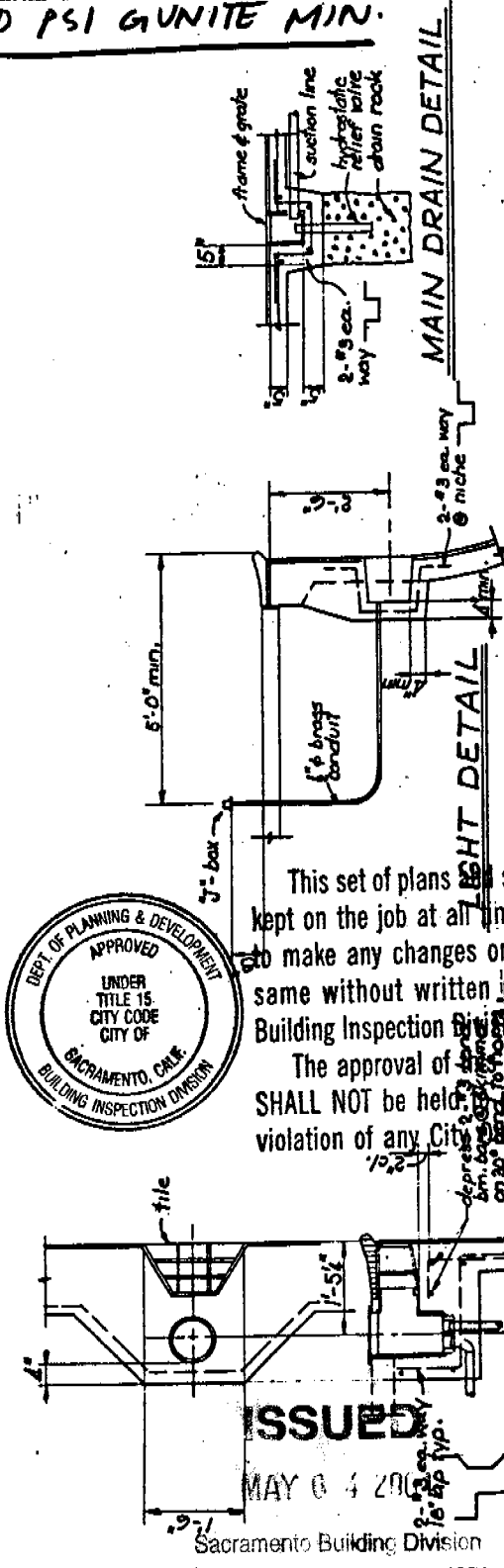
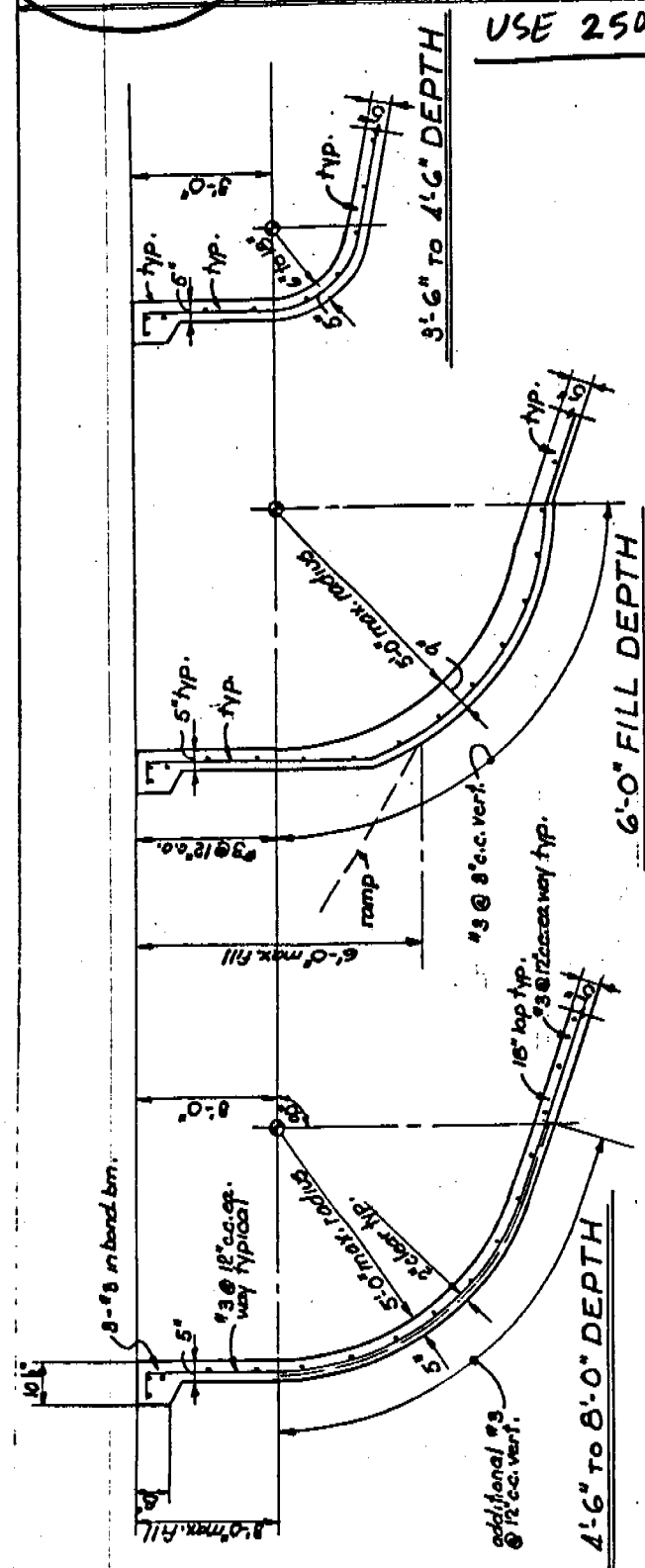
Sec. \_\_\_\_\_ Building Division

# SWIMMING POOL REBAR SCHEDULE

KENNETH VENOLIA  
STRUCTURAL ENGINEER #94  
SACRAMENTO, CALIFORNIA

SOIL TYPE	POOL DEPTH	BASE RADIUS	WALL THICKNESS	VERT. BARS	BOTTOM THICKNESS	HORIZ & BOT. BARS
Non Expansive	3'-6" to 4'-6" 4'-6" to 8'-0"	6" to 18" 18" to 5'-0"	5" 6"	#3 @ 12" c.c. #3 @ 6" c.c.	5" 5"	#3 @ 12" c.c. #3 @ 12" c.c.
Adobe or Expansive	3'-6" to 4'-6" 4'-6" to 8'-0"	6" to 18" 18" to 5'-0"	6" 7"	#3 @ 6" c.c. #3 @ 3" c.c.	5" 6"	#3 @ 12" c.c. #3 @ 12" c.c.

USE 2500 PSI GUNITE MIN.



*Kenneth Venolia*  
*Phd*



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.

The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

**ISSUED**

MAY 04 2004

Sacramento Building Division

Swimming Pool Calculations Example

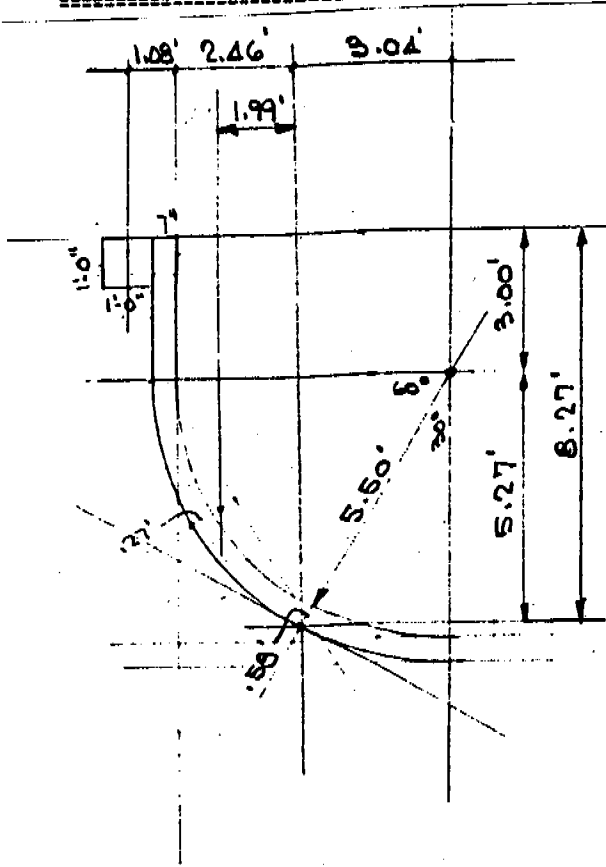
July 18, 1993



*Kenneth Venolia*

- 3.00 = Swing Depth(ft)
- 5.50 = Swing Radius(ft)
- 8.50 = Total Depth(ft)
- 7.00 = Wall Thick(in)
- 6.00 = Rad to Earth(ft)
- 19.00 = Bond Bm Width(in)
- 12.00 = Bond Bm net(in)
- 12.00 = Bond Bm Depth(in)
- 30.00 = Angle Repose
- 45.00 = Eq Fluid Press(pcf)
- 87.50 = Wall lb/ft
- 0.50 = sin
- 0.87 = cos
- 3.04 = X(ft)
- 5.27 = Y(ft)
- 0.274 = r1(ft)
- 0.237 = rx(ft)
- 5.03 = x'(ft)
- 1.99 = c.g. Wall Curve
- 8.27 = depth(ft) for (Moment)
- 3,000 = f'c (psi)
- 150 = Conc Density(pcf)
- 0.15 = As(.0018)min
- 4.81 = d(in)
- 0.236 = K(k-ft)
- 5.47 = M(k-ft) allow

Item	Weight(lb)	x	area(ft)	Moment(k-ft)
Bond Bm	150.00		3.54	0.53
Wall hi	262.50		2.75	0.72
Wall low	530.69		1.99	1.06
			2.31	=M(Sum)
			4.24	=M(Soil) 0.23 = As req
			1.93	=M(Net) 5.79 = #3 spcg(in)req Use #3 @ 4" c.c.



$\sin 60^\circ = .866$        $60^\circ = \pi/3 \text{ RAD}$   
 $\cos 60^\circ = .500$   
 $6.08 \times \sin 60^\circ = 5.27'$   
 $6.08 \times \cos 60^\circ = 3.04'$   
 C.g. wall curve = see below  
 $@ d = 8.27'$   
 Eq Fluid Pressure =  $45 \text{ pcf}$   
 $M_{\text{soil}} = 45d^3/6 = 45 \times 8.27^3/6 = 4.24 \text{ k'}$   
 $M_{\text{bond bm}} = .150 \times 3.54 = .53$   
 $\text{wall} = 3' \times .0875 \times 2.75' = .72$   
 $\text{wall} = 2\pi \times 5.79' \times \frac{60}{360} \times .0875 \times 1.99 = 1.06$   
 $\frac{.72}{2.31 \text{ k'}}$   
 $M_{\text{net}} = 4.24 - 2.31 = 1.93 \text{ k'}$   
 $d = 7" - 2" - 3/16" = 4.81"$   
 $A_s = 1.91 / 1.76 \times 4.81" = .23 \text{ #}$   
 $\#3 @ 4" \text{ c.c.} = .11 \times 3 = .33 \text{ #}$  ok  
 $M_c = .236 \times 4.81^2 = 5.47 \text{ k'} > 1.93 \text{ k'}$  ok

$y_1 = R(1 - \frac{\sin \alpha}{\alpha}) = 6.08(1 - \frac{\sin 30}{2\pi 30/360}) = .274'$   
 $x = (.274 \times \cos 30) = .237$   
 $\bar{x} = 6.08 \times \cos 30 = .237 = 5.03' \left. \begin{matrix} \\ 3.04' \end{matrix} \right\} 1.99'$

**ISSUED**  
 MAY 0 4 20 1993  
 Sacramento Building Dept.



Swimming Pool Calculations for (Expansive Soil)

July 10, 1993

3.00 =Swing Depth(ft)	0.50 =sin	3,000 =f'c(psi)
1.50 =Swing Radius(ft)	0.87 =cos	150 =Conc Density(pcf)
4.50 =Total Depth(ft)	1.00 =X(ft)	0.13 =As(.0018)min
6.00 =Wall Thick(in)	1.73 =Y(ft)	3.81 =d(in)
2.00 =Rad to Earth(ft)	0.090 =r1(ft)	0.236 =K(k-ft)
10.50 =Bond Bm Width(in)	0.078 =rx(ft)	3.43 =M(k-ft) allow
4.50 =Bond Bm net(in)	1.65 =x'(ft)	
10.00 =Bond Bm Depth(in)	0.65 =c.g. Wall Curve	
30.00 =Angle Repose	4.73 =depth(ft) for (Moment)	
60.00 =Eq Fluid Press(pcf)		
75.00 =Wall lb/ft		



*Kenneth Vendola*

Item Weight(lb) x arm(ft) = Moment(k-ft)

Bond Bm	46.88	1.19	0.06		
Wall hi	225.00	0.75	0.17		
Wall low	137.44	0.65	0.09		
			0.31	=M(Sum)	
			1.06	=M(Soil)	0.11 =As reg
			0.75	=M(Net)	11.88 =#3 spcg(in)req Use #3 @ 6" c.c.

Swimming Pool Calculations for (Expansive Soil)

July 10, 1993

3.00 =Swing Depth(ft)	0.50 =sin	3,000 =f'c(psi)
5.00 =Swing Radius(ft)	0.87 =cos	150 =Conc Density(pcf)
8.00 =Total Depth(ft)	2.79 =X(ft)	0.15 =As(.0018)min
7.00 =Wall Thick(in)	4.84 =Y(ft)	4.81 =d(in)
5.50 =Rad to Earth(ft)	0.252 =r1(ft)	0.236 =K(k-ft)
10.50 =Bond Bm Width(in)	0.218 =rx(ft)	5.47 =M(k-ft) allow
3.50 =Bond Bm net(in)	4.62 =x'(ft)	
10.00 =Bond Bm Depth(in)	1.83 =c.g. Wall Curve	
30.00 =Angle Repose	7.84 =depth(ft) for (Moment)	
60.00 =Eq Fluid Press(pcf)		
87.50 =Wall lb/ft		

Item Weight(lb) x arm(ft) = Moment(k-ft)

Bond Bm	36.46	2.94	0.11		
Wall hi	262.50	2.50	0.66		
Wall low	484.87	1.83	0.89		
			1.65	=M(Sum)	
			4.81	=M(Soil)	0.37 =As reg
			3.16	=M(Net)	3.54 =#3 spcg(in)req Use #3 @ 3" c.c.

ISSUE

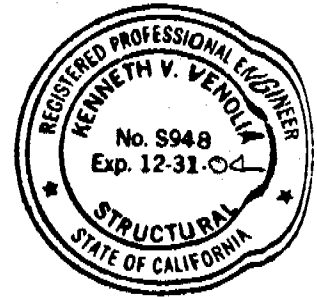
MAY 0 4

Sacramento Bull

Swimming Pool Calculations for (Non-Expansive Soil)

July 10, 1993

3.00 =Swing Depth(ft)      0.50 =sin      3,000 =f'c(psi)  
 1.50 =Swing Radius(ft)    0.87 =cos      150 =Conc Density(pcf)  
 4.50 =Total Depth(ft)    0.96 =X(ft)    0.11 =As(.0018)min  
 5.00 =Wall Thick(in)      1.66 =Y(ft)    2.81 =d(in)  
 1.92 =Rad to Earth(ft)    0.086 =r1(ft)   0.236 =K(k-ft)  
 10.50 =Bond Bm Width(in) 0.075 =rx(ft)   1.87 =M(k-ft) allow  
 5.50 =Bond Bm net(in)    1.59 =x'(ft)  
 10.00 =Bond Bm Depth(in) 0.63 =c.g. Wall Curve  
 30.00 =Angle Repose      4.66 =depth(ft) for (Moment)  
 30.00 =Eq Fluid Press(pcf)  
 62.50 =Wall lb/ft



*Kenneth Vendola*

Item	Weight(lb)	x	arm(ft)	= Moment(k-ft)	
Bond Bm	57.29		1.19	0.07	
Wall hi	187.50		0.75	0.14	
Wall low	111.81		0.63	0.07	
			0.28	=M(Sum)	
			0.51	=M(Soil)	0.05 =As reg
			0.23	=M(Net)	28.76 =#3 spcg(in)req    Use #3 @ 12" c.c.

Swimming Pool Calculations for (Non-Expansive Soil)

July 10, 1993

3.00 =Swing Depth(ft)      0.50 =sin      3,000 =f'c(psi)  
 5.00 =Swing Radius(ft)    0.87 =cos      150 =Conc Density(pcf)  
 8.00 =Total Depth(ft)    2.71 =X(ft)    0.11 =As(.0018)min  
 5.00 =Wall Thick(in)      4.69 =Y(ft)    2.81 =d(in)  
 5.42 =Rad to Earth(ft)    0.244 =r1(ft)   0.236 =K(k-ft)  
 10.50 =Bond Bm Width(in) 0.211 =rx(ft)   1.87 =M(k-ft) allow  
 5.50 =Bond Bm net(in)    4.48 =x'(ft)  
 10.00 =Bond Bm Depth(in) 1.77 =c.g. Wall Curve  
 30.00 =Angle Repose      7.69 =depth(ft) for (Moment)  
 30.00 =Eq Fluid Press(pcf)  
 62.50 =Wall lb/ft

Item	Weight(lb)	x	arm(ft)	= Moment(k-ft)	
Bond Bm	57.29		2.94	0.17	
Wall hi	187.50		2.50	0.47	
Wall low	340.88		1.77	0.60	
			1.24	=M(Sum)	
			2.27	=M(Soil)	0.21 =As reg
			1.03	=M(Net)	6.32 =#3 spcg(in)req    Use #3 @ 6" c.c.

ISSI  
 MAY  
 Sacramento