

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0014867
Insp Area: 2

Site Address: 8568 CULPEPPER DR SAC
Parcel No: 117-1070-051

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

CONTRACTOR

OWNER

ARCHITECT

BRASIL ANTONIO R JR
8568 CULPEPPER DR
SACRAMENTO CA 95823

Nature of Work: FINISH 898 SF(AS LVNG AREA) OF EXISTING BASEMENT ORIGINALY DESIGNED FOR LIVING QUARTERS & SHOP AREA. 407 SF TO REMAIN UNFINISHED AS SHOP AND STORAGE AREAS(UNCONDITIONED. NON HABITABLE). NO BEARING WALLS MOVED

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: NEIGHBORHOODS, PLANNING AND DEVELOPMENT SERVICES
Date 3/5/01 Owner Signature Tony Brasil

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 3/5/01 Applicant Agent Signature Tony Brasil

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 Exempt 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 those provisions.

Date 3/5/01 Applicant Signature Tony Brasil

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.

001 4867R.

Date of Request: _____

By: _____

**CITY OF SACRAMENTO DEVELOPMENT SERVICES DIVISION
PLANNING AND ZONING INFORMATION REQUEST**

Project Address: 8568 Culpepper Dr

Assessor's Parcel Number: 117-1070-051

Previous Use: SF Resid

Description of Request/Proposed Use: finishing basement into

home office, Entertainment Room, workshop, bedroom,

laundry + bath

Is This a Change of Use? No

Zoning Designation: R1

Prior Applications for Project Site(P#, Z#, DRPB#): _____

Comments: _____

Are There Any Planning Issues?: (circle one) YES NO

* Staff Site Plan Check Required? (Circle one) YES NO

* Field Inspection Required? (Circle one) YES NO

* Design Review/Preservation Required? (Circle one) YES NO

Planning Review by/Date: [Signature]

6-15-00

CONFIRMED: PHIL REED

1/16/01

A list of items that must be reviewed by Planning is provided on the reverse side of this form.

MICROFILM AFTER FINAL

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 _____ Address _____

City _____ Telephone _____

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

X Signed Tony Brasel

X Job Address 8568 CULPEPPER DR

X Date 3/5/01

Permit No: _____

Certification of Compliance

School District Development Fees

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

PART I To be completed by the APPLICANT

OWNER'S NAME Tony E. Bousil, Jr.
 OWNER'S ADDRESS 8568 Culpepper Dr.
 PROJECT ADDRESS 8568 Culpepper Dr.
 PARCEL NUMBER 117-1070-051 Addition LOT NO. 93
 SUBDIVISION NAME _____
 NUMBER OF UNITS _____

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

APPLICANT'S SIGNATURE Tony Bousil
 TITLE OF APPLICANT _____
 DATE 3/6/01 PHONE NUMBER (710) 421-1753

PART II To be completed by BUILDING DEPARTMENT

PLAN IDENTIFICATION NUMBER 001486712
 BUILDING TYPE (Addition)
 RESIDENTIAL APARTMENT/CONDOMINIUM COMMERCIAL/INDUSTRIAL
 SQUARE FEET OF CHARGEABLE BUILDING AREA ~~1100~~ 3184 Plans Attached
 SIGNATURE [Signature] PLANS EXAMINER
 TITLE Bldg Insp DATE 2/15/01

PART III To be completed by SCHOOL DISTRICT

SCHOOL DISTRICT LEUSD
 DISTRICT CERTIFICATION NO. 9777
 EXEMPT _____ COMMENTS _____

RESIDENTIAL/APT/CONDO	<u>595</u>	SQ FT X \$	<u>2.05</u>	= \$	<u>1,210.75</u>
COMMERCIAL/INDUSTRIAL		SQ FT X \$		= \$	
OTHER FEE TYPE	TYPE	SQ FT X \$	TYPE	= \$	
TOTAL FEES COLLECTED	<u>1,595</u>		<u>2.05</u>	= \$	<u>1,540.75</u>

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

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

AUTHORIZED SCHOOL DISTRICT OFFICIAL

SIGNATURE [Signature]
 TITLE Chief DATE 3/6/01

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

PL #15469 #1745

PERSONAL SAFETY BUILDING CODE
SEE ATTACHED INSTRUCTIONS

SEE ALSO, RESIDENTIAL
PLAN CHECK REQUIREMENTS
ATTACHED (WHERE APPLICABLE)

ISSUED

MAR 05 2001

Sacramento Building Division

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

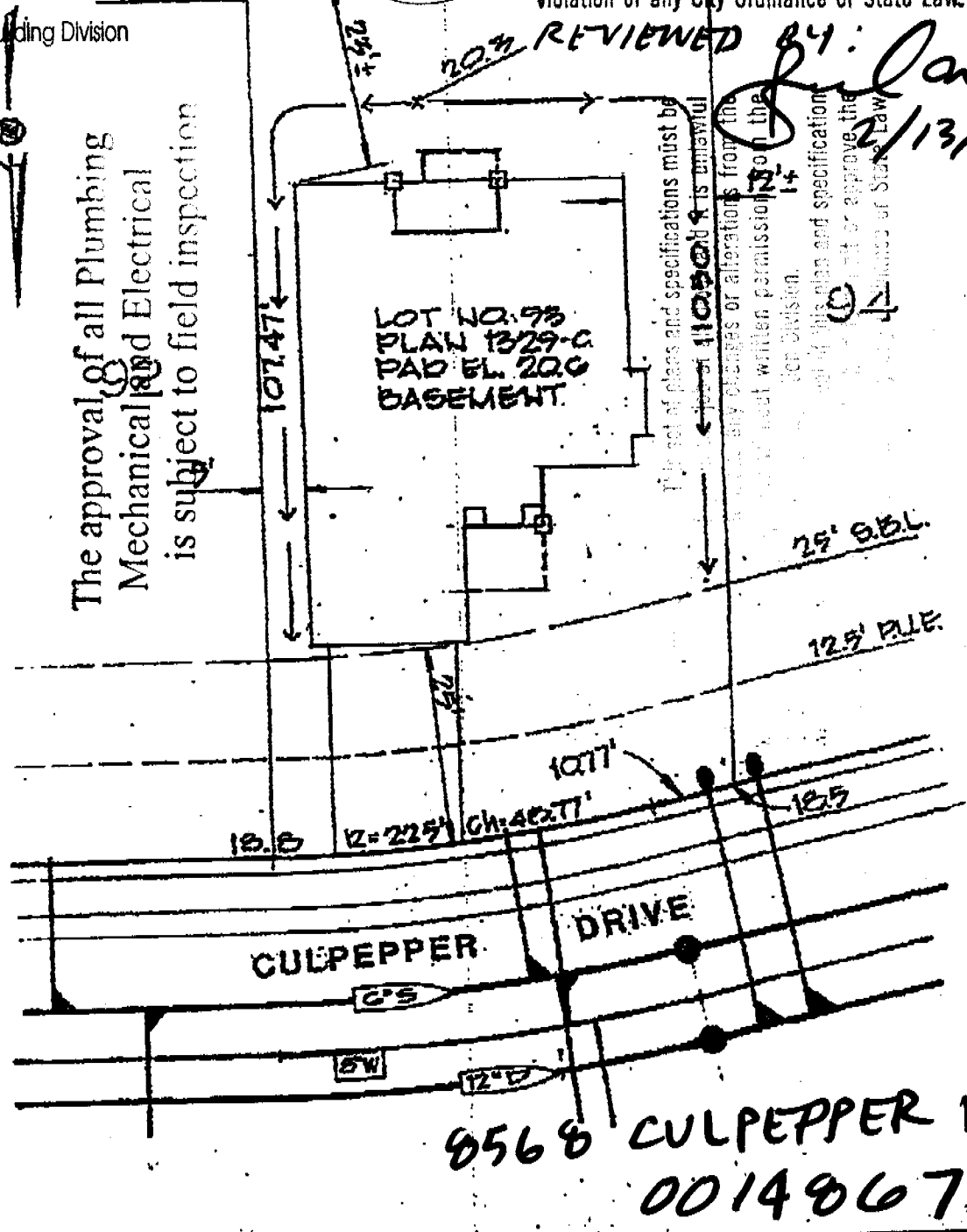


This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.

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

REVIEWED BY: *Philal*

12/13/01
4



BASEMENT CONVERSION TO LIVING



MORTON & PITALO, INC.
CIVIL ENGINEERING - PLANNING - SURVEYING

PLAT PLAN FOR
ARLINGTON PARK UNIT NO. 3
LOT 93

DATE: 5/19/93 JOB NO: 920133
SCALE: 1"=20' DRAWN/ENGR: RLT/MLC

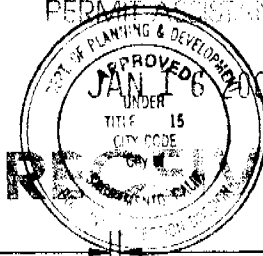
SHEET
OF 1

CITY OF SACRAMENTO CALIF.

0014867R

CITY OF SACRAMENTO

PERMIT 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.

~~1245~~ + 698 4 LVN6

MAX. FINISH SILL HT. MUST BE 44" OR LESS
ALL WINDOWS MUST BE SLIDERS FOR PROPER LIGHT & VENTILATION

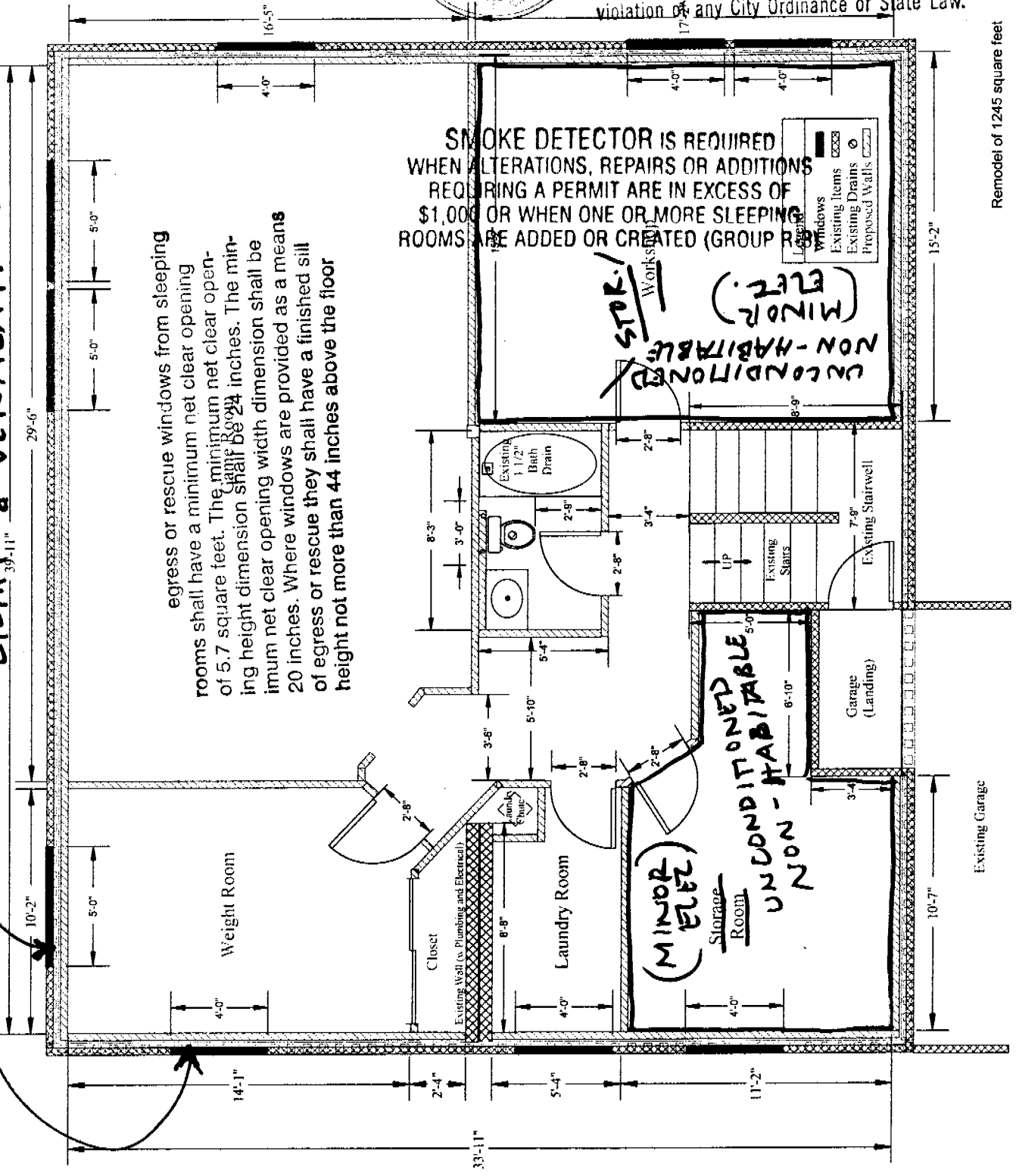
Egress or rescue windows from sleeping rooms shall have a minimum net clear opening of 5.7 square feet. The minimum net clear opening height dimension shall be 24 inches. The minimum net clear opening width dimension shall be 20 inches. Where windows are provided as a means of egress or rescue they shall have a finished sill height not more than 44 inches above the floor

SMOKE DETECTOR IS REQUIRED WHEN ALTERATIONS, REPAIRS OR ADDITIONS REQUIRING A PERMIT ARE IN EXCESS OF \$1,000 OR WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED (GROUP R)

Windows	[Symbol]
Existing Items	[Symbol]
Existing Drains	[Symbol]
Proposed Walls	[Symbol]

UNCONDITIONED (MINDR) (ELEC.)
NON-HABITABLE
STOR!
Workshop

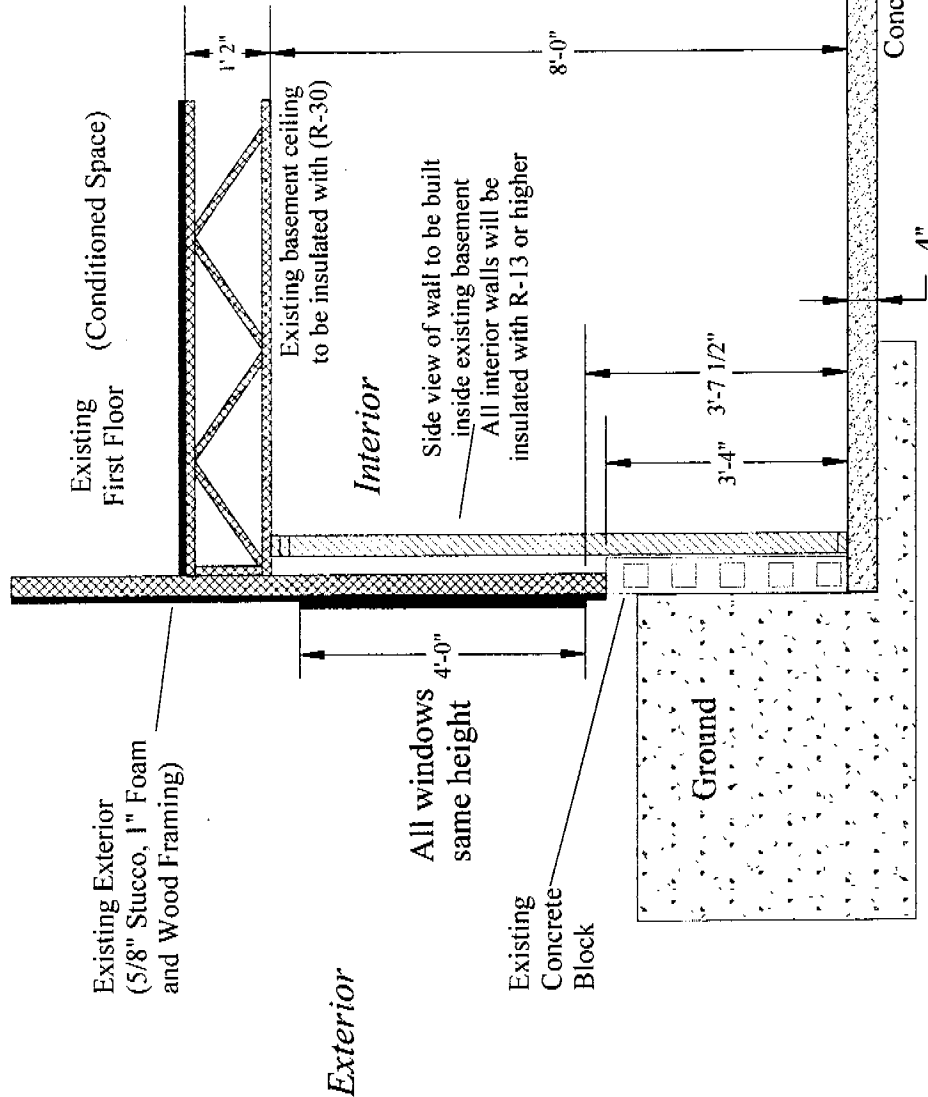
Storage Room (MINDR) (ELEC.)
UNCONDITIONED
NON-HABITABLE



Remodel of 1245 square feet

Name:	Tony Brasil, Home owner	Scale:	1" = 6'
Address:	8568 Cuipepper Drive	Date:	January 11, 2001
	Sacramento, CA 95823	Page:	1 of 6

Cutaway view of basement walls



Wall construction:
 2x4 wood studs
 16 inches on center
 double stud top plate
 pressure treated base plate
 anchored with powder driven nails



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 construed to represent the validity of any other laws or regulations.

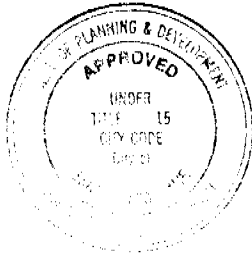
Name: Tony Brasil, Home owner	Scale: 3/8" = 1'
Address: 8568 Culpepper Drive	Date: January 11, 2001
Sacramento, CA 95823	Page: 2 of 6

HVAC System

A/C will not be installed.
Only 8/3 wiring and lineset for basement A/C to be installed for possible future use.

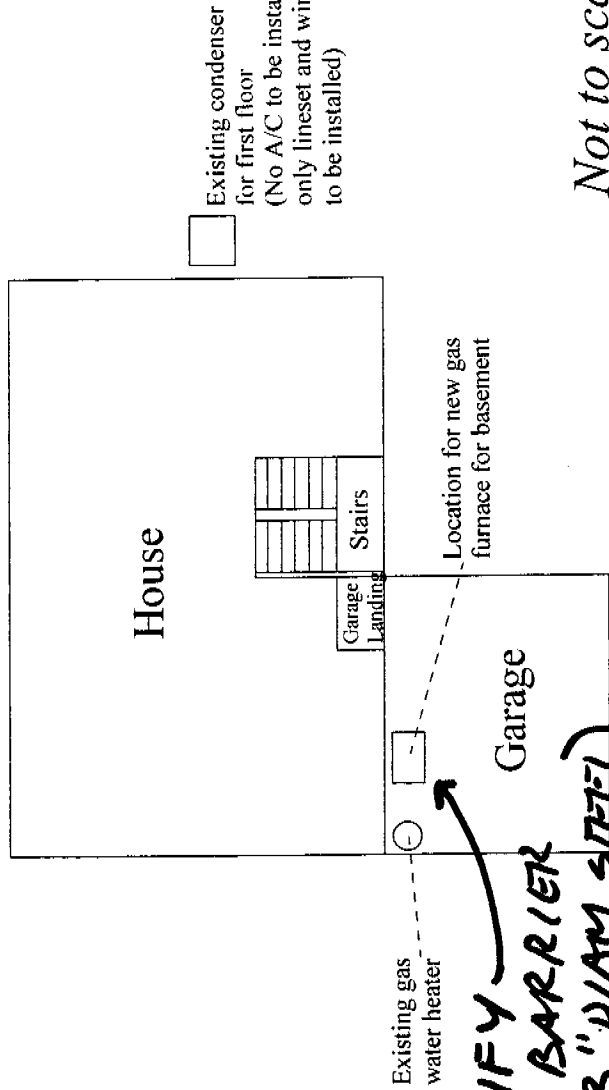
Separate 75,000 Btu to be added (1200 CFM; 80% efficiency)
4 inch vent to be added

Furnace to be installed in garage.
Gas line and 120 V electrical circuit already existing



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 or used to approve the violation of any City Code or State Law.



FIELD VERIFY PROTECTIVE BARRIER (3/8" HIGH 3" DIAM STEEL PIPE CONC. FILLED OR EQUIV.)

Not to scale

Name: Tony Brasil, Home owner	Date: November 11, 2000
Address: 8568 Culpepper Drive Sacramento, CA 95823	Page: 5 of 6

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 1 of 2)

CF-1R

Project Title FINISH BASEMENT
 Project Address 8568 CULPEPPER DR
 Documentation Author TONY BRASIA Telephone 421-1753
COMPUTER Telephone 12
 Compliance Method (Package or Computer) Climate Zone

Date 1/11/01
 Building Permit # _____
 Plan Check / Date _____
 Field Check / Date _____
 Enforcement Agency Use Only

GENERAL INFORMATION

Total Conditioned Floor Area 1400 ft² Average Ceiling Height: 8 ft
 Conditioned Slab Floor Area 1500 ft²

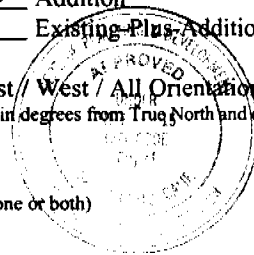
Building Type: Single Family Addition
 (check one or more) Multi-Family Existing Plus Addition

Front Orientation: North South East West All Orientations
 (input front orientation in degrees from True North and circle one)

Number of Stories 2

Number of Dwelling Units: 1

Floor Construction Type: Slab/Raised Floor (circle one or both)



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.

BUILDING SHELL INSULATION

Component Type	Frame Type wd = wood stl = steel	Cavity Insulation R-Value	Sheathing Insulation R-Value	Total R-Value ¹	Assembly U-Value ¹	Location/Comments (attic, garage, typical, etc.)
Wall	WD	13	0	11.36	.088	OUTSIDE - UPPER HALF OF WALL
Wall	CONCRETE BLOCK	0	0	1.19	.843	BELOW GRADE
Roof	N/A					CONDITIONED
Floor	CONCRETE	0	0	1.38	.722	GRADE
Slab Edge		0	0	0	.756	OUTSIDE

FENESTRATION

Shading Devices

Fenestration #/Type/Pos.	Orien-tation	Area (ft ²)	Fenestration U-Value	Fenestration SHGC	Interior Shading Att. ²	Exterior Shading Att.	Overhangs /Fins
Front	NORTH	0			Standard		
Front					Standard		
Left	EAST	48	0.87	0.765	Standard	BIG SCREEN	NONE
Left					Standard		
Rear	SOUTH	60	0.87	0.765	Standard	BIG SCREEN	NONE
Rear					Standard		
Right	WEST	48	0.87	0.765	Standard	BIG SCREEN	NONE
Right					Standard		
Skylight		N/A			Standard		NONE
Skylight					Standard		

¹ For prescriptive compliance, Total R-Value and Assembly U-Value are not required for a wood-framed wall that meets cavity R-value insulation requirement for the Prescriptive Package.

² For prescriptive compliance, there are no credits for any interior shading except the default or "Standard" drapery. These default interior shading devices (draperies) need not be installed for compliance purposes.

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 2 of 2) **CF-1R**

Project Title 8568 CULPEPPER DR - FINISH BASEMENT

Date 1/11/01

HVAC SYSTEMS

Note: Input hydronic or combined hydronic data under Water Heating Systems, except Design Heating Load.

Heating Equipment Type (furnace, heat pump, etc.)	Minimum Efficiency (AFUE or HSPF)	Distribution Type and Location (ducts, attic, etc.)	Duct or Piping R-Value	Thermostat Type	Heat Pump Configuration (split or package)
<u>FURNACE</u>	<u>78%</u>	<u>DUCTS (CONDITIONED SPACE)</u>	<u>4.2</u>	<u>SETBACK</u>	
Cooling Equipment Type (air conditioner, heat pump, evap. cooling)	Minimum Efficiency (SEER)	Duct Location (attic, etc.)	Duct R-Value	Thermostat Type	Heat Pump Configuration (split or package)
<u>AIR CONDITION</u>	<u>10</u>	<u>(CONDITIONED SPACE)</u>	<u>4.2</u>	<u>SETBACK</u>	<u>SPLIT</u>

WATER HEATING SYSTEMS

Water Heater Type	Distribution Type	Number in System	Rated ¹ Input (kW or Btu/hr)	Tank Capacity (gallons)	Energy ¹ Factor or Recovery Efficiency	Standby ¹ Loss (%)	External Tank Insulation R-Value
<u>STANDARD GAS</u>	<u>STANDARD</u>	<u>20</u>	<u>36,000 Btu/hr</u>	<u>50</u>	<u>76.0, 52</u>		

1. For small gas storage water heaters (rated inputs of less than or equal to 75,000 Btu/hr), electric resistance, and heat pump water heaters, list Energy Factor. For large gas storage water heaters (rated input of greater than 75,000 Btu/hr), list Rated Input, Recovery Efficiency and Standby Loss. For instantaneous gas water heaters, list rated input and recovery efficiencies.

SPECIAL FEATURES and MODELING ASSUMPTIONS (Add extra sheets if necessary)

Including Thermal Mass (thermal mass type, covering, thickness, and description)
WALL EXPOSED AT SHALLOW GROUND 296 FT² 4" THICK
WALL EXPOSED AT MEDIUM GROUND 296 FT² 4" THICK

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and performance specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations, and the administrative regulations to implement them. This certificate has been signed by the individual with overall design responsibility. When this certificate of compliance is submitted for a single building plan to be built in multiple orientations, any shading feature that is varied is indicated in the Special Features / Remarks section.

Designer or Owner (per Business and Professions Code)

Name: Tony Brasil, Jr
 Title/Firm: _____
 Address: 8568 Culpepper Dr
 Telephone: (916) 421-1753
 Lic. #: _____

Documentation Author

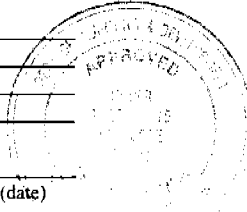
Name: Tony Brasil
 Title/Firm: _____
 Address: _____
 Telephone: _____

Tony Brasil 1/11/01
 (signature) (date)

Tony Brasil 1/11/01
 (signature) (date)

Enforcement Agency

Name: _____
 Title: _____
 Agency: _____
 Telephone: _____
 (signature / stamp) (date)



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 Industry Association.

Project Title: 8568 Culpepper Drive
 Project Address:

Run: 002 10-Jan-01
 16-9213

Building Title: Basement addition
 Document Author: Tony Brasil
 Telephone:

Building Permit #

 Plan Check / Date

Compliance Method: CALRES2 1.35
 Climate Zone: 12

Field Check / Date

ENERGY USE SUMMARY (kBtu/ft2-yr)

Energy Use	Standard Design	Proposed Design	
Space Heating	21.37	33.24	
Space Cooling	3.12	1.77	
Water Heating	15.76	0	
Total	40.25	35.01	Complies Yes

GENERAL INFORMATION

Conditioned Floor Area: 1400 ft2
 Average Ceiling Height: 8'0" ft-in
 Building Type: SFD Single Family Detached
 Building Front Orientation: 0 deg (North)
 Glazing Area, % of Floor Area: 10.4%
 Average Fenestration U-Value: 0.87
 Average Fenestration SHGC: 0.74
 Number of Dwelling Units: 1.00
 Number of Stories: 2

Floor Construction Type: Slab on grade
 Number of Conditioned Zones: 1
 Total Conditioned Volume: 11200 ft3
 Ground Floor Area: 1500 ft2

This set of plans and specifications must be kept on the job at all times and it is the owner's responsibility to make any changes or additions in writing before construction begins.

BUILDING ZONE INFORMATION

Zone Name	Floor Area (ft2)	Volume (ft3)	Type	Thermostat Type	Vent Height (ft)
HOUSE	1400	11200	Conditioned	CEC_Standard	8'0"

OPAQUE SURFACES

Surface Type	Area (ft2)	U-value	Insl Rval	Total Tru Rval	Tru Azm	Slr Tlt	Construction Gns	Type	Location/Comments
Zone = HOUSE									
Door	20.0	0.330	0	3	0	90	Yes	30-Wood	Outside
Wall	116.0	0.088	13	11	0	90	Yes	W13.2x4.16	Outside
Wall	68.0	0.843	0	1	0	90	No	Basement	Shallow ground
Wall	68.0	0.843	0	1	0	90	No	Basement	Medium ground
Wall	112.0	0.088	13	11	90	90	Yes	W13.2x4.16	Outside

Project Title: 8568 Culpepper Drive

Run: 002

10-Jan-01

OPAQUE SURFACES continued

Surface Type	Area (ft2)	U-value	Insl Rval	Total Rval	Tru Azm	Slr Tlt	Construction Gns Type	Location/Comments
Wall	80.0	0.843	0	1	90	90	No Basement	Shallow ground
Wall	80.0	0.843	0	1	90	90	No Basement	Medium ground
Wall	76.0	0.088	13	11	180	90	Yes W13.2x4.16	Outside
Wall	68.0	0.843	0	1	180	90	No Basement	Shallow ground
Wall	68.0	0.843	0	1	180	90	No Basement	Medium ground
Wall	112.0	0.088	13	11	270	90	Yes W13.2x4.16	Outside
Wall	80.0	0.843	0	1	270	90	No Basement	Shallow ground
Wall	80.0	0.843	0	1	270	90	No Basement	Medium ground
Floor	1500.0	--	0	--	--	180	No Slab140E	Grade

PERIMETER LOSSES

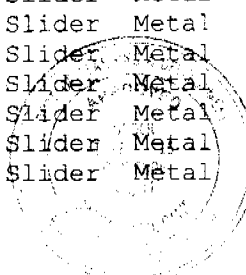
Perimeter Type	Length (ft)	F2 Factor	Insul R-val	Insul Depth (in)	Location/Comments
Zone = HOUSE					
Exposed	148'0"	0.756	0	16	Outside

FENESTRATION SURFACES

Fenestration Name	Type	Area (ft2)	Tru Azm	Open Tlt	Frame Type	Glazing Charactr Name	Comments
Zone = HOUSE							
EAST	Wind	16.0	90	90	Slider Metal	Double	
east-2	Wind	16.0	90	90	Slider Metal	Double	
east-3	Wind	16.0	90	90	Slider Metal	Double	
SOUTH	Wind	20.0	180	90	Slider Metal	Double	
south-2	Wind	20.0	180	90	Slider Metal	Double	
south-3	Wind	20.0	180	90	Slider Metal	Double	
WEST	Wind	16.0	270	90	Slider Metal	Double	
west-2	Wind	16.0	270	90	Slider Metal	Double	
west-3	Wind	16.0	270	90	Slider Metal	Double	

GLAZING CHARACTERISTICS

Glazing Charactr Name	Glazing Type	# of Panes	U-value	SHGC	Interior Shade Type	SHGC	Exterior Shade Type	SHGC
Double	Clear	2	0.870	0.765	Standard	0.680	BugScrn	0.757



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 original without written permission from the architect.

The architect is not responsible for specifications that are not shown on the drawings or for errors or omissions in any City ordinance or State law.

Project Title: 8568 Culpepper Drive

Run: 002

10-Jan-01

OVERHANGS

Fenestration

Name	Height	Width	Depth	Above Glazing	Left Extension	Right Extension
None						

FINS

Fenestration Name	Height	Width	Left Fin			Right Fin		
			Fin Depth	Fin Height	Exten above glzng	Dist to glzng	Fin Depth	Fin Height
None								

THERMAL MASS

Mass Name	Area (ft2)	Thck (in)	Vol Heat Cap	Cond- duct- ivity	Construction Type	Insd Rval	Location/Comments
Zone = HOUSE							
e1	68.0	4.0	28	0.98	Basement	0	Shallow ground
e2	68.0	4.0	28	0.98	Basement	0	Medium ground
n1	80.0	4.0	28	0.98	Basement	0	Shallow ground
n2	80.0	4.0	28	0.98	Basement	0	Medium ground
w1	68.0	4.0	28	0.98	Basement	0	Shallow ground
w2	68.0	4.0	28	0.98	Basement	0	Medium ground
s1	80.0	4.0	28	0.98	Basement	0	Shallow ground
s2	80.0	4.0	28	0.98	Basement	0	Medium ground

SOLAR GAIN DISTRIBUTION

Fenestration Name	Winter Fraction	Summer Fraction	Targetted Thermal Mass	Comments
None				

HVAC SYSTEMS

System Name	System Type	Efficiency	Duct Location and R-value
Zone = HOUSE			
GasFurn.78	Furnace	0.78 AFUE	Attic R-4.2
ACsplit10	Air cond. -- central split	10.00 SEER	Attic R-4.2

Project Title: 8568 Culpepper Drive

Run: 002

10-Jan-01

WATER HEATING SYSTEMS

System Name	Distrib Type	Water Heater Name	Water Heater Type	# of Htrs	Energy Factor	Volume (gal)
Standard_Gas	Standard	StandardGas	Storage gas	20	0.52	50

WATER HEATING SYSTEMS MISC

System Name	Solar savings fraction	Solar system type	Wood stove boiler?	Wood stove boiler pump?
Standard_Gas	--	--	No	No

WATER HEATER/BOILER DETAILS

Water Heater Name	Recovery Efficiency	AFUE	Rated Input (kBtuh)	Standby Loss	Tank R-value	Pilot Light (Btuh)
StandardGas	76%	--	36.00	--	--	--

HYDRONIC DISTRIBUTION AND TERMINALS

System/Name	Type	Number	Pipe run (ft)	Pipe diam (in)	Insul thck (in)	Insul R-value
None						

SPECIAL FEATURES, REMARKS, AND NOTES

- Standard interior shades are assumed to be drapes which need not be installed at the time of inspection. All other interior shading devices must be installed for inspection.
- Heating duct register location: Ceiling.
- Cooling duct register location: Ceiling.



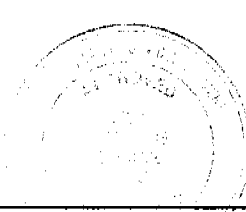
This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without the written permission from the Engineer of Record.

James A. B. Smith
Professional Engineer
Mechanical Engineering
State of Virginia
License No. 10012

MANDATORY MEASURES CHECKLIST: RESIDENTIAL (Page 1 of 2) MF-1R

Note: Lowrise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. Items marked with an asterisk (*) may be superseded by more stringent compliance requirements listed on the Certificate of Compliance. When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as minimum component performance specifications for the mandatory measures whether they are shown elsewhere in the documents or on this checklist only.

Instructions: Check or initial applicable boxes when completed or enter N/A if not applicable.

DESCRIPTION	DESIGNER	ENFORCEMENT
Building Envelope Measures:		
* §150(a): Minimum R-19 ceiling insulation.	N/A	
§150(b): Loose fill insulation manufacturer's labeled R-Value.	N/A	
* §150(c): Minimum R-13 wall insulation in wood framed walls or equivalent U-value in metal frame walls (does not apply to exterior mass walls).	✓	
* §150(d): Minimum R-13 raised floor insulation in framed floors.	N/A	
§150(l): Slab edge insulation - water absorption rate no greater than 0.3%, water vapor transmission rate no greater than 2.0 perm/inch.	N/A	
§118: Insulation specified or installed meets insulation quality standards. Indicate type and form.		
§116-17: Fenestration Products, Exterior Doors, and Infiltration/Exfiltration Controls		
1. Doors and windows between conditioned and unconditioned spaces designed to limit air leakage.	N/A	
2. Fenestration products (except field-fabricated) have label with certified U-value, certified Solar Heat Gain Coefficient (SHGC), and infiltration certification.		
3. Exterior doors and windows weatherstripped; all joints and penetrations caulked and sealed.		
§150(g): Vapor barriers mandatory in Climate Zones 14 and 16 only.	N/A	
§150(f): Special infiltration barrier installed to comply with § 151 meets Commission quality standards.	N/A	
§150(e): Installation of Fireplaces, Decorative Gas Appliances and Gas Logs.		
1. Masonry and factory-built fireplaces have:	N/A	
a. Closeable metal or glass door		
b. Outside air intake with damper and control		
c. Flue damper and control		
2. No continuous burning gas pilot lights allowed.		
 <p style="font-size: small;">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 Department.</p>		
Space Conditioning, Water Heating and Plumbing System Measures:		
§110-§113: HVAC equipment, water heaters, showerheads and faucets certified by the Commission.	✓	
§150(h): Heating and/or cooling loads calculated in accordance with ASHRAE, SMACNA or ACCA.	✓	
§150(i): Setback thermostat on all applicable heating and/or cooling systems.	✓	
§150(j): Pipe and tank insulation		
1. Storage gas water heaters rated with an Energy Factor less than 0.58 must be externally wrapped with insulation having an installed thermal resistance of R-12 or greater.	N/A	
2. First 5 feet of pipes closest to water heater tank, non-recirculating systems, insulated (R-4 or greater)		
3. Back-up tanks for solar system, unfired storage tanks, or other indirect hot water tanks have R-12 external insulation or R-16 combined internal/external insulation.		
4. All buried or exposed piping insulated in recirculating sections of hot water systems.		
5. Cooling system piping below 55° F insulated.		
6. Piping insulated between heating source and indirect hot water tank.		

MANDATORY MEASURES CHECKLIST: RESIDENTIAL (Page 2 of 2) MF-1R

Note: Lowrise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. Items marked with an asterisk (*) may be superseded by more stringent compliance requirements listed on the Certificate of Compliance. When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as minimum component performance specifications for the mandatory measures whether they are shown elsewhere in the documents or on this checklist only.

Instructions: Check or initial applicable boxes when completed or enter N/A if not applicable.

DESCRIPTION	DESIGNER	ENFORCEMENT
Space Conditioning, Water Heating and Plumbing System Measures: (continued)		
<p>* §150(m): Ducts and Fans</p> <p>1. All ducts and plenums constructed, installed, insulated, fastened, and sealed to comply with the ICBO 1997 UMC sections 601 and 603; ducts insulated to a minimum installed R-4.2 or ducts enclosed entirely within conditioned space. Openings shall be sealed with mastic, tape, aerosol sealant or other duct closure system that meets the applicable requirements of UL181, UL181A, or UL181B and other applicable specified tests for longevity given in §150(m).</p> <p>2. Exhaust fan systems have back draft or automatic dampers.</p> <p>3. Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operated dampers.</p>	✓	
<p>§114: Pool and Spa Heating Systems and Equipment.</p> <p>1. System is certified with 78% thermal efficiency, on-off switch, weatherproof operating instructions, no electric resistance heating and no pilot light.</p> <p>2. System is installed with:</p> <p>a. At least 36" of pipe between filter and heater for future solar heating.</p> <p>b. Cover for outdoor pools or outdoor spas.</p> <p>3. Pool system has directional inlets and a circulation pump time switch.</p>	N/A	
<p>§115: Gas fired central furnaces, pool heaters, spa heaters or household cooking appliances have no continuously burning pilot light. (Exception: Non-electrical cooking appliances with pilot < 150 Btu/hr)</p>	✓	
Lighting Measures:		
<p>§150(k)1.: Luminaires for general lighting in kitchens shall have lamps with an efficacy of 40 lumens/watt or greater for general lighting in kitchens. This general lighting shall be controlled by a switch on a readily accessible lighting control panel at an entrance to the kitchen.</p>	N/A	
<p>§150(k)2.: Rooms with a shower or bathtub must either have at least one luminaire with lamps with an efficacy of 40 lumens/watt or greater switched at the entrance to the room or one of the alternatives to this requirement allowed in §150(k)2.; and recessed ceiling fixtures are IC (insulation cover) approved.</p>	✓	



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 inspector.

The record of this project shall be maintained in accordance with the provisions of the City of Planning & Development.