



CITY OF SACRAMENTO

CITY MANAGER'S OFFICE
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DEPARTMENT OF ENGINEERING

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R. H. PARKER
CITY ENGINEER
J. F. VAROZZA
ASSISTANT CITY ENGINEER

January 27, 1981

City Council
Sacramento, California

APPROVED
BY THE CITY COUNCIL

Honorable Members in Session:

FEB 3 1981

SUBJECT: Residential Resale Energy Audit Ordinance

OFFICE OF THE
CITY CLERK

SUMMARY:

Submitted is a residential resale energy audit ordinance, which would become effective July 1, 1981. A draft of this ordinance was approved, with modifications, at the December 23, 1980 Budget and Finance Committee meeting and it was passed for publication of title at the January 27, 1981 Council meeting. Also submitted is an electrical energy forecast and economic analysis. It is recommended that the ordinance be adopted and that an additional position be authorized for the Building Inspections Division.

BACKGROUND:

At the August 19, 1980 meeting, the City Council approved the concept of ten energy savings measures proposed by the Planning Department. A residential energy audit at the time of resale was one of these measures. The proposal presented to the Council at the August 19th meeting specified that the seller be responsible for the compliance with energy conservation standards required as a result of an energy audit. However, at staff's request, the Budget and Finance Committee, at the November 18, 1980 meeting, directed staff to prepare a draft ordinance similar to that under consideration by the County in which the buyer is the responsible party. The rationale behind buyer responsibility is that they will be the one deriving benefit from the energy savings. Also, title transfers will not be delayed because correction work can be accomplished after the sale is completed.

A draft ordinance was presented to the Budget and Finance Committee at their December 23, 1980 meeting. This ordinance differed from the County's proposed ordinance in that the buyer was required to file a proof of compliance form with the Building Inspections Division instead of the County Recorder. Also the draft ordinance specified that any exemptions must be approved by the Director of the Building Inspections Division and provided a 30-day appeal period after a decision had been rendered.

Staff also recommended, in the draft ordinance, that title companies have the sole responsibility for providing written notice to the buyer of the ordinance provisions.

The Budget and Finance Committee approved the draft ordinance with the following changes:

- a. That in addition to the title company, the salesman, broker and agent, be responsible for notifying the buyer of the ordinance's provisions.
- b. The effective date of all of the provisions of the ordinance be 180 days after adoption or July 1, 1981, which ever is earlier.
- c. That the maximum cost of improvements be limited to 1.5% of the sale price or \$750 which ever is greater.
- d. That in addition to SMUD and P.G.&E. auditors, those certified by the State, when a certification program is implemented, be permitted to perform the energy audits required by the ordinance.
- e. That electrical outlet gaskets be included as a required energy savings measure.

The submitted ordinance includes these provisions.

The Common Forecasting Methodology (CFM) and economic analysis are being presented to support the findings. SMUD submits the CFM every two years to the State Energy Commission and it represents the utility's projections of energy supply and demand. The attached report is CFM II which has been submitted to the Commission and was used by them as the basis for adopting a long-range forecast. CFM III has been prepared by SMUD and submitted to the Commission but has not yet been adopted. Both CFM reports project capacity shortages within a few years with existing resource capacity. The economic analysis, also prepared by SMUD, estimates the energy savings and cost effectiveness of the energy conservation devices mandated by the ordinance.

FINANCIAL:

If the Council enacts an energy audit program as herein outlined, it will require an additional position in the Building Inspections Division. The Personnel Department will have to conduct a classification study to determine the exact title of the position. However, it is estimated that this position will cost approximately \$30,000 per year and the recording fee should be set at \$10 to cover this cost.

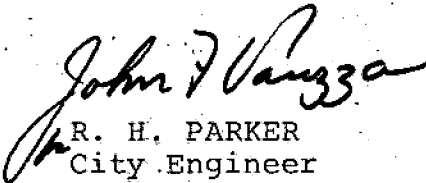
January 27, 1981

RECOMMENDATION:

It is recommended that:

1. The attached residential resale energy audit ordinance be adopted.
2. That an additional position be authorized for the Building Inspections Division and that the Personnel Department be directed to conduct a classification study to determine an appropriate title for that position.

Respectfully submitted,


R. H. PARKER
City Engineer

Recommendation Approved:


Walter J. Slipe, City Manager

RHP/MHJ/hma

February 3, 1981
All Districts

AN ORDINANCE ADDING ARTICLE XXII TO CHAPTER 9 OF THE
SACRAMENTO CITY CODE, RELATING TO ENERGY CONSERVATION
STANDARDS

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1. Findings.

The Council hereby finds that:

- (1) Electrical and natural gas energy used to power the climate control of residential structures is essential to the health, safety, and welfare of the people of Sacramento. The cost of energy is rapidly rising due to uncertainties about the present and future supplies of energy resources and the increased cost of power plant construction to keep pace with the rising demand for electricity. Rising residential energy costs are becoming an increasing economic burden.
- (2) Projections of energy sources and potentials, when compared to projections of energy consumption, indicate that the people of the City of Sacramento face a potential energy shortage in the foreseeable future.
- (3) Most of the dwellings within the City of Sacramento were constructed during periods of relative energy abundance and therefore employ climate control systems which consume energy in amounts exceeding that which is possible if recently developed and previously existing energy conservation technologies are employed.
- (4) Significant opportunities exist for energy conservation through the application of appropriate energy conservation standards to existing dwellings. Conservation of energy in this manner will result in decreased residential energy costs; a decrease in peak energy demand; and will decrease the threat to health and welfare of residents of the City of Sacramento posed by potential energy shortages.
- (5) Based upon the foregoing, the City finds it is necessary to promote energy conservation within the City of Sacramento by adopting the regulations set forth in this ordinance.

(6) The energy conservation measures set forth in this ordinance are found to be cost effective over the lifetime of the devices which are necessary to comply with the requirements of this ordinance in the average home.

SECTION 2.

Article XXII is hereby added to Chapter 9 of the Sacramento City Code to read as follows:

ARTICLE XXII

Energy Conservation Standards for Existing Residential Structures

Sec. 9.751. Definitions.

For the purposes of this Article the following terms shall have the definition shown:

(a) "Accessible Attic Space" a space between the roof and ceiling next below in a dwelling where a roof slope is not less than two and one-half (2-1/2) feet in twelve (12) feet and the vertical clear height from the top of the bottom cord of the truss or ceiling joist to the underside of the roof sheathing at the roof ridge is at least thirty (30) inches.

(b) "A.S.H.R.A.E." American Society of Heating, Refrigeration, Air Conditioning Engineers, Inc.

(c) "Buyer" any person who receives a present ownership interest in real property including, but not limited to, any sale, exchange or lease with an option to purchase. Provided, however, that real property transactions described as exclusions in California Revenue and Taxation Code, Sections 62, 63, 64, 65 and 66 are excluded from this definition.

(d) "Conditioned Space" means the space, within a building, which is provided with a positive heat supply or a positive method of cooling, either of which has a connected output capacity in excess of 10 BTU/HR per sq. ft.

(e) "Dwelling" shall have the same meaning as defined in Section 405 of the Uniform Building Code, 1976 Edition.

(f) "Energy Auditor" a representative of Pacific Gas and Electric Company or the Sacramento Municipal Utility District, who is trained and qualified to conduct the energy audit required by this Article, or, a person who is certified or licensed by the State of California as qualified to conduct the energy audit required by this Article.

(g) "Energy Conservation Audit" an on-site inspection of existing ceiling insulation, weather stripping, duct insulation, hot water heaters, and additional items necessary to determine compliance with the requirements of this Article.

(h) "Proof of Compliance Form" a form used to indicate compliance with standards described in this Article.

(i) "Sale or Exchange" any transfer of a present ownership in real property including but not limited to any sale, exchange or lease with an option to purchase. Provided, however, that real property transactions described as exclusions in California Revenue and Taxation Code Sections 62, 63, 64, 65 and 66 are excluded from this definition of sale or exchange.

Sec. 9.752 Exemptions.

(a) The provisions of this Article shall not apply to the sale or exchange of any dwelling consummated prior to the effective date of this Article; provided, however, that any dwelling sold or exchanged subsequent to the effective date of this Article shall be subject to the provisions herein.

(b) Any dwelling for which a building permit was issued on, or after July 1, 1977, shall be exempt from the provisions of this Article for 10 years following the date the building permit was issued.

Sec. 9.753 Energy Conservation Standards.

Minimum energy conservation standards and exemptions, if any, are defined below.

Exemptions provided in this section may be recommended as applicable by the energy auditor; however, no exemptions provided in this section shall be applicable or otherwise available unless approved by the director or his designated representative.

The provisions of this article shall not be enforced until July 1, 1981.

(a) All accessible attic space over conditioned areas shall be insulated to a minimum thermal resistance value of R-19.

Exemptions:

(1) Existing ceiling insulation is in excess of R-11 throughout at least 90 per cent of the existing ceiling area.

(b) All swinging doors which separate conditioned from unconditioned spaces shall be fully weather stripped or gasketed in

such a manner as to effectively and reliably limit air infiltration. Adhesive foam-type weater stripping will not constitute compliance.

(c) All domestic water heaters shall be fitted with external insulation blankets rated at a minimum thermal resistance value of R-6.

Exemptions:

(1) Thermal resistance of the total water heater insulation jacket which meets, or exceeds, A.S.H.R.A.E. Standard 90-75.

(2) Water heater clearance of less than 3" from nearest wall or is otherwise partially inaccessible to a wrap-around insulation blanket.

(3) Water heater is of non-standard, non-cylindrical shape requiring oddly cut insulation blanket or does not possess a pressure release valve.

(d) All uninsulated transverse ducts, plenums, fitting joints of all heating and cooling equipment in unconditioned areas such as attics, crawl, spaces garages and basements shall be sealed with pressure sensitive tape or mastic to prevent air loss and shall be insulated to a thermal resistance of R-5.6.

Exemptions:

(1) Duct is between floors, within interior walls, or is otherwise inaccessible without significant structural alteration or cost.

(e) The first four feet of hot water piping leading from electrical resistance, natural gas, or other fossil fuel fire domestic water heaters shall be insulated to a minimum resistance value of R-4.

(1) Piping is between floors, within interior walls, or is otherwise inaccessible without significant structural alteration.

(f) There shall be no broken window or hole in the building envelope where the light or air may be detected passing from an unconditioned space to a conditioned space.

Exemptions:

(1) Point of infiltration is inaccessible without significant structural alteration.

(g) All shower fixtures shall be fitted with flow restrictions or low-flow shower heads such that the maximum flow rate of the fixture does not exceed 3 gallons per minute maximum flow.

Exemptions:

(1) A flow rate of less than 3 gallons per minute due to reduced water pressure behind the shower head.

(2) Shower arm and head is of a ball-joint type that cannot easily be removed from the wall.

(h) All electrical wall outlet and wall switch plates shall be fitted with gaskets to reduce air infiltration.

Exemptions:

- (1) Electrical wall outlet and switch plates which are inaccessible.
- (2) Electrical wall outlet and switch plates for which infiltration has been otherwise eliminated through caulking of wire holes or other means.

Sec. 9.754. Notice of the Requirements of the Article.

Any real estate agent, real estate broker, real estate salesman or title company, whether representing a seller or buyer, involved in the sale or exchange of a dwelling subject to the provisions of this Article shall give written notice to the buyer of the requirements of this Article. The failure of a real estate agent, real estate broker, real estate salesman or title company to give notice required by this Section shall not excuse or exempt the buyer of a dwelling subject to the provisions of this Article from compliance with the energy audit requirements specified herein.

Sec. 9.755. Energy Audits.

(a) The buyer of a dwelling subject to the provisions of this Article shall, within 180 days of the sale or exchange of such dwelling:

- (1) Arrange for an energy audit of the dwelling by an energy auditor;
- (2) Upon completion of the energy audit, perform, or have performed, the tasks set forth by the auditor as required to meet the energy conservation standards herein prescribed as set forth by the auditor on Proof of Compliance Form; and
- (3) Upon compliance, record a copy of the Proof of Compliance Form, as completed by the energy auditor, with the director or his designated representative.

(b) (1) An energy auditor, when so authorized by a buyer, shall conduct an energy audit of the dwelling consistent with the standards set forth in this Article. The Auditor shall set forth his findings on a Proof of Compliance Form provided by the director. If the dwelling fails to meet the standards set forth in this Article, the auditor shall indicate on the Proof of Compliance Form the work necessary to bring the dwelling into compliance.

(2) If the dwelling is in compliance with the provisions of this article the buyer shall record the Proof of Compliance Form as set forth above.

(3) If the dwelling does not comply with the provisions of this article the buyer shall perform, or have performed, the tasks set forth by the auditor as required to comply with the provisions of this Article. Thereafter, the buyer shall request a subsequent inspection by an energy auditor to determine if the dwelling is in compliance with the provisions of this Article. The Auditor shall set forth his findings on the Proof of Compliance Form. If the dwelling is then determined to be in compliance with the provisions of this Article the buyer shall record the Proof of Compliance Form as set forth above. If the dwelling is not in compliance, the buyer will continue to be subject to the provisions of this Article.

(c) The buyer may satisfy the requirements of this Article by demonstrating to the satisfaction of the director that \$750.00, or 1-1/2% of the fair market value of the dwelling as of the date of sale, whichever is greater, has been reasonably expended or paid by the buyer in meeting the energy conservation standards prescribed by Section 9.753 with respect to said dwelling. Such demonstration shall be in the form of receipts, invoices or other documentation satisfactory to the director showing the actual cost of materials or labor and the date of installation. If the director determines that the foregoing provisions have been satisfied, he shall issue a Proof of Compliance Form to the buyer, indicating thereon the manner in which the buyer has satisfied the foregoing provisions. A copy of said Proof of Compliance Form shall be retained by the director.

(d) Any dwelling which has been determined to be in compliance pursuant to this Article shall, upon recordation of the Proof of Compliance Form as set forth above, be exempt from the provisions of this Article for 10 years following the date of the audit at which such determination was made.

Sec. 9.756. Violations.

Any failure by the buyer to comply with the requirements of Section 9.755 shall be an infraction subject to the provisions of Government Code Section 36900(b).

Sec. 9.757. Appeals.

Any person aggrieved by a determination or interpretation in the application of this Article may appeal such determination or interpretation to the Construction Codes Advisory and Appeals Board in the manner provided by Section 9.576, provided that the appeal is filed within 30 days of the decision being appealed.

The procedural requirements for any hearing required by the provisions of this section shall be governed by the requirements applicable to appeals under Section 9.576.

Any person aggrieved by the decision of the Construction Codes Advisory and Appeals Board pursuant to this section may appeal to the City Council, pursuant to Section 9.580.

Sec. 9.758. Fees.

Fees shall be required to cover the costs of processing Proof of Compliance Forms recorded pursuant to this Article. Fees shall be required to cover the costs of the appeal process.

Such fees shall be set by resolution of the City Council.

SECTION 3. Severability.

If any provision of this ordinance or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or application of this ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared to be severable.

PASSED FOR PUBLICATION:

ENACTED:

EFFECTIVE:

MAYOR

ATTEST:

CITY CLERK

SACRAMENTO MUNICIPAL UTILITY DISTRICT

COMMON FORECASTING METHODOLOGY II

FORECAST OF THE DEMAND
FOR ELECTRICITY
1978 - 1998

EXECUTIVE SUMMARY

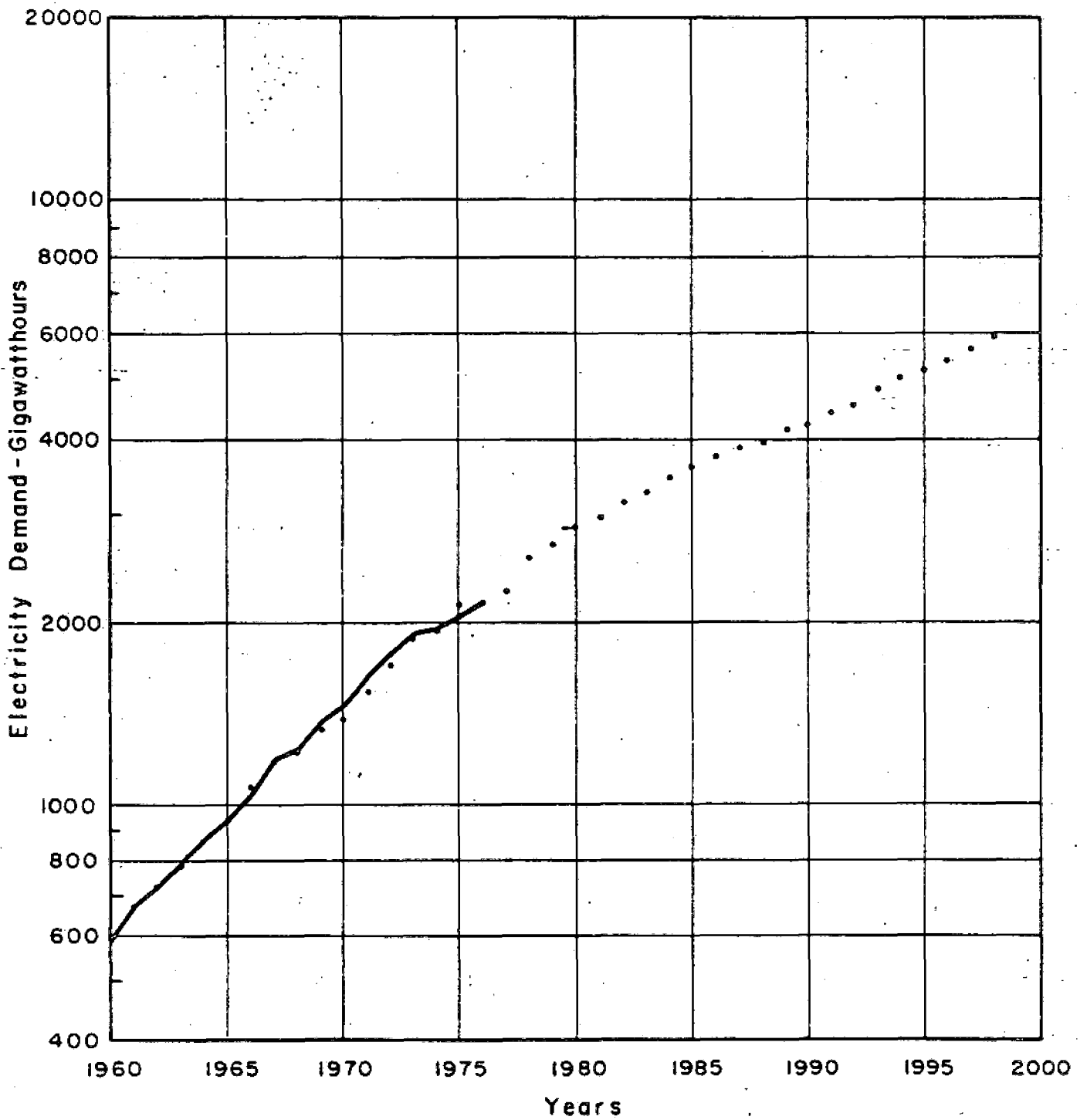
PREPARED FOR:
THE CALIFORNIA ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION
MARCH - 1978

PREFACE

This report contains a forecast of the demand for electricity for the service area of the Sacramento (California) Municipal Utility District (SMUD) for the period 1978 - 1998. This forecast is a biennial requirement of the California Public Resources Code and has been prepared according to procedures set forth in orders of the California Energy Resources Conservation and Development Commission (ERCDC). The procedure has been designated "Common Forecasting Methodology II" (CFM II). CFM I, the first biennial forecast, was submitted April 1976.

Two separate volumes constitute the complete report. The Executive Summary contains a summary of the forecast with other information specified by the Commission. The Technical Documentation contains the complete technical details of our work in producing the forecast.

This report was prepared by the Sacramento Municipal Utility District with Dr. J. Daniel Khazzoom serving as consultant in econometrics and energy modeling.



Historical —————
 Simulated



SMUD

SACRAMENTO MUNICIPAL UTILITY DISTRICT

**RESIDENTIAL ELECTRICITY DEMAND
 SMUD SERVICE AREA**

Figure 1-1.1

SACRAMENTO MUNICIPAL UTILITY DISTRICT
TABLE 2-1

HISTORICAL AND PROJECTED
SYSTEM PEAK AND BASE LOADS IN MEGAWATTS

	SUMMER PEAK ELECTRIC DEMAND MEGAWATTS EDT:S	WINTER PEAK ELECTRIC DEMAND MEGAWATTS EDT:W	AVERAGE DEMAND 20TH INT. LOAD DUR. CURVE MEGAWATTS EDL:20
60	342	313	NA
61	398	348	NA
62	417	367	NA
63	466	429	NA
64	546	461	133
65	577	526	156
66	682	542	184
67	740	579	189
68	793	602	213
69	856	621	225
70	908	658	229
71	1,020	708	248
72	1,099	800	271
73	1,173	758	295
74	1,201	758	281
75	1,272	781	314
76	1,330	790	333
77	1,354	848	343
78	1,524	967	393
79	1,608	1,019	422
80	1,694	1,075	452
81	1,771	1,124	479
82	1,856	1,181	510
83	1,941	1,237	541
84	2,024	1,292	571
85	2,115	1,355	605
86	2,188	1,407	633
87	2,262	1,460	662
88	2,336	1,514	691
89	2,409	1,565	713
90	2,488	1,626	750
91	2,570	1,692	783
92	2,649	1,756	816
93	2,748	1,838	854
94	2,840	1,915	890
95	2,933	1,992	927
96	3,032	2,078	968
97	3,136	2,169	1,011
98	3,254	2,265	1,055

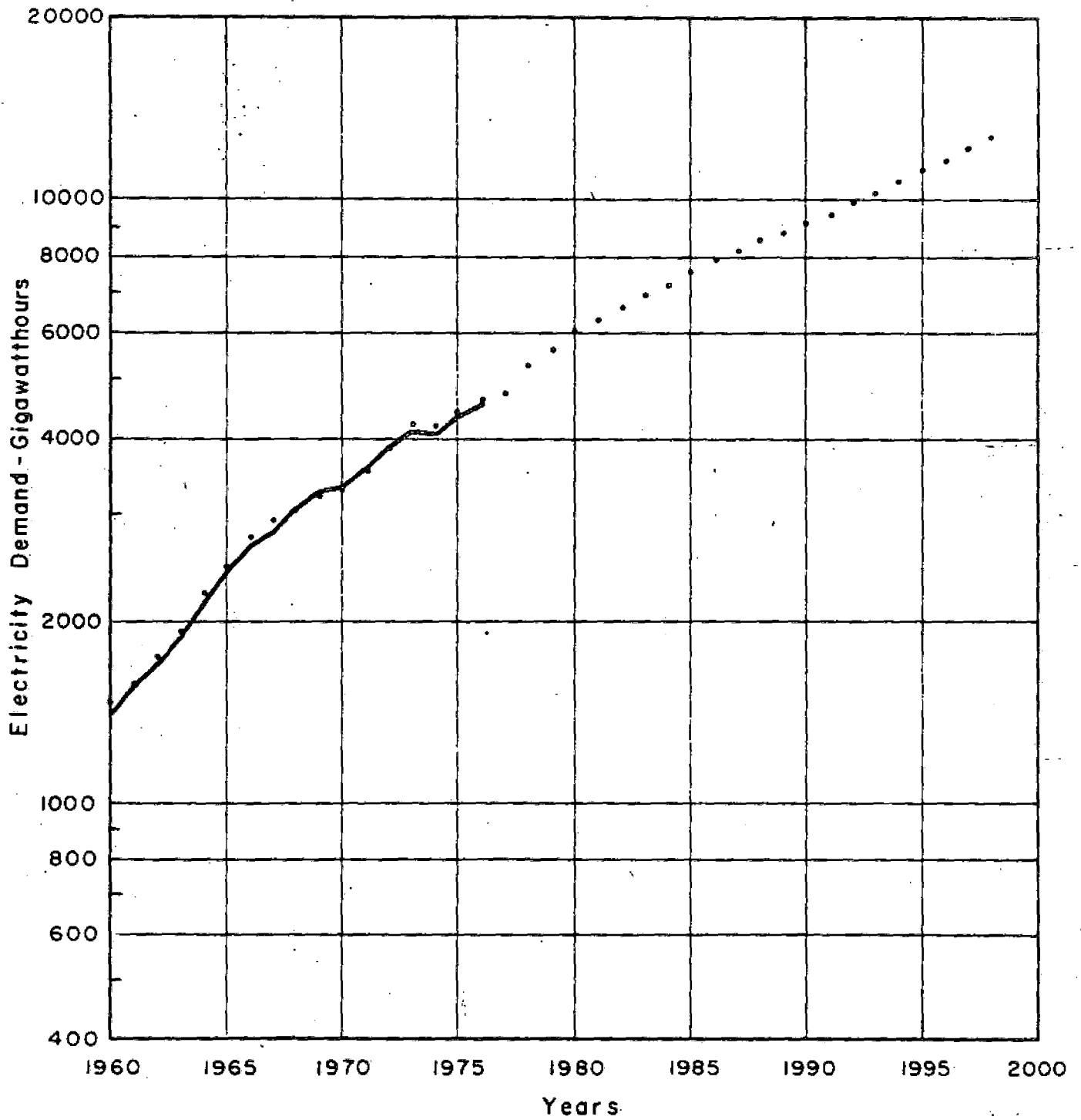
SACRAMENTO MUNICIPAL UTILITY DISTRICT

COMMON FORECASTING METHODOLOGY II

FORECAST OF THE DEMAND
FOR ELECTRICITY
1978 - 1998

TECHNICAL DOCUMENTATION

PREPARED FOR:
THE CALIFORNIA ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION
MARCH - 1978.



Historical —————
 Simulated



SMUD

SACRAMENTO MUNICIPAL UTILITY DISTRICT

**TOTAL ELECTRICITY DEMAND
 SMUD SERVICE AREA
 Figure E-18.1D**

SACRAMENTO MUNICIPAL UTILITY DISTRICT

SUPPLY PLAN FORMS

AND

SUMMARY OF LOADS AND RESOURCES

1978 - 1998

Complete Filing - Forms 1 Through 24

Prepared For:

**The California Energy Resources
Conservation And Development Commission
May 1978**

DOCKET NO. 77-EA-10

Date May 1978

UTILITY SMUD

SUMMARY OF LOADS AND RESOURCES

Page 1 of 5

FORM NUMBER R-1A

Adverse Hydro Conditions

Generating Capacity or Capability - Megawatts	1975 Actual	1976 Actual	1977 Actual	1978	1979	1980	1981	1982	1983	1984	1985	1986
1. Peak Loads (See instruction Notes 1 and 9.)												
a. Firm Demand	1272	1330	1354	1474	1552	1634	1721	1812	1908	2009	2115	2188
b. Firm Transaction	0	0	0	0	0	0	0	0	0	0	0	0
c. Interruptible	0	0	0	0	0	0	0	0	0	0	0	0
d. Total (a+b+c)	1272	1330	1354	1474	1552	1634	1721	1812	1908	2009	2115	2188
2. Generation Capacity or Capability												
a. Hydro - Conventional	649	649	643	649	649	649	649	649	649	649	649	649
b. Hydro - Pumped Storage	0	0	0	0	0	0	0	0	0	0	0	0
c. Fossil-thermal												
1) Oil and/or gas	0	0	0	0	0	0	0	0	0	0	0	0
2) Coal	0	0	0	0	0	0	0	0	0	0	0	0
3) Turbines	0	0	0	0	0	0	0	0	145	145	145	145
4) Combined Cycle	0	0	0	0	0	0	0	0	0	0	0	0
d. Nuclear	818	870	875	875	875	875	875	875	875	875	875	875
e. Geothermal	0	0	0	0	0	0	0	0	0	0	110	220
f. Other (itemize)	0	0	0	0	0	0	0	0	0	0	0	0
g. Off System Losses	0	0	0	0	0	0	0	0	0	0	0	0
h. Total	1467	1519	1518	1524	1524	1524	1524	1524	1669	1669	1779	1889
i. Total out of state ^{1/}												
3. Firm transfers												
a. Intrastate	56	78	117	172	252	337	451	578	549	670	687	665
b. Interstate	0	0	0	0	0	0	0	0	0	0	0	0
c. Total	56	78	117	172	252	337	451	578	549	670	687	665

^{1/} List by type

Date May 1978

UTILITY SMUD

FORM NUMBER R-1B

SUMMARY OF LOADS AND RESOURCES

Page 2 of 5

Generating Capacity or Capability - Megawatts	Adverse Hydro Conditions											
	1975 Actual	1976 Actual	1977 Actual	1978	1979	1980	1981	1982	1983	1984	1985	1986
4. Scheduled Maintenance	68	73	73	0	0	0	0	0	0	0	0	0
5. Net Capability and Firm Transfers (L2h + L3c - L4)	1455	1524	1562	1696	1776	1861	1975	2102	2218	2339	2466	2554
6. Net Margin Over Firm Load (L5 -(L1a + L1b))	183	194	208	222	224	227	254	290	310	330	351	366
7. Net Margin Over Firm Load - % L5 - (L1a + L1b) divided by (L1a + L1b)	14.4	14.6	15.4	15.1	14.4	13.9	14.8	16.0	16.2	16.4	16.6	16.7
8. Required Reserves	183	194	208	222	224	227	254	290	310	330	351	366
9. Anticipated Additions and Changes												
a. Generation Capability	+818	+ 52	- 1	+ 6	0	0	0	0	+145	0	+110	+110
b. Transfers		+ 22	+ 39	+ 55	+ 80	+ 85	+114	+127	- 29	+121	+ 17	- 22

ate May 1978

TILITY SMUD

SUMMARY OF LOADS AND RESOURCES

FORM NUMBER R-1A

Adverse Hydro Conditions

Generating Capacity or Capability - Megawatts	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. Peak Loads												
a. Firm Demand	2262	2336	2409	2488	2570	2649	2748	2840	2933	3032	3136	3254
b. Firm Transactions	0	0	0	0	0	0	0	0	0	0	0	0
c. Interruptible	0	0	0	0	0	0	0	0	0	0	0	0
d. Total Firm Demand (a+b)	2262	2336	2409	2488	2570	2649	2748	2840	2933	3032	3136	3254
2. Generation Capability												
a. Hydro - Conventional	649	649	649	649	649	649	649	649	649	649	649	649
b. Hydro - Pumped Storage	0	0	0	0	0	0	0	0	0	0	0	0
c. Fossil-Thermal												
1) Oil and/or gas	0	0	0	0	0	0	0	0	0	0	0	0
2) Coal	0	0	0	0	0	0	0	0	0	0	0	0
3) Turbines	145	145	145	145	145	145	145	145	145	145	145	145
4) Combined Cycle	0	0	0	0	0	0	0	0	0	0	0	0
d. Nuclear	875	875	875	875	1951	1951	1951	1951	1951	1951	1951	1951
e. Geothermal	220	220	220	220	220	220	220	220	220	220	220	220
f. Other (Itemize)	0	0	0	0	0	0	0	0	0	0	0	0
g. Off System Losses	0	0	0	0	0	0	0	0	0	0	0	0
h. Total	1889	1889	1889	1889	2965	2965	2965	2965	2965	2965	2965	2965
i. Total Out-of-State ^{1/}	0	0	0	0	0	0	0	0	0	0	0	0
3. Firm Transfers (Capability)												
a. Intrastate	753	842	930	1025	47	142	261	371	483	601	726	868
b. Interstate	0	0	0	0	0	0	0	0	0	0	0	0
c. Total	753	842	930	1025	47	142	261	371	483	601	726	868

^{1/} List by Type

Date May 1978UTILITY SMUDSUMMARY OF LOADS AND RESOURCES

Page 4 of 5

FORM NUMBER R-1B

Adverse Hydro Conditions

Generating Capacity or Capability - Megawatts	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
4. Scheduled Maintenance	0	0	0	0	0	0	0	0	0	0	0	0
5. Net Capability and Firm Transfers (L2h + L3c - L4)	2642	2731	2819	2914	3012	3107	3226	3336	3448	3566	3691	3833
6. Net Margin Over Firm Load (L5 - (L1a+L1b))	380	395	410	426	442	458	478	496	515	534	555	579
7. Net Margin Over Firm Load -% L5 - (L1a+L1b) divided by (L1a+L1b)	16.8	16.9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.6	17.7	17.8
8. Required Reserves	380	395	410	426	442	458	478	496	515	534	555	579
9. Anticipated Additions and Changes												
a. Generation Capability	0	0	0	0	+1076	0	0	0	0	0	0	0
b. Transfers	+83	+89	+88	+95	-978	+95	+119	+110	+112	+118	+125	+142

Date May 1978

UTILITY SMUD

FORM NUMBER R-1

NOTE FOR FORM R-1

Page 5 of 5

1. Adverse Hydro Capacity and Energy

The adverse hydro capacity is based on an adverse energy of 1028 GWh resulting from operation simulations for 3-year dry cycles ending in 1931 and 1961. The adverse energy is 57.2% of the 1925-1976 historical average, 1797 GWh, and will always support maximum project capacity (649 MW) in the peak month. Average monthly capacity supported varies from 70% in 1978 to 98% in 1998. The assumed capacity ratings to be used in future forecasts may not be affected by the recent drought. Such effects, if any, are being evaluated based on detailed runoff data.

SACRAMENTO MUNICIPAL UTILITY DISTRICT

CONSERVATION DEPARTMENT
PLANNING DIVISION

Staff Analysis of the
Cost Effectiveness of the
Sacramento County Retrofit
Ordinance 16.60

Revised

January, 1981

INTRODUCTION

The purpose of this report is to estimate the energy savings and cost effectiveness of energy conservation devices, as mandated by the proposed County of Sacramento Ordinance 16.60. This ordinance calls for the retrofit of energy conservation measures upon resale of older homes. The measures are designed to reduce the demand for gas and electricity. Providing for the installation of cost-effective conservation measures will help play a significant role in minimizing the need for building new power generation facilities to serve the Sacramento area. This in turn will serve the best interests of the residents of Sacramento County.

The methodology used in this report to determine cost effectiveness is based upon Life Cycle Costs (LCC) and the estimated payback period for each measure. Life Cycle Cost analysis is a method of converting future costs and future benefits into present dollars. A conversion such as this allows one to compare the total benefits of the measure over its lifetime to the total lifetime costs. A more thorough explanation of LCC and payback analysis is given in Appendix A.

It is important to note that while each measure may be cost effective in and of itself, when grouped together in a conservation package, it may become less cost effective. For example, the savings derived from insulating a hot water heater would be considerably less if there is a reduction in hot water use due to a low-flow shower head. However, this is not necessarily a basis for disposing of the idea of the Conservation package for the simple reason that the role or effectiveness of each conservation measure is dependent upon the home in which it is installed. Thus, an energy conservation measure may be more cost effective in one home and less so in another.

There are many factors which can affect the analysis of cost effectiveness. Projections as to the future costs of energy and the life expectancy of conservation actions are quite subjective and often conflicting. On these and other issues, the staff has sampled numerous reports and have based assumptions in part on these sources and in part on SMUD's staff calculations.

Tables 1 and 2 summarize the cost effectiveness and payback analysis for each of the conservation measures. Table 1 lists the energy savings and life expectancies. Table 2 presents the values for Life Cycle Costs (LCC) and Life Cycle Benefits (LCB). The assumptions and factors utilized to reach these values are explained in the following pages.

Typical House

To determine the energy savings of the proposed measures, it was necessary to assume a typical home for the Sacramento area. Due to the diverse nature of existing housing in the Sacramento area, the choice of a typical house was somewhat arbitrary: a home that is 1200 square feet in area with 15% single glazing and two exterior swinging doors. Further assumptions made are covered individually under each conservation measure.

ENERGY CONSERVATION MEASURES

Attic Insulation

Many homes in the Sacramento area have at least some insulation in the attic. However, there still exist a surprising number of homes with virtually no insulation at all. Therefore, the calculations for energy savings were based on two types of pre-existing insulation situations: no insulation (R-0) and some insulation (R-8).

There are a wide variety of insulation materials on the market today. In Sacramento, fiberglass, rockwool, and cellulose are the most commonly used materials for attic insulation. While some homeowners may be inclined to install the insulation themselves, the majority have insulation installed by a contractor. This is especially true for materials blown into the attic such as rockwool and cellulose.

The cost of installation varies between contractors. In this report, costs were based upon installation by SMUD sub-contractors. These prices are the result of competitive bidding.

For adding R-19 insulation (R-0 to R-19), the prices per square foot for fiberglass, rockwool, and cellulose are \$.27, \$.27 and \$.24 respectively. For adding R-11 insulation to a partially insulated attic (R-8 to R-19), the prices are \$.20, \$.20 and \$.17 per square foot respectively.

The life expectancy of attic insulation was approximated to be 20 years.

This value is confirmed by estimates given by PG&E.¹ The insulation materials themselves are longer lived, but they lose some of their insulation quality over the years due to settling and compaction.

The energy savings calculated for R-0 to R-19 are:

	<u>Winter</u>	<u>Summer</u>
Electric	7560/kWh/yr	1836 kWh/yr
Gas/Electric	429 Th/yr ²	1836 kWh/yr

A range of energy savings were calculated for gas savings because of a difference between SMUD estimates and PG&E estimates. The higher figure was given by PG&E.

The energy savings for R-8 to R-19 are:

	<u>Winter</u>	<u>Summer</u>
Electric	745 kWh/yr	235 kWh/yr
Gas/Electric	42-70 Th/yr	235 kWh/yr

¹CPUC, staff analysis of the cost effectiveness of the PG&E ZIP Weatherization Program (San Francisco, CA, June 1980), page 30.

²Th = Therms

Weatherstripping

The sample home used in this study includes two exterior swinging doors.

The total linear feet to be weatherstripped is approximately 38 feet.

Assumptions used to determine the energy savings are based upon a wind velocity which constitutes a leakage rate of 220 ft³/hr-lin-ft based upon ASHRAE FUNDAMENTALS). For calculation purposes, 50% of the leakage rate is used because the wind impinges on ½ of the house at any given time and pushes a corresponding amount of air out of the house. Our previous calculations did not follow ASHRAE methodology.

The cost difference of weatherstripping installation between contractor-installed and homeowner-installed is significant; therefore, each case is considered. The cost of materials were derived from retail prices of weatherization materials in Sacramento.

Three types of weatherstripping were analyzed for cost effectiveness. They are vinyl with metal, neoprene compression, and then metal. All three measures comply with the ordinance which mandates non-foam weatherstripping. The life expectancy of each type of weatherstripping will vary from home to home depending on the use of the doors. An average life span of each device is given in Table 1. Life expectancy is a crucial determiner as to the type of weatherstripping which should be installed. New types of weatherstripping are now being developed that will in the future prove to be even more cost effective and easier to install.

The energy savings calculated are:

	<u>Winter</u>	<u>Summer</u>
Electric	633.5 kWh	139.60 kWh
Gas/Electric	37.59 Th	139.60 kWh

Water Heater Jacket

The average water heater in Sacramento has an existing R-value of 5. The ordinance specifies that all water heaters shall be fitted with R-6 insulation jackets. The staff has based its calculations on an R-7 jacket which is the type used by PG&E in their weatherization program. Thus, the total R-value reached is R-12.

The electric water heater was assumed to have a 40-gallon capacity and an efficiency of 98%. The gas water heater, on the other hand, was assumed to have a 30-gallon capacity and an efficiency of 68%. The calculations were based on a temperature difference of 78⁰F between the water and the unconditioned space surrounding the water heater. In addition, the jacket for the electric water heater includes a top, whereas the jacket for the gas water heater has no top piece.

The energy savings calculated upon these assumptions are:

Electric	-	517 kWh/yr
Gas	-	20.8-25 Th/yr

The value of 25 therms/year was calculated by PG&E.

Flow Restrictors

This energy conservation measure will help save water as well as energy. The low-flow shower head reduces the water output of a typical shower from 7-9 gallons per minute to 3 gallons per minute. The amount of energy saved will be dependent on the number of persons in the household. An occupancy rate of 3.02 persons was assumed for the calculations. This figure is based on 1975 census reports for Sacramento for single-family dwellings.

The cost of a flow restrictor varies from \$.10 to \$10.00. The flow restrictor can be installed by the homeowner, but a \$12.00 installation charge per shower was assumed. For purposes of the analysis, the typical home was assumed to have two showers.

The 1-year life expectancy of the device is based on an estimate developed by Santa Clara in preparation of their energy ordinance. The life expectancy estimate may vary from the actual life of the device in Sacramento due to water use and type differences. A 10-year life estimate was used in this analysis.

The calculated energy savings per year are:

Electric	-	1842.2 kWh/yr
Gas	-	60-99.6 Th/yr

The value of 60 therms was calculated by PG&E. The higher therm estimate of 99.6 was calculated by SMUD.

Hot Water Pipe Insulation

The proposed ordinance requires insulation of the first four feet of pipe leading from the water heater. Calculations show that wrapping the pipe with R-4 insulation is an effective means of reducing energy consumption.

The cost of the insulation is minimal; in fact, the homeowner can even use scraps of insulation to complete this job. A material cost of \$4.38 was assumed. This price does not include any labor charges.

The life expectancy of the insulation materials is indefinite. A value of ten years was used as the basis for calculations since this equals the life expectancy of the water heater.

The energy savings are:

Electric	-	397.56 kWh/yr
Gas	-	13.57 Th/yr

Duct Insulation

Currently available data does not permit making reasonable estimates on the average size of duct systems; so all values are expressed in linear feet. The cost per linear foot, installed, is \$2.00 per linear foot³. The life expectancy is approximately 20 years.

The energy savings per linear foot per year are:

		<u>Winter</u>	<u>Summer</u>
Electric	-	55.57 kWh/yr	15.55 kWh/yr
Gas/Electric	-	4.3 Th/yr	15.55 kWh/yr

³D.A.T.A. SHRA Retrofit Workbook (Davis, 1980)

Gaskets (Proposed Addition)

All electrical wall outlet and wall switch plates shall be fitted with gaskets to reduce air infiltration.

Exemptions:

- (1) Electrical wall outlet and switch plates which are inaccessible.
- (2) Electrical wall outlet and switch plates infiltration which have been otherwise eliminated through caulking of wire holes or other means.

This proposed addition to the ordinance is based upon staff findings that gaskets are cost effective. Calculations were based on the assumption of a 1200 sq. ft. house with 48 electrical outlets and switches.

The materials cost of \$12.00 was based upon the current market value for gaskets. The estimated labor costs of \$40.00 to \$120.00 are based upon a telephone survey of handymen and contractors, respectively. Due to the potential damage to gaskets during painting, a seven year life expectancy was chosen.

The estimated energy savings are:

Electric	704 kWh
Gas/Electric	34.28Th/128 kWh

TABLE 1

Measure	Fuel	Annual Energy Savings	Life Expectancy (Yrs)	B/C	Simple Payback (Yrs)
Water Heater Jacket (R-7)	Elec.	517kWh	10	5.2	1.79
Water Heater Jacket (R-7)	Gas	20.8-25Th	10	8.07-9.7	1.44-1.2
Flow Restrictor (3 gal/min.)	Elec.	1842.2kWh	10	8.45	1.11
Flow Restrictor (3 gal/min.)	Gas	60.99.6Th	10	6.35-10.5	1.83-1.1
Hot H ₂ O Pipe Insulation (R-4)	Elec.	397.56kWh	10	18.33	.51
Hot H ₂ O Pipe Insulation (R-4)	Gas	13.57Th	10	14.44	.8
Attic Insulation (R-8 to R-19)					
Rockwool and Fiberglass	Elec.	980kWh	20	1.45	12.78
Rockwool and Fiberglass	Gas/Elec.	42-70Th/235kWh	20	2.76-4.3	9.76-6.5
Cellulose	Elec.	980kWh	20	1.71	10.8
Cellulose	Gas/Elec.	42-70th/235kWh	20	3.25-5.05	8.29-5.52
Attic Insulation (R-0 to R-19)					
Rockwool and Fiberglass	Elec.	9396kWh	20	10.13	1.84
Rockwool and Fiberglass	Gas/Elec.	429Th/1836kWh	20	20.11	1.37
Cellulose	Elec.	9396kWh	20	11.40	1.63
Cellulose	Gas/Elec.	429Th/1836kWh	20	22.11	1.21
Weatherstripping (Contractor installed)					
Vinyl w/metal	Elec.	773.1kWh	6	.539	10.69
Vinyl w/metal	Gas/Elec.	37.59Th/139.6kWh	6	.916	7.63
Neoprene Compression	Elec.	773.1kWh	6	.539	10.69
Neoprene Compression	Gas/Elec.	37.59Th/139.6kWh	6	.916	7.63
Thin metal	Elec.	773.1kWh	30	2.39	2.39
Thin metal	Gas/Elec.	37.59Th/139.6kWh	30	6.18	8.08
Weatherstripping (Homeowner installed)					
Vinyl w/metal	Elec.	773.1kWh	6	1.89	3.05
Vinyl w/metal	Gas/Elec.	37.59Th/139.6kWh	6	3.209	2.18
Neoprene Compression	Elec.	773.1kWh	6	1.89	3.05
Neoprene Compression	Gas/Elec.	37.59Th/139.6kWh	6	3.209	2.18
Thin Metal	Elec.	773.1kWh	30	7.35	7.35
Thin Metal	Gas/Elec.	37.59Th/139.6kWh	30	19.0	2.62
Duct Insulation (2" of insulation)	Elec.	71.12kWh/lin. ft.	20	12.56	1.49
Duct Insulation (2" of insulation)	Gas/Elec.	4.3Th/lin. ft/ 15.3kWh/lin. ft.	20	31.96	.87
Gaskets					
Contractor Installed	Elec.	704kWh	7	2.18-.72	3.05-9.15
Contractor Installed	Gas/Elec.	34.28Th/128kWh	7	3.83-1.27	2.17-6.52
Homeowner Installed	Elec.	704kWh	7	7.28	.915
Homeowner Installed	Gas/Elec.	34.28Th/128kWh	7	12.79	.65

kWh = Kilowatt hour
Th = Therm

TABLE 2

Measure	Fuel	Material Cost (\$)	Labor Cost(\$)	LCC \$	LCB \$	B/C	Simple Payback (Yrs)
Water Heater Jacket (R-7)	Elec.	20.00	--	20.00	104.00	5.2	1.79
Water Heater Jacket (R-7)	Gas	12.00	--	12.00	96.93-116.50	8.07-9.7	1.44-1.2
Flow Restrictor (3 Gal/min)	Elec.	20.00	24.00	44.00	372.13	8.45	1.11
Flow Restrictor (3 Gal/min)	Gas	20.00	24.00	44.00	279.6-464.14	6.35-10.5	1.83-1.1
Hot H ₂ O Pipe Insulation (R-4)	Elec.	4.38	--	4.38	80.31	18.33	.51
Hot H ₂ O Pipe Insulation (R-4)	Gas	4.38	--	4.38	63.27	14.44	.8
Attic Insulation (R-8 to R-19)							
Rockwool/Fiberglass	Elec.	240.00	(SMUD install.)	240.00	349.83	1.45	12.78
Rockwool/Fiberglass	Gas/Elec.	240.00	(SMUD install.)	240.00	664.61-1031.86	2.76-4.3	9.76-6.5
Cellulose	Elec.	204.00	(SMUD install.)	204.00	349.83	1.71	10.8
Cellulose	Gas/Elec.	204.00	(SMUD install.)	204.00	664.61-1031.86	3.25-5.05	8.29-5.52
Attic Insulation (R-0 to R-19)							
Rockwool/Fiberglass	Elec.	324.00	(SMUD install.)	324.00	3284.38	10.13	1.84
Rockwool/Fiberglass	Gas/Elec.	324.00	(SMUD install.)	324.00	6515.38	20.11	1.37
Cellulose	Elec.	288.00	(SMUD install.)	288.00	3284.38	11.40	1.63
Cellulose	Gas/Elec.	288.00	(SMUD install.)	288.00	6515.38	22.11	1.21
Weatherstripping (Contractor Installed)							
Vinyl w/metal	Elec.	44.00	110.00	154.00	83.09	.539	10.69
Vinyl w/metal	Gas/Elec.	44.00	110.00	154.00	141.23	.916	7.63
Neoprene Compression	Elec.	44.00	110.00	154.00	83.09	.539	10.69
Neoprene Compression	Gas/Elec.	44.00	110.00	154.00	141.23	.916	7.63
Thin metal	Elec.	53.00	110.00	163.00	389.63	2.39	2.39
Thin metal	Gas/Elec.	53.00	110.00	163.00	1007.33	6.18	8.08
Weatherstripping (Homeowner Installed)							
Vinyl w/metal	Elec.	44.00	--	44.00	83.09	1.89	3.05
Vinyl w/metal	Gas/Elec.	44.00	--	44.00	141.23	3.209	2.18
Neoprene Compression	Elec.	44.00	--	44.00	83.09	1.89	3.05
Neoprene Compression	Gas/Elec.	44.00	--	44.00	141.23	3.209	2.18
Thin metal	Elec.	53.00	--	53.00	389.63	7.35	7.35
Thin metal	Gas/Elec.	53.00	--	53.00	1007.33	19.0	2.62
Duct Insulation (2" insulation)	Elec.	2.00/linear ft.		2.00/	25.13	12.56	1.49
		(installed)		lin. ft.			
Duct Insulation (2" insulation)	Gas/Elec.	2.00/linear ft.		2.00/	63.93	31.96	.87
		(installed)					
Gaskets							
Contractor Installed	Elec.	12.00	28.00-108.00	40.00-120.00	87.35	2.18-7.2	3.05-9.15
Contractor Installed	Gas/Elec.	12.00	28.00-108.00	40.00-120.00	153.35	3.83-1.27	2.17-6.52
Homeowner Installed	Elec.	12.00	--	12.00	87.35	7.28	.915
Homeowner Installed	Gas/Elec.	12.00	--	12.00	153.56	12.79	.65

kWh = Kilowatt hour

Th = Therm

APPENDIX A

Life Cycle Benefit/Cost Analysis Method

The Life Cycle Cost method of benefit cost analysis allows future benefits and costs to be converted to present dollars. This method takes into account the discount rate, the escalation rate (inflation plus increase in energy rates), and taxes. To calculate the Life Cycle Benefits, the yearly energy savings (Es) are multiplied by the present value.

$$LCB = Es \times PV$$

The Life Cycle Costs are the initial cost of investment of the conservation measure. For devices not paid for in cash, finance charges can also be included such that:

$$LCC = C + Fc + Mc$$

Where Fc is the finance charge, Mc is the maintenance cost, the Benefit Cost ratio is then:

$$LCB/LCC$$

Any measure which has a value greater than one has life cycle benefits which exceed life cycle costs.

The formula for converting future costs and benefits into present values (PV) is:

$$PV = P_0 \left(\frac{1+e}{d(1-r_s-r_f)-e} \right) \left[1 - \left(\frac{1+e}{1+d(1-r_s-r_f)} \right)^T \right]$$

where:

P₀ = the initial rate

d = discount rate

e = escalation rate

r_s = marginal state tax on return on investment

r_f = marginal federal tax on return on investment

T = life expectancy of the conservation measure

The values used in this analysis were:

d = 12% (8% inflation + 4% return on investment)

r_s = 5%

r_f = 25%

The initial rate (P_0) of natural gas is difficult to determine due to the block structure of PG&E's rate system. Estimates vary from 35¢/therm (CEC)⁴ to 57¢/therm (PG&E). For space heating, the staff decided to use an intermediate value of 44¢ per therm and for water heating a value of 40¢ per therm⁵.

If these values are low, as some experts would contend, those measures shown cost effective by our calculations would be more so at a higher rate. The initial rate (P_0) for SMUD electricity was calculated at Rate 14, the lowest cost rate which applies to all-electric homes. These values are:

Winter	1.7¢ kWh
Summer	2.6¢ kWh

An average of 2.15¢ per kWh was used in calculations for water heating conservation measures.

The escalation rate is based on projected values by the CEC for the next 10 to 20 years. For measures with a life expectancy of 10 years or less, the values used were:

	<u>Inflation</u>	<u>Rate Growth</u>	<u>e</u>
Gas (PG&E)	8.3%	6.1%	14.4%
Electric (SMUD)	8.3%	-1.1%	7.2%

For measures with a life expectancy greater than 10 years, these values are:

	<u>Inflation</u>	<u>Rate Growth</u>	<u>e</u>
Gas (PG&E)	7.47%	4.9%	12.37%
Electric (SMUD)	7.47%	.2%	7.67%

Payback Analysis

The payback method of analysis offers an alternative means of estimating cost effectiveness. This method does not mirror the Benefit Cost Analysis and the two should be considered separately. If the different methodologies result in inconsistent figures as to whether an item is cost effective, it is up to the reader to examine the variables and equations of each analysis and choose the analysis which is most comfortable to them. Inconsistent figures are most likely to occur when the benefit cost ratio approaches 1.0. More complex, sophisticated formulae for these two methodologies result in more consistent figures. These formulae were not used as they would not have significantly altered results and would have made comprehension of the analyses unnecessarily complex.

The payback period is the length of time in years necessary to recover the initial investment or cost of a conservation measure. While more sophisticated approaches to payback analysis can be found, such as "discounted" payback and "true" payback, for the sake of simplicity, we have chosen to use the "simple" payback methodology.

"Simple" payback (c/s) is the cost of the device divided by the dollar savings in the first year.

$$\frac{C}{S} = \frac{C}{P_0 \times E_s} = n$$

Where:

n = years til payback.

c/s = simple payback

All calculations are summarized in Tables 1 and 2.

REFERENCES

Brown, Robert J., Life Cycle Costing: A Practical Guide for Energy Managers. (Fairmont Press, Inc. Atlanta) 1980

California Public Utilities Commission. Staff Analysis of the Cost Effectiveness of the PG&E ZIP Weatherization Program. (San Francisco) June, 1980

D.A.T.A. SHRA Retrofit Workbook. (Davis) 1980

City of Santa Clara. Energy Audit and Energy Conservation Measures Ordinance. November 16, 1979

AN ORDINANCE ADDING ARTICLE XXII TO CHAPTER 9 OF THE
SACRAMENTO CITY CODE, RELATING TO ENERGY CONSERVATION
STANDARDS

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1. Findings.

The Council hereby finds that:

(1) Electrical and natural gas energy used to power the climate control of residential structures is essential to the health, safety, and welfare of the people of Sacramento. The cost of energy is rapidly rising due to uncertainties about the present and future supplies of energy resources and the increased cost of power plant construction to keep pace with the rising demand for electricity. Rising residential energy costs are becoming an increasing economic burden.

(2) Projections of energy sources and potentials, when compared to projections of energy consumption, indicate that the people of the City of Sacramento face a potential energy shortage in the foreseeable future.

(3) Most of the dwellings within the City of Sacramento were constructed during periods of relative energy abundance and therefore employ climate control systems which consume energy in amounts exceeding that which is possible if recently developed and previously existing energy conservation technologies are employed.

(4) Significant opportunities exist for energy conservation through the application of appropriate energy conservation standards to existing dwellings. Conservation of energy in this manner will result in decreased residential energy costs; a decrease in peak energy demand; and will decrease the threat to health and welfare of residents of the City of Sacramento posed by potential energy shortages.

(5) Based upon the foregoing, the City finds it is necessary to promote energy conservation within the City of Sacramento by adopting the regulations set forth in this ordinance.

APPROVED
BY THE CITY COUNCIL

FEB 3 1981

OFFICE OF THE
CITY CLERK

(6) The energy conservation measures set forth in this ordinance are found to be cost effective over the lifetime of the devices which are necessary to comply with the requirements of this ordinance in the average home.

SECTION 2.

Article XXII is hereby added to Chapter 9 of the Sacramento City Code to read as follows:

ARTICLE XXII

Energy Conservation Standards for Existing Residential Structures

Sec. 9.751. Definitions.

For the purposes of this Article the following terms shall have the definition shown:

(a) "Accessible Attic Space" a space between the roof and ceiling next below in a dwelling where a roof slope is not less than two and one-half (2-1/2) feet in twelve (12) feet and the vertical clear height from the top of the bottom cord of the truss or ceiling joist to the underside of the roof sheathing at the roof ridge is at least thirty (30) inches.

(b) "A.S.H.R.A.E." American Society of Heating, Refrigeration, Air Conditioning Engineers, Inc.

(c) "Buyer" any person who receives a present ownership interest in real property including, but not limited to, any sale, exchange or lease with an option to purchase. Provided, however, that real property transactions described as exclusions in California Revenue and Taxation Code, Sections 62, 63, 64, 65 and 66 are excluded from this definition.

(d) "Conditioned Space" means the space, within a building, which is provided with a positive heat supply or a positive method of cooling, either of which has a connected output capacity in excess of 10 BTU/HR per sq. ft.

(e) "Dwelling" shall have the same meaning as defined in Section 405 of the Uniform Building Code, 1976 Edition.

(f) "Energy Auditor" a representative of Pacific Gas and Electric Company or the Sacramento Municipal Utility District, who is trained and qualified to conduct the energy audit required by this Article, or, a person who is certified or licensed by the State of California as qualified to conduct the energy audit required by this Article.

(g) "Energy Conservation Audit" an on-site inspection of existing ceiling insulation, weather stripping, duct insulation, hot water heaters, and additional items necessary to determine compliance with the requirements of this Article.

(h) "Proof of Compliance Form" a form used to indicate compliance with standards described in this Article.

(i) "Sale or Exchange" any transfer of a present ownership in real property including but not limited to any sale, exchange or lease with an option to purchase. Provided, however, that real property transactions described as exclusions in California Revenue and Taxation Code Sections 62, 63, 64, 65 and 66 are excluded from this definition of sale or exchange.

Sec. 9.752 Exemptions.

(a) The provisions of this Article shall not apply to the sale or exchange of any dwelling consummated prior to the effective date of this Article; provided, however, that any dwelling sold or exchanged subsequent to the effective date of this Article shall be subject to the provisions herein.

(b) Any dwelling for which a building permit was issued on, or after July 1, 1977, shall be exempt from the provisions of this Article for 10 years following the date the building permit was issued.

Sec. 9.753 Energy Conservation Standards.

Minimum energy conservation standards and exemptions, if any, are defined below.

Exemptions provided in this section may be recommended as applicable by the energy auditor; however, no exemptions provided in this section shall be applicable or otherwise available unless approved by the director or his designated representative.

The provisions of subsection (a) of this section shall not be enforced until July 3, 1981. The provisions of subsections (b) through (h) of this section shall not be enforced until June 28, 1982. Sections 9.754 and 9.755 shall not be enforced until the same dates prescribed in this section.

(a) All accessible attic space over conditioned areas shall be insulated to a minimum thermal resistance value of R-19.

Exemptions:

(1) Existing ceiling insulation is in excess of R-11 throughout at least 90 per cent of the existing ceiling area.

(b) All swinging doors which separate conditioned from unconditioned spaces shall be fully weather stripped or gasketed in

such a manner as to effectively and reliably limit air infiltration. Adhesive foam-type weater stripping will not constitute compliance.

(c) All domestic water heaters shall be fitted with external insulation blankets rated at a minimum thermal resistance value of R-6.

Exemptions:

(1) Thermal resistance of the total water heater insulation jacket which meets, or exceeds, A.S.H.R.A.E. Standard 90-75.

(2) Water heater clearance of less than 3" from nearest wall or is otherwise partially inaccessible to a wrap-around insulation blanket.

(3) Water heater is of non-standard, non-cylindrical shape requiring oddly cut insulation blanket or does not possess a pressure release valve.

(d) All uninsulated transverse ducts, plenums, fitting joints of all heating and cooling equipment in unconditioned areas such as attics, crawl, spaces garages and basements shall be sealed with pressure sensitive tape or mastic to prevent air loss and shall be insulated to a thermal resistance of R-5.6.

Exemptions:

(1) Duct is between floors, within interior walls, or is otherwise inaccessible without significant structural alteration or cost.

(e) The first four feet of hot water piping leading from electrical resistance, natural gas, or other fossil fuel fire domestic water heaters shall be insulated to a minimum resistance value of R-4.

(1) Piping is between floors, within interior walls, or is otherwise inaccessible without significant structural alteration.

(f) There shall be no broken window or hole in the building envelope where the light or air may be detected passing from an unconditioned space to a conditioned space.

Exemptions:

(1) Point of infiltration is inaccessible without significant structural alteration.

(g) All shower fixtures shall be fitted with flow restrictions or low-flow shower heads such that the maximum flow rate of the fixture does not exceed 3 gallons per minute maximum flow.

Exemptions:

(1) A flow rate of less than 3 gallons per minute due to reduced water pressure behind the shower head.

(2) Shower arm and head is of a ball-joint type that cannot easily be removed from the wall.

(h) All electrical wall outlet and wall switch plates shall be fitted with gaskets to reduce air infiltration.

Exemptions:

(1) Electrical wall outlet and switch plates which are inaccessible.

(2) Electrical wall outlet and switch plates for which infiltration has been otherwise eliminated through caulking of wire holes or other means.

Sec. 9.754. Notice of the Requirements of the Article.

Any real estate agent, real estate broker, real estate salesman or title company, whether representing a seller or buyer, involved in the sale or exchange of a dwelling subject to the provisions of this Article shall give written notice to the buyer of the requirements of this Article. The failure of a real estate agent, real estate broker, real estate salesman or title company to give notice required by this Section shall not excuse or exempt the buyer of a dwelling subject to the provisions of this Article from compliance with the energy audit requirements specified herein.

Sec. 9.755. Energy Audits.

(a) The buyer of a dwelling subject to the provisions of this Article shall, within 180 days of the sale or exchange of such dwelling:

(1) Arrange for an energy audit of the dwelling by an energy auditor;

(2) Upon completion of the energy audit, perform, or have performed, the tasks set forth by the auditor as required to meet the energy conservation standards herein prescribed as set forth by the auditor on Proof of Compliance Form; and

(3) Upon compliance, record a copy of the Proof of Compliance Form, as completed by the energy auditor, with the director or his designated representative.

(b) (1) An energy auditor, when so authorized by a buyer, shall conduct an energy audit of the dwelling consistent with the standards set forth in this Article. The Auditor shall set forth his findings on a Proof of Compliance Form provided by the director. If the dwelling fails to meet the standards set forth in this Article, the auditor shall indicate on the Proof of Compliance Form the work necessary to bring the dwelling into compliance.

(2) If the dwelling is in compliance with the provisions of this article the buyer shall record the Proof of Compliance Form as set forth above.

(3) If the dwelling does not comply with the provisions of this article the buyer shall perform, or have performed, the tasks set forth by the auditor as required to comply with the provisions of this Article. Thereafter, the buyer shall request a subsequent inspection by an energy auditor to determine if the dwelling is in compliance with the provisions of this Article. The Auditor shall set forth his findings on the Proof of Compliance Form. If the dwelling is then determined to be in compliance with the provisions of this Article the buyer shall record the Proof of Compliance Form as set forth above. If the dwelling is not in compliance, the buyer will continue to be subject to the provisions of this Article.

(c) The buyer may satisfy the requirements of this Article by demonstrating to the satisfaction of the director that \$750.00, or 1-1/2% of the fair market value of the dwelling as of the date of sale, whichever is greater, has been reasonably expended or paid by the buyer in meeting the energy conservation standards prescribed by Section 9.753 with respect to said dwelling. Such demonstration shall be in the form of receipts, invoices or other documentation satisfactory to the director showing the actual cost of materials or labor and the date of installation. If the director determines that the foregoing provisions have been satisfied, he shall issue a Proof of Compliance Form to the buyer, indicating thereon the manner in which the buyer has satisfied the foregoing provisions. A copy of said Proof of Compliance Form shall be retained by the director.

(d) Any dwelling which has been determined to be in compliance pursuant to this Article shall, upon recordation of the Proof of Compliance Form as set forth above, be exempt from the provisions of this Article for 10 years following the date of the audit at which such determination was made.

Sec. 9.756. Violations.

Any failure by the buyer to comply with the requirements of Section 9.755 shall be an infraction subject to the provisions of Government Code Section 36900(b).

Sec. 9.757. Appeals.

Any person aggrieved by a determination or interpretation in the application of this Article may appeal such determination or interpretation to the Construction Codes Advisory and Appeals Board in the manner provided by Section 9.576, provided that the appeal is filed within 30 days of the decision being appealed.

The procedural requirements for any hearing required by the provisions of this section shall be governed by the requirements applicable to appeals under Section 9.576.

Any person aggrieved by the decision of the Construction Codes Advisory and Appeals Board pursuant to this section may appeal to the City Council, pursuant to Section 9.580.

Sec. 9.758. Fees.

Fees shall be required to cover the costs of processing Proof of Compliance Forms recorded pursuant to this Article. Fees shall be required to cover the costs of the appeal process.

Such fees shall be set by resolution of the City Council.

SECTION 3. Severability.

If any provision of this ordinance or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or application of this ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared to be severable.

PASSED FOR PUBLICATION:

ENACTED:

EFFECTIVE:

MAYOR

ATTEST:

CITY CLERK

21



CITY OF SACRAMENTO

CITY MANAGER'S OFFICE
RECEIVED
JAN 19 1981

DEPARTMENT OF ENGINEERING
915 I STREET SACRAMENTO, CALIFORNIA 95814
CITY HALL ROOM 207 TELEPHONE (916) 449-5281

R. H. PARKER
CITY ENGINEER
J. F. VAROZZA
ASSISTANT CITY ENGINEER

January 19, 1981

City Council
Sacramento, California

Honorable Members in Session:

SUBJECT: Residential Resale Energy Audit Ordinance

SUMMARY:

Submitted is a residential resale energy audit ordinance. At their December 23, 1980 meeting, the Budget and Finance Committee directed staff to forward this ordinance to the Council for adoption.

RECOMMENDATION:

It is recommended that this ordinance be passed for publication of title, and that the matter be continued for one week.

Respectfully submitted,

R. H. PARKER
City Engineer

Recommendation Approved:

Walter J. Slipe, City Manager

APPROVED BY THE CITY COUNCIL *ppp + cont*

JAN 27 1981 *to 2-3-81*

OFFICE OF THE
CITY CLERK

January 27, 1981
All Districts

AN ORDINANCE ADDING ARTICLE XXII TO CHAPTER 9 OF THE
SACRAMENTO CITY CODE, RELATING TO ENERGY CONSERVATION
STANDARDS

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1. Findings.

The Council hereby finds that:

- (1) Electrical and natural gas energy used to power the climate control of residential structures is essential to the health, safety, and welfare of the people of Sacramento. The cost of energy is rapidly rising due to uncertainties about the present and future supplies of energy resources and the increased cost of power plant construction to keep pace with the rising demand for electricity. Rising residential energy costs are becoming an increasing economic burden.
- (2) Projections of energy sources and potentials, when compared to projections of energy consumption, indicate that the people of the City of Sacramento face a potential energy shortage in the foreseeable future.
- (3) Most of the dwellings within the City of Sacramento were constructed during periods of relative energy abundance and therefore employ climate control systems which consume energy in amounts exceeding that which is possible if recently developed and previously existing energy conservation technologies are employed.
- (4) Significant opportunities exist for energy conservation through the application of appropriate energy conservation standards to existing dwellings. Conservation of energy in this manner will result in decreased residential energy costs; a decrease in peak energy demand; and will decrease the threat to health and welfare of residents of the City of Sacramento posed by potential energy shortages.
- (5) Based upon the foregoing, the City finds it is necessary to promote energy conservation within the City of Sacramento by adopting the regulations set forth in this ordinance.

APPROVED
BY THE CITY COUNCIL

JAN 27 1981 TO 2-3-81

OFFICE OF THE
CITY CLERK

(6) The energy conservation measures set forth in this ordinance are found to be cost effective over the lifetime of the devices which are necessary to comply with the requirements of this ordinance in the average home.

SECTION 2.

Article XXII is hereby added to Chapter 9 of the Sacramento City Code to read as follows:

ARTICLE XXII

Energy Conservation Standards for Existing Residential Structures

Sec. 9.751. Definitions.

For the purposes of this Article the following terms shall have the definition shown:

(a) "Accessible Attic Space" a space between the roof and ceiling next below in a dwelling where a roof slope is not less than two and one-half (2-1/2) feet in twelve (12) feet and the vertical clear height from the top of the bottom cord of the truss or ceiling joist to the underside of the roof sheathing at the roof ridge is at least thirty (30) inches.

(b) "A.S.H.R.A.E." American Society of Heating, Refrigeration, Air Conditioning Engineers, Inc.

(c) "Buyer" any person who receives a present ownership interest in real property including, but not limited to, any sale, exchange or lease with an option to purchase. Provided, however, that real property transactions described as exclusions in California Revenue and Taxation Code, Sections 62, 63, 64, 65 and 66 are excluded from this definition.

(d) "Conditioned Space" means the space, within a building, which is provided with a positive heat supply or a positive method of cooling, either of which has a connected output capacity in excess of 10 BTU/HR per sq. ft.

(e) "Dwelling" shall have the same meaning as defined in Section 405 of the Uniform Building Code, 1976 Edition.

(f) "Energy Auditor" a representative of Pacific Gas and Electric Company or the Sacramento Municipal Utility District, who is trained and qualified to conduct the energy audit required by this Article, or, a person who is certified or licensed by the State of California as qualified to conduct the energy audit required by this Article.

(g) "Energy Conservation Audit" an on-site inspection of existing ceiling insulation, weather stripping, duct insulation, hot water heaters, and additional items necessary to determine compliance with the requirements of this Article.

(h) "Proof of Compliance Form" a form used to indicate compliance with standards described in this Article.

(i) "Sale or Exchange" any transfer of a present ownership in real property including but not limited to any sale, exchange or lease with an option to purchase. Provided, however, that real

property transactions described as exclusions in California Revenue and Taxation Code Sections 62, 63, 64, 65 and 66 are excluded from this definition of sale or exchange.

Sec. 9.752 Exemptions.

(a) The provisions of this Article shall not apply to the sale or exchange of any dwelling consummated prior to the effective date of this Article; provided, however, that any dwelling sold or exchanged subsequent to the effective date of this Article shall be subject to the provisions herein.

(b) Any dwelling for which a building permit was issued on, or after July 1, 1977, shall be exempt from the provisions of this Article for 10 years following the date the building permit was issued.

Sec. 9.753 Energy Conservation Standards.

Minimum energy conservation standards and exemptions, if any, are defined below.

Exemptions provided in this section may be recommended as applicable by the energy auditor; however, no exemptions provided in this section shall be applicable or otherwise available unless approved by the director or his designated representative.

The provisions of this article shall not be enforced until July 1, 1981.

(a) All accessible attic space over conditioned areas shall be insulated to a minimum thermal resistance value of R-19.

Exemptions:

(1) Existing ceiling insulation is in excess of R-11 throughout at least 90 per cent of the existing ceiling area.

(b) All swinging doors which separate conditioned from unconditioned spaces shall be fully weather stripped or gasketed in

such a manner as to effectively and reliably limit air infiltration. Adhesive foam-type weater stripping will not constitute compliance.

(c) All domestic water heaters shall be fitted with external insulation blankets rated at a minimum thermal resistance value of R-6.

Exemptions:

(1) Thermal resistance of the total water heater insulation jacket which meets, or exceeds, A.S.H.R.A.E. Standard 90-75.

(2) Water heater clearance of less than 3" from nearest wall or is otherwise partially inaccessible to a wrap-around insulation blanket.

(3) Water heater is of non-standard, non-cylindrical shape requiring oddly cut insulation blanket or does not possess a pressure release valve.

(d) All uninsulated transverse ducts, plenums, fitting joints of all heating and cooling equipment in unconditioned areas such as attics, crawl, spaces garages and basements shall be sealed with pressure sensitive tape or mastic to prevent air loss and shall be insulated to a thermal resistance of R-5.6.

Exemptions:

(1) Duct is between floors, within interior walls, or is otherwise inaccessible without significant structural alteration or cost.

(e) The first four feet of hot water piping leading from electrical resistance, natural gas, or other fossil fuel fire domestic water heaters shall be insulated to a minimum resistance value of R-4.

(1) Piping is between floors, within interior walls, or is otherwise inaccessible without significant structural alteration.

(f) There shall be no broken window or hole in the building envelope where the light or air may be detected passing from an unconditioned space to a conditioned space.

Exemptions:

(1) Point of infiltration is inaccessible without significant structural alteration.

(g) All shower fixtures shall be fitted with flow restrictions or low-flow shower heads such that the maximum flow rate of the fixture does not exceed 3 gallons per minute maximum flow.

Exemptions:

(1) A flow rate of less than 3 gallons per minute due to reduced water pressure behind the shower head.

(2) Shower arm and head is of a ball-joint type that cannot easily be removed from the wall.

(h) All electrical wall outlet and wall switch plates shall be fitted with gaskets to reduce air infiltration.

Exemptions:

- (1) Electrical wall outlet and switch plates which are inaccessible.
- (2) Electrical wall outlet and switch plates for which infiltration has been otherwise eliminated through caulking of wire holes or other means.

Sec. 9.754. Notice of the Requirements of the Article.

Any real estate agent, real estate broker, real estate salesman or title company, whether representing a seller or buyer, involved in the sale or exchange of a dwelling subject to the provisions of this Article shall give written notice to the buyer of the requirements of this Article. The failure of a real estate agent, real estate broker, real estate salesman or title company to give notice required by this Section shall not excuse or exempt the buyer of a dwelling subject to the provisions of this Article from compliance with the energy audit requirements specified herein.

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(a) The buyer of a dwelling subject to the provisions of this Article shall, within 180 days of the sale or exchange of such dwelling:

- (1) Arrange for an energy audit of the dwelling by an energy auditor;
- (2) Upon completion of the energy audit, perform, or have performed, the tasks set forth by the auditor as required to meet the energy conservation standards herein prescribed as set forth by the auditor on Proof of Compliance Form; and
- (3) Upon compliance, record a copy of the Proof of Compliance Form, as completed by the energy auditor, with the director or his designated representative.

(b) (1) An energy auditor, when so authorized by a buyer, shall conduct an energy audit of the dwelling consistent with the standards set forth in this Article. The Auditor shall set forth his findings on a Proof of Compliance Form provided by the director. If the dwelling fails to meet the standards set forth in this Article, the auditor shall indicate on the Proof of Compliance Form the work necessary to bring the dwelling into compliance.

(2) If the dwelling is in compliance with the provisions of this article the buyer shall record the Proof of Compliance Form as set forth above.

(3) If the dwelling does not comply with the provisions of this article the buyer shall perform, or have performed, the tasks set forth by the auditor as required to comply with the provisions of this Article. Thereafter, the buyer shall request a subsequent inspection by an energy auditor to determine if the dwelling is in compliance with the provisions of this Article. The Auditor shall set forth his findings on the Proof of Compliance Form. If the dwelling is then determined to be in compliance with the provisions of this Article the buyer shall record the Proof of Compliance Form as set forth above. If the dwelling is not in compliance, the buyer will continue to be subject to the provisions of this Article.

(c) The buyer may satisfy the requirements of this Article by demonstrating to the satisfaction of the director that \$750.00, or 1-1/2% of the fair market value of the dwelling as of the date of sale, whichever is greater, has been reasonably expended or paid by the buyer in meeting the energy conservation standards prescribed by Section 9.753 with respect to said dwelling. Such demonstration shall be in the form of receipts, invoices or other documentation satisfactory to the director showing the actual cost of materials or labor and the date of installation. If the director determines that the foregoing provisions have been satisfied, he shall issue a Proof of Compliance Form to the buyer, indicating thereon the manner in which the buyer has satisfied the foregoing provisions. A copy of said Proof of Compliance Form shall be retained by the director.

(d) Any dwelling which has been determined to be in compliance pursuant to this Article shall, upon recordation of the Proof of Compliance Form as set forth above, be exempt from the provisions of this Article for 10 years following the date of the audit at which such determination was made.

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Any failure by the buyer to comply with the requirements of Section 9.755 shall be an infraction subject to the provisions of Government Code Section 36900(b).

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Any person aggrieved by a determination or interpretation in the application of this Article may appeal such determination or interpretation to the Construction Codes Advisory and Appeals Board in the manner provided by Section 9.576, provided that the appeal is filed within 30 days of the decision being appealed.

The procedural requirements for any hearing required by the provisions of this section shall be governed by the requirements applicable to appeals under Section 9.576.

Any person aggrieved by the decision of the Construction Codes Advisory and Appeals Board pursuant to this section may appeal to the City Council, pursuant to Section 9.580.

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Such fees shall be set by resolution of the City Council.

SECTION 3. Severability.

If any provision of this ordinance or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or application of this ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared to be severable.

PASSED FOR PUBLICATION:

ENACTED:

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MAYOR

ATTEST:

CITY CLERK

AN ORDINANCE ADDING ARTICLE XXII TO CHAPTER 9 OF THE
SACRAMENTO CITY CODE, RELATING TO ENERGY CONSERVATION
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The Council hereby finds that:

(1) Electrical and natural gas energy used to power the climate control of residential structures is essential to the health, safety, and welfare of the people of Sacramento. The cost of energy is rapidly rising due to uncertainties about the present and future supplies of energy resources and the increased cost of power plant construction to keep pace with the rising demand for electricity. Rising residential energy costs are becoming an increasing economic burden.

(2) Projections of energy sources and potentials, when compared to projections of energy consumption, indicate that the people of the City of Sacramento face a potential energy shortage in the foreseeable future.

(3) Most of the dwellings within the City of Sacramento were constructed during periods of relative energy abundance and therefore employ climate control systems which consume energy in amounts exceeding that which is possible if recently developed and previously existing energy conservation technologies are employed.

(4) Significant opportunities exist for energy conservation through the application of appropriate energy conservation standards to existing dwellings. Conservation of energy in this manner will result in decreased residential energy costs; a decrease in peak energy demand; and will decrease the threat to health and welfare of residents of the City of Sacramento posed by potential energy shortages.

(5) Based upon the foregoing, the City finds it is necessary to promote energy conservation within the City of Sacramento by adopting the regulations set forth in this ordinance.

(6) The energy conservation measures set forth in this ordinance are found to be cost effective over the lifetime of the devices which are necessary to comply with the requirements of this ordinance in the average home.

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(b) "A.S.H.R.A.E." American Society of Heating, Refrigeration, Air Conditioning Engineers, Inc.

(c) "Buyer" any person who receives a present ownership interest in real property including, but not limited to, any sale, exchange or lease with an option to purchase. Provided, however, that real property transactions described as exclusions in California Revenue and Taxation Code, Sections 62, 63, 64, 65 and 66 are excluded from this definition.

(d) "Conditioned Space" means the space, within a building, which is provided with a positive heat supply or a positive method of cooling, either of which has a connected output capacity in excess of 10 BTU/HR per sq. ft.

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(f) "Energy Auditor" a representative of Pacific Gas and Electric Company or the Sacramento Municipal Utility District, who is trained and qualified to conduct the energy audit required by this Article, or, a person who is certified or licensed by the State of California as qualified to conduct the energy audit required by this Article.

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The provisions of this article shall not be enforced until
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(a) All accessible attic space over conditioned areas shall be insulated to a minimum thermal resistance value of R-19.

Exemptions:

(1) Existing ceiling insulation is in excess of R-11 throughout at least 90 per cent of the existing ceiling area.

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such a manner as to effectively and reliably limit air infiltration. Adhesive foam-type weater stripping will not constitute compliance.

(c) All domestic water heaters shall be fitted with external insulation blankets rated at a minimum thermal resistance value of R-6.

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(1) Duct is between floors, within interior walls, or is otherwise inaccessible without significant structural alteration or cost.

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The procedural requirements for any hearing required by the provisions of this section shall be governed by the requirements applicable to appeals under Section 9.576.

Any person aggrieved by the decision of the Construction Codes Advisory and Appeals Board pursuant to this section may appeal to the City Council, pursuant to Section 9.580.

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PASSED FOR PUBLICATION:

ENACTED:

EFFECTIVE:

MAYOR

ATTEST:

CITY CLERK

29

RECEIVED
CITY CLERKS OFFICE
CITY OF SACRAMENTO
FEB 2 3 30 PM '81

PACIFIC GAS AND ELECTRIC COMPANY

PG&E + 5555 FLORIN-PERKINS ROAD • P. O. BOX 7444 • SACRAMENTO, CALIFORNIA 95826

February 2, 1981

City Council of Sacramento
915 I Street
Sacramento, CA 95814

Honorable Members in Session:

SUBJECT: Residential Resale Energy Audit Ordinance

After reviewing the latest draft of the retrofit ordinance proposed by the City of Sacramento, Pacific Gas and Electric Company recommends the following:

1. Section 9.755 Energy Audits should mandate that the buyer be responsible for furnishing the auditor with the necessary proof of compliance forms for completing an audit inspection.
2. The retrofit ordinance should contain a penalties and civil remedy paragraph that limits the liability of utilities on timing and performance of an audit where no charge for the service has been made. The Sacramento County ordinance includes such a paragraph in Section 16.60.110. (Please see the attached example)

PGandE supports your efforts to encourage energy conservation. We acknowledge the work of you and your staff for the fine quality of this ordinance.

Sincerely,

Judy R. Hanks

Judy R. Hanks
Residential Conservation
Services Supervisor

JRH:jld

Attachment

date of this Chapter.

16.60.110 EXCUSE OF PERFORMANCE BY ENERGY AUDITORS. No violation of the provisions of this Chapter, or civil liability based upon this Chapter, on the part of an Energy Auditor, shall arise from the performance of an auditor in conducting an audit, or the failure of an auditor to conduct an audit, if the audit services were performed, or were to be performed, free of charge to the buyer or other person.

16.60.120 APPEALS. Any buyer dissatisfied with the decision of an Energy Auditor or the Chief Building Inspector relating to the provisions of this Chapter may, with one hundred twenty (120) days from the date of sale or exchange of a dwelling, or within fifteen (15) calendar days from the completion of an energy audit, whichever date is later in time, appeal from such decision to the Board of Appeals created pursuant to Section 16.20.080. If the buyer is dissatisfied with a decision of the Board of Appeals, the buyer may, within fifteen (15) calendar days, subsequently appeal the decision of the Energy Auditor or Chief Building Inspector to the Board of Supervisors.

Upon final determination by the Board of Appeals, or the Board of Supervisors, the buyer shall comply with such determination not later than sixty (60) days thereafter, or such other period of time as the Board of Appeals, or Board of Supervisors shall prescribe.

As provided in Section 16.60.140, the County Executive shall adopt rules relating to appeals.

16.60.130 FEES. Reasonable fees shall be required to cover the



ENVIRONMENTAL COUNCIL OF SACRAMENTO

29

January 20, 1981

To: Sacramento City Council

From: Environmental Council of Sacramento

Subject: Residential Resale Energy Audit Ordinance

Conserving energy by stopping warm air in the winter and cool air in the summer from bleeding out of the tens of thousands of older homes in Sacramento is the purpose of this ordinance. If energy conservation is viewed as an energy source, as it should be, then Sacramento's stock of older homes is the source of a considerable amount of energy which can replace vital electricity and natural gas which is now needlessly lost.

A lot of work has gone into this ordinance. A committee representing several diverse interests has worked for the last year under the auspices of Supervisor Illa Collin's office to put together an ordinance which is fair and equitable and which can accomplish the goal of energy conservation. (As you know, this ordinance has been modified somewhat for the City but is basically the same as the County's.) SMUD staff has prepared a report to determine the cost effectiveness of the measures in the ordinance based on Life Cycle Costs and the estimated payback period for each measure.

The home buyer has several things going for him in complying with this ordinance. Both SMUD and P.G.&E. are required by law to provide free residential energy audits, which will be starting June first of this year, and SMUD already has in place a ceiling insulation program. In addition, both utilities are providing low rate, long term loans to homeowners who retrofit. As of January, 1981, the State of California is allowing tax credits for energy saving home improvements independent of solar systems. A forty percent tax credit up to \$1,500 can be received by homeowners who install energy conservation measures. Also, this ordinance will help mitigate the steadily increasing cost of natural gas and electricity.

An article in the Sacramento Union, dated January 1, 1981, stated, "The biggest gains in energy productivity [efficiency] are occurring in the transportation and industrial sectors. By contrast, there has been little improvement in the energy efficiency of residential and commercial buildings despite the availability of insulation and other means of conservation." This ordinance will help fill the gap as far as Sacramento is concerned.

ECOS urges your yes vote.

Tina Thomas

Tina Thomas, President
Environmental Council of Sacramento

SACRAMENTO ENERGY PLANNING AND CONSERVATION COUNCIL

29

700 H STREET • ROOM 7625 • SACRAMENTO, CALIFORNIA 95814 • (916) 440-5882

February 3, 1981

Honorable Phillip Isenberg
Mayor of Sacramento
City Hall
Sacramento, CA 95814

Re: City of Sacramento Residential Energy Conservation
Retrofit Ordinance

Dear Mayor Isenberg:

The Sacramento Energy Planning and Conservation Council fully supports the proposed Residential Energy Conservation Retrofit Ordinance. (See attached membership of the Council.) The ordinance is the most cost-effective and equitable means available to reduce energy consumption in Sacramento homes.

Background

In 1979 Sacramento citizens spent nearly \$1 billion for energy, equal to one-quarter of all retail sales in metropolitan Sacramento for that year. Over one-third of that energy was used in our homes. While the State building standards call for energy conservation in new homes, there are no standards for existing homes. Yet, approximately 75% of all residences that will be here in the year 2000 have been built. Therefore, the major concern to the Sacramento community is energy use in existing homes.

The ordinance before you has been worked on by many groups over the last year. It has been one of the most cooperative efforts in energy I have seen in Sacramento including representatives from Title Companies, the Sacramento Board of Realtors, the Building Industry Association, the California Energy Commission, SMUD, PG&E, branches of City and County governments, the League of Women Voters, the Environmental Council of Sacramento and many others. Two people, however, deserve special recognition and our thanks for their lasting support: ~~Joyce Mihanovich, Illa Collin's assistant,~~ and Winston Ashizawa, SMUD. *Keith Bray, consultant*

This ordinance represents the first time the County and the utilities have worked together to help the taxpayers and ratepayers of this county relieve some of their ever-increasing utility bills. Additionally, this ordinance will provide jobs and business opportunities in Sacramento.

Points of Concern

Last March when this ordinance was first brought before you, there were three major concerns voiced:

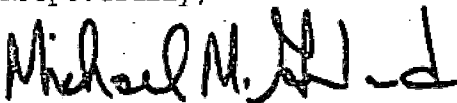
- There would be a charge of approximately \$50 for the audit of the home
- The conservation measures would increase the cost of the home
- The ordinance would delay the purchase of a home

All three points have been addressed and resolved.

- There is no charge for the audit. SMUD and PG&E, under the federally mandated Residential Conservation Service, are cooperating in coordinating their audit services, for free, with the requirements of this ordinance
- As to the costs, last March I testified that this ordinance would cost the homebuyer \$60 the first year and they would save approximately \$100 the second year. Now we expect the homebuyer to save over \$240 by State tax credits or rebates and over \$75 in utility bills the first year. Additionally, the utilities now offer loans below the market mortgage rate and may soon be offering zero interest loans with deferred payment until the resale of the house. This means the primary financial responsibility is the utilities who gain ratepayers' savings by decreasing their need for expensive new power and gas sources.
- Under the current ordinance, the sale of the house is not held up pending the energy audit and retrofit. The homebuyer is required to, within 180 days of the sale of the house, meet the audit and retrofit requirements of the ordinance.

This ordinance with its substantial benefits should be enacted expeditiously. The price of natural gas, for example, is expected to increase over 6% faster than inflation for the next ten years. This ordinance represents a good investment. Homeowners will save an average of \$12 for every dollar invested. Rarely are you, as decision makers, given the opportunity to save the taxpayers money, help the local utilities stabilize their rates and growth for new supplies and aid in our national effort to curb our economic and energy dependence on foreign energy resources. The Sacramento Energy Council urges you to unanimously support this most important ordinance.

Respectfully,



Michael M. Garland

SACRAMENTO ENERGY PLANNING AND CONSERVATION COUNCIL

700 H STREET • ROOM 7650 • SACRAMENTO, CALIFORNIA 95814 • (916) 440-5833

- a. American Association of University Women
- b. Capital Bicycle Commuters Association
- c. Environmental Council of Sacramento, Inc.
- d. League of Women Voters of Sacramento
- e. Modern Transit Society
- f. Mother Lode Chapter, Sacramento Valley - Sierra Group
- g. Pacific Gas & Electric Company
- h. Sacramento Board of Realtors
- i. Sacramento Building Industry Association
- j. Sacramento City Council
- k. Sacramento City Planning Commission
- l. Sacramento County Board of Supervisors
- m. Sacramento County Farm Bureau
- n. Sacramento County Policy Planning Commission
- o. Sacramento Metropolitan Chamber of Commerce
- p. Sacramento Municipal Utility District
- q. Sacramento Regional Area Planning Commission
- r. Sacramento Regional Transit District

29

League of Women Voters of Sacramento

2206 K Street, Suite 2 • Sacramento, Ca 95816 • 443-3678

January 20, 1981

TO THE MEMBERS OF THE SACRAMENTO CITY COUNCIL:

After a two year study, the National League of Women Voters concluded that top priority must be given to conservation. With this position as a basis, the Sacramento League of Women Voters Board of Directors voted to support a Residential Resale Energy Audit Ordinance.

This ordinance means one thing - conservation. Conservation is the cheapest, cleanest, safest, most productive and most readily available energy alternative, or, to put it another way, it is easier to save a barrel of oil than to produce or import one.

The report of the Harvard Business School's Energy Project points up the tremendous potential for energy conservation which exists in retrofitting in the residential sector. A number of studies across the country have indicated an energy saving of from twenty-five to fifty percent in America's housing stock with relatively simple effort.

The Harvard Business School report also points out that retrofit is occurring much less rapidly than is possible or desirable. The report further points out that there is not enough time to let the market alone, via price rises, do the job. Those who argue that we should rely exclusively on price overlook the decentralized nature of the housing market with its millions of decision makers.

Mobility is another factor which militates against retrofit. If you expect to move in a couple of years, why bother? It is this very mobility, of course, which makes this ordinance so appealing as a means to conservation.

When one adds to the above considerations the forty percent combined state and federal tax credit for conservation measures, the P.G.&E. and SMUD free energy audit program, the P.G.&E. and SMUD financing alternatives, and the ever increasing cost to the consumer of gas and electricity, one must find that this ordinance makes good sense.

Members of the City Council are to be congratulated for the leadership they are showing in the energy conservation arena. The Sacramento League of Women Voters urges you to continue this leadership by passing the Residential Resale Energy Audit Ordinance.

Sincerely,

Goldie Hall

Goldie Hall, President
League of Women Voters of Sacramento

Virginia Moose

Virginia Moose, Energy Director
League of Women Voters of Sacramento



CITY OF SACRAMENTO

OFFICE OF THE CITY CLERK

915 I STREET
CITY HALL ROOM 203

SACRAMENTO, CALIFORNIA 95814
TELEPHONE (916) 449-5428

LORRAINE MAGANA
CITY CLERK

MEMORANDUM

TO: WALTER J. SLIPE, CITY MANAGER

FROM: LORRAINE MAGANA, CITY CLERK *LM*

SUBJECT: REFERRAL OF ITEM NO. 29, COUNCIL AGENDA OF FEBRUARY 3, 1981

DATE: FEBRUARY 3, 1981

Pursuant to Council action, the following matter was referred to you:

Staff to report back on differences between City and County ordinances; include provision to allow application for extension of time.

sj

cc: City Attorney



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SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

CITY MANAGER'S OFFICE

RECEIVED
JAN 30 1981

January 29, 1981

Redevelopment Agency of the
City of Sacramento
Sacramento, California

Honorable Members in Session:

SUBJECT: Report on Rede Building and Sammis Building

SUMMARY

The attached item was reviewed by the Agency on January 20, 1981 and continued until February 3, 1981 with a request for a presentation by the Developers of both the Rede and Sammis Buildings.

BACKGROUND

As an aid to reviewing the history of both developments the chronology of each project is described below with critical dates and actions of various review bodies:

November 5, 1979

Commission recommended selection of Sammis/Spink and Rede Company to Agency.

November 20, 1979

Tentative selection (Resolution No. 2871) of Rede Company for 6th and F Streets parcel based on Sammis/Spink proposed development (subject to reflective glass issue) and tentative selection of Sammis/Spink (Resolution No. 2870) for block bounded by 5th-6th-I-J Streets (subject to Rede agreement to utilize Sammis/Spink design).

SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

Redevelopment Agency of the
City of Sacramento
January 29, 1981
Page Two

Sammis/Spink

January 2, 1980 (Resolution No. 2879)
Agency approved final selection
and authorized execution of Con-
tract for Sale of Land.

April 15, 1980
SHRA/PDOS Committee reviewed and
recommended approved the revised
preliminary plans as submitted.

May 22, 1980
Special permit approved by City
Planning.

June 4, 1980
ARB approval.

July 15, 1980 (Resolution No. 2923)
Agency approval of preliminary
plans.

Rede Company

February 20, 1980
ARB has no adverse comments or
modifications to design.

February 20, 1980

SHRA Commission recommends
approval of Contract with Rede
with requested modifications.

May 18, 1980 (Resolution No. 2896)
Agency approved final selection
and authorized execution of
Contract for Sale of Land.

July 21, 1980
SHRA Commission approval of pre-
liminary plans.

August 14, 1980
Planning Commission granted
special permit with conditions
for ARB to review project for
compatibility with Sammis/Spink
project.

September 22, 1980
ARB approval of design of pro-
posed 600 I Street project.

December 16, 1980
Scheduled for preliminary plan
approval before Agency. Matter
referred to Planning and Community
Development Committee on January 7,
1981.

January 7, 1981
Committee approval and back to
staff and Developers.

January 20, 1981
Matter continued to February 3,
1981

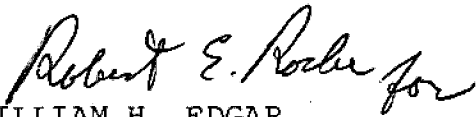
SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

Redevelopment Agency of the
City of Sacramento
January 29, 1981
Page Three

RECOMMENDATION

Staff recommends you hear the Developers' presentation and then approve the preliminary plans for the Rede Building as recommended in the attached January 20, 1981 report.

Respectfully submitted,


WILLIAM H. EDGAR
Interim Executive Director

TRANSMITTAL TO COUNCIL:


for: WALTER J. SLIPE
City Manager

Contact Person: Ted Leonard

REDE COMPANY
A JOINT VENTURE
P. O. Box 2551
Sacramento, California 95812

January 28, 1981

RECEIVED

JAN 23 1981

Sacramento Housing &
Redevelopment Agency

Members of the City Council
City Hall
Sacramento, California 95814

Attention: Hon. Mayor Phillip Isenberg

RE: REDE CONTRACT FOR DEVELOPMENT OF THE
SOUTHEAST CORNER OF 6TH & I STREETS

Gentlemen:

You have under your consideration the approval of preliminary plans for the above project. To assist you in your deliberations, we have been asked to summarize the reasons for the design submitted.

First, let me state that the Redevelopment Agency requirements as indicated in the request for proposals included specifications all that required parking be on site and that the number of spaces provided be based on 1 to 400 (e.g. 1 parking space for each 400 square feet of building area).

It became apparent that two levels of parking would be necessary and that the arrangement of parking spaces had to be at 90° to the property lines in order to achieve the proper number of parking spaces and orientation of aisles.

The award of the project to REDE included a provision that the REDE design be compatible with the Sammis proposal across 6th Street, and that the basic 45° triangular shape be maintained.

This dictated an office building structure oriented at 45° to the property line, and, of course, would be placed on top of the parking structure at 90° to the property line.

Page Two
January 28, 1981
Members of the City Council

This is an exceedingly difficult structural problem since the parking bays must be a multiple of acceptable car space dimensions, whereas the office portion must be a module which meets the requirements for effective office partitioning.

Hence, the solution as shown on the preliminary plans. To interpose additional columns extended down through the parking area, which would be necessary in order to provide more extensive terracing of the northwest face, was not a pragmatic possibility.

Furthermore, more extensive terracing would also place columns in the office area, drastically reducing the flexibility of office space layout.

To comply with all of the requirements of our contract, our architect, Leonard Blackford of Dreyfuss & Blackford, cantilevered the structure out at the second and third floors to achieve a terraced effect. Both Mr. Blackford and I believe the result to be a clean cut, contemporary facade representing an improvement aesthetically over the original Sammis design.

I would also like to state that at no time did REDE indicate to any public agency or committee that we would provide terracing exactly like the original Sammis proposal. In fact, we stated in meeting after meeting, both prior to the award to REDE and after, that we could not do so.

It must also be noted that the preliminary plans meet the requirements of our contract and I respectfully request a speedy approval.

Very truly yours,

REDE COMPANY
A JOINT VENTURE



M. J. Heller

MJH/d

bc: Mr. Leonard Blackford
Mr. Robert Roach

LEE SAMMIS COMPANY

1451 River Park Drive, Suite 110, Sacramento,
California 95815 (916) 929-3193

February 2, 1981

Mayor Phillip Isenberg
and the City Council
CITY OF SACRAMENTO
915 "I" Street
Sacramento, CA 95814

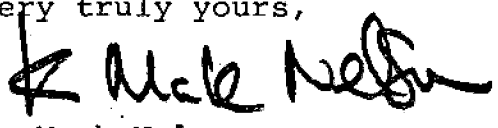
Re: Fifth & "I" Project

Dear Mayor & City Council Members:

Enclosed is a copy of a letter we recently received from Leason Pomeroy and Associates regarding an award we have already won on our project in the redevelopment area of Sacramento, which I thought would be of interest to you. You will note that the award is presented by the Society of American Registered Architects and is the Blue Ribbon for the outstanding project in Preliminary Design in California for 1980.

It is our intent, after completion of the building, to enter this building in competition for several major architectural awards. We have also been told by Architectural Record that they would like to do a feature story on the building when it is completed, i.e., a cover story. This would be quite an accomplishment for the City of Sacramento and the Lee Sammis Company to win this type of award.

Very truly yours,



K. Mark Nelson
Executive Vice President

KMN:do

Enclosure

January 16, 1981

Mr. Lee Samnis
Lee Samnis Company
17922 Fitch Avenue
Suite 100
Irvine, CA 92714

RE: 5th and I

Dear Lee:

It gives me great pleasure to inform you that yet another Lee Samnis project has won a major architectural design award. The project is 5th and I and the award is the Blue Ribbon for the outstanding project in Preliminary Design submitted in California for 1980.

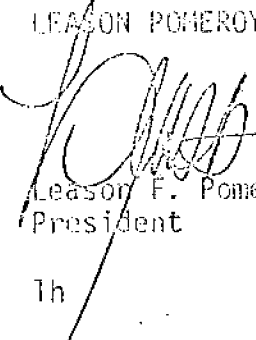
The award is made by the Society of American Registered Architects. I will receive the award late this month and at that time will have a duplicate of the certificate for your use.

Award winning architecture can only be achieved with the combination of an aware owner who desires meaningful architecture and an architect who is given the freedom to express the owner's needs in a progressive form.

Congratulations.

Sincerely,

LEASON POMEROY ASSOCIATES, INC.



Leason F. Pomeroy, III
President

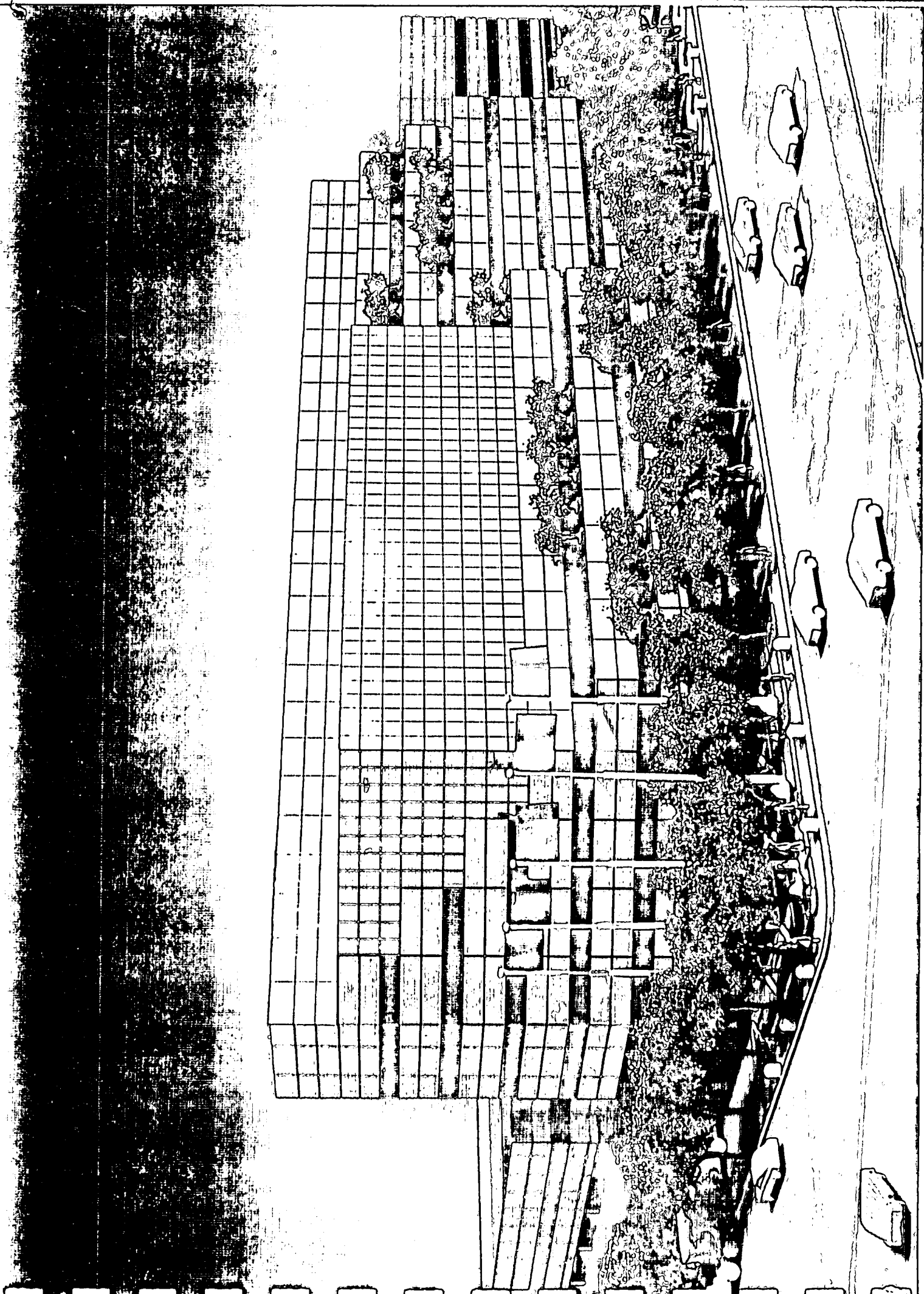
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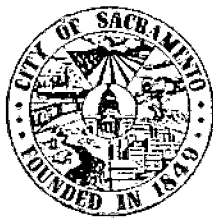
cc: Sam Lindsay
John Hagestad
Mark Nelson

RECEIVED

JAN 21 1981

REGISTERED





30 ~~31~~

SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

CITY MANAGER'S OFFICE

January 15, 1981

RECEIVED
JAN 14 1981

Redevelopment Agency of the
City of Sacramento
Sacramento, California 95814

CITY GOVERNING BOARD

- PHILLIP L. ISENBERG, MAYOR
- LLOYD CONNELLY
- BLAINE H. FISHER
- THOMAS R. HOEBER
- DOUGLAS N. POPE
- JOHN ROBERTS
- LYNN ROBIE
- ANNE RUDIN
- DANIEL E. THOMPSON

Honorable Members in Session:

SUBJECT: Approval of Preliminary Plans - 600 I Street, Parcel 1B,
Block 224 - Rede Company, Redeveloper

SUMMARY

Attached is a resolution approving the Preliminary Plans for the construction of a five-story office building and two-level basement parking garage on Parcel 1B, Block 224, Project No. 4, 600 I Street by Rede Company, a Joint Venture.

COUNTY GOVERNING BOARD

- ILLA COLLIN
- C. TOBIAS (TOBY) JOHNSON
- JOSEPH E. (TED) SHEEDY
- SANDRA R. SMOLEY
- FRED G. WADE

BACKGROUND

EXECUTIVE DIRECTOR
WILLIAM G. SELINE

On March 18, 1980, the Redevelopment Agency approved the final selection of the Rede Company, a Joint Venture, as the Redeveloper for Parcel 1B, Block 224, Project No. 4, located at 600 I Street. In that same resolution (Resolution No. 2896) the Executive Director was authorized to execute a contract for the sale of the aforementioned parcel. The Contract for Sale requires that the developer submit Preliminary Plans for Agency and Architectural Review Board approval. These plans are consistent with the Scope of Development included in the Contract for Sale (Scope of Development, Exhibit "F", is attached), marked Exhibit I. On September 17, 1980, the Architectural Review Board reviewed and approved the attached Preliminary Plans (marked Exhibit II) with the following conditions:

P.O. Box 1834
SACRAMENTO, CA 95809
630 I STREET
SACRAMENTO, CA 95814
(916) 444-9210

1. The applicant is to consult with the developer of the 5th, 6th, I, J Streets project so that a textural material continuity may be coordinated between the two projects.
2. The applicant is to utilize the earth tone brick and material throughout the plaza and courtyard areas around the building. (Architectural Review Board approval memo is attached, marked Exhibit III.)

APPROVED
SACRAMENTO REDEVELOPMENT AGENCY

Date 2/3/81

1-20-81

FILED
SACRAMENTO REDEVELOPMENT AGENCY

Date 1/20/81 Cont 40
2-3-81

SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

Redevelopment Agency of the
City of Sacramento
January 9, 1981
Page -2-

These conditions will be incorporated into the final construction plans which also require Architectural Review Board and Agency approval. Attached is a project schedule, marked Exhibit IV, which estimates the start of construction for early September, 1981, and Exhibit V, a synopsis of a chronological list.

This item was scheduled on the consent calendar of the City Council for December 16, 1981, and was referred to the Planning and Community Development Committee. At its January 7, 1981 meeting, the Planning and Community Development Committee recommended approval of the preliminary plans.

FINANCIAL DATA

The purchase price for this parcel is \$198,000 (\$7.75 per square foot). The Redeveloper has submitted a good faith deposit in the amount of \$10,000. This deposit will be held by the Agency until completion of the improvements (building, landscaping, etc.) to the satisfaction of the Agency or until it is released pursuant to the provisions of the Contract.

VOTE AND RECOMMENDATION OF COMMISSION

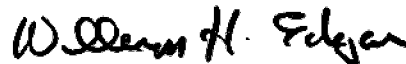
At its meeting of July 21, 1980, the Sacramento Housing and Redevelopment Commission adopted a motion recommending that you adopt the attached resolution. The vote was as follows:

AYES: Coleman, Fisher, Luevano, A. Miller, Serna, B. Miller
NOES: Teramoto
ABSENT: Knepprath, Walton

RECOMMENDATION

The staff recommends adoption of the attached resolution approving the preliminary plans for the subject office building and parking garage at 600 I Street.

Respectfully submitted,



WILLIAM H. EDGAR
Interim Executive Director

TRANSMITTAL TO COUNCIL:



WALTER J. SLIPS
City Manager

Contact Person: Theodore R. Leonard

RESOLUTION NO. 81-006

Adopted by the Redevelopment Agency of the City of Sacramento

January 20, 1981

APPROVING PRELIMINARY PLANS FOR 600 I
STREET OFFICE BUILDING - REDE COMPANY

BE IT RESOLVED BY THE REDEVELOPMENT AGENCY OF THE
CITY OF SACRAMENTO:

1. The Preliminary Plans presented by Rede Company,
a joint venture, for an office building to be located at 600 I
Street, are hereby approved.

CHAIRMAN

ATTEST:

SECRETARY

APPROVED
SACRAMENTO REDEVELOPMENT AGENCY

Date 2/3/81

EXHIBIT "F"SCOPE OF DEVELOPMENT

The redeveloper shall construct a five (5) level office building above two (2) levels of underground parking. The structure shall contain approximately 68,000 square feet. Use of the building shall be commercial and office.

The exterior facade shall, in general, use brushed aluminum, dark grey glass materials, and masonry to result in a project compatible with the project on the block bounded by 5th, 6th, I and J Streets. The exterior landscape design shall be such as to provide attractive transitional space between this project and the patio area of the existing high-rise at 630 "I" Street.

The redeveloper shall expend approximately three percent (3%) of the gross construction cost of the office building for art work and aesthetic improvements in accordance with definition on Attachment 1.

The structure shall be stepped back from adjacent streets providing landscaped terraces at first three levels. It will be angled at the 6th and I Streets corner to accent view corridors and to provide a sense of "openness", both physically and visually.

Parking shall be provided on-site at the rate of at least one space for each 418 square feet of gross floor area. Driveways and access to parking and loading facilities shall be approved by the City Traffic Engineer.

Redeveloper shall be responsible for installation of perimeter sidewalks, including any necessary sidewalk structure.

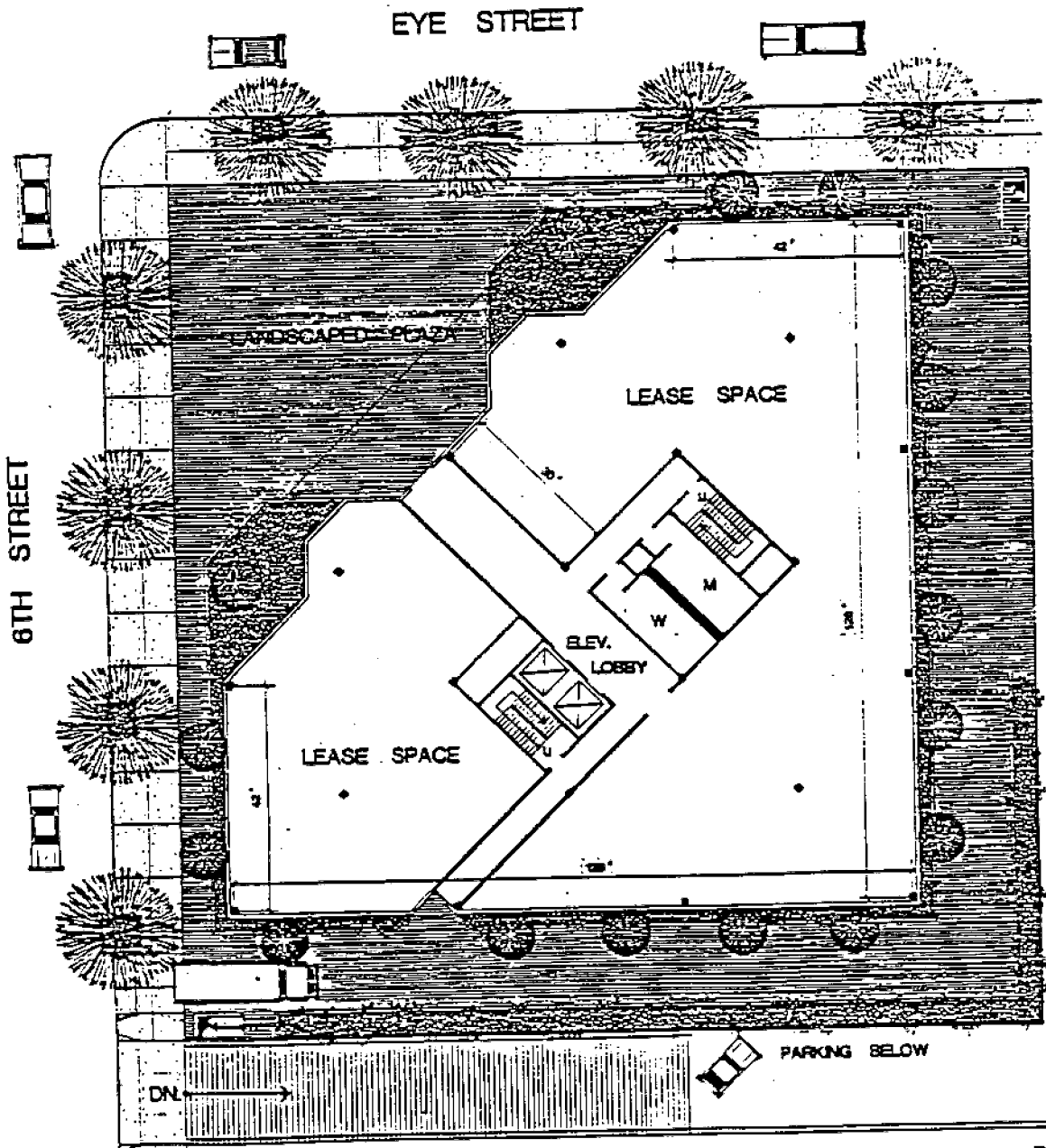
It is the intent of the Redevelopers to occupy a portion of the space themselves through condominium ownership.

Leason Pomeroy and Associates of Orange, California, will be the consulting Architects for the project.

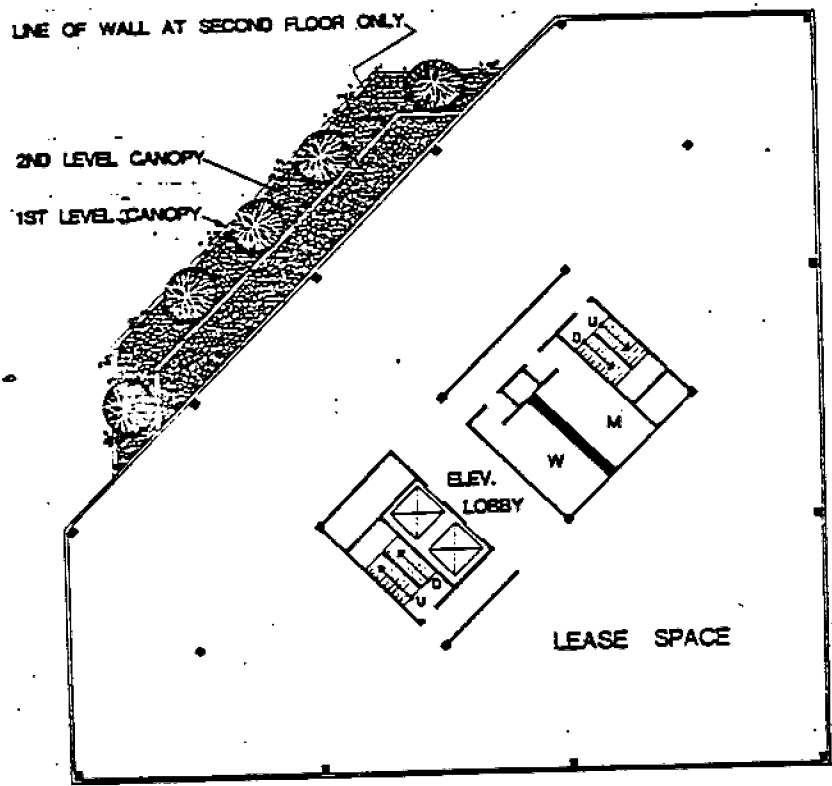
OFFICE BUILDING 6TH & EYE STREETS REDEVELOPMENT SITE

Dreyfuss & Blackford Architects & Planners

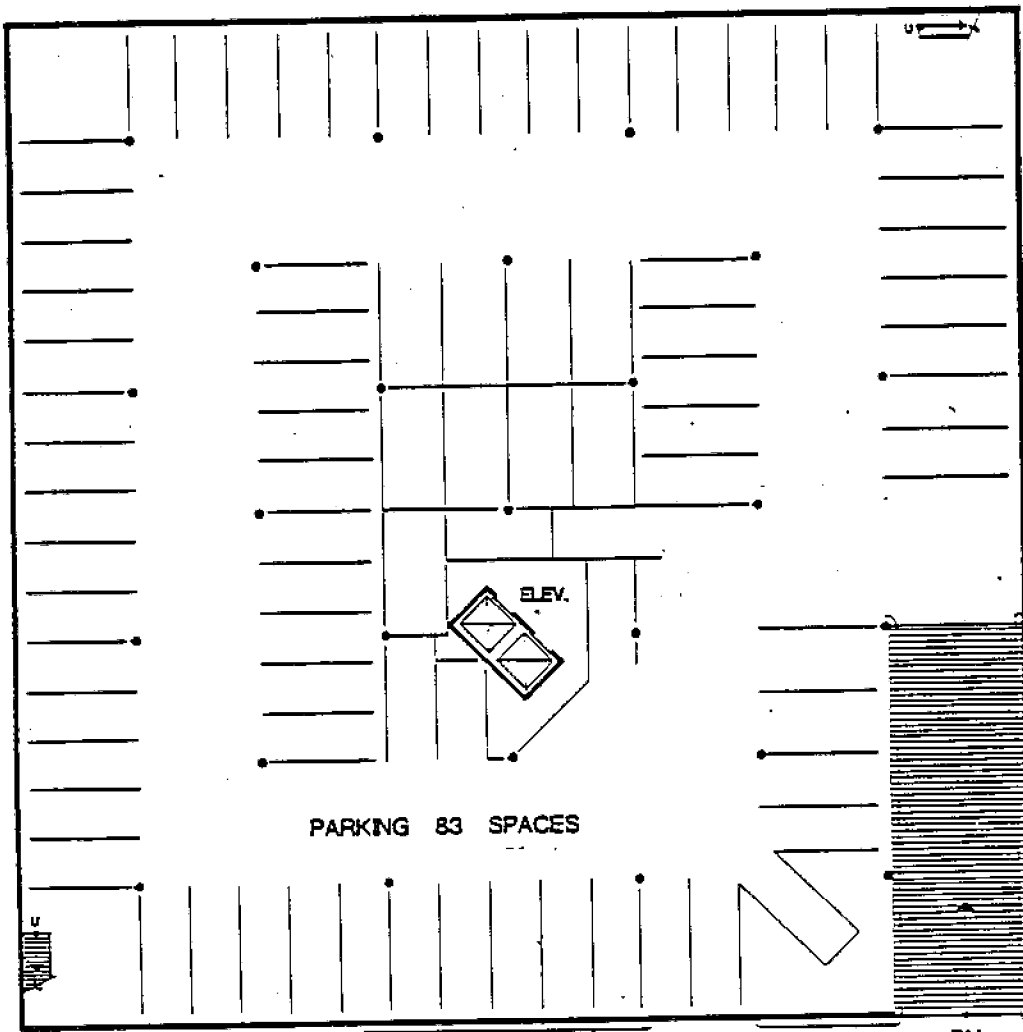
3540 Folsom Boulevard, Sacramento, California 95834



GROUND FLOOR



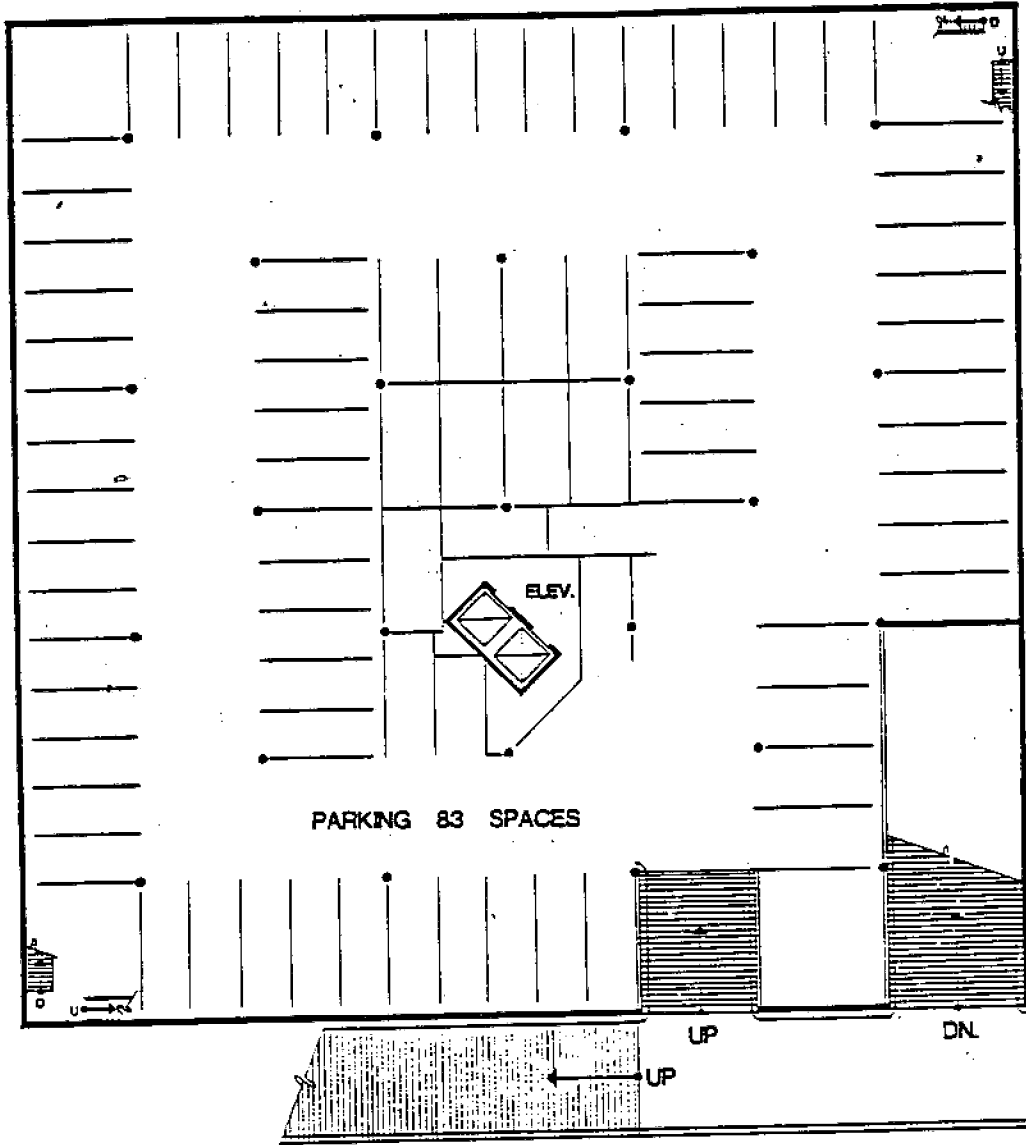
2ND - 5TH FLOORS 



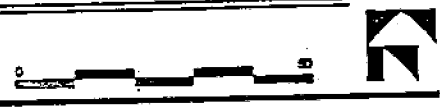
PARKING 83 SPACES

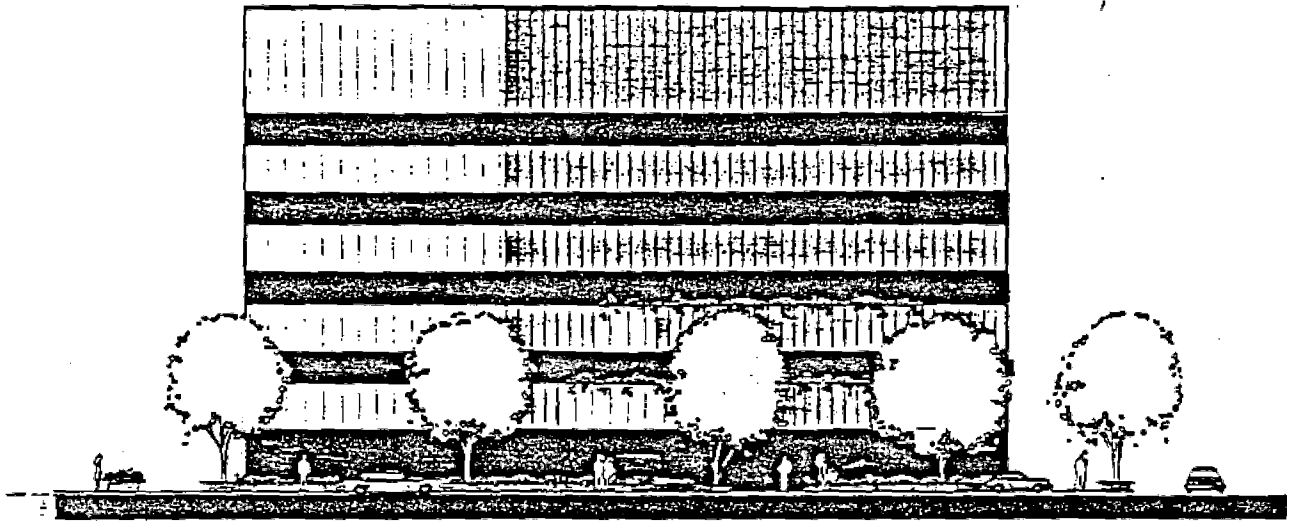
PARKING LEVEL 1



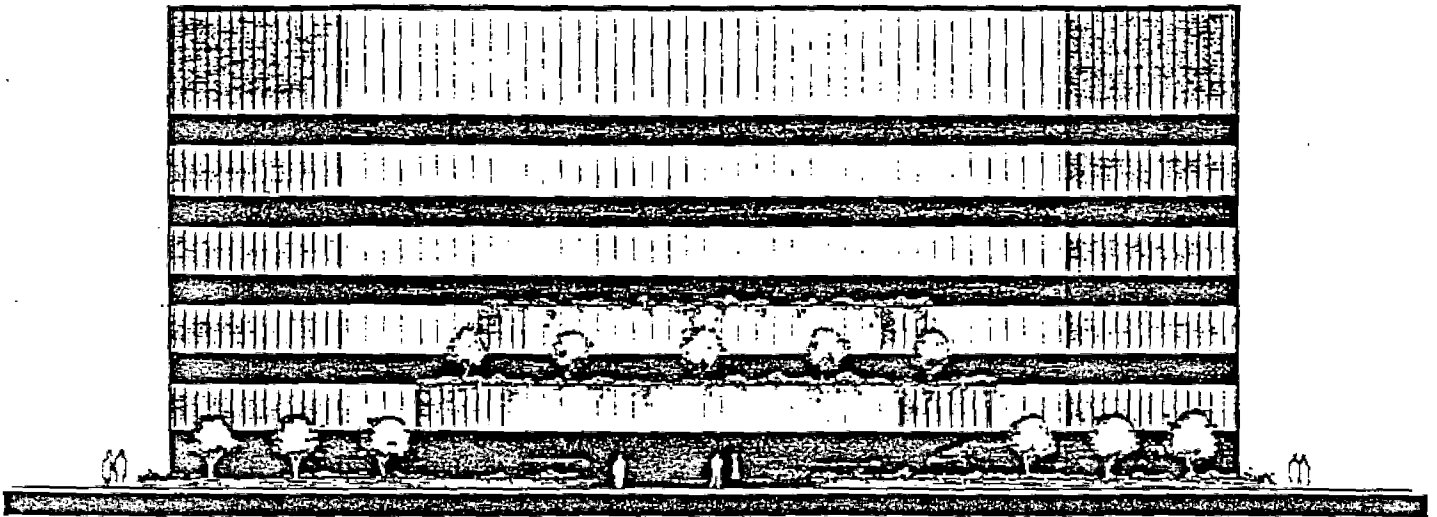


PARKING LEVEL 2



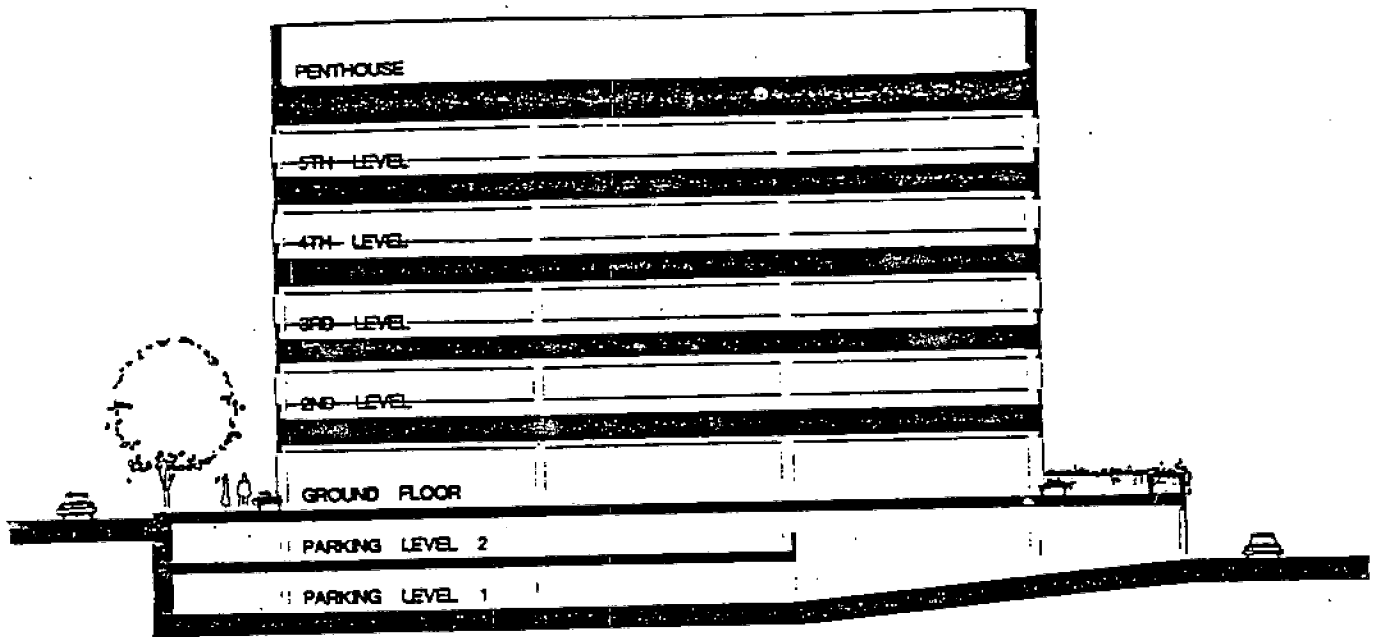


NORTH ELEVATION
WEST SIMILAR

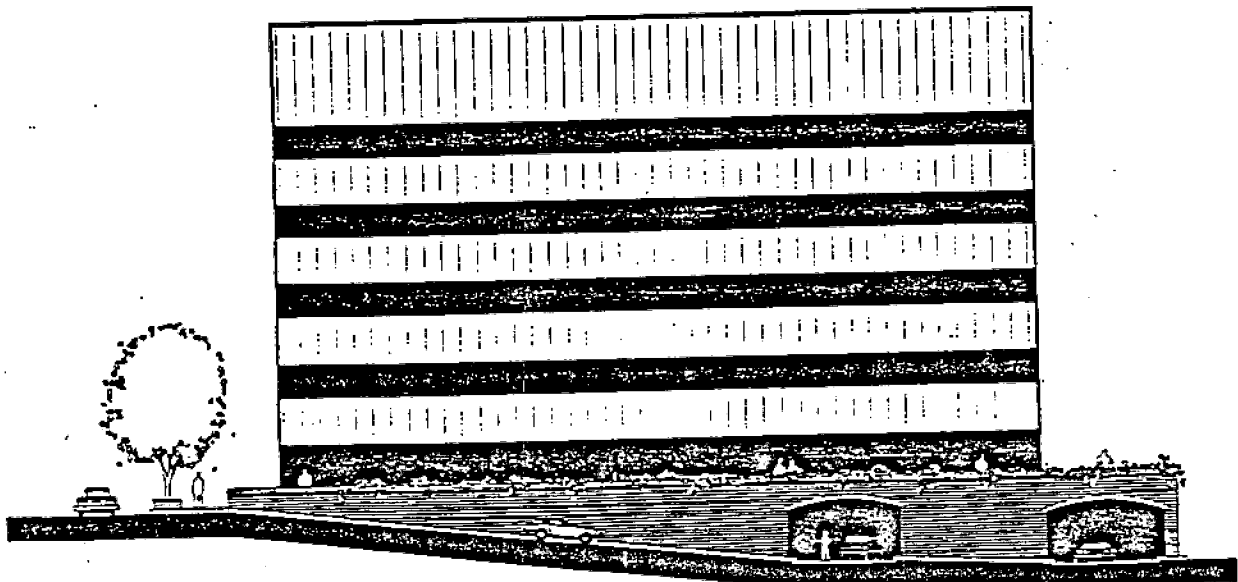


NORTHWEST ELEVATION

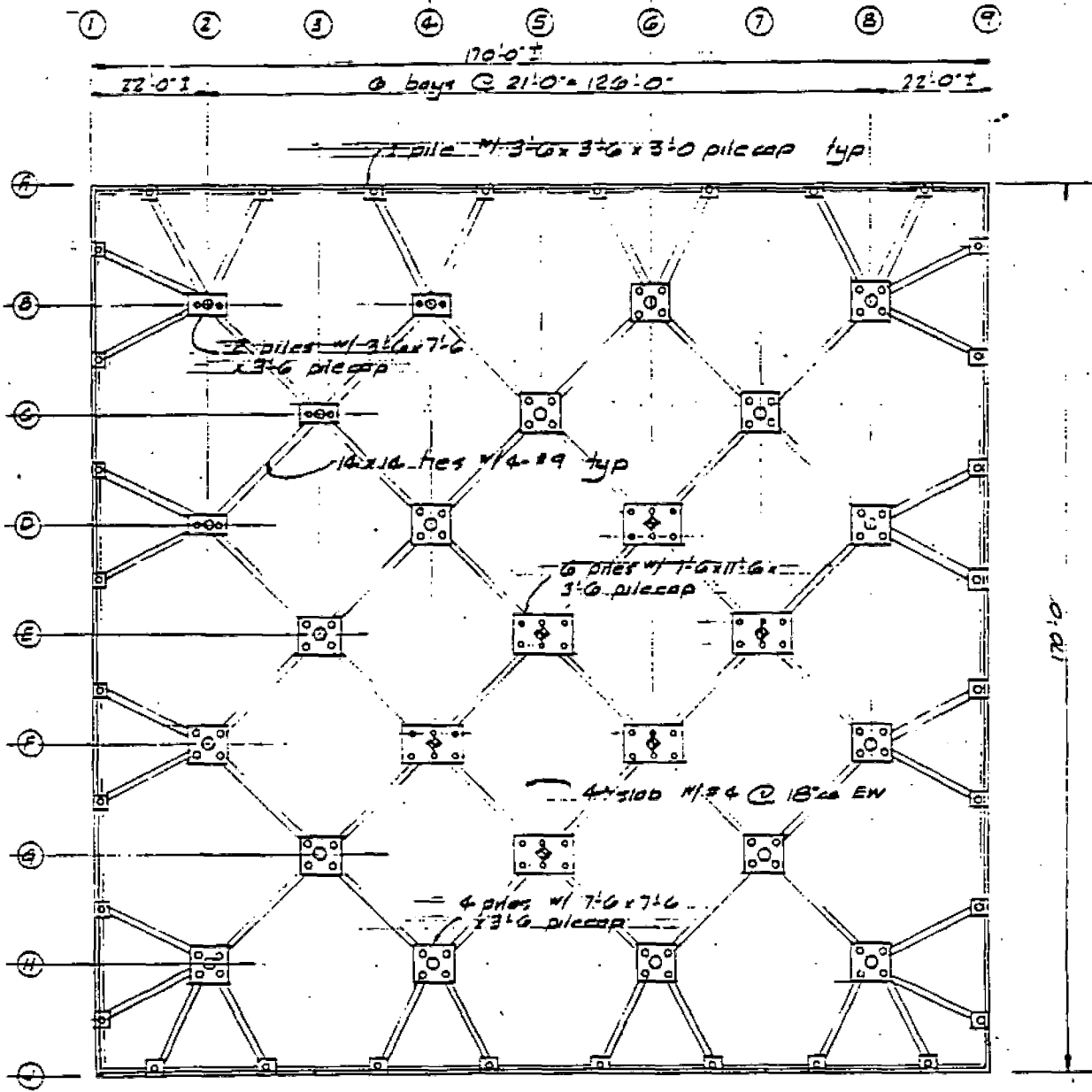




SECTION LOOKING EAST



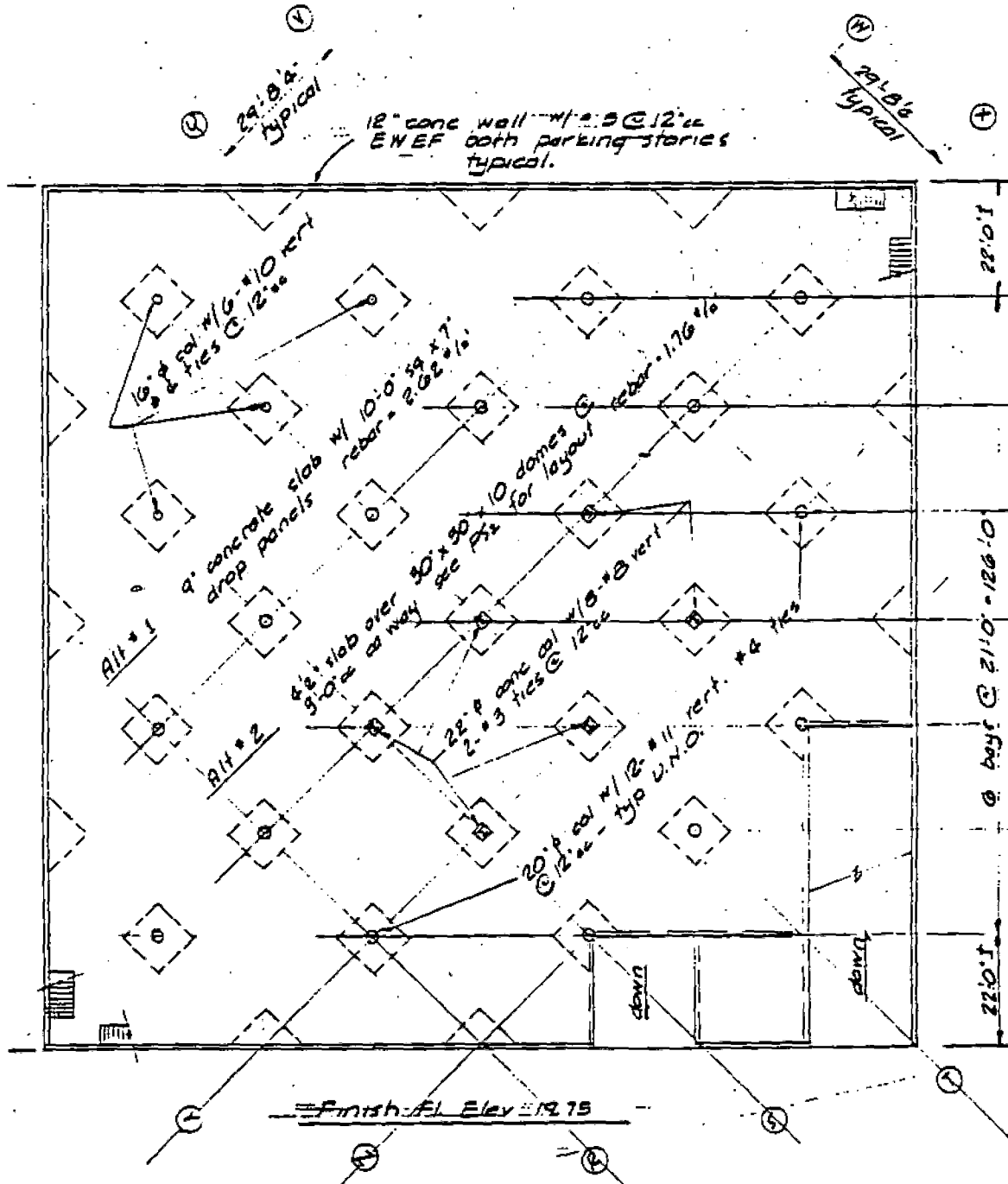
SOUTH ELEVATION
EAST SIMILAR



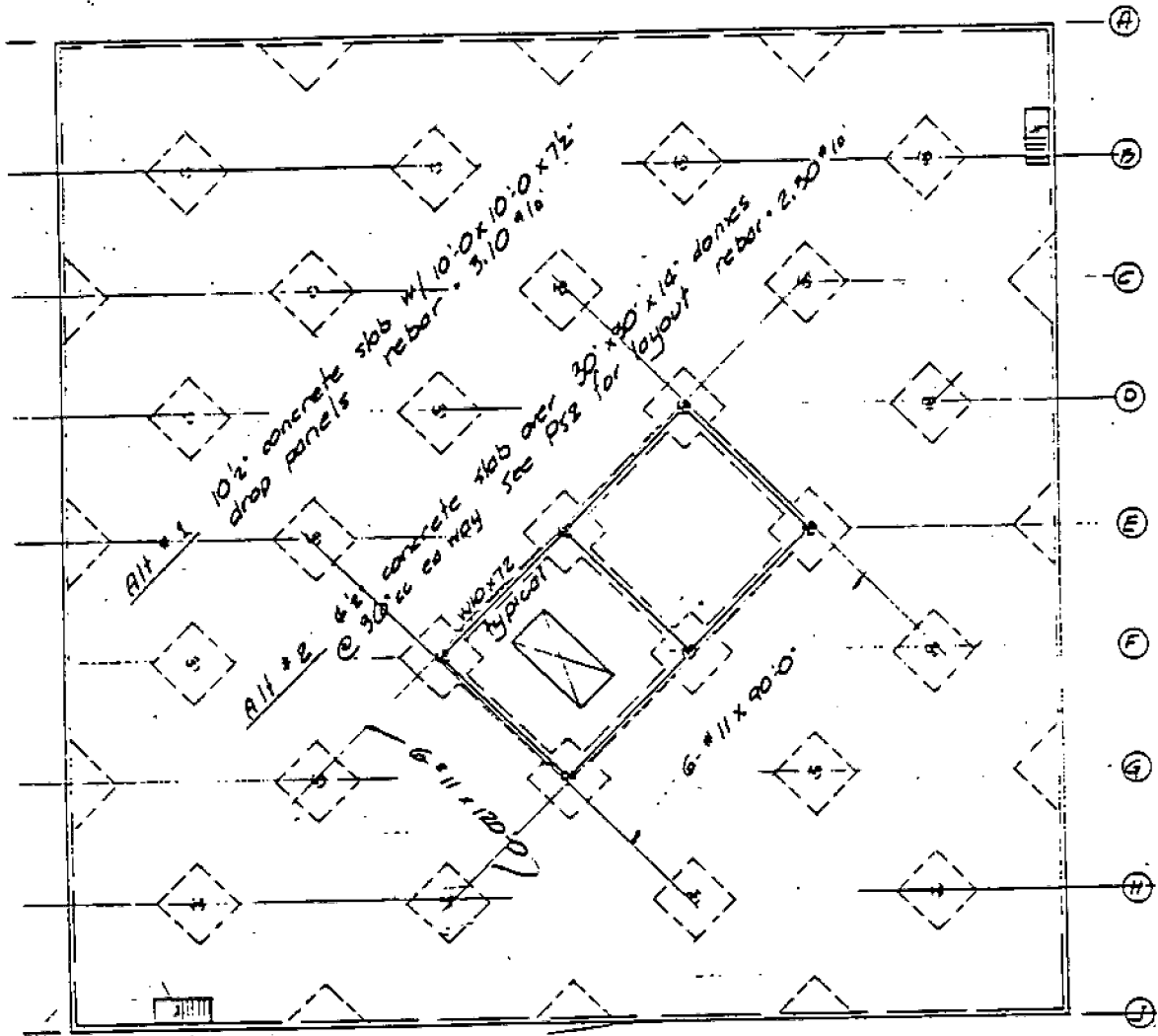
All piles to be 12" prestressed conc.
 Top elevation @ 46.00 for estimating

Fin. Fl. Elev 11.00

Foundation Plan 10'-10"



Upper Parking Level Framing Plan

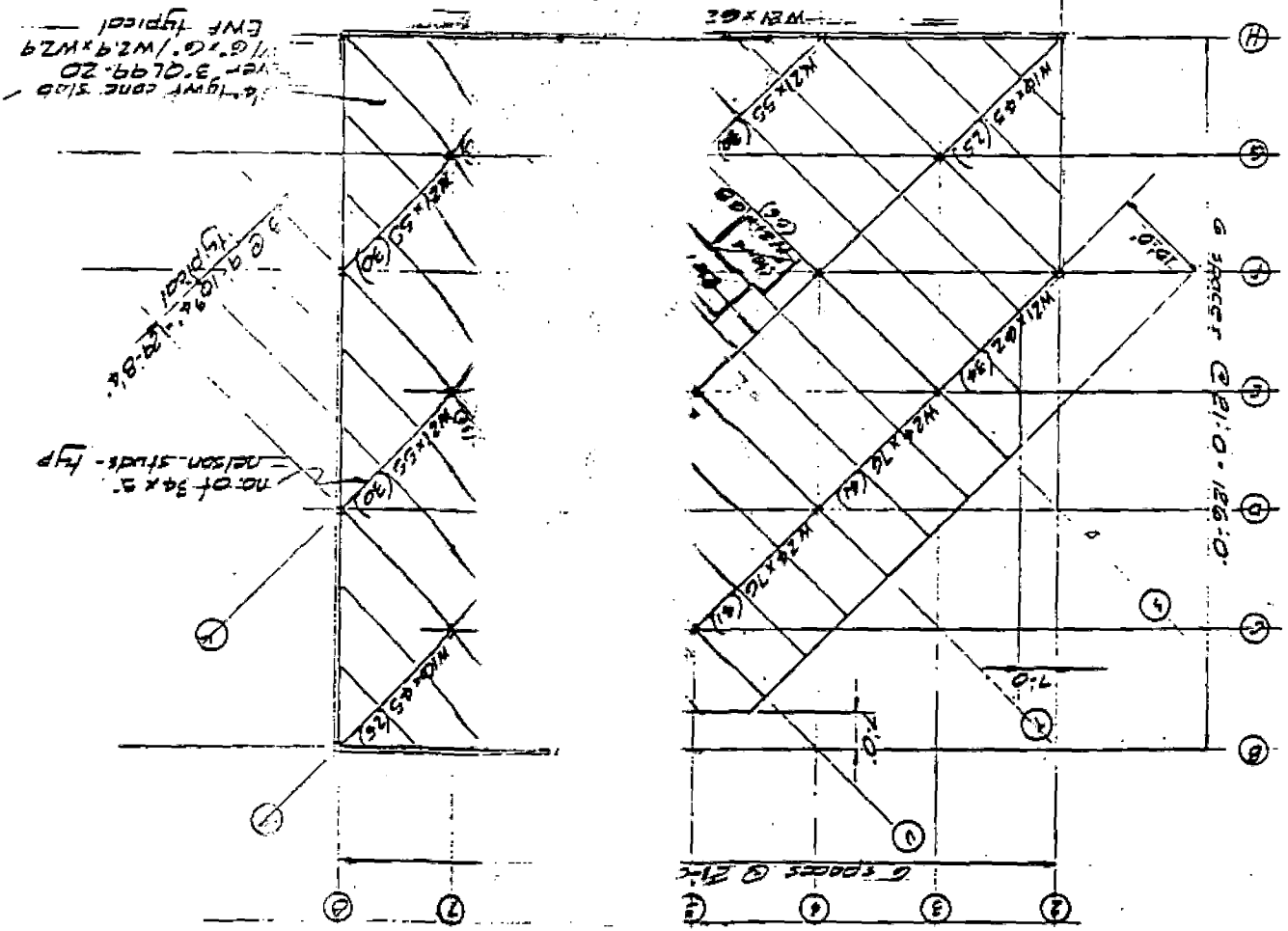


FIN-FL ELEV 29.00

Plaza Level Framing Plan 16:10

10:10

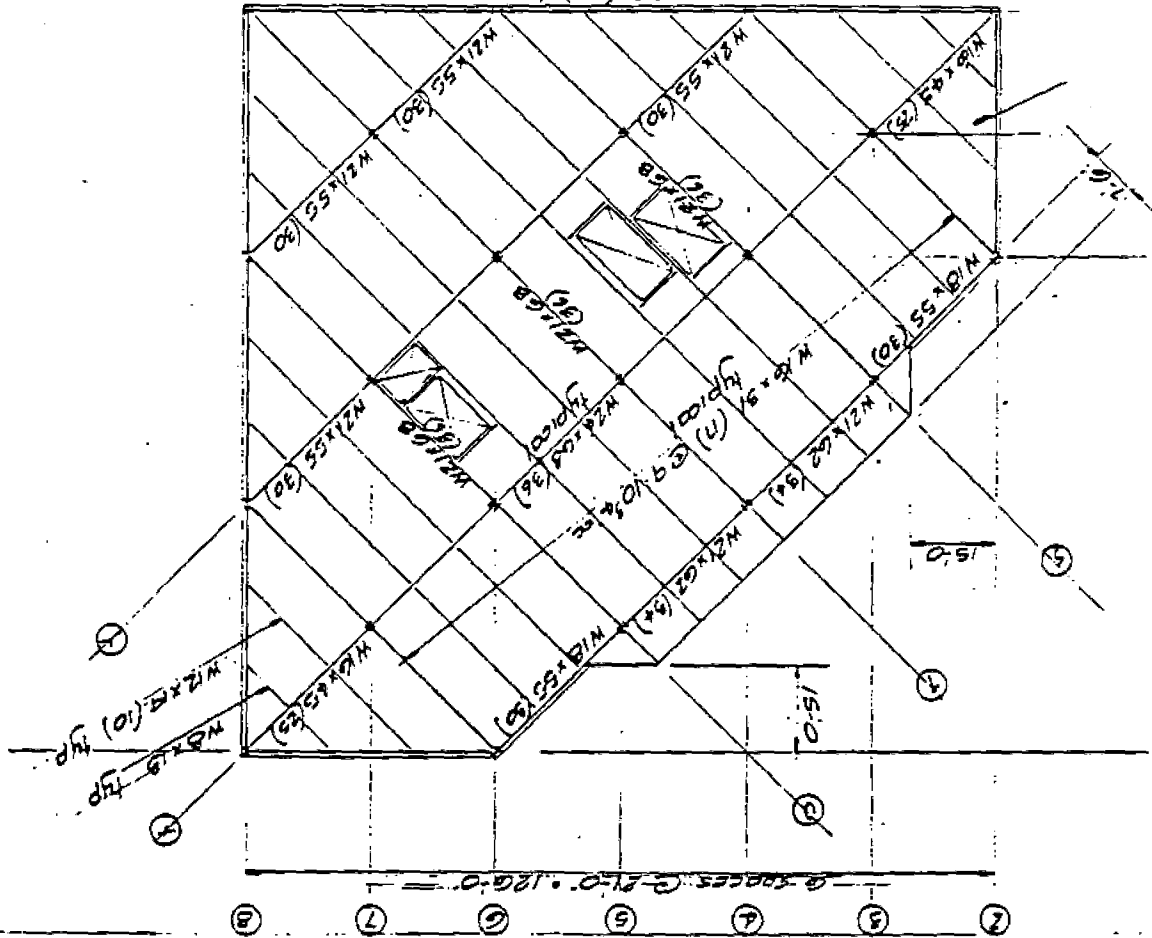
2nd Floor Fr.

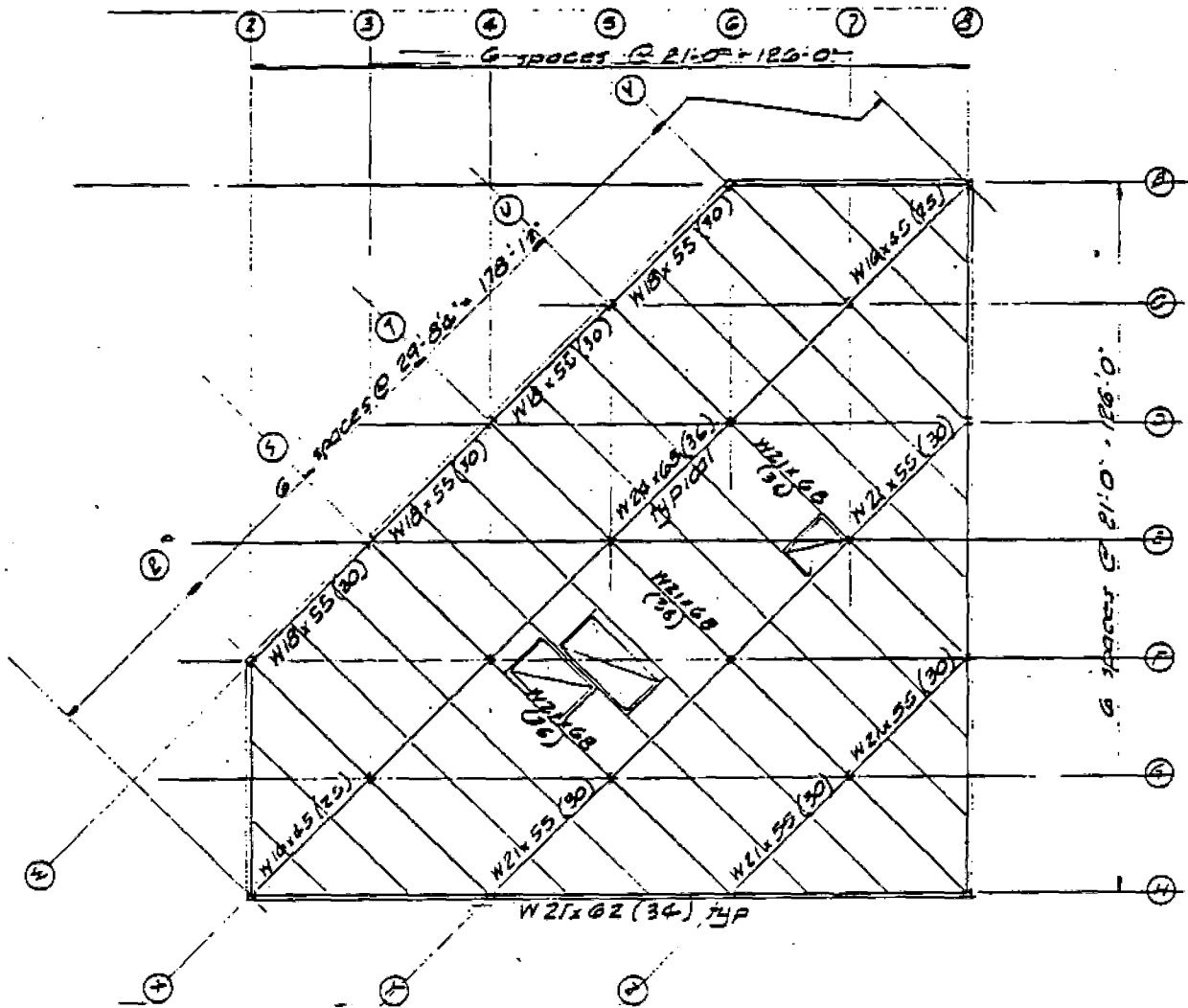


3rd Floor Framing Plan 1/6" = 1'-0"

FIN. FL. ELEV. 58.00

W21x62 (34) TYP



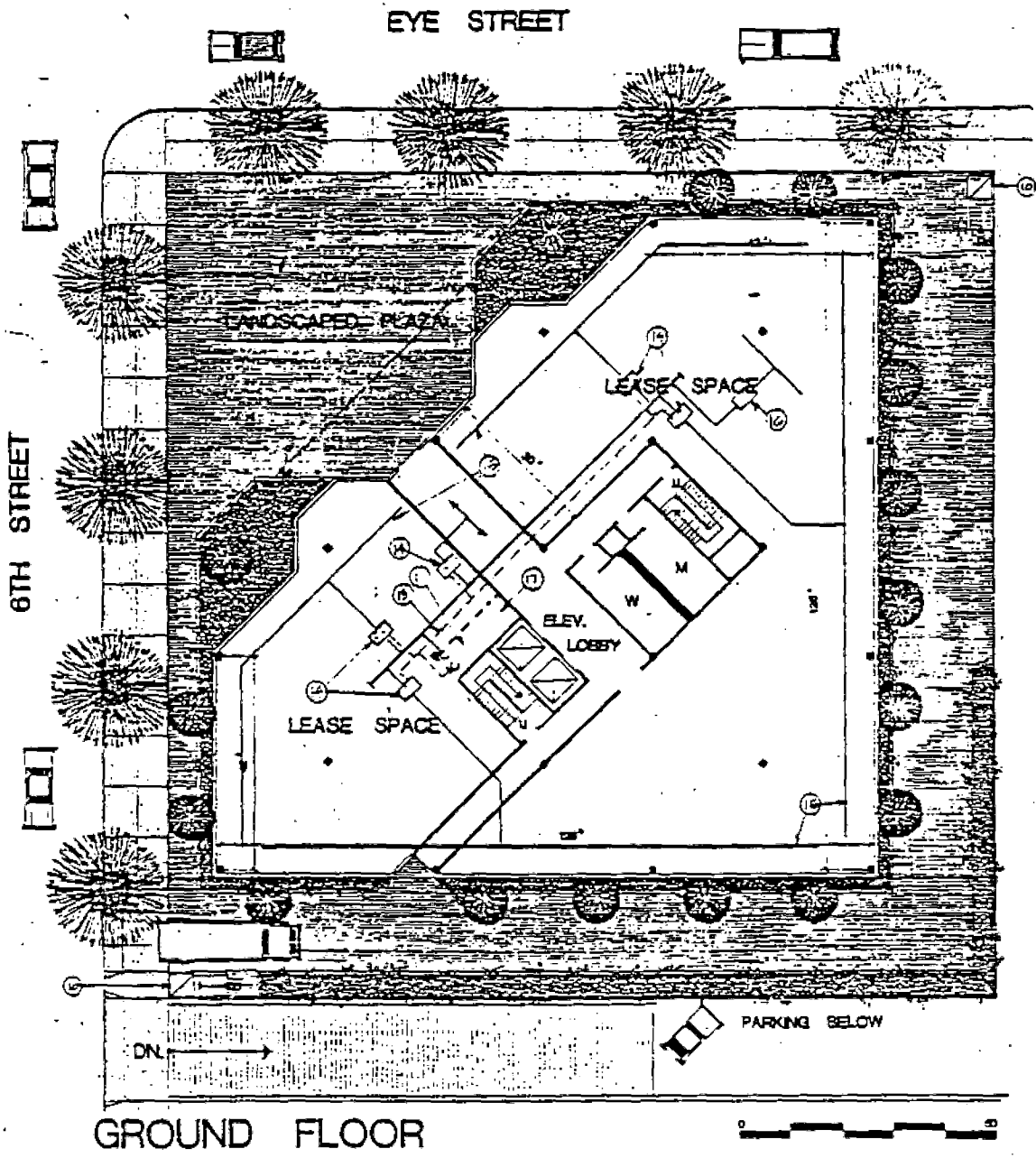


4th & 5th Floors & Roof Framing Plans 1/16" = 1'-0"

4th Fl Elev 71.50 ; 5th Fl. Elev 85.00; Roof Elev 98.50

MECHANICAL AND ELECTRICAL NOTES:

1. Underground, 208V, 3 phase, electrical service from existing adjacent vault.
2. Main electric service risers, to main electrical room at upper parking level.
3. Domestic and fire water service from alley.
4. Automatic sprinkler riser to serve two parking levels.
5. Domestic water booster, and sump pump stations.
6. Sanitary and storm sewer to existing mains in alley.
7. Main electrical room with five owner meters and one house meter.
8. Telephone terminal room.
9. Parking level exhaust shafts.
10. Parking level exhaust outlets.
11. Supply and exhaust shaft with supply duct to each floor; common return.
12. Attic return to shaft; AC Equipment on roof.
13. Space heating hot water load from roof hot water source.
14. Fan powered fan-VAV terminal units with heating coils.
15. "Skin" heating and cooling ducts.
16. Typical VAV terminal unit. Quantity to suit space zoning.
17. Shaft above to roof equipment.

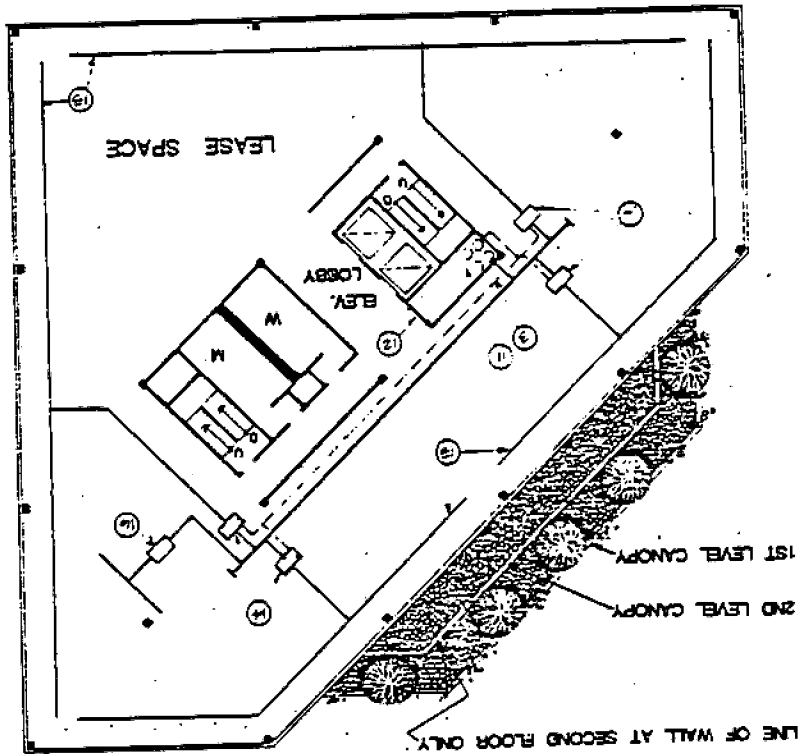


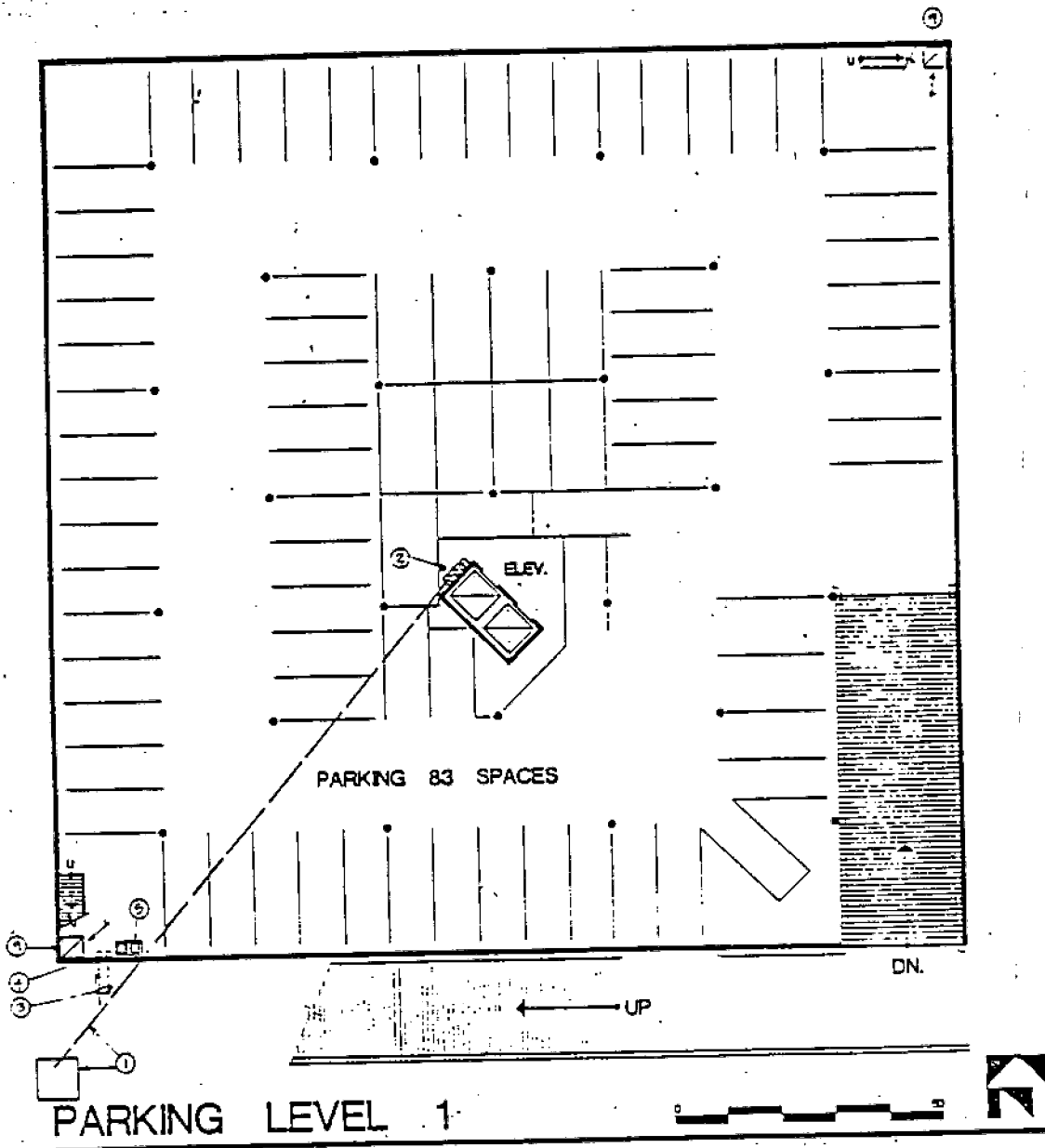
GROUND FLOOR

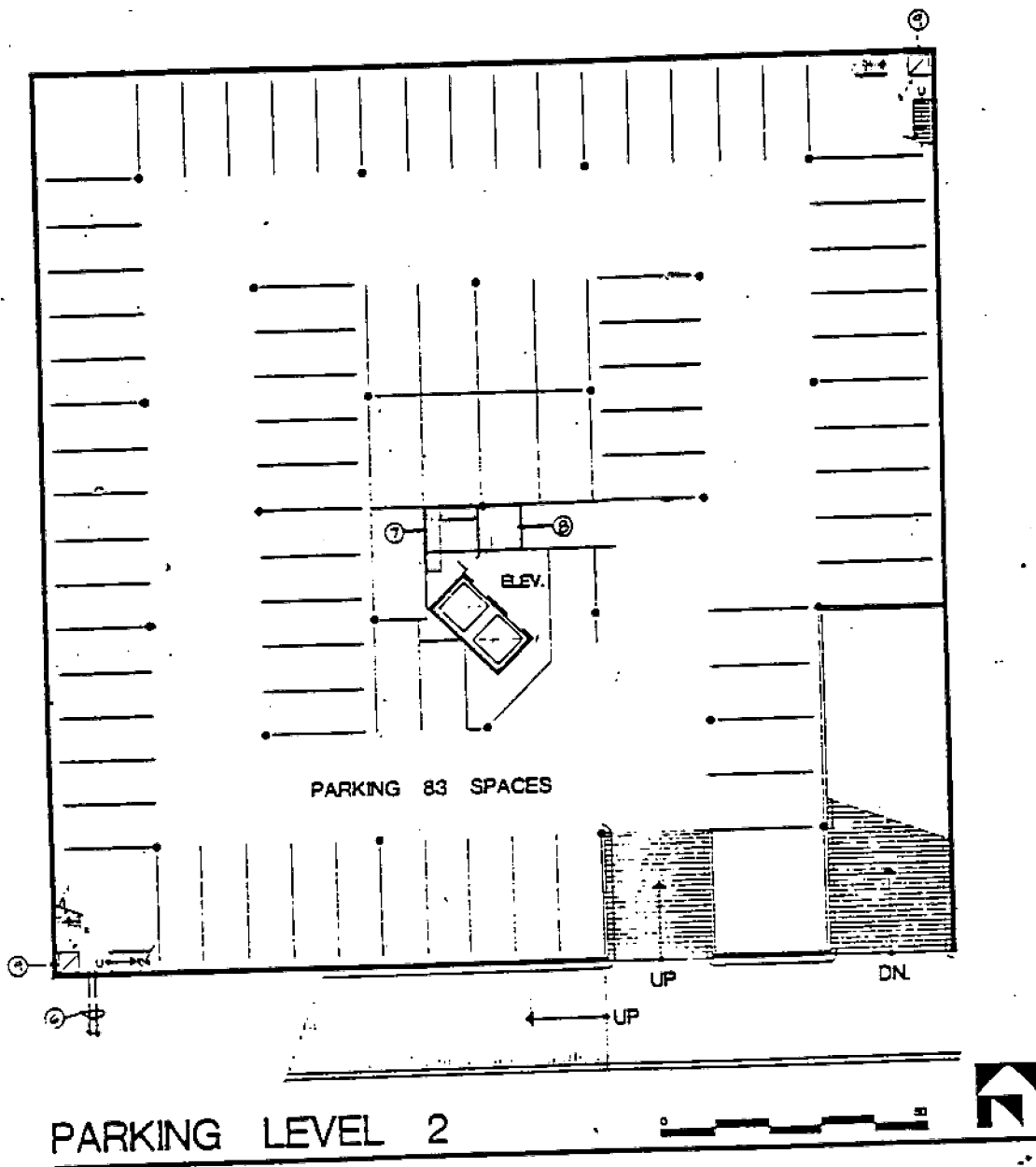




2ND - 5TH FLOORS







PARKING LEVEL 2



CITY PLANNING DEPARTMENT

725 "J" STREET

SACRAMENTO, CALIF. 95814
TELEPHONE (916) 449-5604

MARTY VAN DUYN
PLANNING DIRECTOR

September 22, 1980

MEMORANDUM

TO: Architectural Review Board

FROM: Richard Hastings; ARB Coordinator

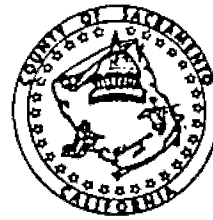
~~SUBJECT: Item No. 2~~

Construction of a five-story office building and
two-level basement parking garage
600 "I" Street

The Board voted to approve the proposed 600 "I" Street project by a vote of five ayes and two noes. The Board voted approval with the following conditions:

1. The Board recommends the applicant consult with the developer of the 5, 6, "I", and "J" Street project so that a textural material continuity may be coordinated between the two projects.
2. The applicant to utilize the earth tone brick material (On Exhibit) throughout the plaza and courtyard areas around the building.

RBH:jb



SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

December 31, 1980

Planning & Community Development
Committee
Office of the City Council
Sacramento, California

CITY GOVERNING BOARD

Phillip L. Isenberg, Mayor
Lloyd Connelly
Lynn Robie
Blaine H. Fisher
Thomas R. Hoeber
Douglas N. Pope
John Roberts
Anne Rudin
Daniel E. Thompson

Honorable Members in Session:

SYNOPSIS OF REDE COMPANY PROPOSAL CHRONOLOGICAL LIST

The Downtown Development Team and the Agency Advisory Commission recommended to the Agency the selection of the Rede Company for the development of the 600 "I" Street parcel subject to the agreement by Rede to utilize the design proposed for that site in the Sammis/Spink proposal less the originally proposed connecting bridge. In mid October 1979, Rede Company submitted additional presentation boards reflecting revision to the design. In December the design was still not finalized in that the number of stories to be built had not been determined. The Scope of Development was for a four or five story structure which "shall be stepped back from adjacent streets providing landscaped terraces at each level." The public hearing scheduled in December was continued into January, February and then March as the configuration of the proposed building was revised based upon parking, structural, and economic considerations.

Throughout this period Leason Pomeroy and Associates was the design architect of record. By memorandum of February 20, 1980, the Redevelopment Agency was informed that, "There appears to be no good solution for satisfying the parking requirements for this project. The quantity is dictated by the size of the project and the size of the spaces by the structural layout, which is governed by the building design above." To further quote, "In order to comply with the Plan (Redevelopment Plan parking requirements) the building will need substantial change which will result in a departure from

COUNTY GOVERNING BOARD

Illa Collin
C. Tobias (Toby) Johnson
Joseph E. (Ted) Sheedy
Sandra R. Smoley
Fred G. Wade

EXECUTIVE DIRECTOR

William G. Selina

P.O. Box 1834
Sacramento, CA 95809
630 I Street
Sacramento, CA 95814
(916) 444-8210

SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

Planning & Community Development
Committee

December 31, 1980

Page Two

the selected design...If the design concept as selected is to be followed, the parking requirements of the Redevelopment Plan cannot be met."

The preliminary building design was then proposed as five stories but without the original open stepped terraces at the fourth and fifth levels. The Architectural Review Board at its February 20th meeting had no adverse comments on the modification to the building elevation. The ARB was to review both the Preliminary and Final Construction Plans. The Commission at its meeting of the same date adopted a motion recommending that the Agency approve the Contract with Rede Company with the requested modifications. The Scope of Development was revised to read, "The structure shall be stepped back from adjacent streets providing landscaped terraces at first three levels."

On March 18, 1980, by Resolution No. 2896, the Agency approved the final selection of the Rede Company. In July the architectural firm of Dreyfuss and Blackford submitted a revised design to the Agency and to City Planning. Dreyfuss and Blackford are now the design architects. Both the Agency staff and City Planning staff expressed concern relative to the proposed Dreyfuss and Blackford design modification deleting all stepped back landscaped terraces and the substitution of planted balconies.

The Planning Commission, at its August 14, 1980 meeting, as a condition of its granting of the required special permit, requested that the ARB again review the project for design compatibility with the proposed office complex on the 5th-6th-"I"- "J" site. Planning staff recommended continuation of the item until ARB review was completed. Agency staff, by memorandum of July 16, 1980, notified the Commission that the new design represented a substantial change from the design originally selected and previously approved, and recommended review and approval of the proposed changes by all who previously selected and approved the original design. Staff posed the question, "To what degree does the proposed design of the Preliminary Plans submitted satisfy the intent of the original selection and approval of the Commission?"

On July 21, 1980 the Commission approved the Preliminary Plans as prepared by Dreyfuss and Blackford. Rede Company was informed that the plans as submitted to and approved by the

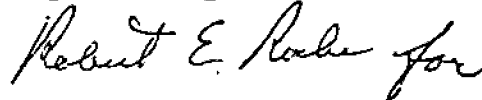
SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

Planning & Community Develop-
ment Committee
December 31, 1980
Page Three

Commission must be approved by the ARB. Subsequently, in late September, the ARB voted to approve the project by a 5 to 2 vote.

Due to Mr. Heller of the Rede Company being out of the country, approval of the Preliminary Plans by the Agency was delayed until after Mr. Heller's return. The item was scheduled on the consent calendar for December 16th and was referred to the Planning and Community Development Committee for hearing at its January 7, 1981 meeting.

Respectfully submitted,



WILLIAM H. EDGAR
Interim Executive Director

Attachments:

1. Memo dated 12/30/80 to Bob Smith & Bob Roche
2. Chronological List - Rede Company Proposal

Lorraine

30

RECEIVED
CITY CLERKS OFFICE
CITY OF SACRAMENTO

JAN 30 3 57 PM '81

ADDITIONAL INFORMATION ON ITEM NO. 30
CITY COUNCIL AGENDA, FEBRUARY 2, 1981



30

SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

CITY MANAGER'S OFFICE

RECEIVED
JAN 30 1981

January 29, 1981

Redevelopment Agency of the
City of Sacramento
Sacramento, California

Honorable Members in Session:

SUBJECT: Report on Rede Building and Sammis Building

SUMMARY

The attached item was reviewed by the Agency on January 20, 1981 and continued until February 3, 1981 with a request for a presentation by the Developers of both the Rede and Sammis Buildings.

BACKGROUND

As an aid to reviewing the history of both developments the chronology of each project is described below with critical dates and actions of various review bodies:

November 5, 1979

Commission recommended selection of Sammis/Spink and Rede Company to Agency.

November 20, 1979

Tentative selection (Resolution No. 2871) of Rede Company for 6th and F Streets parcel based on Sammis/Spink proposed development (subject to reflective glass issue) and tentative selection of Sammis/Spink (Resolution No. 2870) for block bounded by 5th-6th-I-J Streets (subject to Rede agreement to utilize Sammis/Spink design).

SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

Redevelopment Agency of the
City of Sacramento
January 29, 1981
Page Two

Sammis/Spink

January 2, 1980 (Resolution No. 2879)
Agency approved final selection
and authorized execution of Con-
tract for Sale of Land.

April 15, 1980
SHRA/PDOS Committee reviewed and
recommended approved the revised
preliminary plans as submitted.

May 22, 1980
Special permit approved by City
Planning.

June 4, 1980
ARB approval.

July 15, 1980 (Resolution No. 2923)
Agency approval of preliminary
plans.

Rede Company

February 20, 1980
ARB has no adverse comments or
modifications to design.

February 20, 1980
SHRA Commission recommends
approval of Contract with Rede
with requested modifications.

May 18, 1980 (Resolution No. 2896)
Agency approved final selection
and authorized execution of
Contract for Sale of Land.

July 21, 1980
SHRA Commission approval of pre-
liminary plans.

August 14, 1980
Planning Commission granted
special permit with conditions
for ARB to review project for
compatibility with Sammis/Spink
project.

September 22, 1980
ARB approval of design of pro-
posed 600 I Street project.

December 16, 1980
Scheduled for preliminary plan
approval before Agency. Matter
referred to Planning and Community
Development Committee on January 7,
1981.

January 7, 1981
Committee approval and back to
staff and Developers.

January 20, 1981
Matter continued to February 3,
1981

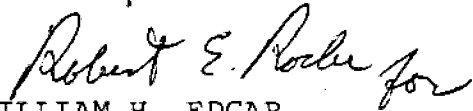
SACRAMENTO HOUSING AND REDEVELOPMENT AGENCY

Redevelopment Agency of the
City of Sacramento
January 29, 1981
Page Three

RECOMMENDATION


Staff recommends you hear the Developers' presentation and then approve the preliminary plans for the Rede Building as recommended in the attached January 20, 1981 report.

Respectfully submitted,



WILLIAM H. EDGAR
Interim Executive Director

TRANSMITTAL TO COUNCIL:


WALTER J. SLIPE
for: City Manager

Contact Person: Ted Leonard

REDE COMPANY
A JOINT VENTURE
P. O. Box 2551
Sacramento, California 95812

January 28, 1981

RECEIVED

JAN 28 1981

Sacramento Housing &
Redevelopment Agency

Members of the City Council
City Hall
Sacramento, California 95814

Attention: Hon. Mayor Phillip Isenberg

RE: REDE CONTRACT FOR DEVELOPMENT OF THE
SOUTHEAST CORNER OF 6TH & I STREETS

Gentlemen:

You have under your consideration the approval of preliminary plans for the above project. To assist you in your deliberations, we have been asked to summarize the reasons for the design submitted.

First, let me state that the Redevelopment Agency requirements as indicated in the request for proposals included specifications all that required parking be on site and that the number of spaces provided be based on 1 to 400 (e.g. 1 parking space for each 400 square feet of building area).

It became apparent that two levels of parking would be necessary and that the arrangement of parking spaces had to be at 90° to the property lines in order to achieve the proper number of parking spaces and orientation of aisles.

The award of the project to REDE included a provision that the REDE design be compatible with the Sammis proposal across 6th Street, and that the basic 45° triangular shape be maintained.

This dictated an office building structure oriented at 45° to the property line, and, of course, would be placed on top of the parking structure at 90° to the property line.

Page Two
January 28, 1981
Members of the City Council

This is an exceedingly difficult structural problem since the parking bays must be a multiple of acceptable car space dimensions, whereas the office portion must be a module which meets the requirements for effective office partitioning.

Hence, the solution as shown on the preliminary plans. To interpose additional columns extended down through the parking area, which would be necessary in order to provide more extensive terracing of the northwest face, was not a pragmatic possibility.

Furthermore, more extensive terracing would also place columns in the office area, drastically reducing the flexibility of office space layout.

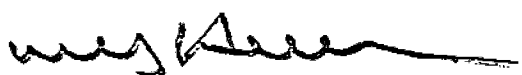
To comply with all of the requirements of our contract, our architect, Leonard Blackford of Dreyfuss & Blackford, cantilevered the structure out at the second and third floors to achieve a terraced effect. Both Mr. Blackford and I believe the result to be a clean cut, contemporary facade representing an improvement aesthetically over the original Sammis design.

I would also like to state that at no time did REDE indicate to any public agency or committee that we would provide terracing exactly like the original Sammis proposal. In fact, we stated in meeting after meeting, both prior to the award to REDE and after, that we could not do so.

It must also be noted that the preliminary plans meet the requirements of our contract and I respectfully request a speedy approval.

Very truly yours,

REDE COMPANY
A JOINT VENTURE



M. J. Heller

MJH/d

bc: Mr. Leonard Blackford
Mr. Robert Roach