PLUMBING FIXTURES:

The exterior of slop sinks and any other unfinished plumbing fixtures, etc. are to be finished with one coat of white lead, two coats of undercoating and two coats of enamel, similar to other enamel work herein specified.

BASEMENT PAINTING:

The rough concrete walls and ceilings where they occur in the boiler room, store rooms #1 and 2, to be finished by the painter with two spray coats of Paraffine Co's Fumenemal paint, applied in good body as directed.

WAXING OF TILE:

The promenade tile in first story lobby, corridors, stairhalls, stairs, to be cleaned of alkali with proper acid then thoroughly washed and dried and finished with two heavy wax coats to a dull polish

CEMENT FLOORS:

The following cement floors are to be properly cleaned and prepared in accordance with the manufactuers's directions and painted wit three coatsof Standard Vannish Co's special floor paint.

Janitor's closet, check room #1, halls, #1, 2 and 3. locker room, toilet #4 andkitchen entry in basement.

MISCELLANEOUS:

All pulley stiles of double hung windows to be oil stained, two coats and wiped dry. All dressed wood work in fan room to have two coats lead and oil paint. The metal linings in projecting room will not require painting.

PREPARATION FOR PAINTER'S WORK:

In performing the painter's work herein, care shall be taken by the painter before the application of any finish to see that the material to be painted or otherwise finished is in proper condition to receive the painter's material. In the absence of any objections on his part, it will be assumed that the carpenter, plasterer or other tradesmen have left their work in proper conidion and that the painter will be held strictly accountable for the results expected in these specifications.

ORIGINAL PACKAGES TO HAVE APPROVAL:

He shall apply his material, if practical, just as it comes from the can in every case, or mixed as particularly specified herein. No adulteration with inferior materials will be permitted and all material as specified herein must be brought to the building in their original unbroken packages and submitted for the architect's inspection and approval before opening. Any work performed with material not having been inspected and approved will be liable to rejection.

SAND PAPERING AND PUTTYING:

All painted work to be properly sandpapered between coats and finished finally as particularly specified herein. All nail holes and other defects must be carefully puttied and repaired at the proper time. Interior puttying must be carefully colored to match the stain.

QUALITY OF WORK:

All painted work under these specifications is expected to finish with a good body and in the event of failure so to do, the painter will be required to provide for additional coats as necessary to get these results. All must be done to the entire satisfaction of the architect and on completion all rubbish promptly removed from the premises.

CLEANING:

In doing his work the painter must show proper care in applying the paint and on completion of the work must thoroughly clean all hardware and wood work and glass from any daubed or smeared paint and leave all parts in a workmanlike condition.

Any painter's material daubed on floors must be cleaned off by the painter. Where moss glass occurs in doors, windows, transoms, etc. the painter must be extremely careful not to daub paint on same and in the event of his doing so, will be required to thoroughly clean same on completion.

REFERENCE TO GENERAL CONDITIONS:

The painter's attention is particularly directed to the general conditions attached to these specifications, provisions of which shall be carefully read and followed.

APPENDIX C

DEDICATION OF VETERANS MEMORIAL BUILDING

BERKELEY, CALIFORNIA

Sunday Afternoon, November Eleventh at Three o'clock
Nineteen Hundred Twenty-eight

Auspices

UNITED VETERANS COUNCIL OF BERKELEY

JAMES E. HARVELL, *President* CARRIE L. HOYT, *Vice-President*
MRS. LENORA GREEN, *Secretary-Treasurer*

MEMBER ORGANIZATIONS

LOOKOUT MOUNTAIN POST NO. 88, GRAND ARMY OF THE REPUBLIC
LOOKOUT MOUNTAIN RELIEF CORPS NO. 35
MCCOURT CAMP NO. 13, UNITED SPANISH WAR VETERANS
SUSAN LINCOLN MILLS AUXILIARY NO. 11
DAUGHTERS OF VETERANS JULIA DENT GRANT TENT NO. 32
BERKELEY POST NO. 703, VETERANS OF FOREIGN WARS
VETERANS OF FOREIGN WARS AUXILIARY NO. 703
BERKELEY POST NO. 7, THE AMERICAN LEGION

DEDICATORY SERVICES

SUNDAY AFTERNOON
NOVEMBER ELEVENTH, NINETEEN TWENTY-EIGHT
THREE O'CLOCK

MAIN AUDITORIUM VETERANS MEMORIAL BUILDING

JAMES E. HARVELL, PRESIDING,
President United Veterans Council of Berkeley

SINGING OF "STAR SPANGLED BANNER" *by* ASSEMBLAGE

FLAG SALUTE—*Led by Color Bearers of Affiliated Organizations*

INVOCATION—DR. ELBERT R. DILLE, *Past Department Chaplain, Grand Army of the Republic*

GREETINGS FROM THE CITY OF BERKELEY—MAYOR M. B. DRIVER

SOPRANO SOLO—"Sweet Spirit Hear My Prayer" (WALLACE) IONE GRAHAM ROBINSON. ETHEL IRVINE, *Accompanist*

GREETINGS FROM COUNTY OF ALAMEDA—CHAIRMAN CHARLES HEYER, *Board of Supervisors*

ACCEPTANCE OF GREETINGS — PRESIDENT JAMES E. HARVELL, *United Veterans Council of Berkeley*

SONG—"In Flanders Fields", MR. NELSON McGEE. ETHEL IRVINE, *Accompanist*

INTRODUCTION OF DISTINGUISHED GUESTS

CORNET SOLO—GRACE ADAMS EAST.

DEDICATORY ADDRESS—HONORABLE BURON FITTS, *Lieutenant Governor of California*

BENEDICTION—DR. HENRY H. FROST

TAPS

Unveiling of Lincoln's Gettysburg Address Tablet in Honor of Lookout Mountain Post No. 88, Grand Army of the Republic immediately following Taps.

Public Reception to the Citizens of Berkeley for the Inspection of our New Memorial Building immediately following the Unveiling of Lincoln's Gettysburg Address Tablet.

PROGRAMS

SUNDAY MORNING AT ELEVEN O'CLOCK

Formal Flag Raising—Veterans Memorial Building
Berkeley Post No. 7, The American Legion, officiating

SUNDAY AFTERNOON AT THREE O'CLOCK

DEDICATORY SERVICES

Sunday Afternoon immediately following Dedication Open House
and Reception to the Citizens of Berkeley

SUNDAY EVENING AT SEVEN-THIRTY O'CLOCK

HOUR OF MUSIC

MONDAY MORNING AT TEN O'CLOCK

Annual Armistice Day Exercises at Greek Theatre
under the Auspices of the University of California
and
Berkeley Post No. 7, The American Legion

MONDAY AFTERNOON BETWEEN TWO AND FIVE O'CLOCK

Open House and Reception to the Citizens of Berkeley
Refreshments Entertainment

MONDAY EVENING AT SIX-THIRTY O'CLOCK

Banquet of Affiliated Veterans and Patriotic Organizations of Berkeley
Banquet Room Veterans Memorial Building

MONDAY EVENING AT EIGHT-THIRTY O'CLOCK

Grand Ball in Auditorium of New Veterans Memorial Building
Bert King's Claremont Hotel Orchestra
Delightful Entertainment between Dances
This Grand Ball is given in honor of and to the citizens of Berkeley

*The Public Is Cordially Invited to Participate
in These Events*

COMMITTEES ON DEDICATION

GENERAL COMMITTEE

THOMAS M. ROBINSON, JR., *General Chairman*

CARRIE L. HOYT — COL. J. B. RUMSEY
F. W. SPENCE — A. O. DONOGH, JR.

RECEPTION

ROY W. PILLING, *Chairman*

All Members of the United Veterans Council Organizations

PUBLICITY

A. O. DONOGH, JR. *Chairman*

CARRIE L. HOYT — THOMAS M. ROBINSON, JR.

DECORATIONS

CHARLES BOSTERLI, *Chairman*

GRACE JOHNSON — MAY BOYNTON

BANQUET

WILLIAM MARTIN, *Chairman*

MRS. E. K. BARBAT — MRS. CARLINE BRANDES

INVITATIONS

CARRIE L. HOYT, *Chairman*

MRS. LENORA GREEN — MISS W. P. GRANT

DANCE

C. B. DUNN, *Chairman*

MRS. JAMES E. HARVELL — MRS. FRANK A. BERG

TRANSPORTATION

F. A. SPENCE, *Chairman*

MRS. ROMA KLINE — MRS. CLARA ROSE

ENTERTAINMENT AND MUSIC

TRACEY BARRETT, *Chairman*

MRS. ELIZABETH ALLEN — MRS. MINERVA ELLIOTT

PATRIOTIC

E. A. MAY, *Chairman*

J. B. RUMSEY — MRS. FLORENCE THOMPSON

REFRESHMENTS

A. M. KANZLER, *Chairman*

MRS. MAUD JOHNSON — MRS. H. HAM
MRS. CARRIE BARTLETT — MRS. C. W. SYLVESTER
MRS. J. B. WAHL

Open House will be held during Sunday and Monday at which time visitors will be most cordially welcomed to be shown through our Beautiful New Memorial Building

PRESS OF THE COURIER

AUGUST · NINETEEN THIRTY-FIVE

Architect & ENGINEER

The Architect & ENGINEER

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CONTENTS

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A. I. A. Honor Award

VETERANS MEMORIAL BUILDING, HAYWARD, CALIFORNIA
HENRY H. MEYERS, ARCHITECT
Geo. R. Klinkhardt and Mildred S. Meyers, Associates.

The Architect & ENGINEER

August, 1935

Memorials

by Mildred S. Meyers

Alameda County, California, Builds Ten Monumental Structures as Tribute to World War Veterans

UNDER the provisions of a state law enacted less than ten years ago, counties of the State of California are permitted to include in their tax rate a certain portion for the construction and maintenance of Memorial Buildings, dedicated to the memory of their war veterans.

Since 1927, the county of Alameda has gradually been erecting in the various communities throughout the county, ten such Memorials, which have been designed as club buildings or community centers. These structures are located in Oakland, Alameda, Berkeley, Everyville, Albany, San Leandro, Hayward, Niles, Pleasanton and Livermore. They range in cost, according to the demands and needs of the community, from $40,000 to $250,000.

DETAIL OF LOBBY, VETERANS' MEMORIAL BUILDING, SAN LEANDRO
Henry H. Meyers, Architect

A further provision of this law requires the site to be furnished by the community in which the building is to be erected. In some cases, land was furnished by the city or town itself. In others, the veterans organization supplied this requirement. Some of the sites provided are ideal, others leave much to be desired. Certain of the communities, not realizing the importance of the building in the civic life of the district until

acter for its building.

The Memorial at Niles is on the site of an old pear orchard in the heart of an early Spanish land grant, the "Rancho de la Alameda". Streets were cut through and opened after the building was erected.

VETERANS MEMORIAL BUILDING, OAKLAND, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

too late, skimped on the size, selection and location of the property in order to hold down costs.

In the case of the Oakland building, an ideal setting was provided at the head of Lake Merritt. The building was placed in a public park of many years growth and care was taken not to destroy any of the trees and shrubbery.

A similar setting was offered in Albany, where the community was fortunate in having a park ample in size and perfect in char-

No serious foundation difficulties were encountered in any of the ten sites selected. However, at Oakland, a slough extending from Lake Merritt made it necessary to use piling. At Emeryville and Albany the surface strata is of adobe. Good foundations were secured at 5 to 8 foot depths.

The buildings are planned to take care of the various activities of the veterans' organizations. In each there has been provided a generous auditorium with fully equipped stage and dressing rooms, lobbies and vestibules, also one or more lodge rooms as required, with the necessary accessories, men's and women's club rooms, kitchens, and in some instances special banquet, card and billiard rooms.

The Oakland building, the largest of the ten, contains the business offices and special committee rooms of the veterans' organizations, as well as the general community rooms mentioned. It has become one of the most widely used of Oakland's civic buildings.

In all cases, the Memorials have been designed in styles to suit the surroundings. Where they are located in residence sections, a less formal style was selected. For those in business districts, the monumental was considered more appropriate. A modernized Classic was chosen for the buildings at Emeryville, San Leandro and Hayward.

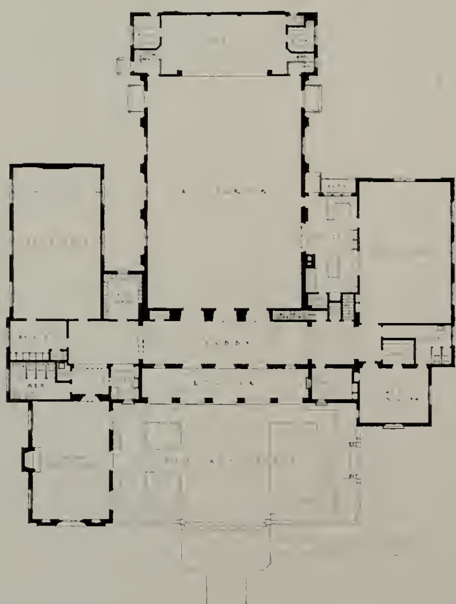
It is of interest here to note that the Hayward building won an Honor Award in the recent Biennial Exhibition of the American Institute of Architects held in San Francisco. Unfortunately, these Memorials were classed as "monuments" in the exhibition, while in reality they are community centers. Only a few are formal enough in character to measure up to monument requirements.

Regardless of style, military details have been introduced into the design of all the Memorials to emphasize the purpose of the buildings.

Because of the character of the surroundings and the history of the district, the

VETERANS MEMORIAL BUILDING, ALAMEDA, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

VETERANS MEMORIAL BUILDING, ALBANY, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects



building at Niles was designed and planned in the California Spanish style. As a result, when the building was completed, three other communities requested that their buildings be of similar architecture. The architects appreciated this compliment, but were immediately faced with the problem of avoiding similarity in architectural design.

The exterior walls of all buildings, with the exception of that at Niles, are of reinforced concrete. Hollow tile was selected here because of its location near the center of the tile industry of Alameda County. The interior construction of all buildings is Class C or wood, except for the Oakland building, where the second floor is of reinforced concrete, and the partitions of hollow metal.

With the exception of the San Leandro building, the exteriors of all Memorials

VETERANS MEMORIAL BUILDING, PLEASANTON, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

have been treated with cement stucco finish. The surface treatment of this stucco varies with the architectural style of the building, a crude uneven finish being used on those of California Spanish design, and a dash or trowel sand finish on the remaining.

The building at San Leandro varies from the others as to this surface treatment. Here the form boards were of selected character with rebatted ship lap joints, and no butt joints. All angles have mitered corners. All lumber was sized and applied with the rough sawn surface in contact with the concrete.

Unsightly overnight joints, so common in ordinary concrete, were avoided by a careful consideration of a day's pour. Vertical partitions were set up in the walls at selected locations so as not to be visible at completion.

MEN'S CLUB ROOM, VETERANS MEMORIAL BUILDING, ALBANY
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

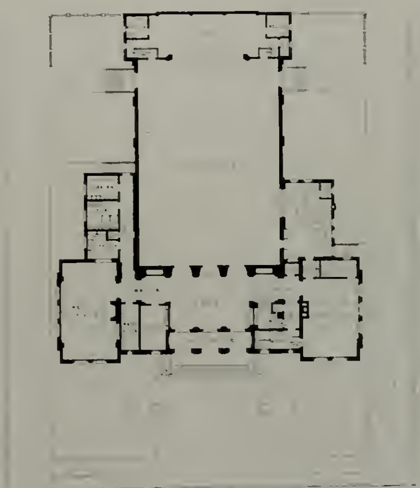
VETERANS MEMORIAL BUILDING, BERKELEY, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

LODGE ROOM, VETERANS MEMORIAL BUILDING, HAYWARD
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

When it was not possible to finish a day's pour at a floor level or roof line, an intermediate joint was placed to coincide with a form board joint and stripped 2" deep to form a protected rebate which the succeeding pour would fill and form a water tight joint.

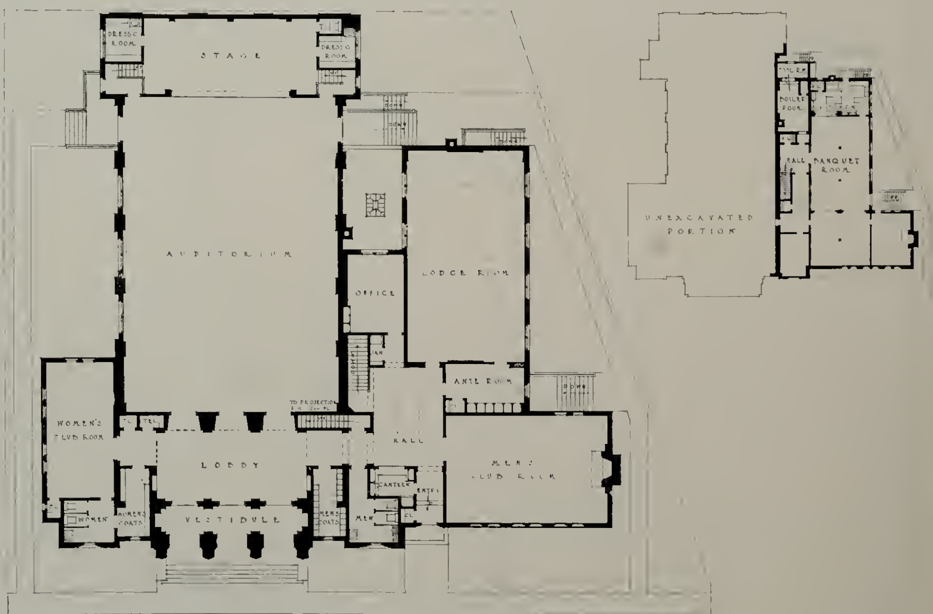
While this method saved the cost of stucco, there was no ultimate saving as considerable expense was incurred in the care given to the form work. This, however, was well repaid by the results obtained.

On completion, these walls were brushed down to remove any loose sand and then a color coating applied in which was incorporated a waterproofing compound to seal the concrete surface.



PLAN, VETERANS MEMORIAL BUILDING, HAYWARD
Henry H. Meyers, Architect

VETERANS MEMORIAL BUILDING, SAN LEANDRO, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects



PLANS, VETERANS MEMORIAL BUILDING, SAN LEANDRO
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

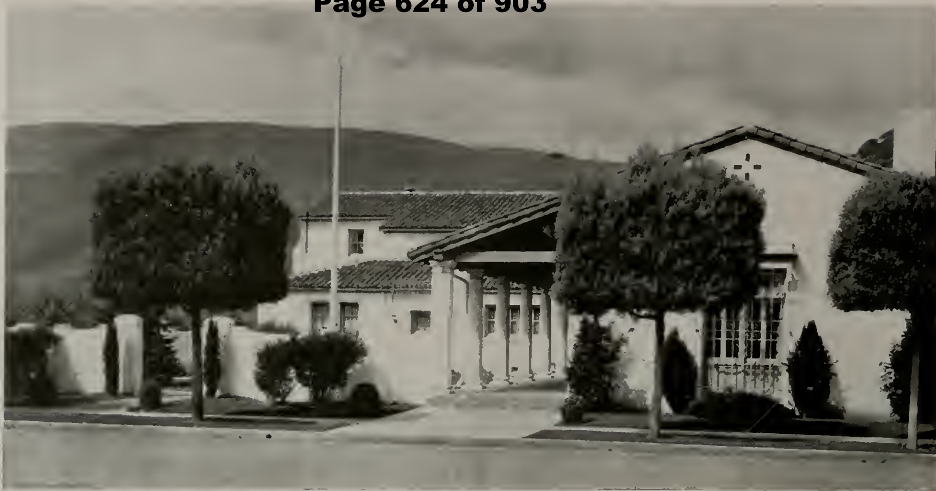
AUDITORIUM, VETERANS MEMORIAL BUILDING, SAN LEANDRO
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

surface and structural reinforcement for the wall itself.

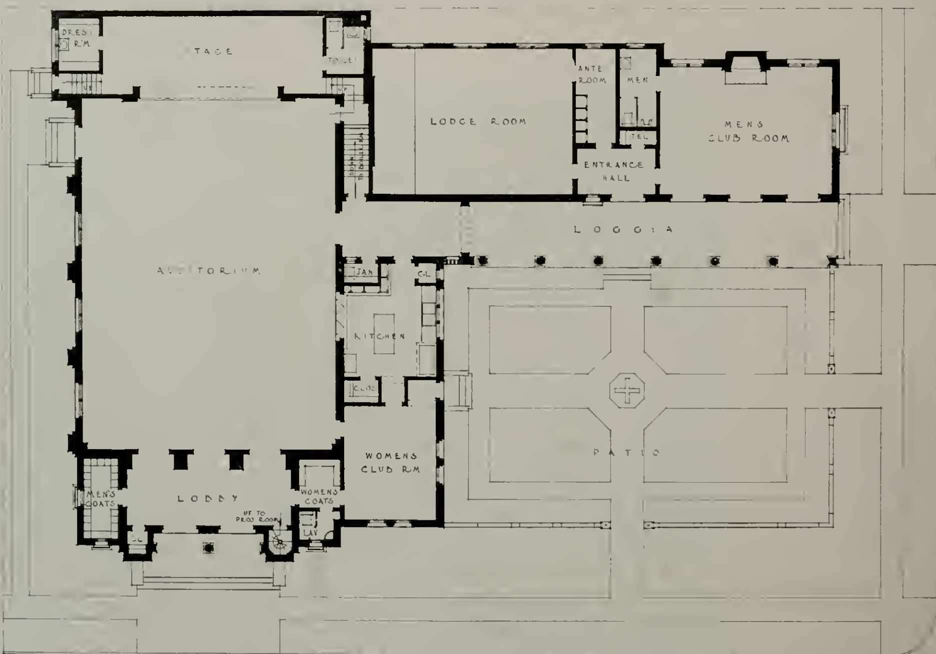
The interior of the memorials have been designed to carry out the style and character of the exteriors. Special color and decorative treatments were studied in this connection for the main rooms in each individual structure. Color studies of these various rooms, to scale, were made by a skilled designer under the

MEN'S CLUB ROOM, VETERANS MEMORIAL BUILDING, SAN LEANDRO
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

Ornamental panels at San Leandro were constructed with plaster waste moulds. These however, are not as true an example of this type of construction as the panel over the front entrance of the Pleasanton building, which is of considerable area as will be noticed from the photograph. This required skill in handling in order to give a result of perfect workmanship on the



VETERANS MEMORIAL BUILDING, NILES, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects



PLAN, VETERANS MEMORIAL BUILDING, NILES
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

VETERANS MEMORIAL BUILDING, LIVERMORE, CALIFORNIA
Henry H. Meyers, Architect
George R. Klinkhardt and Mildred S. Meyers, Associate Architects

supervision of the architects. These studies were used later by the painters and decorators as a basis for mixing and making samples for final colors at the building. This procedure required extra time and effort but the results were so satisfactory that in the end, time was undoubtedly saved in fewer delays at the job.

In the California Spanish buildings, structural members of roof trusses were left exposed in many instances. These were treated with stencil designs inspired from old Spanish ceilings. Walls in general were finished in an uneven surface to imitate the crude workmanship of the old buildings. These were kept simple in color with a glaze finish to tone in with the woodwork.

Where the modern treatment was adopted, a greater opportunity was afforded as to originality and freedom in design and color. One of the most successful rooms in this respect is the auditorium in the San Leandro building. Here, the walls have been painted a light clear canary yellow, while the woodwork has been stained a rich dark green brown. The sloping and stepped surfaces of the ceiling panels were especially prepared to take a covering of aluminum leaf. Portions of this ceiling were slightly glazed to soften the extreme brilliance of the metal. Finally, to accentuate the direction of the ceiling and to eliminate the monotony that a great expanse of aluminum might create, a rich stencil pattern was introduced. This metal ceiling forms a lively note in the room and is particularly interesting in the manner in which it picks up colors of adjacent surfaces and materials. This color reflection is again noticeable in

VETERANS MEMORIAL BUILDING, EMERYVILLE, CALIFORNIA
Henry H. Meyers, Architect
Geo. R. Klinkhardt and Mildred S. Meyers, Associate Architects

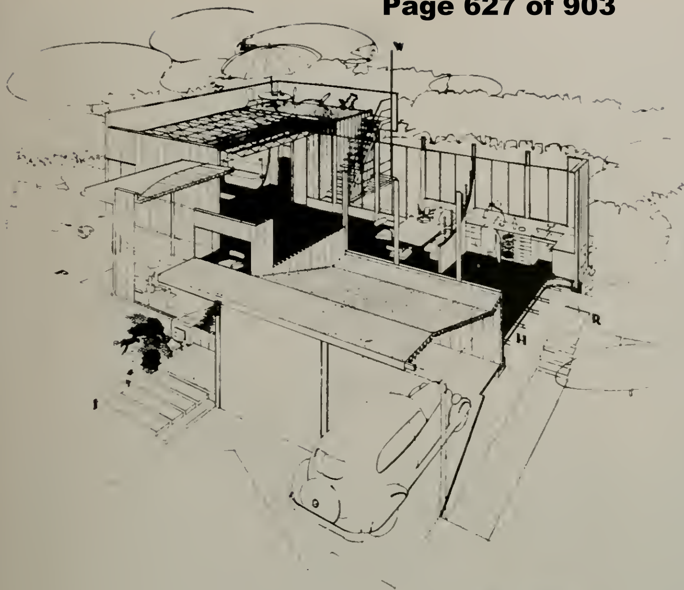
the lobby of this same building. Here however, ribbed ceiling panels of aluminum leaf reflect the red-brown of the tile floor.

Decorative tile was used quite extensively in the various Memorials. In most cases the tiles were designed in the architect's office for the particular building. This was found necessary in order to harmonize pattern and color with other materials in the building.

Interesting features of all the Memorials, and one so often neglected, are the lighting fixtures manufactured from designs and details by the architects. Again old Spanish designs were the inspiration for the fixtures in the buildings of early California-Spanish character. In the modern buildings, where more opportunity for imagination and originality was offered, an effort was made at all times to keep the fixtures simple and in harmony with the architectural treatment.

With one or two exceptions in the earlier buildings the architects were called upon to design and select the draperies for the various main rooms. This was worked out in connection with the color studies of the individual rooms. In this manner a unified and harmonious whole was planned.

It is gratifying to note how jealously proud each community is of its own building. It is also interesting to note the popularity of these buildings, not only for veterans' activities but for public functions. In a much larger degree, especially in the smaller communities, these Memorials are taking the place of the "old town hall" and are being made an integral part of the community life.



RESIDENCE OF
PROF. WM. BEARD.
ALTADENA, CALIFORNIA

Richard J. Neutra, Architect
Gregory Ain, Associate

Four-room one-story house of earthquake and fire-proof steel construction. The roof is removed in the drawing to reveal the interior. (F) Front entrance leading to large living room with view-windows and sliding doors to rear garden and westerly patio (P). (R) Rear entrance to service porch and kitchen with breakfast nook. Stairway leads up to a roof terrace prepared for a future second story addition of two bedrooms and bath.

Moderne

● *Richard J. Neutra Again Receives National Recognition for his Work in Domestic Architecture*

MORE of Richard J. Neutra's work in modern design is illustrated this month. All of the three homes pictured have lately been awarded prizes in the Better Homes in America competition. The jury has judged them as outstanding examples in the development of modern home design.

CELLULAR COPPER BEARING STEEL RESIDENCE FOR PROF. WM. BEARD. ALTADENA, CALIFORNIA

Richard J. Neutra, Architect
G. Ain, Collaborator

STRUCTURAL ENGINEERS

APPENDIX E

ASCE 41-17 TIER 2 SEISMIC EVALUATION OF
BERKELEY VETERANS MEMORIAL BUILDING
AT 1931 CENTER STREET
BERKELEY, CALIFORNIA

April 22, 2019

1629 Telegraph Avenue, Ste 300 | Oakland, CA 94612 | t: 510.834.1629
ida-se.com

1 Executive Summary

IDA Structural Engineers (IDA) has performed a seismic evaluation of the Veterans Memorial Building, located at 1931 Center Street, in Berkeley, California, using an ASCE 41-17, Tier 2 seismic evaluation procedure. ASCE 41-17, titled "*Seismic Evaluation and Retrofit of Existing Buildings,*" published by the American Society of Civil Engineers (ASCE) in 2017, is the industry standard procedure for the seismic evaluation and retrofit of existing buildings.

IDA has evaluated the building for a Basic Seismic Performance Objective (BPOE) and for an Enhanced Seismic Performance Objective (called Immediate Occupancy or IO). IDA found the Veterans Memorial Building, a 90 year old, three story, heavy concrete perimeter wall building with wood framed floors and roof to be seismically deficient and to pose life safety hazards to building occupants. Potentially the building could collapse or partially collapse in a major earthquake proximate to the site.

IDA has developed two concept seismic retrofit schemes, one to meet the lower Basic Seismic Performance Objective (BPOE) and one to meet the higher Immediate Occupancy (IO) - Enhanced Seismic Performance Objective. Mack5 cost estimators were engaged to determine ball park construction budgets for both schemes. The Mack5 estimated cost for the BPOE scheme is $11,275,000 and for the IO scheme is $39,392,000. The cost estimate report is included in Appendix B.

The City of Berkeley Engineering Department has developed a total project cost and budget including consultant costs, City management costs, permit costs and testing and inspections. The budget estimated cost for the BPOE scheme is $17,707,538 and for the IO scheme is $61,886,725. The Project Budget is included in Appendix A.

2 Introduction

IDA Structural Engineers (IDA) has performed a seismic evaluation of the Veterans Memorial Building, located at 1931 Center Street, in Berkeley, California, using an ASCE 41-17, Tier 2 seismic evaluation procedure. ASCE 41-17, titled "*Seismic Evaluation and Retrofit of Existing Buildings,*" published by the American Society of Civil Engineers (ASCE) in 2017, is the industry standard procedure for the seismic evaluation and retrofit of existing buildings.

The Intent of the Tier 2 analysis is to evaluate the seismic force resisting system in the building and determine if the building will meet or exceed the targeted seismic building performance level, or if not, whether to retrofit to achieve the desired seismic performance level. IDA has set the base seismic performance level to be the Basic Performance Objective for Existing buildings (BPOE). This is also consistent with the recommendations of the ASCE 41-17 document.

The BPOE requires a two-tier seismic performance evaluation: 1) a Life Safety Performance Level for a smaller earthquake (BSE-1E – a 225 year recurrence period earthquake having a 20%

chance of exceedance in a 50 year period); and 2) a Collapse Prevention Performance Level for a larger earthquake (BSE-2E – a 975 year recurrence period earthquake having a 5% chance of exceedance in a 50 year period). Both of these earthquakes are less than a 2500 year recurrence period earthquake (MCE) used for new buildings in current codes.

IDA has also evaluated the building for an enhanced seismic performance level. The enhanced seismic performance level also requires a two-tier seismic performance evaluation: 1) an Immediate Occupancy for a smaller earthquake (BSE-1E – a 225 year recurrence period earthquake having a 20% chance of exceedance in a 50 year period); and 2) also an Immediate Occupancy Performance Level for a larger earthquake (BSE-2E – a 975 year recurrence period earthquake having a 5% chance of exceedance in a 50 year period). A seismic retrofit and cost has been determined for both options.

The information below forms the foundation for the evaluation. This information is either derived from owner requirements, such as risk category and desired structural performance level, or is site specific, such as seismic hazard level.

Building	Veterans Memorial Building
Address	1931 Center Street, in Berkeley, California
Risk Category	Risk Category III - Civic Building
Two Seismic Performance Objectives Studied:	
Basic Performance Objective for Existing Buildings (BPOE)	Life Safety Structural Performance (S-3) Life Safety Non-structural Performance (N-C) Combined = (S3-NC)
Enhanced Performance Objective	Immediate Occupancy Structural Performance (S-1). Operational Non-structural Performance (N-A). Combined = (S1-NA)
Two Seismic Hazard Levels Studied	1) BSE-1E (20% in 50 years, 225 year return period) 2) BSE-2E (5% in 50 years, 975 year return period)
Level of Seismicity	High
Site Class	D
Building Type	3 Story, 1927, Historic, non-ductile concrete building, with wood framed floors and roof. Lightly reinforced non-ductile concrete perimeter walls. Floors and roofs are framed with wood joists, steel trusses and covered by diagonal and straight wood sheathing.

2.1 Performance Objectives

The performance objectives consist of one or more pairings of a selected Seismic Hazard Level with a target Structural Performance Level and Nonstructural Performance Level.

The Basic Performance Objective for Existing Buildings (BPOE) is a specific, seismic Performance Objective (from several available choices) and is dependent on the Risk Category of the building and the desired seismic performance expected by the owner. The BPOE for existing buildings in ASCE 41-17 is a lower category which will result in a reduced level of seismic safety and a higher probability of collapse than what would be expected by building codes for new buildings. Buildings meeting the BPOE are expected to incur little damage from frequent small to moderate earthquakes, but are expected to incur greater levels of damage and economic loss from larger earthquakes. The level of damage and potential economic loss for buildings meeting or rehabilitated to the BPOE will likely be greater than expected for the Basic Performance Objective for New Buildings designed to current building codes.

The increase in seismic risk is tempered by the recognition that older buildings have a reduced useful lifespan than new buildings. That is, if the traditional demand for new buildings presumes a 50-75 year life, then an existing building with a 20-30 year remaining lifespan has a lower probability of being subjected to a major earthquake over its remaining lifespan. The ASCE 41-17 standard also recognizes that the cost of achieving a higher level of seismic performance is often excessive for older buildings.

2.1.1 Structural Performance Level for BPOE

The structural performance level for BPOE is two tiered: S-3, which anticipates Life Safety seismic performance of the building following a smaller earthquake (20% exceedance in 50 years, or 225 years recurrence period) earthquake: and S-5, which anticipates a Collapse Prevention seismic performance of the building following a larger earthquake (50% exceedance in 50 years, or 975 years recurrence period).

A structure conforming to the Life Safety seismic performance level should be expected to incur significant damage following the potential seismic events. The basic lateral and vertical force resisting systems of the building should utilize most of their pre-earthquake strength and stiffness. The risk of life-threatening injury (life safety) as a result of structural damage is low. Major structural repairs should be anticipated following a major earthquake, which could take weeks to months to complete or could not be economically feasible to complete.

2.1.2 Nonstructural Performance Level for BPOE

The nonstructural performance level for the BPOE is N-C, Life Safety performance level.

Continued use of the building following an earthquake is not only limited by structural damage, but could also be limited by damage or disruption to nonstructural elements of the building, such as ceilings, partition walls, electrical or mechanical equipment, or continued operation of utility services. Nonstructural Performance Level N-C, "Life Safety," is the post-earthquake damage state in which nonstructural components could be damaged, and may not function, but are anchored in place so that they do not fall, topple, or break connections. By avoiding potential component falling or toppling, or breaking of utility connections (such as, water, gasses, or electricity) life safety is provided to building occupants. Building access, egress, and life safety systems include doors, hallways, emergency lighting, fire alarms and fire suppression systems, and are generally expected to remain available and operable provided that these elements are braced and power and utility services are available to the building. Potentially, some use may be impaired, and some repair may be needed. The N-C, Nonstructural Performance Level essentially mirrors the requirements of new building design for cases where the structure is designed for life safety and not immediate occupancy.

2.1.3 Seismic Hazard Level for BPOE

The procedure to achieve the Basic Performance Objective for Existing buildings (BPOE) is a two-tiered procedure, which requires achieving a Life Safety Seismic Performance during ground motions (BSE-1E) with a 20% probability of exceedance in 50 years (or a 225 year recurrence interval). In addition, the BPOE requires meeting a Collapse Prevention Seismic Performance for ground motions (BSE-2E) with a 5% probability of exceedance in 50 years (or a 975 year recurrence interval). These two earthquake hazards levels and corresponding ground motions can be determined at any site in the USA via the United States Geologic Survey (USGS) website, with appropriate site soil conditions.

2.1.4 Additional Evaluation for Enhanced Seismic Performance

IDA has also evaluated the building for an enhanced seismic performance level. The enhanced seismic performance level also requires a two-tier seismic performance evaluation: 1) an Immediate Occupancy for a smaller earthquake (BSE-1E – a 225 year recurrence period earthquake having a 20% chance of exceedance in a 50 year period); and 2) an Immediate Occupancy Performance Level for a larger earthquake (BSE-2E – a 975 year recurrence period earthquake having a 5% chance of exceedance in a 50 year period). A seismic retrofit and cost is also determined for this option.

2.1.5 Structural Performance Level for Enhanced Seismic Performance

The structural performance level for Immediate Occupancy is also two tiered: S-1, which anticipates Immediate Occupancy seismic performance of the building following a smaller earthquake (20% exceedance in 50 years, or 225 years recurrence period) earthquake; and also S-1, which anticipates Immediate Occupancy seismic performance of the building following a larger earthquake (50% exceedance in 50 years, or 975 years recurrence period).

A structure conforming to the Immediate Occupancy seismic performance level could be expected to incur very minor damage following the potential seismic events. The basic lateral and vertical force resisting systems of the building should utilize most of their pre-earthquake strength and stiffness. The risk of life-threatening injury (life safety) as a result of structural damage is low. Minor structural repairs should be anticipated following a major earthquake, which could take days to weeks to complete, but building occupancy should be allowable following a major event.

2.1.6 Nonstructural Performance Level for Enhanced Seismic Performance

The nonstructural performance level for the Enhanced Seismic Performance is N-A, "Operational" performance level.

Nonstructural Performance Level N-A, "Operational," is the post-earthquake damage state in which nonstructural components remain minimally damaged, and remain functional. Equipment and non-structural elements are anchored in place so that they do not fall, topple, or break connections. The N-A, Nonstructural Performance Level essentially mirrors the requirements of new building design for Risk Category IV structures where the structure is designed for Immediate Occupancy.

3 Site Description

The Veterans Memorial Building, in Berkeley, California is located on the north side of Center Street across the street from Martin Luther King Jr. Civic Center Park. The site is essentially a flat site (gently sloping from east to west). Neighboring buildings are located on the east, west, and north sides of the site. The building is located off the sidewalk on Center Street and has small landscaped areas at the rear on the east and parking on the west.

The building, which was constructed around 1929, is a 3 story, reinforced concrete perimeter wall building, originally constructed as the Veterans Memorial for the City of Berkeley. The building has a "T" shaped plan, with a central portion (oriented north-south) and a portion along Center Street to the south (oriented east-west). The front/street portion is a three-story portion, with plan dimensions of 38 ft deep x 182 ft wide, and includes a basement, and first and second floors. The central portion is located behind the front portion, has plan dimensions of 70 ft wide x 83 ft. deep. The central portion includes a basement and a two-story tall auditorium about the same height as the front portion two stories. The building encloses about 32,000 sf.

The basement story is 11' feet tall and is embedded approximately 5-7 feet below perimeter grade (greater at the east and sloping down and less at the west). The first floor is 15 ft tall and the second floor is 13 ft tall with a 7.5 ft tall ceiling space above to the roof. The rear auditorium is 24 ft tall from floor to ceiling and the stage at the northern portion is raised 4 ft above the floor.

The basement floor is a slab-on-grade lower than the exterior grade and the foundation system consists of spread footings under columns and continuous footings under perimeter concrete walls. Some interior walls are concrete and other interior walls are non-structural (non-load bearing) walls constructed with wood studs.

Floors are constructed with wood joists framing between concrete walls, or steel beams (encased in concrete) spanning to columns. This is consistent for the 1st and 2nd floors and the roof at the three-story portion. The roof at the auditorium is framed with deep steel trusses spanning the width of the auditorium in the transverse direction (east-west) and with steel columns embedded in perimeter concrete walls. The roof framing between trusses is wood roof joists spanning perpendicular. The roof sheathing is framed with (we believe) with 1x6 straight sheathing and the floors are framed with 1x6 diagonal sheathing.

4 History

The Veterans Memorial Building, constructed in 1928, was designed by Henry H. Meyers Architect and George Klinkhardt, Associate Architect. It is a Classic Modernist Style Building with heavy concrete walls and wood framing at the interior floors and roof. The exterior facade is composed of stucco finish over reinforced concrete.

The building was originally constructed as a memorial to WWI veterans and included a banquet hall, an auditorium, and club rooms and lodge. The building currently is not used for these purposes, instead houses the Berkeley Historical Society. The basement has been used for a homeless shelter, and the second floor is closed off but used for storage.

5 Geotechnical Information

There is no geotechnical investigation report available for this site.

Seismic ground motions used in this evaluation were derived from United States Geological Survey and California Geological Survey maps and fault information specific to this site.

6 Site Observation

IDA visited the building on January 11 and 17, 2019. The building generally appeared to be in reasonable condition after over 100 years of age. The exterior had many cracks and the exterior walls were dirty from years of age. The building looked as if it had a stucco finish, but IDA believes it is a course paint over the concrete structure. The addition at the rear appears to be a wood frame addition with a stucco finish, which looks to be worn for many years.

There were no visibly observed signs of rot or decay in the building, although the structure was covered by finishes such as plaster finish at the interior or stucco at the exterior. The structure looked as though it had 110 years of use and age, but appears to be in reasonable condition for the age.

7 Available Documents

The following drawings were available for review for this evaluation:

Original architectural and structural drawings-

1. **Drawings - Veterans Memorial Building, Berkeley, California dated July 1927**
   Henry H Meyers, Architect, San Francisco,
   George H. Klinkhardt, Associate Architect
   (no identified structural engineers)
   The drawings included 11 architectural sheets and 2 structural sheets.

2. **Report – Veterans Memorial Building, Feasibility Study: Seismic and ADA Upgrades, May 2002**
   Noll & Tam Architects
   Architectural Conservation, Inc.
   Degenkolb Engineers

8 Analysis Results and Deficiencies

8.1 General

This building was designed in 1927, just as the first 1927 Uniform Building Code was required. IDA can only assume that live loads were similar to current times and that seismic lateral design was not considered.

In 2019, ASCE 41-17 assigns a 2.3g acceleration to this site under BSE-2E ground motions and 1.24g under BSE-1E ground motions. The concrete building is a non-ductile concrete perimeter wall building, meaning that the concrete has very little and widely spaced reinforcement. The concrete is old (in concrete's infant period in California) and likely has a low 1500 psi strength. The concrete is located on the perimeter walls and wood framing is used at the 1st Floor, 2nd Floor and roofs.

It could be expected that the building could experience partial building collapse and will pose life-safety hazards if subjected to potential large earthquakes proximate to the site.

8.2 Concrete Shear Walls

Concrete walls act as bearing walls and as shear walls. Because of the seismic lateral forces imposed by ASCE 41-17, which could occur during a major seismic event, the walls have axial plus bending interaction DCR's and lateral shear DCR's. Ideally the walls are adequate to resist these forces.

The shears required by ASCE 41-17 result in shear wall DCR's as high as 3.2 for shear from the BSE-1E earthquake and Life Safety performance. The shears for BSE-2E result in shear wall DCR's as high as 4.0 for shear for a Collapse Prevention performance. This means that the building will not meet the performance objective of Life Safety for the BSE-1E Earthquake or Collapse Prevention for the BSE-2E Earthquake.

8.3 Wood Diaphragms at the Floors and Roof

The large T shaped plan building has excessive seismic weight (mass) from the heavy concrete walls and the wood diaphragms are well overloaded as seismic diaphragms also caused by the large diaphragm spans. In 1928, plywood was not yet invented, the diaphragms used 1x8 straight and diagonal sheathing. This is not shown in the existing drawings.

The diaphragm shears required by ASCE 41-17 result in shear wall DCR's as high as 19.0 for shear from the BSE-1E earthquake and Life Safety performance. The shears for BSE-2E result in shear wall DCR's as high as 14.0 for shear for a Collapse Prevention performance. This means that the building will not meet the performance objective of Life Safety for the BSE-1E Earthquake or Collapse Prevention for the BSE-2E Earthquake.

In 1927 building design, there are no chords or collectors in the diaphragms to resist or transfer seismic forces from their origin to locations of shear walls. These missing elements will be cause for further increased damage if the building is subjected to a major earthquake.

The building was designed in 1927 long before any good understanding of the requirements needed for seismic design in high seismic regions of California were developed. The first complete seismic requirements were developed by 1960, and since 1980 the requirements have expanded exponentially to 2018. The seismic requirements required by ASCE 41-17, were never envisioned in 1927.

8.4 Tall Concrete Walls at the Auditorium

The two-story tall concrete walls have considerable seismic out of plane loads which need to be resisted. The side walls have steel columns which will help resist seismic out of plate loads. The north end wall does not have steel elements and will require retrofitted steel columns (or concrete columns) to help brace these walls for out of plane loads.

8.5 Anchorage of all Concrete Walls to Floors and Roofs

The building code has requirements for the anchorage of heavy concrete walls to wood framing to avoid having the heavy walls and the wood framing pull apart and resulting in a partial collapse of one of these elements. In 1927, anchorage of walls was not considered. The out-of-place ties should be retrofitted at the building perimeter at all floors and the roof.

9 Seismic Retrofit (Mitigation)

9.1 Retrofit Scheme for the Basic Safety Objective Performance

IDA believes that there are many elements that need strengthening to seismically retrofit this building. Because of the construction materials in the building and the geometry, IDA does not believe the building can completely meet ASCE 41-17 without a drastic renovation that would include rebuilding the interior of the building with steel framed floors and roofs.

IDA believes the building could be strengthened to reduce DCR's from over 10 down to about 1.5 by doing as much as is possible for the existing wood framing. The elements required are listed below:

1. Add concrete shear walls to reduce DCR's below 1.0.
2. Add concrete shear walls or steel frames at the interior to reduce diaphragm spans.
3. Add ¾ plywood at floors and roofs to strengthen diaphragms to the maximum extent possible for wood diaphragms.
4. Add chords and collectors in diaphragms.
5. Add concrete wall to wood floor and roof diaphragms at the complete building perimeter.
6. Add concrete wall out of plane strengthening columns at the north end of the auditorium.

IDA has added Figures 15-18 showing one concept design for a seismic retrofit for the building. There potentially are other seismic retrofit concepts by either relocating some elements in different locations or choosing different type of elements to retrofit with. Numerious sdchemes and possibilities are beyond the scope this report.

This report presents one concept seismic retrofit scheme, and it will take a complete seismic retrofit design CD's (beyond the scope of this report) to completely define the elements required to seismically retrofit the building. Most likely other schemes will have costs within the same order of magnitude. From the concept plans in Figures 15-18 of this report, a construction cost estimator should be able to develop an order of magnitude cost for the work.

Alternately, if an enhanced seismic performance level is chosen by the City of Berkeley for the retrofit/rebuild, a replacement of the wood framed interior structure will be required. The wood framed portion is the weak link in the building and can't be made strong enough to achieve the enhanced seismic performance if desired. The new interior structure (columns, floors, roof, seismic frames or walls) could be either steel framed or reinforced concrete framed or a combination of both, keeping the historic perimeter concrete walls. Alternately, only the front wall could be salvaged (as historically important) and the remainder could ne new construction. At this point the interior and plan of the building could be changed. The cost of the rebuilt system will be much greater than the BPOE retrofit, however the result will be enhanced seismic performance, very minimal potential damage and increased protection for the future building and occupants.

9.2 Retrofit Scheme for Immediate Occupancy Performance

The seismic retrofit of the building in its existing configuration to meet Immediate Occupancy Performance is not possible without significant rebuilding. The wood framed floors and roof are not adequate to anchor the heavy concrete perimeter walls and serve as floor and roof diaphragms to meet IO performance.

The alternative is to demolish the interior floors and roof and to rebuild the building with either a reinforced concrete interion system of a structural steel framed interior system. A concrete system would consist of new foundations, new columns, beams and slabs at the floors and roof. New shear walls will be needed to resist seismic loads. A structural steel system will be similar to the concrete system but in structural steel.

If this option is considered, a myriad of options open up. The perimeter walls could be saved and the building could be rebuilt in the original configuration. Alternately, the front facade wall (only) could be saved and a new building could be reconfigured behind it. The building plan shape could be changed and the number of stories could also be changed.

A construction cost estimate was developed for the first option where the perimeter walls are saved and the building rebuilt in the original configuration.

10 Cost Estimates

IDA has developed two concept seismic retrofit schemes, one to meet the lower Basic Seismic Performance Objective (BPOE) and one to meet the higher Immediate Occupancy (IO) - Enhanced Seismic Performance Objective. Mack5 cost estimators were engaged to determine ball park construction budgets for both schemes. The Mack5 estimated cost for the BPOE scheme is $11,275,000 and for the IO scheme is $39,392,000. The cost estimate report is included in Appendix B.

The City of Berkeley Engineering Department has developed a total project cost and budget including consultant costs, City management costs, permit costs and testing and inspections.

The budget estimated cost for the BPOE scheme is $17,707,538 and for the IO scheme is $61,886,725. The Project Budget is included in Appendix A.

11 Conclusions

The building has a poor seismic lateral force resisting system with inadequate shear walls, a lack of floor and roof diaphragm strength, and a need for diaphragm chords and collectors. In addition, heavy (concrete) walls need to be adequately connected to floors and roofs to resist pulling apart during strong earthquakes. Tall concrete walls at the theater need out of plane strengthening.

The building as designed does not meet the requirements of ASCE 41-17 Tier 2 requirements for the BPOE performance (Basic Performance Objective for Existing Buildings) requirement of Life Safety following a BSE-1E earthquake or Collapse Prevention following the BSE-2E Earthquake. Shear walls, have DCR's above 4.0. Floor and rood diaphragms with 1x sheathing and missing chords and collectors at all levels have DRC's above 10.0.

The requirement of Life Safety seismic performance for a BSE-1E earthquake is a much greater demand on the building than the original designers were aware of based on the issues in 1927 design. To achieve the BPOE seismic criteria in ASCE 41-17, the building will require a seismic retrofit including stronger reinforced concrete shear walls, added boundary elements, strengthened diaphragms, added shear walls or frames to shorten diaphragm spans, added chords and collectors, and heavy wall to wood framing out of plane ties at floors and roofs. Without strengthening the current building, the BPOE Life Safety seismic performance requirement during a BSE-1E earthquake, nor the Collapse Prevention performance during the BSE-2E earthquake will be achieved.

Without seismic strengthening or retrofit, the Basic Performance Objective for Existing Buildings outlined in ASCE 41-17 will not be achieved.

Alternately, if an enhanced seismic performance level is chosen by the City of Berkeley for the retrofit, a rebuilt interior framing could achieve this result. The cost of the rebuilt framing system will be greater than the BPOE retrofit system, however the result will be very minimal damage and increased protection for the building.

Thank you for the opportunity to be of service. Please call IDA with any questions that you have.

Sincerely,

IDA Structural Engineers, Inc.

Jon P. Kiland, S.E.
Associate

Stephen DeJesse, S.E.
President

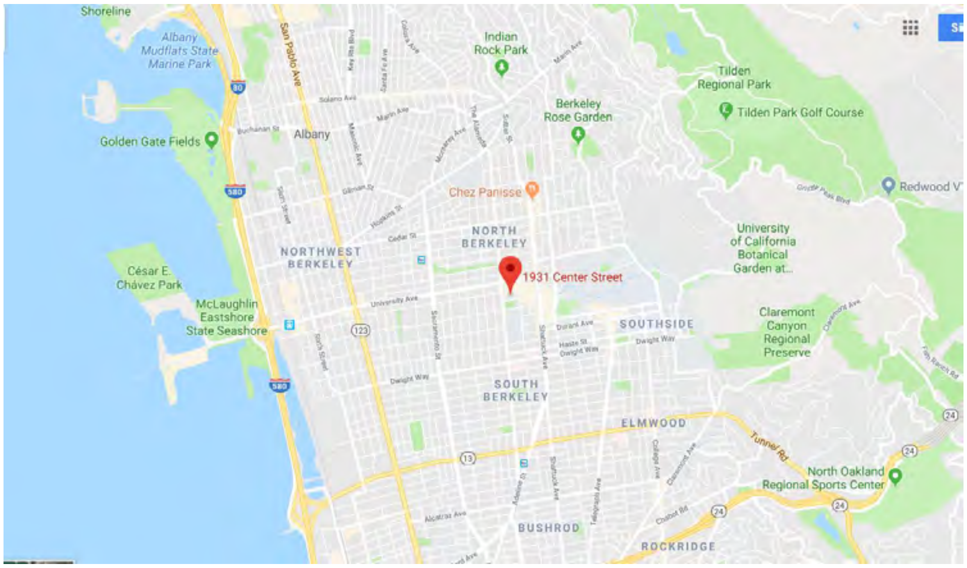


Figure 1. Vicinity Map of the Veterans Memorial Building

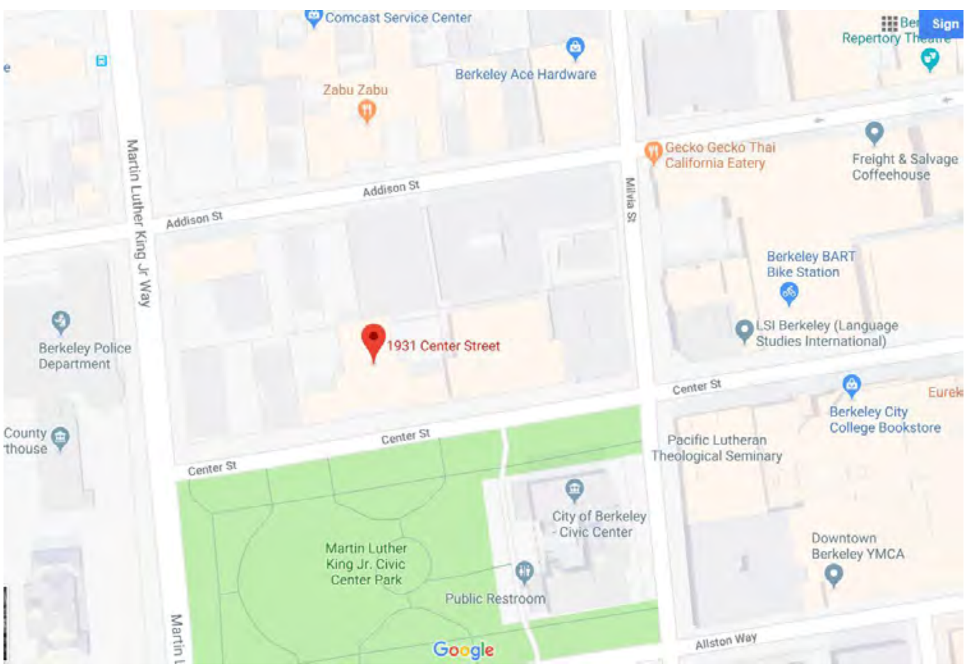


Figure 2. Site Location of the Veterans Memorial Building (north of MLKJ Civic Center Park) (google)

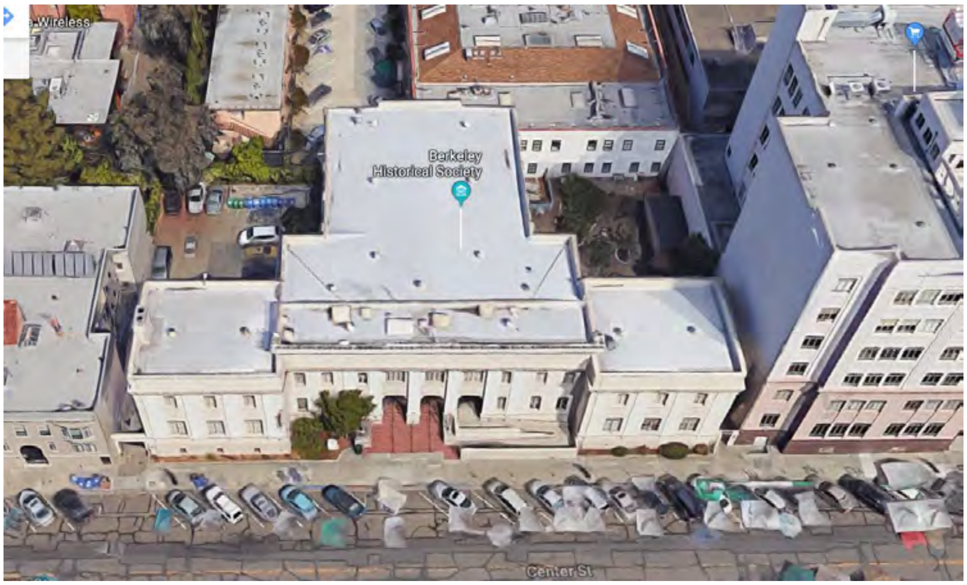


Figure 3. Site View from above of the Veterans Memorial Building (google)

Figure 4. Site View looking north-east from MLK Civic Center Park

Figure 5. Site View looking north from Center Street

Figure 6. View in Basement under the Auditorium

Figure 7. View in Main Entry Hallway

Figure 8. View of the Auditorium from the Balcony

Figure 9. View of Coffered Plaster Ceiling over the Auditorium

Figure 10. View of Coffered Plaster Ceiling and side wall at the Auditorium

Figure 11. Grand Staircase to the 2nd Floor at Rear of Building

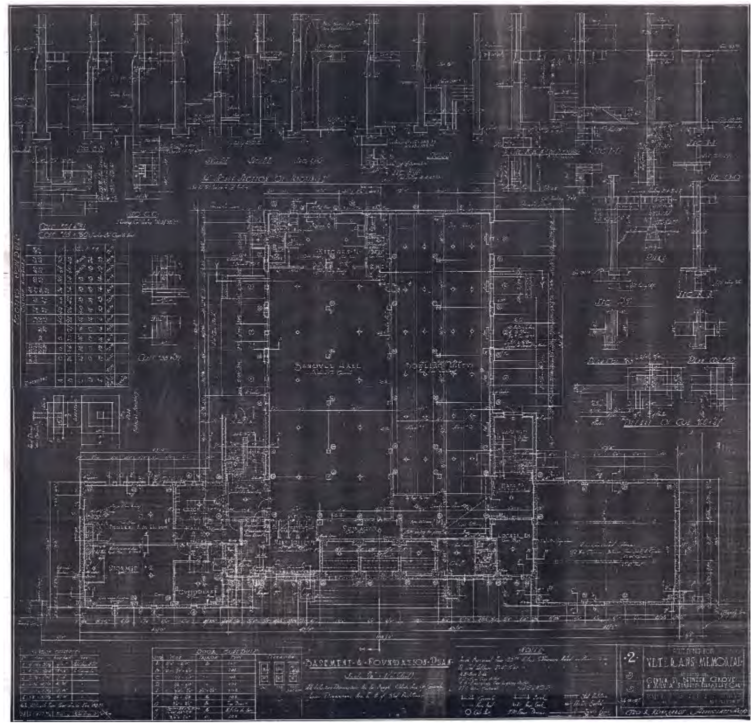


Figure 12. Existing Building drawings – Basement Plan

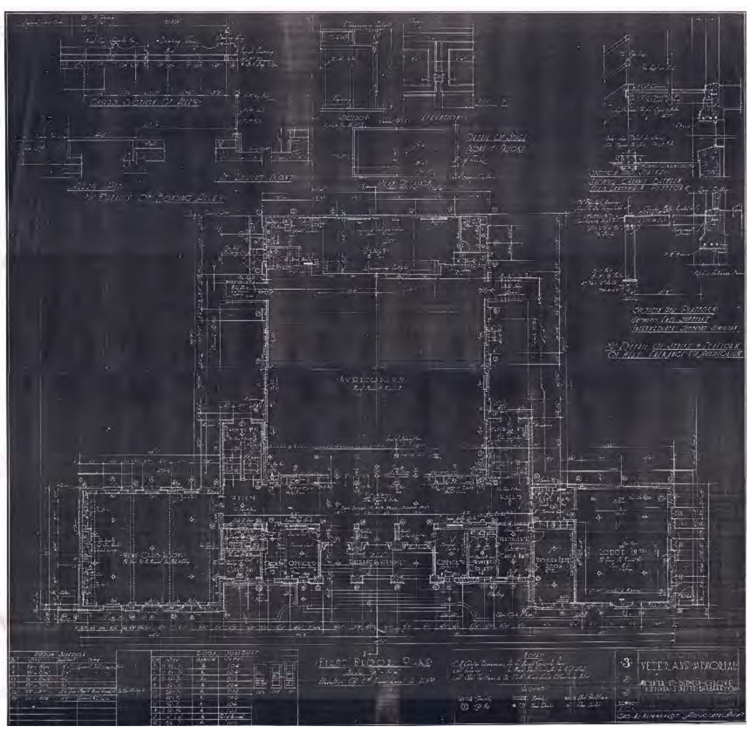


Figure 13. Existing Building drawings – 1st Floor Plan

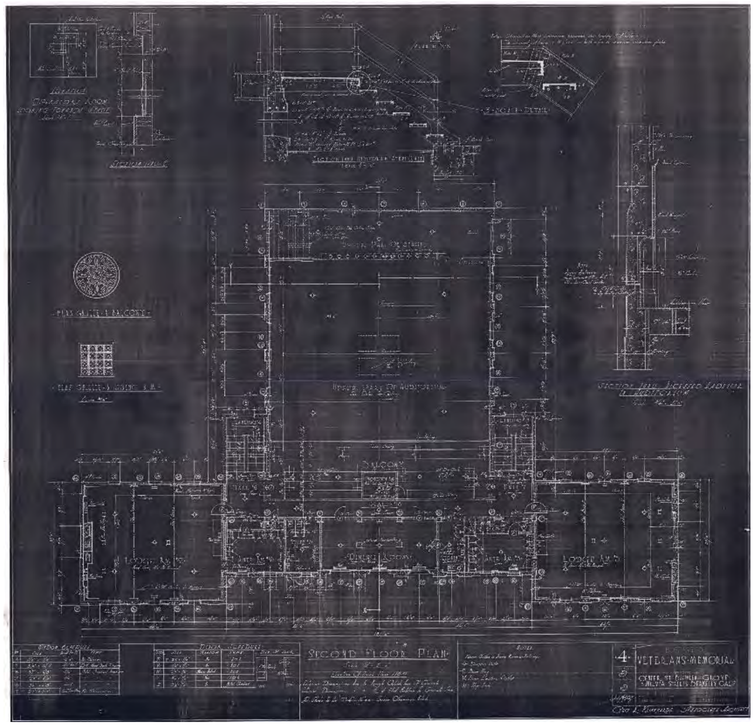


Figure 14. Existing Building drawings – 2nd Floor Plan

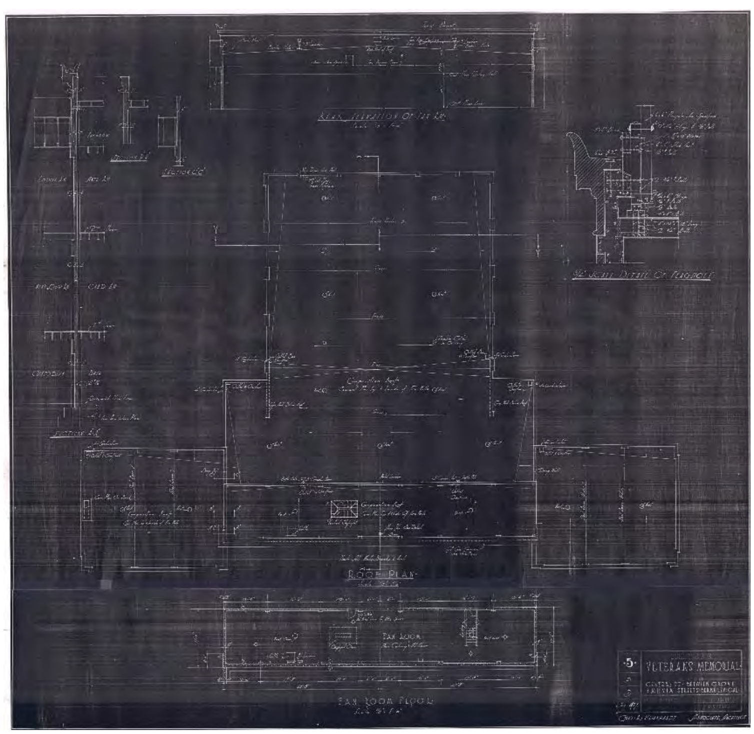


Figure 15. Existing Building drawings – Roof Plan

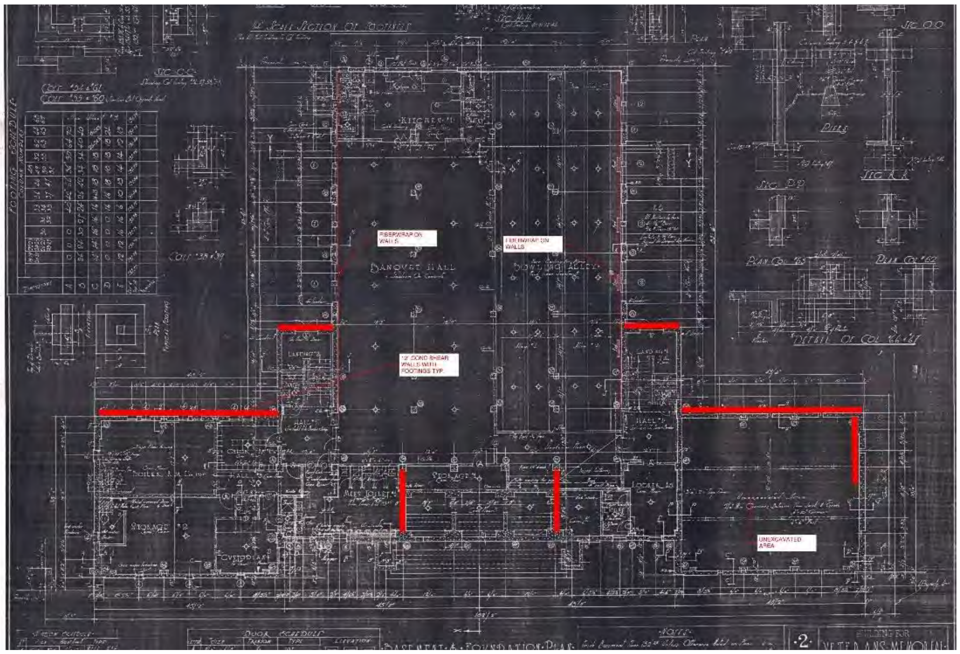


Figure 16. Seismic Retrofit Scheme at Basement

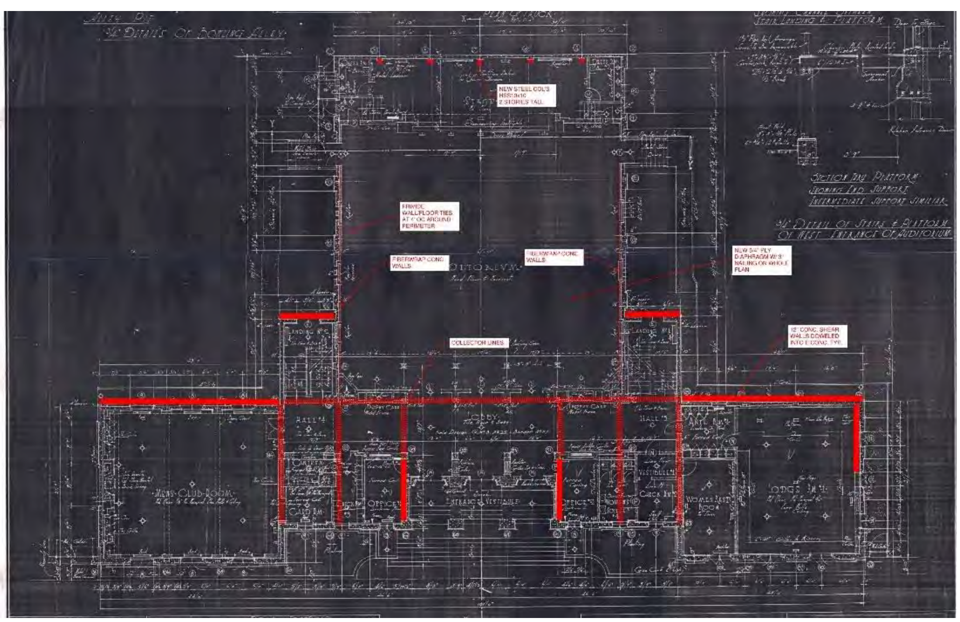


Figure 17. Seismic Retrofit Scheme at 1st Floor

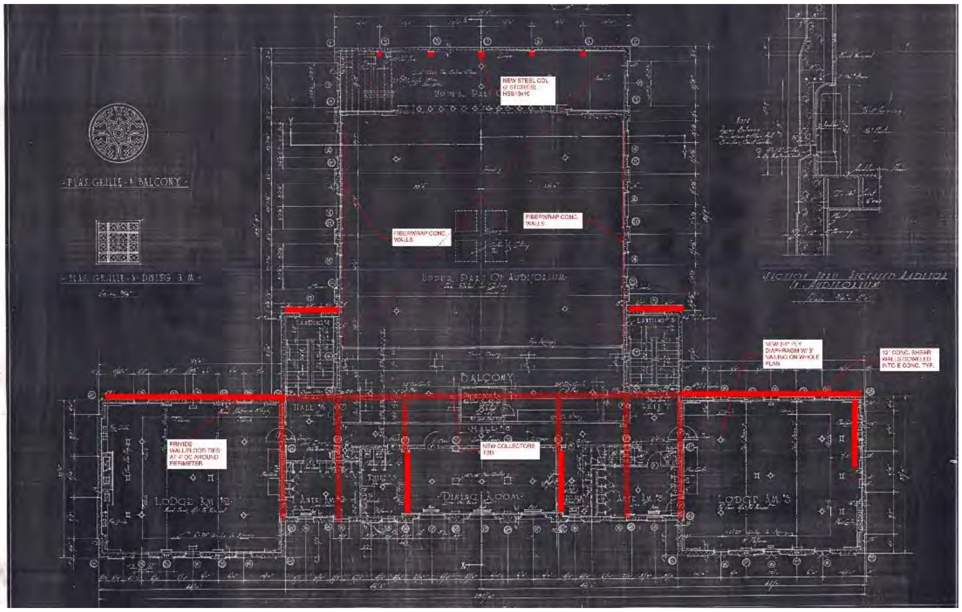


Figure 18. Seismic Retrofit Scheme at 2nd Floor

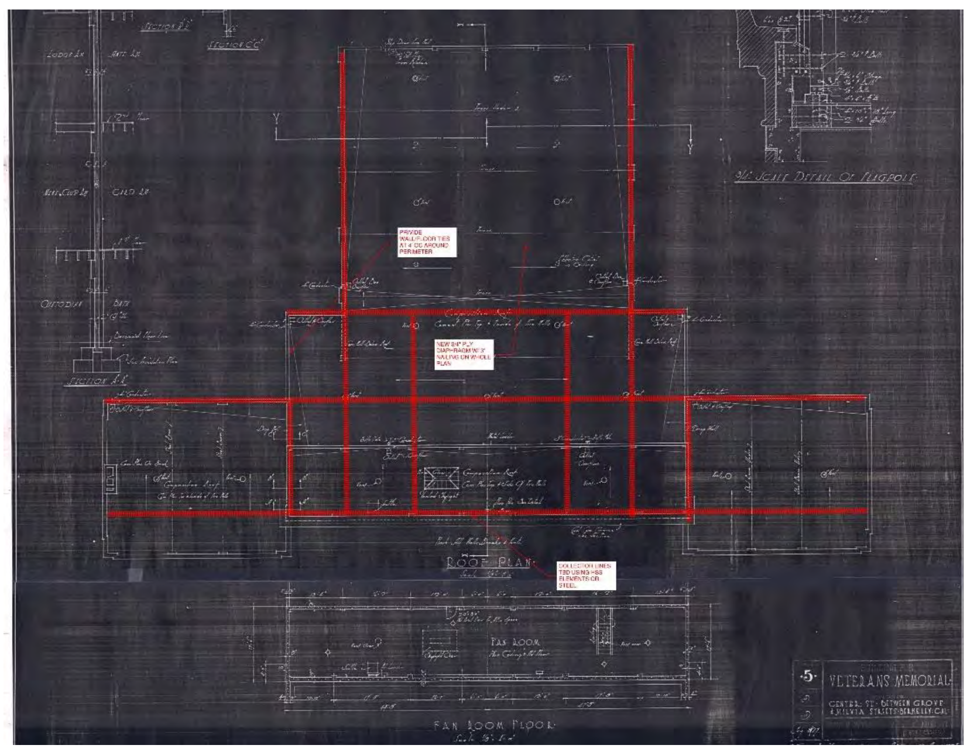


Figure 19. Seismic Retrofit Scheme at the Roof

APPENDIX A – City of Berkeley Project Budget

CITY OF BERKELEY
PROJECT BUDGET WORKSHEET

Project Title: Veterans Building		**4/23/2019**
Description	**Estimate**	
Construction	**BPOE Scheme**	**IO Base Isolator**
Construction	$ 8,448,000	$ 36,565,000
Cost Escalation	$ 2,857,330	$ 12,367,218
Construction Contingency	$ 2,261,066	$ 4,893,222
Subtotal Construction Cost	**$ 13,566,396**	**$ 53,825,440**
Consultants		
Design	$ 1,356,640	$ 2,691,272
Construction Support	$ 678,320	$ 1,614,763
Subtotal Consultants	**$ 2,034,959**	**$ 4,306,035**
Other Costs		
Permit Costs	$ 135,664	$ 269,127
Advertising	$ 67,832	$ 53,825
Printing	$ 67,832	$ 53,825
Testing	$ 135,664	$ 269,127
Subtotal Other Costs	**$ 406,992**	**$ 645,905**
Staff Costs		
Design Management	$ 813,984	$ 1,291,811
Construction Management	$ 305,244	$ 645,905
Inspection	$ 203,496	$ 430,604
Subtotal Staff Costs	**$ 1,322,724**	**$ 2,368,319**
Special Costs		
Project Contingency	$ 376,467	$ 732,026
Subtotal Special Costs	**$ 376,467**	**$ 732,026**
Grand Total Project Costs	**$ 17,707,538**	**$ 61,877,726**

Notes

Mack 5 Construction Cost	**BPOE Scheme**	**IO Base Isolator**
Estimate	$ 11,275,000	$ 39,392,000
Escalation	$ 1,137,000	$ 1,137,000
Design Contingency	$ 1,690,000	$ 1,690,000
Base Construction Cost	$ 8,448,000	$ 36,565,000
City of Berkeley Cost Estimate		
Base Construction Cost	$ 8,448,000	$ 36,565,000
Escalation	$ 2,857,330	$ 12,367,218
Construction Contingency	$ 2,261,066	$ 4,893,222
Total Construction Cost	$ 13,566,396	$ 53,825,440

APPENDIX B – Conceptual Cost Plan by Mack5

Conceptual Cost Plan

for

Berkeley Veterans Memorial Building

February 20, 2019

mack5

1900 Powell Street, Suite 470
Emeryville, CA 94608
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www.mack5.com

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Conceptual Cost Plan

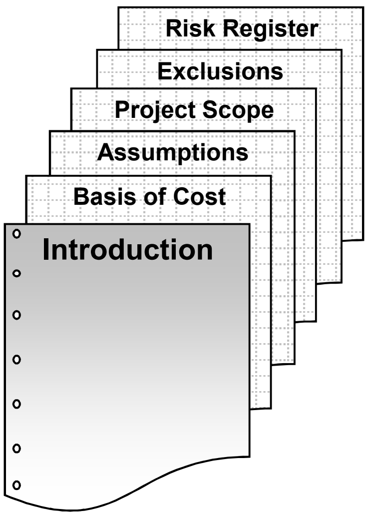
Commentary

Berkeley Veterans Memorial Building

Tier 2 Seismic Retrofit

February 20, 2019

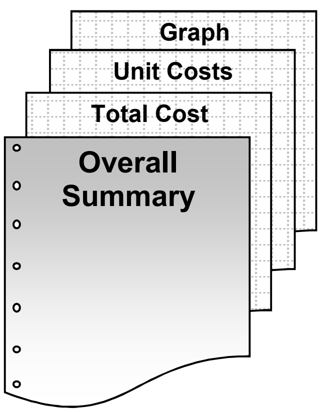
introduction



mack5 was requested to carry out a Conceptual Design Cost Plan for the proposed "Seismic Evaluation and Retrofit" of existing Veterans Memorial building located at 1931 Center Street, Berkeley CA.

The first part of the Report contains the basis of the report, the assumptions made, description of the project scope, and the exclusions to the costs which contain items that have potential to impact cost at some point in the future.

The Overall Summary section contains a Summary of Gross Floor Areas, an Overall Project Summary, and Component and Trade Cost Summaries with Graphs.



Each section contains Control Quantities, a Cost Summary and Graph, and a Detailed Breakdown of Costs.

project introduction

Veterans Memorial Building is a 3-story, historic (1927) non-ductile concrete building, with wood framed floors and roof, lightly reinforced non-ductile concrete perimeter walls. Floors and roofs are framed with wood joists, steel trusses and covered by diagonal and straight wood sheathing.

items used for cost estimate

narrative — Seismic evaluation report prepared by IDA Structural Engineers, dated January 25, 2019 (18-pages)

plan — Marked-up structural plan, original plan dated July 1927 (4-pages)

assumptions

(a) Construction will start in July, 2020

(b) A construction period of 15 months

(c) The construction will be competitively bid by CMc's (CM at Risk) with a minimum of four, maximum five, qualified contractors based on Construction Documentation

(d) The general contractor will have full access to the site during normal business hours

(e) There are no phasing requirements

(f) The contractor will be required to pay prevailing wages

exclusions

(a) Cost escalation beyond a midpoint of March, 2021

(b) Moving and storing of existing furnishings

(c) Any improvements unrelated to the seismic retrofit and related impacts

(d) Hazardous materials handling, disposal and abatement

(e) Compression of schedule, premium or shift work, and restrictions on the contractor's working hours

(f) Soft Cost such as testing and inspection fees, architectural design and construction management fees, assessments, taxes, finance, legal and development charges

(g) Scope change and post contract contingencies mack5

Conceptual Cost Plan

Berkeley Veterans Memorial Building

Control Quantities
Seismic Retrofit Summary
Detailed Cost Breakdown

February 20, 2019

Enclosed Areas	
Basement	12,000
First Floor	12,000
Second Floor	8,000
Subtotal of Enclosed Area	32,000

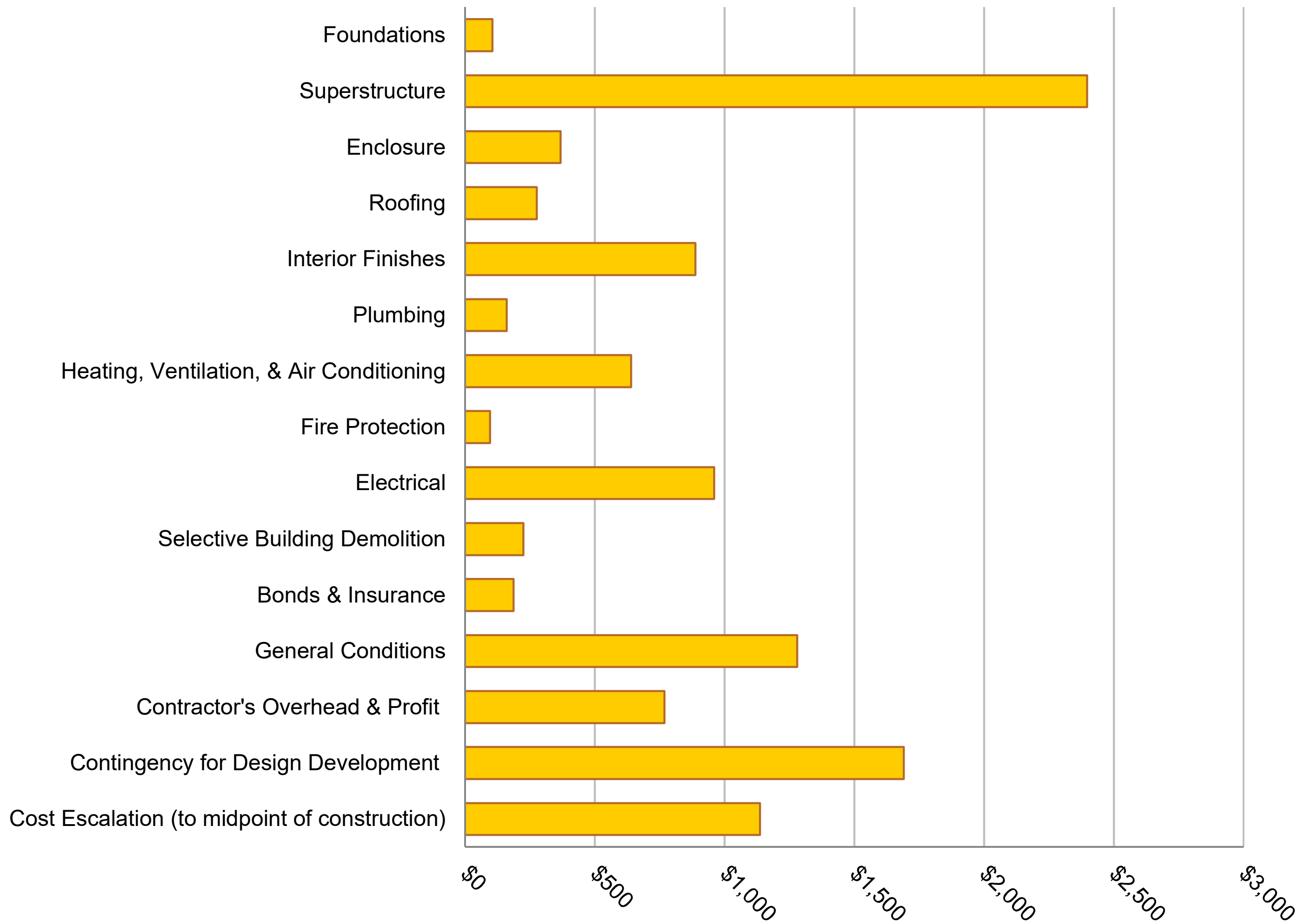
CONTROL QUANTITIES			Ratio to Gross Area
Number of stories (x1,000)	3	EA	0.094
Footprint Area	12,000	SF	0.375
Roof Area - Flat	12,000	SF	0.375

CSI UniFormat Summary	32,000 SF	%	$/SF	$,000
Foundations		1%	$3.28	$105
Superstructure		21%	$74.91	$2,397
Enclosure		3%	$11.50	$368
Roofing		2%	$8.63	$276
Interior Finishes		8%	$27.75	$888
Plumbing		1%	$5.00	$160
Heating, Ventilation, & Air Conditioning		6%	$20.00	$640
Fire Protection		1%	$3.00	$96
Electrical		9%	$30.00	$960
Furnishings		0%	$0.00	$0
Selective Building Demolition		2%	$7.00	$224
Subtotal - Building Construction		*54%*	*$191.07*	*$6,114*
Site Improvement		1%	$3.13	$100
Subtotal - Sitework		*1%*	*$3.13*	*$100*
Total - Building and Sitework Construction		*55%*	*$194.19*	*$6,214*
Bonds & Insurance	3.00%	2%	$5.83	$186
General Conditions	20.00%	11%	$40.00	$1,280
Contractor's Overhead & Profit	10.00%	7%	$24.00	$768
Subtotal		*75%*	*$264.03*	*$8,449*
Contingency for Design Development	20.00%	15%	$52.81	$1,690
Cost Escalation (to midpoint of construction)	11.21%	10%	$35.53	$1,137
TOTAL CONSTRUCTION BUDGET		***100%***	***$352.36***	***$11,275***

Cost Analysis To Re-build within and retain the historic façade:	$/SF	$,000
Construction Cost For New Veterans Memorial Building	$900.00	$28,800
Deduct: Façade Cost (retain the historic enclosure)	($187.60)	($6,003)
Protect/Preserve Historic Façade - Repair as required	$100.00	$3,200
Premium for working/rebuilding within the historic enclosure	$388.60	$12,435
Demolition within the historic enclosure	$30.00	$960
Total Construction Cost (February 2019)	**$1,231.00**	**$39,392**

NOTE: Inclusions and Exclusions listed in the Commentary Section.

CSI UniFormat Summary



FOUNDATIONS	Quantity	Unit	Rate	Total ($)
Grade Beams, Reinforced Concrete, 3'-0" x 3'-0"				
Perimeter				
Prepare surface	336	EA	$10.00	$3,360
Sawscut (e) slab on grade	112	LF	$25.00	$2,800
Hammer/remove slab on grade	448	SF	$10.00	$4,480
Excavation, hand	336	CY	$75.00	$25,200
Reinforcing steel - allow 100 lbs/cy	4,293	LB	$3.50	$15,027
Epoxy dowel, 10" @ 1'-0"	112	EA	$75.00	$8,400
Concrete	43	CY	$500.00	$21,467
Haul excess fill	43	CY	$35.00	$1,503
Backfill	293	CY	$30.00	$8,792
Interior				
Sawscut (e) slab on grade	58	LF	$25.00	$1,450
Hammer/remove slab on grade	116	SF	$10.00	$1,160
Excavation, hand	17	CY	$75.00	$1,289
Reinforcing steel - allow 100 lbs/cy	1,112	LB	$3.50	$3,891
Concrete	11	CY	$500.00	$5,558
Haul excess fill	11	CY	$35.00	$389
Backfill	6	CY	$30.00	$182
			Subtotal For Foundations:	**$104,947**

SUPERSTRUCTURE	Quantity	Unit	Rate	Total ($)
Auditorium East & West Window Infill				
Reinforced concrete, 1'-0"				
Prepare surface	50	SF	$10.00	$500
Epoxy dowel, 10" @ 1'-0"	50	EA	$75.00	$3,750
Formwork	80	SF	$45.00	$3,600
Reinforcing steel - allow 200 lb/cy	426	LB	$3.50	$1,491
Concrete	2	CY	$550.00	$1,171
Auditorium East & West Wall Reinforcing				
Fiberwrap, 3 layers	5,730	SF	$100.00	$573,000
Shearwalls, Reinforced Concrete, 1'-0"				
Perimeter				
Prepare surface	6,400	SF	$10.00	$64,000
Epoxy dowel, 10" @ 24" o.c.	1,760	EA	$75.00	$132,000
Reinforcing steel - allow 200 lb/cy	52,148	LB	$3.50	$182,519
Concrete, shotcrete	261	CY	$550.00	$143,407

SUPERSTRUCTURE	Quantity	Unit	Rate	Total ($)
Shearwalls, Reinforced Concrete, 1'-0"				
Interior				
Formwork	2,900	SF	$45.00	$130,500
Reinforcing steel - allow 200 lb/cy	11,815	LB	$3.50	$41,352
Concrete, shotcrete	59	CY	$550.00	$32,491
Slab on Grade, Reinforced Concrete, 6"				
Infill at new grade beams				
Epoxy dowel, 2 @ 12" o.c.	58	EA	$75.00	$4,350
Reinforcing steel - allow 2 lb/sf	232	LB	$3.50	$812
Concrete	3	CY	$500.00	$1,343
Finish	116	SF	$2.50	$290
Wall/Floor Connection				
Steel angle ties @ 48" o.c.	467	EA	$350.00	$163,275
Beam Collector, Reinforced Concrete, 1'6" x 1'-6"				
First & Second Floor				
Epoxy dowel - allow 2/lf	940	EA	$75.00	$70,500
Reinforcing steel - allow 300 lb/cy	12,925	LB	$3.50	$45,238
Concrete	43	CY	$650.00	$28,004
Auditorium Ceiling				
Truss V-bracing, 2' x 6" @ 8'-0" o.c.	4,500	SF	$5.00	$22,500
Roof Structure Collector Beams				
Tube steel framing and connections	23	TN	$10,000.00	$228,250
Plywood Floor and Roof Sheathing, 3/4"				
Second Floor	8,000	SF	$10.00	$80,000
Roof	12,000	SF	$10.00	$120,000
North Auditorium Wall				
Tube steel column, HSS, 8 x 8 x 1/2	7	TN	$12,000.00	$80,896
Bolt/epoxy to CIP wall, 1'-0" o.c.	240	EA	$75.00	$18,000
Miscellaneous Concrete Work				
Rough carpentry	32,000	GSF	$2.00	$64,000
Temporary scaffolding, shoring and safety measure	32,000	GSF	$5.00	$160,000
			Subtotal For Superstructure:	**$2,397,237**

ENCLOSURE	Quantity	Unit	Rate	Total ($)
Exterior Finish of Exterior Walls				
Cement plaster finish over (N) shearwalls	5,632	SF	$40.00	$225,280
Paint exterior walls	30,000	SF	$3.50	$105,000
Miscellaneous patch/repair	1	LS	$25,000.00	$25,000
Membrane to below grade shearwalls	640	SF	$20.00	$12,800
			Subtotal For Enclosure:	**$368,080**

ROOFING	Quantity	Unit	Rate	Total ($)
Roof Replacement				
Remove existing membrane	12,000	SF	$3.00	$36,000
Provide new roof membrane, complete	12,000	SF	$20.00	$240,000
			Subtotal For Roofing:	**$276,000**

INTERIOR FINISHES	Quantity	Unit	Rate	Total ($)
Plaster Finish to (n) walls				
Interior shear walls	1,120	SF	$30.00	$33,600
Interior fabric wrapped walls	5,730	SF	$40.00	$229,200
Paint				
New wall surfaces	6,850	SF	$2.50	$17,125
Patch/Repair Finishes To Accommodate Retrofit				
Floor and base	32,000	SF	$7.00	$224,000
Ceiling	32,000	SF	$7.00	$224,000
Miscellaneous patch	32,000	SF	$5.00	$160,000
			Subtotal For Interior Finishes:	**$887,925**

PLUMBING	Quantity	Unit	Rate	Total ($)
Reroute to Accommodate Retrofit as Required				
Plumbing demolition, water/waste distribution, drainage, gas, etc.	32,000	SF	$5.00	$160,000
			Subtotal For Plumbing:	**$160,000**

HEATING, VENTILATION, & AIR-CONDITIONING	Quantity	Unit	Rate	Total ($)
Reroute to Accommodate Retrofit as Required				
HVAC demolition, distribution, testing & balancing, etc.	32,000	SF	$20.00	$640,000
Subtotal For Heating, Ventilation, & Air-Conditioning:				**$640,000**

FIRE PROTECTION	Quantity	Unit	Rate	Total ($)
Reroute to Accommodate Retrofit as Required				
Fire sprinkler demolition, distribution, drainage, gas, etc.	32,000	SF	$3.00	$96,000
Subtotal For Fire Protection:				**$96,000**

ELECTRICAL	Quantity	Unit	Rate	Total ($)
Reroute to Accommodate Retrofit as Required				
Electrical demolition, distribution, lighting, user power, equipment power,	32,000	SF	$30.00	$960,000
Subtotal For Electrical:				**$960,000**

FURNISHINGS	Quantity	Unit	Rate	Total ($)
Furnishings				
Remove (e) furniture to accommodate work				NIC
Provide storage to accommodate furnishings				NIC
Subtotal For Furnishings:				

SELECTIVE BUILDING DEMOLITION	Quantity	Unit	Rate	Total ($)
Demolition				
Remove existing construction to accommodate retrofit	32,000	SF	$7.00	$224,000
Hazardous material abatement				NIC
Subtotal For Selective Building Demolition:				**$224,000**

SITE PREPARATION	Quantity	Unit	Rate	Total ($)
No work anticipated in this section				
Subtotal For Site Preparation:				

SITE IMPROVEMENT	Quantity	Unit	Rate	Total ($)
Staging / Lay-Down Area				
Patch/repair affected surfaces	1	LS	$100,000.00	$100,000
Subtotal For Site Improvement:				**$100,000**

APPENDIX C – Discussion of ASCE 41-17 Procedures for Existing Buildings

APPENDIX C – Discussion of ASCE 41-17 Procedures for Existing Buildings

This is to clarify how ASCE 41-17, "*Seismic Evaluation and Retrofit of Existing Buildings*," works and to help understanding and selection of a seismic retrofit performance objective for this project. ASCE 41-17 is the national standard guidelines for seismic retrofit of existing buildings. It is not a code, but is accepted as the standard for the Unites States. ASCE 41-17 pairs selected building seismic performance levels with two earthquakes (earthquake probabilities: one smaller more frequent earthquake and one large earthquake).

The intentional building seismic performance levels are defined as follows:

Seismic Performance Levels	**Results following a defined Earthquake**
Collapse Prevention (CP)	The building does not collapse. Some elements could fall and be life threatening. The building could be so damaged that it becomes beyond repair after the event.
Life Safety (LS)	The building does not collapse. Life threatening falling hazards are mitigated. Egress routes are maintained out of the building. The building could be severely damaged and may be beyond repair after the event.
Damage Control (DC)	The building does not collapse. Life threatening falling hazards are mitigated. Egress routes are maintained out of the building. The building damage is repairable and may take weeks to months. This objective is a range between LS and IO.
Immediate Occupancy (IO)	The building does not collapse. Life threatening falling hazards are mitigated. Egress routes are maintained out of the building. The building damage is minor and repairable and may take weeks. Occupancy is allowed after the earthquake.
No Damage (ND)	The building does not collapse. Life threatening falling hazards are mitigated. Egress routes are maintained out of the building. The building damage is negligible. The building response remains linear below yield. Occupancy is allowed after the earthquake.

These targeted seismic performance levels need to be evaluated based on an Earthquake ground motion size or probability to "meet the Performance Level due to a given earthquake probability."
The two Earthquakes defined in ASCE 41-17 for existing buildings are as follows:

Earthquake Name	**Earthquake Return Period**	**Earthquake Probability**
BSE-1E Earthquake (smaller more frequent)	225 years	20% chance of exceedance in 50 years
BSE-2E Earthquake (larger possibility and less frequent)	975 years	5% chance of exceedance in 50 years

Earthquake ground motions for all probabilities are mapped by USGS for all sites in the Unites States. These subsequently need to be modified for site soil conditions. The final E in the ASCE 41-17 earthquake names (BSE-1E Earthquake) is to identify that these earthquakes are intended for Existing buildings and are at a lower probability than would be required for New buildings.

The seismic risk is tempered by the recognition that older buildings have a reduced useful lifespan as compared to new buildings. That is, if the traditional demand for new buildings presumes a 50-75 year life, then an existing building with a 20-30 year remaining lifespan has a lower probability of being subjected to a major earthquake over the remaining building lifespan. The ASCE 41-17 standard also recognizes that the cost of achieving a higher level of seismic performance is often excessive for older buildings.

Seismic Performance Objectives, as required by a building owner, are the selection of a building performance level with a selected earthquake probability.

ASCE 41-17 selects a Basic Performance Objective for Existing Buildings (BPOE) as a base line. An owner (or City) could select the BPOE, a further reduced Performance Objective, or a further enhanced Performance Objective. These could be viewed as follows:

Performance Objective Chosen	**Performance to BSE-1E (225 yr)**	**Performance to BSE-2E (975 yr)**
Reduced Objective (Owner chosen and voluntary)	Collapse Prevention	Collapse
Basic Performance Objective for Existing Buildings (BPOE).	Life Safety	Collapse Prevention

This is the minimum recommended by ASCE 41-17		
Owner Chosen Enhanced Seismic Performance Objectives:		
Enhanced Objective 1	Damage Control	Life Safety
Enhanced Objective 2	Immediate Occupancy	Damage Control
Enhanced Objective 3		Immediate Occupancy

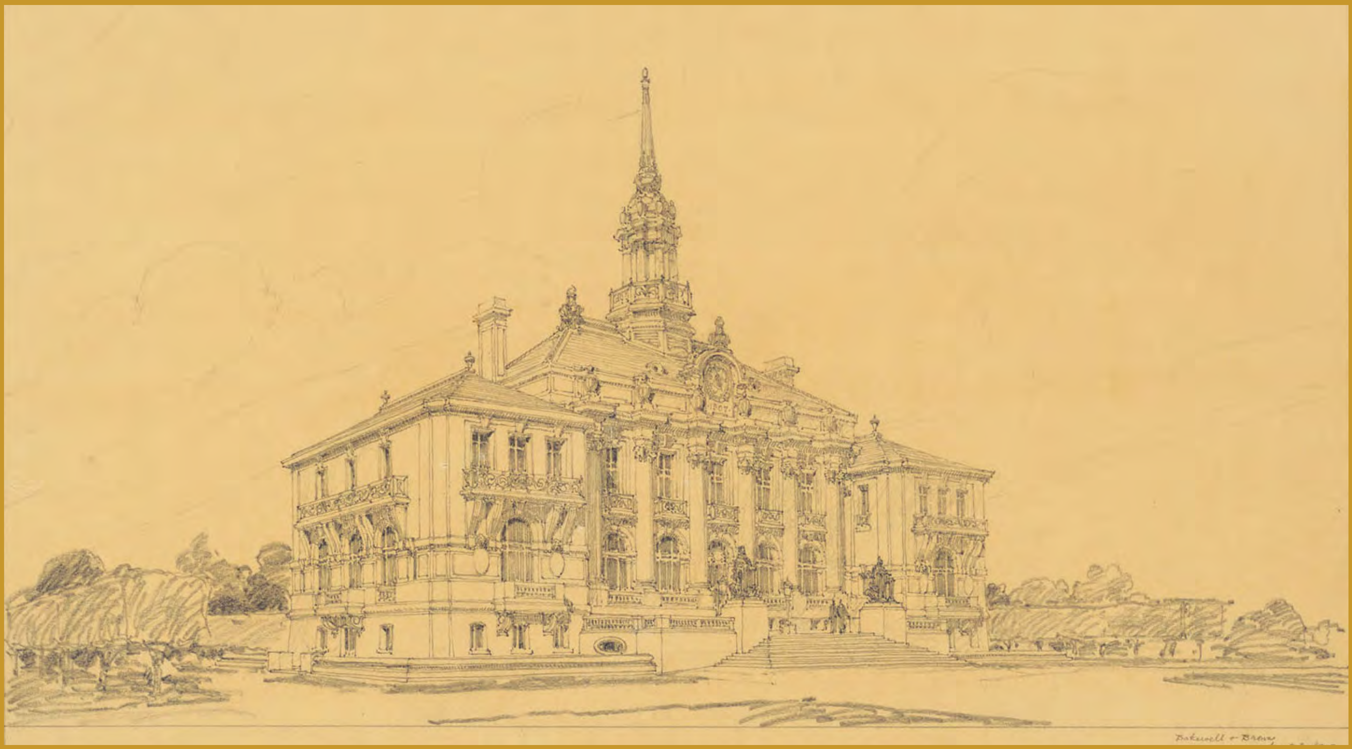
The table above gives the basic choices. Some buildings are more easily retrofitted to achieve the highest performance objectives and some are more difficult. It is easier to design a new building to Immediate Occupancy. Very old buildings depending on configuration and materials used, may require considerable effort, required added elements, and corresponding construction cost to achieve Immediate Occupancy, or may actually require demolition and rebuilding.

IDA has chosen the Basic Performance Objective for Existing Buildings (BPOE) from ASCE 41-17 for the base evaluation and retrofit for the Veterans Memorial Building. We believed that 1) this will cause a considerable amount of retrofit work and at significant cost; 2) it is the base line for ASCE 41-17, and 3) achieving Immediate Occupancy could double the required retrofit costs.

We believe for the Veterans Memorial Building to achieve Immediate Occupancy would require rebuilding the interior (weak) wood framed floors and roof with a concrete or steel framed system, causing a complete gut of the building and rebuild. This could be done saving the perimeter concrete walls (for historic reasons).

Berkeley Veterans Memorial Building

Historic Structure Report – March 2020



Berkeley City Hall Maudelle Shirek Building

HISTORIC STRUCTURE REPORT | MARCH 2020

COMPLETED BY

Siegel & Strain Architects

architecture + history, llc

Architectural Conservation, Inc.

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CHAPTER 1

Project Description, Team and Acknowledgements

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Project Description

This Historic Structure Report (HSR) was completed under City of Berkeley Contract Number 19-11286-C, the Berkeley Civic Center Vision & Implementation Plan. Many individuals and organizations contributed to this effort. This HSR was completed in concert with an HSR for the Berkeley Veterans Memorial Building, and an Historic Landscape Assessment for the Martin Luther King, Jr., Civic Center Park.

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CHAPTER 2

Executive Summary

Executive Summary

Purpose

Historic Structure Reports (HSRs) are the primary planning documents for historic resource treatment projects. Historic resources are buildings, structures, objects, archeological sites, sites, and historic districts that are eligible for listing or are listed on the National Register of Historic Places. *The Secretary of the Interior's Standards for the Treatment of Historic Properties* defines four treatments for historic resources: preservation, rehabilitation, restoration, and reconstruction. These treatments guide the recommendations put forward in an HSR. The development of an HSR is the preferred first phase of any historic preservation effort, preceding design and implementation of the selected treatment and use for the property. HSRs document existing conditions, changes over time, and serve as a basis for proposing physical, functional, and operational changes.

Methodology / Document Organization

The information included in this report stems from extensive research of primary and secondary source materials and comprehensive field observations of the building and site. The HSR follows the National Park Service's Technical Preservation Service's *Preservation Brief 43: The Preparation and Use of Historic Structure Reports* (2004) by Deborah Slaton. Further, the recommended HSR outline of the California State Historic Preservation Office was consulted. Lastly, the recommendations outlined in this report follow the general guidelines ascribed by the National Park Service in *The Secretary of the Interior's Standards for the Treatment of Historic Properties.*

Field work to investigate building conditions was completed in October and November 2019. Unless otherwise noted current photographs depicting conditions and features were taken by the project team during Fall 2019 field work. Research was conducted at local libraries and historical collections during the same period.

Sources of historic photographs and drawings provided to illustrate the history and features of the building are provided in captions.

This HSR includes a comprehensive history of the building and site, descriptive information, character-defining features, building chronology, a conditions assessment, an assessment of the historic integrity, and recommendations for future treatment and use.

Summary of Significance

Berkeley City Hall is one of nine contributing buildings to the Berkeley Civic Center Historic District, which is listed on both the National Register of Historic Places and designated as a local historic district under the City of Berkeley's Landmark Preservation Ordinance. The building is also locally-designated as Landmark # 1. Designed by master architects Bakewell & Brown, the Berkeley City Hall is the oldest, and arguably the most significant, contributing element of the Berkeley Civic Center. The building was home to the city's governmental seat until only very recently. Many significant local legislative decisions have been debated and approved in the building.

Summary of Alterations

The most significant change to the exterior of the building has occurred at the rear (west) façade with small additions on either side of the projecting original stair tower. These additions date to the 1950s, 60s and 70s and were not designed in a compatible character to the historic building. At some point prior to circa 1940 the south chimney was removed. At the interior the floor plans of the basement and north and south wings at both the first and second floor have been remodeled and room partitions changed over the years.

Summary of Integrity

Overall, the historic integrity of the Berkeley City Hall is good. The building possesses historic integrity of each of the seven aspects of integrity—location, design, setting, materials, workmanship, feeling, and association—to enable it to illustrate and convey the important aspects of this Beaux Arts public building. Interior alterations have diminished the integrity of materials and design at the interior, but the exterior front elevation has high degree of integrity.

Summary of Future Needs and Recommended Treatments

Existing conditions surveying of the building was completed by the project team in November and December of 2019. The building is in fair shape and has largely suffered as a result of deferred maintenance. A number of potentially serious conditions require further study by qualified professionals and should be completed in order to determine an accurate cost estimate for future rehabilitation. Recommended investigations that are potentially critical to the health of the building are listed below. Additional information about each survey can be found in Chapter 7. See also Chapter 7 for a full list of recommended investigations and surveys.

1. Conduct a building enclosure investigation
2. Conduct a concrete roof slab investigation
3. Conduct a roof and water conveyance investigation

The Secretary of the Interior's Standards for the Treatment of Historic Properties defines four primary treatments: Preservation, Rehabilitation, Restoration and Reconstruction. The approach to future projects or upgrades proposed for the Berkeley City Hall should focus on rehabilitation and preservation, with key character-defining features carefully repaired rather than replaced. The building has been altered in the past, and future projects should have as minimal impact to character-defining features and spaces as possible. This approach is compatible with the historic resource as it will provide for the repair and protection of key features, spaces, materials, and elements while simultaneously allowing for the necessary or required code and functional upgrades that will enhance the visitor experience at the visitor center. A future use should be selected that would allow for continued public use of the building.

Priority projects include:
- Structural survey and material testing at front entry terrace
- Seismic strengthening
- Remove incompatible additions at rear

CHAPTER 3

Statement of Significance

Statement of Significance

COMPLETED IN 1909 TO THE DESIGN OF MASTER ARCHITECTS Bakewell & Brown, the Berkeley City Hall (renamed the Maudelle Shirek Building in 2007), is the oldest, and arguably the most significant building that contributes to the Berkeley Civic Center. The Berkeley Civic Center Historic District was listed on the National Register of Historic Places in 1998 under National Register Criterion A and C in the areas of politics/government, social history, architecture, and community planning. City Hall is one of nine contributing buildings to the historic district.

The building has several significant associations: it is the anchor building, both physically and ceremonially, to Berkeley Civic Center; it is the city's historic seat of government; it has been the location of many important local legislative decisions; it is the name sake of an important long-term City of Berkeley City Council Member, Maudelle Shirek; it is the primary example of Beaux Arts architecture in the City of Berkeley; and it represents the work of a significant team of architects, who went on to design other important Beaux Arts-inspired civic and government buildings in California and the United States.

The Berkeley Civic Center is also a locally-designated City of Berkeley Historic District. The local designation was based on the earlier National Register nomination; in fact, the designation report provided to the Berkeley Landmarks Preservation Commission consisted of the National Register designation form. The boundaries are identical for both historic designations.

The Berkeley City Hall is also a City of Berkeley Landmark. Appropriately designated as Landmark # 1 with adoption of the City of Berkeley Landmarks Preservation Ordinance in 1975.

The building was documented for the Historic American Building Survey in 1981; four photographic images from 1981 and a written narrative are housed at the Library of Congress in Washington, D. C.

Period of Significance

The period of significance defined for the Civic Center Historic District in the National Register nomination is 1909 to 1950. The nomination does not fully justify 1950 as the ending date, but it is generally thought that the Civic Center was fessentially complete with the opening of Civic Center Park in 1941, and with several additional modifications to the park just after the war. Therefore, 1950 is a logical end date. The period of significance for City Hall should be considered the same as for the Historic District.

CHAPTER 4

Historical Overview and Contexts

Historical Overview and Contexts

The City Beautiful Movement

At the turn of the century, as Berkeley's commercial areas developed and the population grew, so did the need and desire for public buildings. At the time, urban design and public architecture throughout the United States were strongly influenced by the City Beautiful Movement.[1] The movement was a reaction to the nation's dirty, crowded, and disorganized urban centers and was centered on the belief that aesthetically pleasing and more architecturally uniform cities would create more healthful and productive communities. The movement advocated for beautification of cities through the construction of grand, Classical public buildings, imposing civic centers, formally designed urban plans and landscapes, construction of grand landscaped boulevards, and the creation of public parks and urban plazas.[2] The movement, which flourished in the United States from the 1890s into the 1910s, encompassed the aesthetic element of urban reform, an outgrowth of the Progressive Era's demand for municipal reform. It also reflected a desire for the built environment to espouse current political reformist thinking. The consolidated "Civic Center" is the embodiment of the process of centralized authority. A lasting product of the City Beautiful Movement was the planning and shaping of American civic centers.[3]

The City Beautiful Movement promoted beauty not only for its own sake, but also to create moral and civic virtue among urban populations. Advocates of the philosophy believed that such beautification could thus promote a harmonious social order that would increase the quality of life. However, its critics would complain that the movement was overly concerned with aesthetics at the expense of social reform.

One can locate the roots of the American City Beautiful Movement in: 19th-century European city planning and rebuilding, the burgeoning practice of landscape architecture as espoused by Frederick Law Olmsted, and the municipal reform movement. In 1853 Napoleon III engaged Georges-Eugene Haussmann to transform Paris from

Figure 4.1
Baron Haussmann's Paris Boulevards, Rue de Rivoli alongside the Jardin des Tuileries developed in the 1850s. Source: Historic Postcard.

its medieval remnants into a modern city. Construction of grand boulevards, insertion of imposing plazas, design of new public parks and squares, as well as vast improvements to the Paris infrastructure were components of Haussmann's grand scheme. Put simply, Napoleon III instructed Haussmann to bring light and air into the city center, to unify neighborhoods with boulevards, and to make the city "more beautiful." Haussmann's approach would have reverberating effects on city planning across Europe and indeed around the world[4] *(Figure 4.1).*

Just five years later, in 1858, American Frederick Law Olmsted and British-trained architect Calvert Vaux embarked on an epic journey to transform a large area of Manhattan into New York City's iconic Central Park. While their overriding design philosophy embraced a "naturalistic setting" for the park, many of the park's amenities were inspired by the European and Classicist traditions that would find their way into the City Beautiful Movement. Olmsted went on to have a long and accomplished career as a design consultant to cities, states, parks, universities, and colleges, including a hand in both the U.C. Berkeley and Stanford campuses *(Figure 4.2).* His design for the Berkeley campus included the Piedmont Way parkway in 1865.[5] One of Olmsted's last great projects was to design the initial plan for the 1893 Chicago World's Columbian Exposition.

The tenets of the City Beautiful political and design philosophies converged in the planning and construction of the 1893 Chicago Exposition. In 1890 Daniel H. Burnham, a noted Chicago architect, and his partner, John Wellborn Root, were chosen to serve as consulting architects for the Chicago Exposition. The layout and architectural design for the fair's Court of Honor, which was known as the White

Figure 4.2
Plan for Berkeley and the College of California, with extension of Piedmont Avenue, 1865, Frederick Law Olmsted and Calvert Vaux. Source: Bancroft Library, University of California, Berkeley.

Figure 4.3
Chicago Worlds Columbian Exposition, the "White City," 1893. Source: Newberry Library, Chicago, Illinois, William Henry Jackson Collection.

Figure 4.4
Kansas City, Missouri, view along the Paseo from 17th Street.
Source: Historic Postcard.

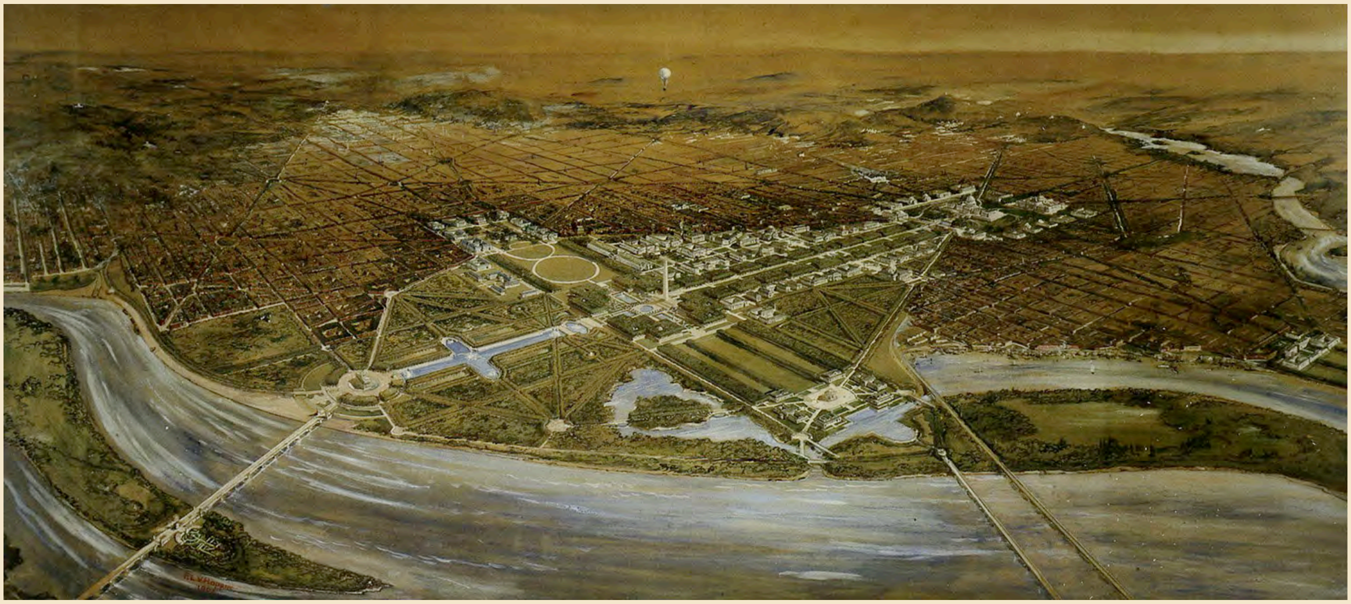


Figure 4.5
A rendering from the MacMillan Plan for Washington, D. C., 1902, showing the dramatic boulevards and bridge connections. Source: *Improvement of the Park System of the District of Columbia,* 1902.

City, relied on the planning and architectural principles espoused by the famous Parisian architecture school, the Ecole des Beaux Arts. Burnham's architectural designs were based on European Classical architecture, with its emphasis on symmetry, balance, and unity.[6] Through uniform heights and building materials, Classical architectural elements, "Baroque urbanism," symmetrical facades, and axial plans, the buildings of the White City were unified as a harmonious whole. The White City projected a vision of urban design and the city perfected that would reverberate across the United States *(Figure 4.3).*

The same year as the Chicago Columbian Exposition, 1893, designer George Kessler published his Park and Boulevard Plan for Kansas City. Equally as important as the Chicago Columbian Exposition, Kessler's plan for Kansas City involved an overlay of order in a city with a jumble of stockyards, packinghouses, grain silos, extensive rail yards, and docks along the Mississippi River.[7] His street plans and paseos greatly influenced city planning for the next several decades *(Figure 4.4).*

The next manifestation of the City Beautiful Movement at the municipal level came, ironically, with a heavy federal hand in the 1901 plan for Washington, D.C. The McMillan Plan, which was formally titled *The Report of the Senate Park Commission: The Improvement of the Park System of the District of Columbia,* was a comprehensive planning document for the development of a monumental core and park system. It was developed by the Senate and was popularly known as the McMillan Plan after its chairman, Michigan Senator James McMillan *(Figure 4.5).*

Figure 4.6
Daniel Burnham's plan for San Francisco, note the wide boulevards and central radiating point for a civic center. Source: *Plan for San Francisco,* 1904.

The idea of a planned municipal center gained popularity, and in 1902 New York political reformer John DeWitt Warner coined the term "civic center" in an article in New York's Reform Club journal, *Municipal Affairs*.[8] A *New York Times* article described the elements of the new civic centers in 1905:

> It seems that the term civic centre... has been accepted by students of civic improvement to include the grouping of public buildings around a park or open space or plaza, so that to the advantages of light and air is added the length of vision which enhances architectural beauty, while there are also brought into closer relation those buildings which, through their use by the public, become a centre of civic life.[9]

That same year, 1905, the City of San Francisco invited Chicago's Daniel H. Burnham to develop a comprehensive city plan. But Burnham's bold ideas for the City by the Bay were interrupted by the devastating April 1906 San Francisco earthquake and fire that left the city in ruins, including its City Hall.[10] *(Figure 4.6).*

In the early 1910s, as the City of San Francisco prepared to host the 1915 Panama Pacific International Exposition, a plan for the city's civic center was in progress. The city hired a group of consulting architects

Figure 4.7
San Francisco City Hall shortly after completion in 1915. Source: Jeffery R. Tilman Collection.

led by John Galen Howard, an-Ecole trained architect, to develop a new plan for a civic center. In 1912 Howard and his accompanying architects published a pamphlet that laid out some choices for San Franciscans. Arthur Brown, Jr. and his partner, John Bakewell, Jr., were commissioned to design what has become the iconic element of San Francisco's Civic Center, San Francisco City Hall. The building was completed in 1915 just in time for the Exposition. *(Figure 4.7).*

A year later in, 1914, Lewis P. Hobart and Charles H. Cheney were engrossed in designs for Berkeley's Civic Center. Plans for civic centers for San Francisco and Berkeley were part of a larger national trend. Although relatively new, the civic center concept was rapidly adopted, with more than seventy civic center plans initiated in the United States by 1920.[11] However, the planning for Berkeley's Civic Center did not begin in 1914, but considerably earlier. *(Figure 4.8).*

Berkeley's First Town Hall

In the early years, when Berkeley was a small but growing town, the board of trustees met in one of Francis K. Shattuck's stores on Shattuck Avenue near Addison Street.[12] The California Legislature granted the Town of Berkeley a municipal charter in 1878. In 1884 the Town started planning for a town hall, and, in order to satisfy both east and west Berkeley communities, a new building was constructed at Sacramento Street and University Avenue. The Town's Charter was adopted at this location in 1895.

Figure 4.8
Sketch of proposed Berkeley Civic Center, by Charles H. Cheney. Source: Architect & Engineer of California, June 1918.

In 1899 after ten years at the Sacramento Street and University Avenue site, east Berkeley successfully lobbied to have the town hall relocated to its current location. However, only five years after its relocation, the town hall burned on October 22, 1904[13] *(Figure 4.9)*. The town board of trustees formed a temporary town hall in rooms formerly occupied by the library at the northwest corner of Shattuck Avenue and Allston Way.[14]

Two years later, Berkeley decided to build a new town hall on the existing site. The new building would face an anticipated civic park on the east side of Grove Street (now Martin Luther King, Jr. Way) and was intended to be the anchor of a future civic center. On November 12, 1906, a bond issue was passed for funding the construction of a new town hall.[15]

A New Town Hall

In 1898, the University of California held an international competition sponsored by the philanthropist Phoebe A. Hearst to redesign its campus plan and buildings. Emile Bénard, a Parisian, won the competition with a formal Classical and axial design for the campus. Local architect John Galen Howard was commissioned with carrying out Bénard's plan. Both Bénard and Howard were trained at the Paris Ecole in Classical architecture and planning principles.

In 1907 the Town of Berkeley held a formal competition for the design of the new town hall. It is not surprising that the Town followed the lead of the University, and, out of eleven entries, selected the designs of Ecole-trained architects John Bakewell, Jr. and Arthur Brown, Jr.[16] Both men had graduated from the University of California in the 1890s and then continued their studies in Paris. The Berkeley Town

Figure 4.9
Berkeley Town Hall, October 21, 1904 fire. Source: Berkeley Historical Society.

Figure 4.10
Berkeley City Hall not long after completion in 1909. Source: Historic Postcard.

Hall was one of the first municipal projects of their new partnership. The firm's design for the building was based on the Hotel de Ville, or Town Hall, at Tours, France designed between 1896 and 1904 by Arthur Brown's professor at the Ecole, Victor Laloux, and has been called both Classical Baroque and French Renaissance in style[17] *(Figure 4.10).*

In selecting a French antecedent with Classical undertones as their inspiration for the Berkeley Town Hall, Bakewell & Brown set the tone for many other California cities as they planned formal Civic

Figure 4.11
Berkeley City Hall not long after completion in 1909, note the lone Date Palm planted at the front lawn and the axial path leading to the front stair. Source: Berkeley Architectural Heritage Association.

Centers. Indeed, Bakewell & Brown played prominently in both the Civic Center plans for San Francisco and Pasadena. However, their earliest civic building would sit by itself for a number of years as the citizens of Berkeley debated what other elements of a civic center should accompany the Town Hall *(Figure 4.11).*

Berkeley's Civic Center

Despite the successful 1906 bond, and the completion of the highly acclaimed new Berkeley Town Hall in 1909, the entirety of Berkeley's Civic Center eventually took several more decades to realize[18] *(Figure 4.12)*. The history of Berkeley's Civic Center is a chronicle of the city growth, national and international political events, and architectural and planning trends. The city's purchase of the land and the pace of construction were affected by two world wars, the Great Depression, and local politics and economics. The style chosen for the buildings and Civic Center plan reflected important architectural movements, from the Beaux Arts Classicism of City Hall and the later Post Office to the Classic Moderne and Art Deco structures of the Depression and World War II eras

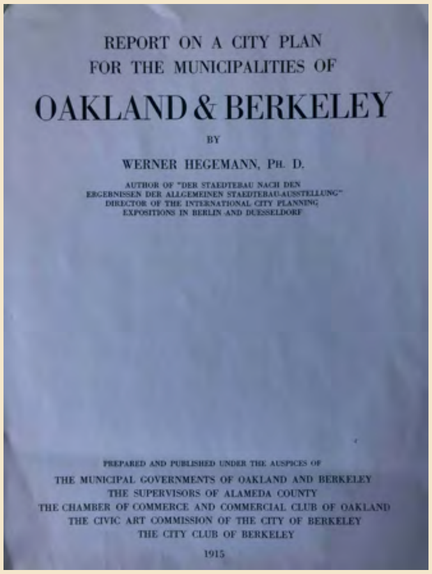
The inception of Berkeley's civic center was the town trustees' decision to move the town hall to east Berkeley. In 1900 Berkeleyans approved a bond to build a new public high school at its present site southwest of the relocated Town Hall, and the cornerstone was laid February 23, 1901. This building was later demolished in 1934 to accommodate the larger, more modern, school complex present today.[19] Together, the two buildings formed the seed of a future civic center.

Figure 4.12
Berkeley City Hall, circa 1920 with fire truck and city employees. Note the planters had been installed on either side of the stair and there appear to be low shrubs and bushes on either side of the path. Source: Berkeley Architectural Heritage Association.

Figure 4.13
Berkeley United States Post Office, completed 1914, by architect Oscar Wenderoth; modeled after Brunelleschi's Foundling Hospital in Florence. Source: Historic Postcard.

The 1904 conflagration that claimed the original town hall left Berkeley without an official administration building. Two years later, the devastating 1906 San Francisco earthquake and fire brought a stream of residents into Berkeley.[20] Spurred by an increased population and a genuine need for an administrative building, the new, larger town hall was completed in 1909. That same year Berkeleyans amended their city charter transitioning from a town to a city, thereby making the new building a "city hall."[21]

In 1914, Berkeley's Civic Center gained another building with the construction of the Berkeley Post Office at the southeast corner of the


REPORT ON A CITY PLAN
FOR THE MUNICIPALITIES OF
OAKLAND & BERKELEY
BY
WERNER HEGEMANN, PH. D.
AUTHOR OF "DER STAEDTEBAU NACH DEN ERGEBNISSEN DER ALLGEMEINEN STAEDTEBAU-AUSSTELLUNG"
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EXPOSITIONS IN BERLIN AND DUESSELDORF

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THE CHAMBER OF COMMERCE AND COMMERCIAL CLUB OF OAKLAND
THE CIVIC ART COMMISSION OF THE CITY OF BERKELEY
THE CITY CLUB OF BERKELEY
1915

Figure 4.14
Werner Hegemann, *Report on a City Plan for the Municipalities of Oakland & Berkeley,* 1915. Source: Google Books Digital.

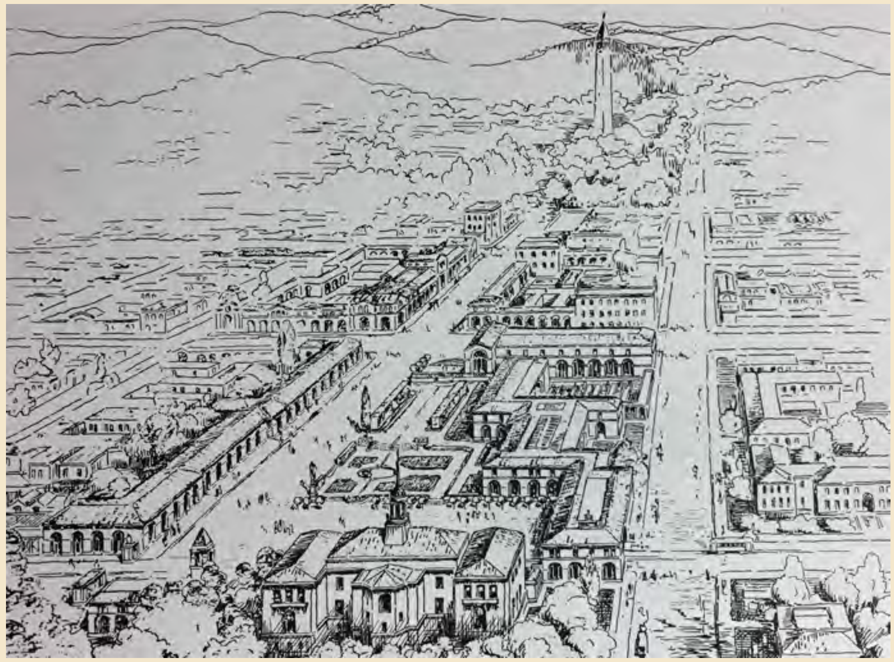

Figure 4.15
Sketch of proposed Berkeley Civic Center, by Charles H. Cheney.
Source: *Architect & Engineer of California,* June 1918.

intersection of Milvia Street and Allston Way. Both the City Hall and Post Office represent the Beaux Arts Classicism popular before World War I and feature richly decorated and harmonious facades. *(Figure 4.13).*

A year later, in 1915, the publication of Dr. Werner Hegemann's 1915 *Report on a City Plan for the Municipalities of Oakland and Berkeley* was a defining moment for Berkeley. Hegemann, a world-renowned German city planner, was invited to the United States in 1913 "to co-operate with American cities in the promotion of planning projects"[22] *(Figure 4.14*). Hegemann's plan for Berkeley and Oakland embraced the connections that the two cities shared physically and in street plan. Hegemann's report included master plans for Berkeley's Civic Center that had been prepared by planners Lewis P. Hobart and Charles H. Cheney in 1914. Both Hobart and Cheney had attended the Paris Ecole des Beuax Arts: Hobart from 1901 to 1903 and Cheney from 1907 to 1909. Their plan for Berkeley revolved around the existing Berkeley City Hall, and reflected their Beaux Arts training. They presented two alternative proposals for the city. The first depicted City Hall facing an elaborate park covering an entire block surrounded by a uniform and stylistically unified set of civic buildings. The second showed a staggered series of new buildings on the block opposite City Hall, leaving a series of smaller interlocking spaces. The plans included references to the U.C. Berkeley campus, with Sather Tower (the Campanile) on axis with the civic center *(Figure 4.15)*. Hegemann described Hobart and Cheney's first alternative and the possibilities this approach provided:

Figure 4.16
View of what would become Civic Center Park, circa early 1930s. Source: Berkeley Architectural Heritage Association.

> ...land would have to be acquired around the so-called Civic Center block in order to secure the building sites. In this case, the area between the buildings is so large that it cannot be treated as an architectural square or place, but it will form a small park, which can stand a good deal of planting. This planting, being so close to architecture, of course must be formal. This formality of course does not exclude the use of the park for many civic or playground purposes; on the contrary a formal treatment makes an almost mathematical use of every square foot possible.[23]

In keeping with City Beautiful Movement principles, the plans were intended to transform the disjointed area into a well-organized and aesthetically appealing group of harmonious civic building surrounding a central park.[24] It was hoped that a new Civic Center would link downtown and the University with City Hall.[25] However, the City did not own all the land necessary to complete either of Hobart and Cheney's plans. In addition, further development was hindered when the United States entered World War I. As a result, the buildings and grandeur of their civic center concept did not materialize as Hobart and Cheney envisioned. Nonetheless, the idea of public buildings surrounding a central square guided the development of the Civic Center for the next several decades[26] *(Figure 4.16).*

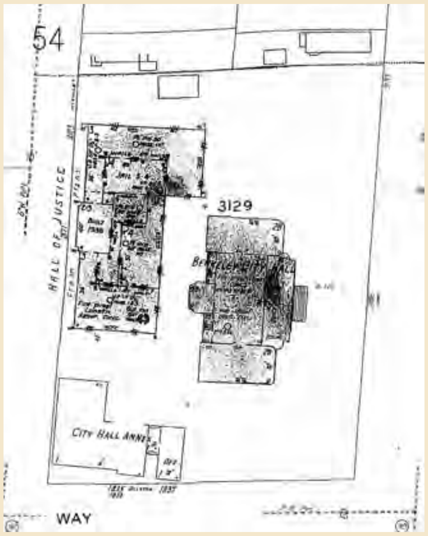

Figure 4.17
Sanborn Fire Insurance Company Map, Berkeley, 1951. Source: ProQuest.

Figure 4.18
Berkeley Veterans Memorial Building, completed 1928 by architect Henry H. Meyers. Source: Historic Postcard.

In 1918 Frank D. Stringham, President of Berkeley's City Planning and the Civic Art Commission, described the importance of a city plan for the well-being of residents and preservation of property values:

> If the present rate of increase is maintained, the population of the city of Berkeley will double in the next fifteen or twenty years. This rapid growth, so characteristic of American cities, emphasizes the urgency of a present plan to direct future development, prevent congestion and insure healthful conditions of living. A reasonable city plan properly carried out also protects property and investment from useless injury, and contemplates the welfare of future generations. It should be the concern of urban populations to preserve sufficient light and air in all places where human beings work and live.[27]

In 1925, the need for additional space for city departments resulted in a small, City Hall Annex designed by well-known architect James W. Plachek. A stand-alone building located just to the southwest of City Hall, the building housed the heath, sanitation, parks and recreation and fire departments[28] *(Figure 4.17).*

After World War I, the state legislature passed an impressive state-wide building program that reflected the political and social influence of World War I veterans. The first civic center building to be constructed in Berkeley after the war was, appropriately, the Veterans Memorial Building, which was completed in 1928, along Center Street to the northeast of City Hall. After this building's completion, plans for the further development of the Civic Center were once again stalled, this time by the economic devastation of the Great Depression *(Figure 4.18).*

Figure 4.19
Federal Land Bank Building with the Civic Center Park fountain under construction, 1941-42. Source: Berkeley Architectural Heritage Association.

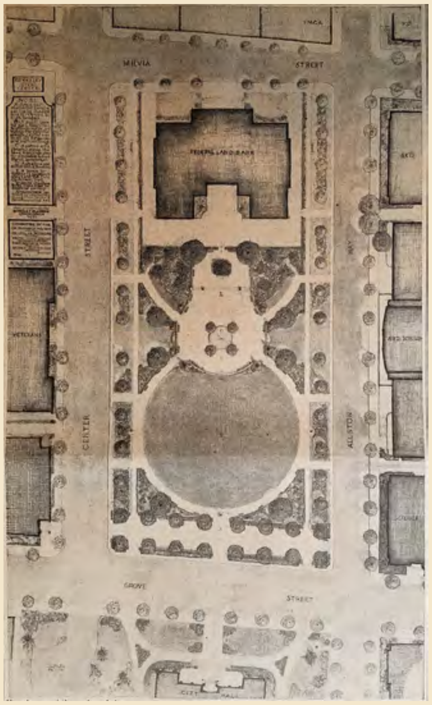

Figure 4.20
Civic Center Park Proposed Plan, 1940. Source: *Berkeley Daily Gazette,* November 19, 1940.

Federal relief programs in the late 1930s were catalysts for the second phase of Berkeley's Civic Center development. U.C. Berkeley was a land grant college and a center of agricultural education and research in California. As a result, it was one of twelve regional locations for the Federal Lank Bank. In 1937, a Federal Land Bank building was required in Berkeley to administer federal relief programs *(Figure 4.19)*. The City sold the eastern portion of the land it had acquired for a civic center park to the bank for its headquarters. The proceeds were then used to purchase private parcels on the rest of the block intended for a park.[29] The Federal Land Bank was also designed James W. Plachek and completed in 1938.

By the late 1930s, the police force, having outgrown its space in City Hall, required larger quarters to meet its needs. In 1939, the City completed the Hall of Justice, also by James Plachek, which was located at 2171 McKinley Street, behind City Hall, but was demolished in 2002, when the Berkeley Public Safety Building was completed.

In 1940, the City Council established the Civic Center Committee of Experts, which included well-known local architects Bernard Maybeck, Julia Morgan, and Henry H. Gutterson; all three were trained at the Ecole.[30] After rejecting several attempts, in 1940 Berkeleyans finally approved a bond measure that enabled the City to purchase the remaining land required to finally build Civic Center Park *(Figure 4.20)*. The City was assisted in the construction of the park by the Works Progress Administration (WPA). Work proceeded rapidly, with trees, playground equipment, benches and flagpoles donated by civic organizations and the WPA. A fountain, designed by Henry H. Gutterson, and inspired by the Treasure Island Golden Gate

Figure 4.21
Golden Gate International Exposition, Court of Pacifica,1940.
Source: Oakland History Room, Oakland Public Library.

International Exposition, which had closed in 1941, was placed in the park. The fountain mechanical equipment may have been recycled from one of the many fountains at the exposition *(Figure 4.21)*. The park was essentially completed by Memorial Day 1942, while the nation was embroiled in World War II. The park was dedicated with patriotic pageantry, speeches, and a Memorial Day parade[31] *(Figure 4.22)*.

One of the final Civic Center building to be completed was a community theater. In 1937 the school administration planned the expansion of Berkeley High School on the block south of Civic Center Park. The plans included science and math laboratories and a performing arts facility, which was a joint school/community theater *(Figure 4.23)*. A WPA grant allowed for the construction of the theater to begin in 1940, and the project was accelerated to avoid conflict with the anticipated U.S. involvement in World War II. However, after Pearl Harbor the project stalled. The unfinished structural skeleton was popularly referred to as the "bird cage." Construction resumed in 1949, and the building, which was called the Berkeley High School Community Theater, was finally dedicated on June 5, 1950.[32] With the completion of this building the primary elements of the Berkeley Civic Center were finally in place. The City Hall, Federal Land Bank Building, Veterans Memorial Building, and Berkeley Community Theater were located on cross-axis intersecting the park's fountain. The State Farm Company Building was completed in 1947, immediately adjacent to the Veterans Memorial Building *(Figure 4.24).*

Figure 4.22
View of the Veterans Memorial Building and Civic Center Park, 1952. Source: Berkeley History Collection, Berkeley Public Library.

Figure 4.23
The south side of the Berkeley High School Community Theater, designed by Gutterson and Corlett Architects, and Civic Center Park with some established plantings, 1951. Source: Berkeley History Collection, Berkeley Public Library.

Between 1955 and 1963, the City purchased the northern half of the block occupied by City Hall, and multiple government buildings were constructed such as the Alameda County Courthouse, Berkeley's Fire Department headquarters, and smaller buildings for other city services. After outgrowing its space, city hall functions were moved to the Federal Farm Credit Building in the 1970s, and the school administration moved into City Hall. Finally, in the 1980s a "peace wall" was built in the park to and commemorate Hiroshima and acknowledge a thaw in the Cold War with the Soviet Union.[33]

Figure 4.24
State Farm Insurance Company Building, September 19, 1947, with the Civic Center Fountain in the foreground. Source: Berkeley Architectural Heritage Association.

Figure 4.25
Architects John Bakewell and Arthur Brown, Jr with City Attorney Percy Young, circa 1908-09, outside City Hall. Source: Bancroft Library, University of California, Berkeley.

City Hall Architects

John Bakewell, Jr. (1872-1963)

Born in Topeka, Kansas in 1873, John Bakewell, Jr. moved to the San Francisco Bay Area with his family in the 1880s. He enrolled at U.C. Berkeley and studied under Bernard Maybeck, who was teaching drawing in the University's engineering department. At that time U.C. Berkeley did not offer formal architectural training, and Maybeck, who had studied at the Ecole des Beaux-Arts in Paris, offered architectural courses in the evenings in his Berkeley home. Julia Morgan and Brown's future partner Arthur Brown, Jr. were fellow students in Maybeck's studio. Maybeck's training for his students included exercises similar to those at the Ecole and was intended to prepare them to study at that school.[34]

Philanthropist Phoebe Apperson Hearst financed Bakewell's sojourn to Paris to attend the Ecole, where Brown was also a student. After returning to the Bay Area, Bakewell assisted Daniel H. Burnham, the nationally recognized architect and urban planner, with his 1905 plan for the City of San Francisco *(Figure 4.25).*

Bakewell and Arthur Brown, Jr., formed a partnership in 1905, establishing the firm Bakewell & Brown, which continued until 1927 (for more information on the firm, see "Bakewell & Brown" below). Bakewell was known as a capable executive and supervising architect.[35]

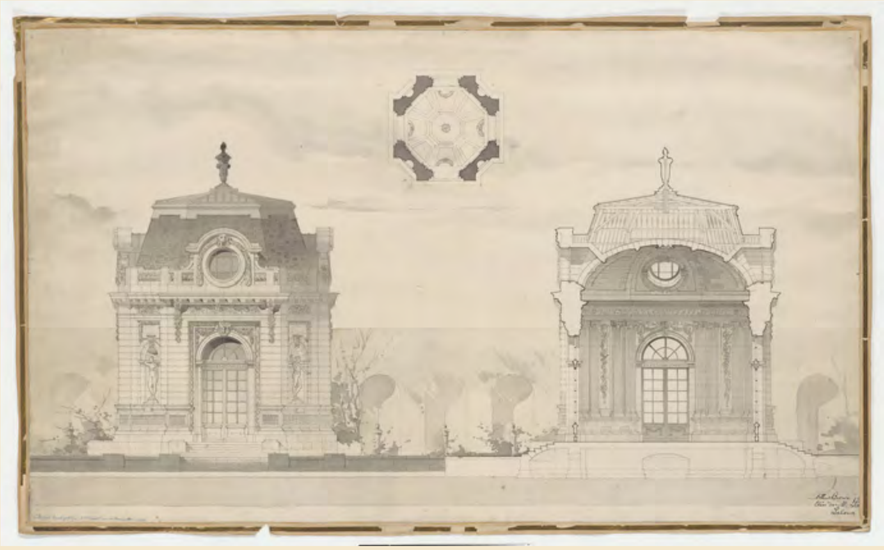

Figure 4.26
Arthur Brown, Jr. drawing from his tenure at the Ecole des Beaux Arts, Paris. Bancroft Library, University of California, Berkeley.

Figure 4.27
Portrait of Arthur Brown, Jr., circa 1912. Source: Bancroft Library, University of California, Berkeley.

After the dissolution of the firm, Bakewell established Bakewell & Weihe with longtime Bakewell & Brown employee Ernest Weihe. The partnership lasted until Bakewell's retirement in 1942.[36]

Arthur Brown, Jr. (1877-1957)

Arthur Brown Jr. was born in Oakland, California in 1874 to Arthur Brown, Sr. and Victoria Runyon Brown. Arthur Brown, Sr. worked for the Central Pacific Railroad as an engineer during the construction and completion of the transcontinental railroad in the 1860s. As the Superintendent of the Bridges and Buildings Department, the senior Brown worked closely with the railroad's powerful leaders. These contacts resulted in his serving as construction manager for the Crocker, Hopkins, and Stanford mansions on San Francisco's Nob Hill. Arthur Brown, Jr. benefitted from his father's connections, and during his career these men awarded him numerous architectural commissions.[37] Mark Hopkins' son Timothy Hopkins was especially influential in awarding Stanford University commissions to Brown.[38]

After graduating from Oakland High School, Arthur Brown Jr. attended U.C. Berkeley to pursue a degree in civil engineering. Like Bakewell, while at the University, Brown studied under Bernard Maybeck. Brown traveled to Paris in 1896, and after passing the Ecole entrance exams, entered the atelier of Victor Laloux. Architectural training at the Ecole

Figure 4.28
Berkeley City Hall under construction. Source: Bancroft Library, University of California, Berkeley.

focused on models from Imperial Rome, the Italian Renaissance, and Italian and French Baroque with an emphasis on sculptural ornamentation. Brown excelled and won several prominent Ecole competitions as well as the Rougevin and Godeboeuf prizes.[39] In addition, Brown made numerous connections that would benefit him in obtaining commissions throughout his career.[40] Brown graduated from the Ecole in 1901, but remained in Paris to continue his training with Laloux *(Figure 4.26).*

Brown traveled through Europe before returning to the United States in 1903. He first worked in Washington D.C. for the firm Hornblower & Marshall. He soon moved to San Francisco where he formed a short-lived partnership with architect Henry Schulze, with whom he worked on the Folger Coffee Company Building[41] *(Figure 4.27)*.

In 1905 Brown and John Bakewell Jr. opened their firm, Bakewell & Brown and one of their first completed projects was the Berkeley Town Hall *(Figure 4.28).* In 1913 the firm was awarded the position of design architects and master planners for Stanford University, a role in which Brown served until 1942. In addition to his architectural practice, Brown began teaching; from 1911 to 1913, he formed an atelier with Jean-Louis Bourgeois at the San Francisco Architectural Club (SFAC) to train draftsmen from leading San Francisco firms. In 1918 Brown lectured in architecture at Harvard University, but returned to the Bay Area to fill in as professor of architecture at U.C. Berkeley while his friend John Galen Howard was on sabbatical.[42]

Figure 4.29
Architects John Bakewell, Jr., Arthur Brown, Jr., and colleagues in front of a scale model of San Francisco City Hall. Source: Bancroft Library, University of California, Berkeley

In 1916 Brown married Jessamine Garrett, a family friend of one of Brown's fellow Ecole students, E. Frère Champney. The Browns eventually had two daughters, Victoria and Sylvia. In 1925 the family moved to "Le Verger," an estate Brown had designed for his wife in Hillsborough, California.[43]

Bakewell & Brown dissolved their firm in 1927, and Brown opened his own firm, Arthur Brown, Jr. & Associates. Brown's firm continued to receive significant commissions such as the War Memorial Opera House in San Francisco (1932), War Memorial Veterans Building in San Francisco (1932), Coit Tower in San Francisco (1933), and the United States Department of Labor and Interstate Commerce Commission Building in Washington, D.C. (1934). Like many firms, Brown's experienced a downturn during the Great Depression. Additionally, at this time Brown's Beaux-Arts approach was increasingly considered irrelevant and outdated as architecture and public tastes turned to Modernism.[44] As Modernism continued to gain popularity in the late 1930s, Brown focused on institutional work. From 1938 to 1950, he served as supervising architect for U.C. Berkeley and designed many campus buildings. Brown largely retired after his departure from U.C. Berkeley, but continued to consult on projects including the extension of the U.S. Capitol's East Portico in the 1950s *(Figure 4.29).*

Throughout his career Brown served on many boards and committees including the Board of Architectural Consultants for the U.S. Department of the Treasury (1927-1933), the Board of Consulting Architects for the San Francisco-Oakland Bay Bridge, the Architectural Commission for the Chicago World's Fair of 1933, Chairman of the Architectural Commission

Figure 4.30
Bakewell and Brown's Pasadena City Hall, 1928. Source: Bancroft Library, University of California, Berkeley.

for the Golden Gate International Exposition (1937-1940), and the Board of Consulting Architects to the Architect of the U.S. Capitol (1956-1957).[45]

Brown's contributions to the field of architecture were acknowledged by numerous awards: Fellow of the American Institute of Architects (1930); honorary Doctorate of Laws from the University of California (1931); member of the National Institute of Arts and Letters (1940); associate of the National Academy of Design (1951) and member (1953); and member of the Academy of Arts and Letters (1954).[46]

Bakewell & Brown (1907-1927)

Established in 1905, only a year before the 1906 San Francisco Earthquake and Fire, the young firm Bakewell & Brown thrived designing houses in the East Bay for clients fleeing the devastation in San Francisco. The firm also redesigned the City of Paris Department Store in San Francisco, which had been destroyed by the earthquake and fire. Like many partnerships, Bakewell & Brown found different roles at the firm; Brown functioned as the principal designer, while Bakewell was responsible for the financial and administrative side of the practice.[47]

In 1907 the firm entered a competition to design Berkeley Town Hall and bested eleven other entries to win the commission. Bakewell & Brown closely modeled their design on Victor Laloux's Hotel de Ville or Town Hall for Tours, France. The copula was based on Brown's Ecole Godeboef competition campanile. The constructed building varied from its French model and early sketches in size, materials, ornamentation, and function. The pitch of the roof was reduced, and window openings were standardized. Not surprisingly in the years after the 1906 earthquake and fire, Berkeley required the new building to be fireproof, which Bakewell & Brown accomplished by using reinforced concrete. Brown had to adapt his early ornate design to this relatively new, less-refined material. The result was the use of substantial over-scaled ornamentation such as colossal (two-story) columns and large finials.[48] The building was significant for its early and innovative use of reinforced concrete. According to Jeffry Tillman, author of Arthur Brown Jr.: Progressive Classicism, the Town Hall was: "...widely admired for its artistic use of a relatively new material, as Berkeley Town Hall was one of the first reinforced concrete civic buildings in California."[49]

The Town Hall (renamed City Hall in 1909) was Bakewell & Brown's first prominent civic project and helped to establish their reputation as designers of government buildings. Tilman states, "With this project Bakewell & Brown became a regionally known firm and attracted a wider circle of clients."[50] Just five years later, in 1912, the firm won a competition to build San Francisco's new City Hall.

Following these two prestigious projects, the firm received many notable commissions including: the Palace of Horticulture at the Panama-Pacific International Exposition in San Francisco (1915); the train station for the Atchison, Topeka, and Santa Fe Railway in San Diego (1915); the Green Library at Stanford University in Palo Alto (1919); the Pacific Gas & Electric office building in San Francisco (1922-1926); Pasadena City Hall (1923-1928); Temple Emanu-El in San Francisco (1923-1928); and the California School of Fine Arts in San Francisco, now the San Francisco Art Institute (1924-1928).[51] The firm of Bakewell & Brown dissolved in 1927, but the two former partners continued collaborating on many projects *(Figure 4.30).*

William Merchant (1889-1962)

William Merchant was a native of Healdsburg, California and resided in San Francisco most of his life.[52] In 1909 he graduated from Lick Wilmerding School of Industrial Arts in San Francisco. He received his state certificate to practice architecture on July 6, 1920. Merchant trained in the offices of both John Galen Howard and Bernard Maybeck. He then worked in the office of George W. Kelham from 1917 to 1928. Merchant commenced solo practice in San Francisco in 1930, and from 1932 to 1939, was the consulting architect for the San Francisco Recreation Commission. At some point his office became the successor to Maybeck's firm.[53] Merchant was a member of the Architectural Commission of the Golden Gate International Exposition of 1939. His experience in recreational facility design was unmatched locally. During these years, Merchant designed several dozen buildings for the City of San Francisco, including the Chinese Recreation Center, Sunset Recreation Center, Wawona Clubhouse, Larsen Park Swimming Pool, Hamilton Square Recreation Center, Glen Park Recreation Center, a master plan for McLaren Park, and a bathhouse at China Beach, near Sea Cliff. Merchant also designed the Sailor's Union of the Pacific building at 450 Harrison Street in San Francisco, a landmark of the Streamline Moderne style, markedly similar to Merchant's highly acclaimed Pacific House, the theme building of the 1939 Exposition on Treasure Island.[54]

Other significant projects of Merchant's include Pulgas Water Temple for the Spring Valley Water Company (1938), Acme Brewery (1941-1945), World Trade Center alterations incorporated into the Ferry Building (1946-1957), several projects for the Pacific Gas & Electric Company including the substation at 8th and Mission Street (1957) and the Morro-Bay Power Plant (1953), Irving Memorial Blood Bank (1941), San Francisco State College (1951), San Francisco Medical Society building (1954), and Lick Wilmerding School (1955), his alma mater.

From 1949 to 1961, Merchant served as a Regent of the University of California. He died in 1962 as he was commencing work on the restoration of Maybeck's Palace of Fine Arts for his long-term client, the San Francisco Park and Recreation Commission.[55]

Merchant was associated with architect Hans U. Gerson, who eventually operated the successor firm to Merchant's office.[56] Plans for the 1964 addition to Berkeley City Hall list both Merchant and Gerson's names on the title block. However, given the date of the plans, December 4, 1964, which was two years after Merchant's death, Gerson was responsible for the design.

Hans U. Gerson (1915-2002)

Hans Ullrich Gerson was born 1915 in Hamburg, Germany, where both his father and uncle were successful architects. Gerson fled Germany for London in 1934 where he pursued his studies. During the war, Gerson worked as an architect before immigrating to New York City in 1946. He later relocated to the San Francisco Bay Area where his uncle, Oskar Gerson, also worked as an architect.[57]

Gerson had long-term associations with architects William Merchant and Harry Overstreet and eventually operated the successor firm to Merchant's. Around 1955 his office was located at 79 Florida Avenue in Berkeley.[58] Reflective of his European roots, Gerson's work exhibits elements of the International Style and other aspects of post-World War II Modernism as it emerged in the United States.

Figure 4.31
Portrait of Maudelle Sherik. Source: *East Bay Times.*

Important Persons and Events

Berkeley has had over twenty mayors and many council persons since City Hall was constructed in 1909. Many significant deliberations, innovative legislative actions, controversial votes, and ardent protests related to local, state, national and international politics and events have taken place in City Hall and around Berkeley's Civic Center. For instance, in 1911 the City of Berkeley swore in Mayor J. Stitt Wilson, the first Socialist Mayor elected in the United States. After the 1923 devastating Berkeley Fire, City Hall was a haven for residents. As World War II commenced, Berkeley completed its Civic Center Park and honored those who had already given their lives in the war effort. In the 1960s, student protests at U. C. Berkeley spilled into the Civic Center and the Free Speech Movement was born. Since that time, Berkeley has been at the forefront of progressive legislation that discouraged using environmentally damaging products like Styrofoam, established a Nuclear Free Zone, developed programs and services for AIDS / HIV prevention and education, and encouraged Domestic Partnership policies.

On March 22, 2007, Berkeley's City Hall was renamed the Maudelle Shirek Building after long-time Berkeley City Councilmember Maudelle Shirek. Ms. Shirek first ran for City Council at age 71 after retiring from her position as the director of the West Berkeley Senior Center. She served eight terms on the council, at times as vice mayor, before leaving office in 2004 at the age of 92. Shirek was called the "godmother of East Bay progressives" and championed many progressive causes, in particular, those regarding seniors and the poor. She spent a lifetime advocating for Civil Rights before her death in 2013 at the age of 101. *(Figure 4.31).*

Many of these important events, actions and significant individuals deserve further study to determine how they are specifically associated with City Hall, and more broadly with the Berkeley Civic Center.

Endnotes Chapter 4

[1] Much has been written about the City Beautiful Movement. This section is drawn from William H. Wilson, *The City Beautiful Movement.* Baltimore, Johns Hopkins University Press, 1989; Joan Elaine Draper, *The San Francisco Civic Center: Architecture, Planning and Politics.* PhD diss., University of California, Berkeley, 1979; Jonathan Ritter, "The American Civic Center: Urban Ideals and Compromise on the Ground." PhD diss., New York University, New York, 2007; and Bridget Maley, "California's City Beautiful Civic Centers: A Lecture to Celebrate the Petaluma Historical Library and Museum." November 8, 2018, Petaluma, California.

[2] Architectural Resources Group, "Downtown Berkeley Historic Resources Reconnaissance Survey" (San Francisco, CA: August, 2007) 35.

[3] Joan Elaine Draper, *The San Francisco Civic Center: Architecture, Planning and Politics.* PhD diss., University of California, Berkeley, 1979; and Jonathan Ritter, "The American Civic Center: Urban Ideals and Compromise on the Ground." PhD diss., New York University, New York, 2007.

[4] William H. Wilson, *The City Beautiful Movement.* Baltimore, Johns Hopkins University Press, 1989.

[5] Susan Dinkelspiel Cerny, *Berkeley Landmarks* (Berkeley, CA: Berkeley Architectural Heritage Association, 1994), 281.

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