



CITY OF OAKLAND
OAKLAND
PUBLIC LIBRARY

MASTER FACILITIES PLAN

FEASIBILITY STUDY OF THE
ADAPTIVE REUSE OF THE
KAISER ARENA AS A NEW
MAIN LIBRARY

DRAFT REPORT

JUNE 2006



GROUP 4

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EXECUTIVE SUMMARY

1. EXECUTIVE SUMMARY

1.1. THE NEED FOR A REVITALIZED MAIN LIBRARY

A citywide Master Facility Plan has identified a need for revitalized and expanded Main library service for the City of Oakland. The present library is over 50 years old and was built for a different era. While the community and library services have changed, the library has essentially remained untouched. The shelves were filled to capacity decades ago, preventing the collection of books and other materials from growing with the needs of the community. The majority of the books are warehoused in the original multi-level, low-ceiling stack core that is off-limits to the public, and denies patrons free access to the materials. Even though the collection needs to grow, for each book added one book must be discarded.

The present building is poorly organized. Major areas are disconnected from each other. The poor organization makes it difficult for to find library staff and makes the library less efficient to operate. Seating is but a fraction of what is needed with shortages of reading tables and study carrels and almost no comfortable lounge type seats that are so popular in today's libraries.

The present Main library building's infrastructure dates back to the time of typewriters, and as a result the power and data supports for modern technology are woefully inadequate. The limited number of computers and media stations are poorly supported from a cobbled-together and inflexible network. The Main library's media and new format collections are very undersized. The present building's outdated building systems, while functional and complying with the codes of their day, do not meet current life safety or health and comfort requirements.

A preliminary Needs Assessment was prepared as part of the Master Facility Plan process. It identifies the need for expanded collections of every type to solidify the new Main library's role in providing premier library services for children, school age students, teens, and life-long learners. It identifies a need to increase the libraries role in connecting residents with local history and collecting that history as it is written every day. An expanded and improved auditorium is needed to support the wide range of literature, arts, and community events that will further enhance the library's role as a major cultural institution. Acoustically controlled group study rooms are needed to support literacy tutoring, visiting school groups, and small group work.

All of these needs were translated into a preliminary Building Program that identifies an expanded Main library of 120,000 to 160,000 square feet. This facility, while somewhat smaller than many Main libraries in comparably sized communities, will be an attractive destination for all Oakland residents and visitors alike.



Built in 1950, the present Main Library is located at 125 14th Street, one block from Lake Merritt



The majority of the existing collection is housed in the core stacks which is off-limits to the public



Inadequate and outdated infrastructure limits the provision of contemporary library services

EXECUTIVE SUMMARY

1.2. OPTIONS FOR EXPANDING MAIN LIBRARY SERVICES

In late 2004 through early 2005 a number of development options were investigated as part of the Master Facility Plan process. These included renovation and expansion, demolition and new construction, and relocation options. These options are summarized briefly in the appendix. In January of 2006 the City closed the doors of the nearby Henry J. Kaiser Convention Center after years of unsuccessful attempts at finding an economically sustainable operating model. The City suggested that the adaptive reuse of the least-used arena portion of the Center be considered as a possible site for a new Main Library. The feasibility of this option is the topic of this report.

Compared to the alternative of expanding the present Main, the adaptive reuse of the arena as a new Main is significantly less expensive, will function better, and can be built with less disruption of service.

1.3. CONSTRUCTION OF A NEW MAIN WITHIN THE HISTORIC KAISER ARENA

This option includes construction of a brand new library within the Kaiser Center arena while preserving the historic and west theater, meeting rooms and exterior.



Artist Rendering of Atrium of New Main library under restored historic skylight.

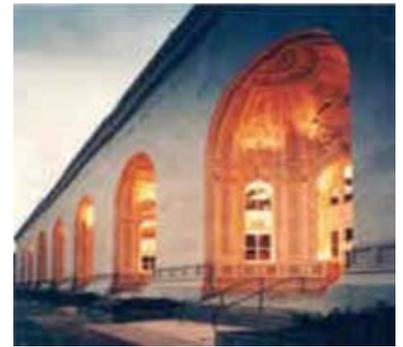
With its closure in January of 2006, the beloved landmark Henry J. Kaiser Convention Center building is under threat of decline and deterioration unless a viable use is found. The development option investigated in this study and summarized in this report analyzed the possibility of converting the eastern two-thirds of the Kaiser Center (containing the arena) into a state-of-the-art library facility. This would be done by preserving the historic exterior and selectively removing the stadium seating and constructing four to five new levels of library around a skylit central atrium within the open volume. This atrium would be under a restored historic skylight and would contain stairs and elevators as well as new structural supports for the historic roof. As the new library will be able to use the Kaiser Center's Calvin Simmons Theater and its three large multi-purpose rooms, approximately 10,000 square feet less library program space will be needed. As the Kaiser Center already has 200 parking spaces that will be upgraded as part of the 12th Street Improvement project, no new parking will be required.

Providing for all library services under one roof will provide better service and be more efficient to operate than the Expanded Main and Annex option. The construction can take place while the current Main library remains open and the move-in can occur in a single stage. Without the requirement to purchase new land and construct parking and because the shared use results in building less area, the New Main at Kaiser will be significantly less expensive to build.

1.4. NEW MAIN AT KAISER FEASIBILITY

As part of the library Master Facilities Plan process this study was begun to determine if the conversion of the Kaiser arena into a new Main library is feasible. This study has found that:

- The adaptive reuse of the Kaiser arena into a new state-of-the-art Main library would be an excellent fulfillment of the City’s need to revitalize and expand Main library service.
- The conversion of the arena into a Main library also would serve to meet the needs of the City to find a viable function for this space and preserve this landmark facility.
- The adaptive reuse of the arena is technically feasible from structural, mechanical, code and historic preservation perspectives.
- Compared to the alternative of expanding the present Main, the adaptive reuse of the arena as a new Main is significantly less expensive, will function better, and can be built with less disruption of service.



New Main library project will preserve the Kaiser Center’s Historic Exterior



2. STUDY METHODOLOGY

2.1. SCOPE OF STUDY

This study was conducted under the citywide library facility master planning process. A draft Master Facility Plan released in September 2004 identified a need for improved branch library services and the need for a revitalized and expanded Main library. In the course of that study meetings were held with City of Oakland's Planning and Zoning Department Real Estate Services during which a variety of potential sites were identified for preliminary evaluation. Among those sites was the Henry J. Kaiser Convention Center (HJKCC).

The Henry J. Kaiser Convention Center has two sides. The eastern two-thirds consists of the arena and the western third consists of the Calvin Simmons Theater, the Olympic, Gold, and Ballroom multipurpose spaces as well as support spaces. The entire facility was in operation through the end of 2005.

This study considers the adaptive reuse of the eastern arena portion of the HJKCC and only those portions of the western theater side that are impacted by the proposed conversion of the arena. The goal of this study was to determine the feasibility of the project and establish an appropriate cost plan.

2.2. STUDY PROCESS

The study methodology was designed to determine if the conversion of the arena is functionally and technically feasible and if so, to establish a budget. The Study determined feasibility in four areas:

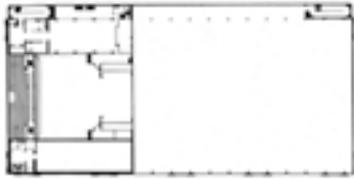
- Library Functionality
- Technical Feasibility
- Historic Impacts and Feasibility
- Costs

The study began with document collection that continued throughout the study. A list of resources collected or consulted is included in the appendix.

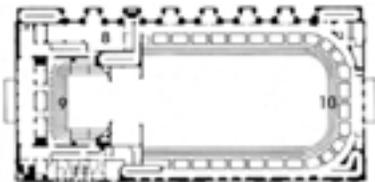
Library functionality first considered the capacity of the arena volume to house the required library area. After technical feasibility was confirmed, further diagrammatic layouts or stacking diagrams were prepared. These are presented in Section 5 of this report.

Technical Feasibility was investigated in stages. Structural issues were addressed first and, once feasibility was demonstrated, the study continued with mechanical and electrical feasibility. Code issues were also investigated.

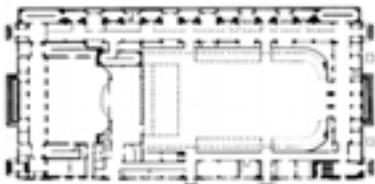
STUDY METHODOLOGY



Kaiser Center third floor



Kaiser Center second floor



Kaiser Center first floor

Technical Feasibility is presented in Section 6 of this report.

As the building is an historic landmark structure, preservation and adaptive reuse strategies were investigated and feasibility determined. This topic is presented in Section 6.5 of this report.

A cost plan was prepared to assist the City in developing funding plans for the Main Library and the branch library improvements proposed in the Master Facility Plan. A cost plan is discussed in Section 7 and a detailed estimate is included in the appendix.

2.3. REVIEW OF PAST STUDIES

This Feasibility Study was greatly assisted by documents provided from the on-site records of the Kaiser Center's Stationary Engineer and the archives of Ratcliff Architects and Degenkolb Engineers who were involved in building upgrades in the 1980's. Documents reviewed or collected are listed in the appendix.

2.4. FIELD STUDIES

Members of the study team were given access to the building and walked through most spaces to become generally familiar with the spaces and their relationships. A preliminary survey of the exterior conducted from ground level observation was conducted on the north facade.

2.5. STUDY LIMITATIONS

For the limited purpose of determining project feasibility the consultant team made use of previous studies and documents. Extensive structural analyses had been previously prepared and were reviewed for this study. No new computational structural analyses or material sampling or testing was conducted as part of this study. Existing plans were scanned and scaled and used for approximate dimensions and sizes. No surveys or field measurements were conducted as part of this study. The Kaiser Center's Stationary Engineer was the resource for description of operational condition of existing building systems.

This feasibility study is not a conceptual or schematic design. Any architectural, structural or technical solutions suggested in this study are only preliminary suggestions offered to demonstrate general feasibility. Once this project moves towards implementation additional technical studies will be necessary as part of a full design process.

2.6. STUDY TEAM

This study was prepared by a consultant team lead by Group 4 Architecture Research + Planning, Inc. as part of a comprehensive citywide Library Master Facilities Plan. Technical subconsultants determined feasibility of major building systems and historical approach. Oakland Public Library management and staff gave input as well as technical support by the Public Works Agency, the Community and Economic Development agency and the Oakland Redevelopment Agency and other departments. Life safety input was given by the City Building Official and Fire Marshal and their staffs. The community gave input through the Master Plan's Community Action Committee, presentations to City Committees as well as City Council meetings. Other participating groups and organizations are shown below with most participants listed in the appendix under acknowledgements.



City Participants

- City Council
- Oakland Public Library (OPL)
- H.J. Kaiser Convention Center Staff
- Oakland Museum of California
- Public Works Agency (PWA)
- Community and Economic Development (CEDA)
- Oakland Redevelopment Agency (ORA)
- Building Services/CEDA
- Fire Prevention Bureau

Community Participants

- Oakland Public Library Master Facility Plan Community Action Committee
- Friends of the Oakland Public Library
- Oakland Public Library Advisory Commission
- Landmarks Preservation Advisory Board
- Participants at Library Open Houses, June 2006

STUDY METHODOLOGY

Peralta College District /Laney College

Consultant Team

- Architects and Planners: Group 4 Architecture Research + Planning, Inc
- Structural Engineers: Rutherford & Chekene
- Historic Resource Consultants: Carey & Company
- Code Consultant: Calvin Wong, retired City of Oakland Building Official
- Cost Consultants: M. Lee Corporation
- Mechanical and Energy Engineers: Rumsey Engineers
- Electrical Engineers: FW Associates

NEED FOR REVITALIZED AND EXPANDED MAIN LIBRARY

3. NEED FOR REVITALIZED AND EXPANDED MAIN LIBRARY



Current Main library at 125 14th Street



The majority of the collections are housed in the low ceiling stack core that is not open to the public.

3.1. OUTDATED, UNDERSIZED EXISTING MAIN

A citywide facility master planning process has identified a need for revitalized and expanded main library service for the City of Oakland. The present library is over 50 years old and was built for a different era. While the community's demographics have changed, population has increased and library services have evolved, the library has essentially remained untouched. The shelves were filled to capacity decades ago preventing the collection of books and other materials from growing with the needs of the community. The majority of the books are warehoused in the original multi-level, low ceiling stack core that is off-limits to the public denying patrons free access to the materials. Even with needs to grow the collection, for each book added one book must be discarded.

The building is poorly organized with major areas disconnected from each other separated by a rabbit warren of hallways. The poor organization makes it difficult for patrons to find library staff and makes the library inefficient to operate. Seating is only a fraction of what is needed with shortages of reading tables and study carrels and almost no comfortable lounge type seats that are so popular in today's libraries.

The building's infrastructure dates back to the time of typewriters and the power and data, and as a result, supports for modern technology are woefully



Main library shelving was filled to capacity decades ago.

NEED FOR REVITALIZED AND EXPANDED MAIN LIBRARY

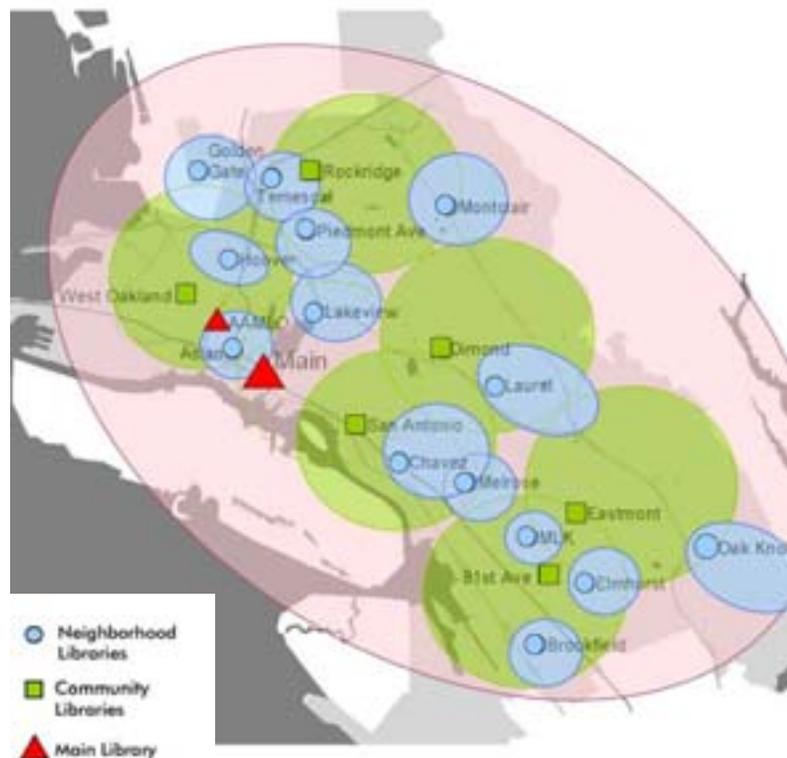
inadequate to support the necessary numbers of computers and media stations. The Main Library’s media and new format collections are very undersized. The building systems were functional and code-compliant when constructed fifty years ago, but do not meet current life-safety or health and comfort requirements.

3.2. VISION FOR REVITALIZED SERVICES

The unique characteristics of Oakland – demographically and geographically – require a unique solution to best serve the diverse needs of the community, citywide. The vision developed in the Master Facility Plan is one that retains the existing system of local branches while significantly increasing and improving library service levels under a three-tier network of libraries: neighborhood branches, community Branches and the Main library. OPL proposes to improve **all** libraries, by renovating those that cannot be practically expanded to better serve local needs and expanding those that can be. The neighborhood branches will be supplemented by larger community branches that will be geographically distributed throughout the city and large enough to include more extensive library services. The Main library will also be expanded to



Three tiers of library service compliment and support each other.



Oakland map overlaid with proposed library improvements and their general service areas.

improve the system-wide support services such as acquisitions, technology, purchasing, administration, and more. Main library research and specialized collections, Oakland history collections, and programs will also be increased to strengthen the Main library's role as a citywide destination and as a premier educational and cultural resource.

3.3. THE NEED FOR A REVITALIZED MAIN LIBRARY

As part of the Master Facility Plan process a needs assessment identified a host of service and facility needs that the Main library building cannot provide in its current building:

- The need for expanded collections of every type that will solidify the new main library's role in providing premier library services for children, school age students, teens, and life-long learners.
- The need to increase the libraries role in connecting residents with local history and collecting that history as it is written every day.
- An expanded and improved auditorium is needed to support the wide range of literature, arts, and community events that will further solidify the library's role as a major cultural institution.
- Acoustically controlled group study rooms are needed to support literacy tutoring and visiting school groups for information literacy training.

One alternative to expand the Main library is to add two stories to the existing main and build a nearby annex with parking and services that will not fit. This option functions less well and is significantly more expensive.

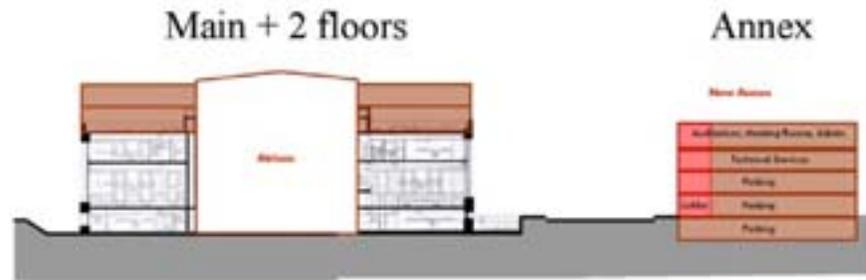
All of these needs were translated into a preliminary building program that identified an expanded Main library of 120,000 to 160,000 square feet. This proposed facility, while somewhat smaller than many Main libraries in comparably sized communities will be an attractive destination for all Oakland residents and visitors alike.

3.4. MAIN LIBRARY DEVELOPMENT OPTIONS

A number of options to expand the existing Main library facility were explored early on during the development of the Master Facility Plan between late 2004 through early 2005. These included renovation and expansion, demolition and new construction, and relocation options. At the time, the most promising option was the vertical expansion of the existing Main with two new floors and construction of a new annex. This is summarized briefly below and included in the appendix.

NEED FOR REVITALIZED AND EXPANDED MAIN LIBRARY

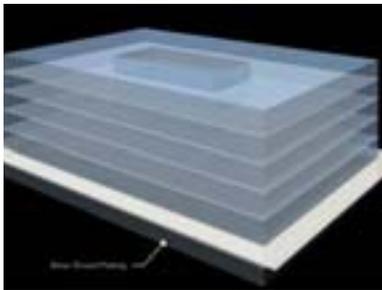
Expansion of existing Main and Construction of a new Main Annex



- Comprehensive upgrade of the existing building. Expansion up with two additional floors and construction of a new freestanding annex building.

This option preserves the historic values of the existing library building's exterior and expands upwards with two floors as envisioned in the original design. The stack core would be removed and replaced with a skylit atrium that would contain stairs, elevators and new structural frames that will strengthen the existing building. To meet the remaining balance of program area a new Main Library Annex building would need to be constructed to house a new 350 seat auditorium, meeting rooms, and relocated administrative, and technical services. The Annex would also provide parking for a minimum of 200 cars.

The challenges with this strategy include: acquisition of a site of sufficient size close enough to the existing Main library; the need to stage temporary main library facilities while the existing facility is being renovated; and the operational issues for public and staff of having Main Library services split between two structures.



Alternate expansion concepts for Existing Main facility

The existing Main library only occupies about half of the site area. Another alternative to expand the Main library is to remove the existing building and build a new one in its place. Larger floors and under-library parking make this a functional alternative, but it would come with a higher cost than the alternative of relocating to the Kaiser Center.

Other options determined to be less promising

Other options also explored and summarized in the appendix include:

- Demolition of existing building and replacement with a single new structure.
- Relocation to New Location

Henry J. Kaiser Center closed and Considered option for a new Main Library

In January of 2006 the City closed the doors of the Henry J. Kaiser Convention Center after years of unsuccessful attempts at finding an economically sustainable operating model. The City suggested that the arena portion of the complex be considered as a possible site for a new Main Library. The feasibility of this option is summarized in this report.

4. KAISER CENTER DESCRIPTION

4.1. DESCRIPTION

The Kaiser Convention Center, originally named the Oakland Auditorium is located on 10 Tenth Street at the southern end of Lake Merritt. It was designed in the Beaux Arts style by John J. Donovan, architect, and Henry F. Hornbostel, consulting architect, and was constructed between 1913 and 1915. It underwent a major refurbishment in 1985. The rectangular gable-roofed building houses an approximately 1,800 seat formal theater at the western end and an 8,000 seat capacity arena in the remaining two-thirds to the east.

The building measures approximately four hundred feet long by two hundred feet across and contains approximately 228,000 square feet of floor area on four levels that include a basement.

The building has a steel frame and reinforced concrete structure. The arena is covered by lightweight three-hinged-arch trusses. The exterior is clad with granite veneer on its principal northern façade, with terra cotta trim. This elevation features seven monumental niches or exedrae, each containing a sculptural relief designed by Alexander Stirling Calder. Collectively, the group is entitled “Riches of the Earth.” The remaining elevations are cement-plaster clad concrete.

Main entries are on both the east and west elevations - the east entries serve the arena, while the west serve the theater. These elevations are nearly identical, with slight differences in the configuration of the large arch-topped windows above the door openings. Secondary doorways are found on the north elevation in the monumental niches, and on the Tenth Street elevation as well.

The Kaiser Center is a Designated City of Oakland Historic Landmark and is also listed on the California Register of Historic Resources.



View of north side of Kaiser Center as seen across Lake Merritt



Existing east entry to be reused as library main entry



Monumental niche with terra cotta relief by Alexander Calder to be preserved

KAISER CENTER DESCRIPTION

4.2. HISTORY



Arena east lobby to be preserved and adapted to new library lobby

The Opening of the Oakland Auditorium coincided with the Panama-Pacific Exposition. In that day and for decades to follow the Auditorium served as the premier convention and event center in Oakland hosting many well known vaudeville acts, sporting events, circuses and music concerts. Starting in the 1960s, the Auditorium's use declined as it was supplemented by additional venues like the Oakland Coliseum and Arena, the Paramount Theater and the George P. Scotlan Convention Center. In 1982, the Auditorium was temporarily closed so that major rehabilitation efforts could be undertaken. The work was financed through an arrangement that involved the sale of the Auditorium and Oakland Museum to private investors. The city then leased the facility with an eventual repurchasing option in place. The Auditorium reopened in 1985 as an annex of the Scotlan Convention Center and operated with the new name Henry J. Kaiser Convention Center honoring the prominent Oakland industrialist.



North gallery of the Arena



Arena looking East

4.3. FORMER ARENA USES

The arena has been used for a wide range of entertainment and sporting events including concerts, dances, banquets and parties to trade shows, exhibitions, conventions and fund raisers. The arena also was the venue for a myriad of sporting events including boxing, wrestling, tennis, gymnastics, roller hockey and basketball competitions. Over the years more and more commercial attractions went to larger and newer venues around the bay area.

4.4. ON-GOING USES FOR THE AUDITORIUM

The proposal to convert the arena into a new Main library does not propose to do any work on the west, Theatre, side of the project. A preliminary budget for new carpet and interior paint and an allowance for theater sound and lighting system enhancements are described as options in the cost plan. For the purposes of this study it is assumed that the City will reopen and operate this side of the facility in its current state. The various meeting and assembly rooms could be regularly scheduled for library sponsored or coordinated programs and as such eliminates the need to build approximately 10,000 square feet of library program space. The theater and multi-purpose rooms will still be available for general community use.

The west side of the building offers the following features:



1877 Seat Calvin Simmons Theater

Calvin Simmons Theatre

The Calvin Simmons Theatre has been praised for its unparalleled intimacy and charm, and its near perfect acoustics. The historic theater has elegant chandeliers, gold leaf detail, and art deco-influenced upholstered seats. The theatre has a seating capacity of 1877 people and was regularly used for concerts, shows, plays, seminars, and assemblies. The theater was home to the Oakland Ballet until that organization closed in 2005.

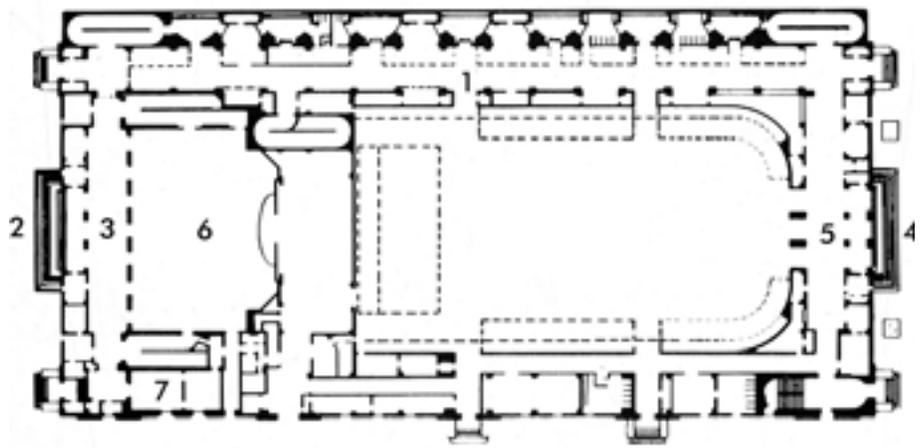
KAISER CENTER DESCRIPTION

Basement Level

The basement level on the west side of the building contains support spaces. The hydraulic orchestra pit is accessed from a complete below stage area which is accessed by stairs and service elevator from the south side of the stage. Mechanical and electrical rooms that presently serve the whole building. When the arena is converted into the library the new service loads will be handled by new equipment and the existing systems will remain for the theater side only.

First Floor Key Locations

- 1) North Gallery
- 2) West Entry
- 3) West Lobby
- 4) East Entry
- 5) East Lobby
- 6) Theatre
- 7) Offices

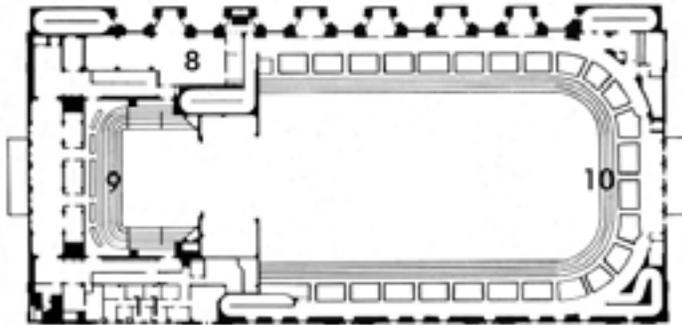


First Floor Level

The first floor level which is approximately six feet above street level is accessed via monumental stairs or accessible ramp. A large projected canopy shelters multiple doors into the theater lobby.

The theater orchestra level has a raked floor with 866 seats. Behind a large ornate proscenium arch is the stage measuring 42' x 34'. There is a stage loading / delivery area with access off Tenth Street. The stage door is large enough to accommodate a tractor trailer with the rig extending over the sidewalk and into the street. The first level also houses administrative offices along the south side.

KAISER CENTER DESCRIPTION

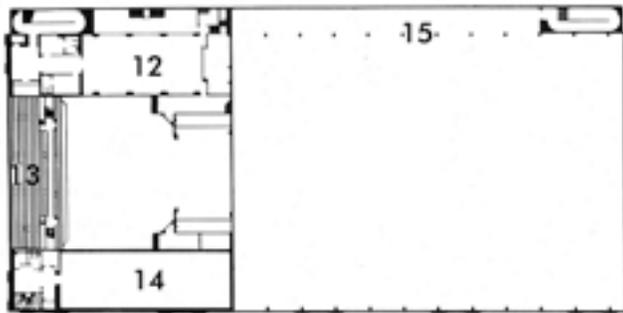


Second Floor Key Locations

- 8) Olympic Room
- 9) Balcony
- 10) Arena Seating
- 11) Dressing Rooms

Second Floor Level Mezzanine

At this level is the Mezzanine lobby with windows overlooking the roof gardens of the Oakland Museum. This lobby serves the theater first balcony that has 489 seats. Also at this level is a projection booth and performer dressing rooms



Third Floor Key Locations

- 12) Ballroom
- 13) Second Balcony
- 14) Gold Room
- 15) Highest Arena Seating

Third Floor level

Theater second balcony with 544 seats. This balcony is accessed directly from the second floor level mezzanine lobby by two stairs but there is no elevator service to this level. At this level is the stage fly of a ½” hemp supporting 47 five line sets.

Ballroom

The Ballroom is located at the northwest corner of the third floor of the facility and is accessed by elevator from the northwest lobby or by stair and ramp from the northwest niche. The Ballroom features a performance stage and a balcony bar area. It has a capacity of 150 in banquet seating to 350 for a reception. The Ballroom has been used for arts and lecture programs, receptions, recitals, banquets and dances. Its main floor is approximately 3,100 sq. ft. with a 800 foot side balcony that has no elevator access. There is a raised platform “stage” of 320-sq. ft. without a fly.



Ballroom

KAISER CENTER DESCRIPTION

Gold Room



Gold Room

The Gold Room is located at the southwest corner of the third floor of the facility and is accessed by elevator from the southwest lobby or by stair and ramp from the southwest Theatre lobby. The Gold Room was the first home of the Oakland Museum of Art, and features hardwood floors, overhead luminous skylight and a balcony service area. With entry by private elevator or carpeted stairway dominated by crystal chandeliers, this room was used for receptions, parties, banquets, lectures, fundraisers and exhibitions. It has a capacity of 120 as a classroom, 160 in banquet configuration or 350 for a reception. Its main floor is approximately 3100 sq. ft. with a 800 foot end balcony that has no elevator access.

Olympic Room



Olympic Room

The Olympic Room is located at the northwest corner of the second floor of the facility and is accessed by elevator from the northwest lobby or by stair and ramp from the northwest niche. The Olympic Room is approximately 2,000 square feet and was used for receptions and meetings. It features a large bar and is the only function room with exterior views through the top windows of the northwest niches. Views from these windows look out over Lake Merritt to the Oakland Hills.

4.5. KAISER CENTER AT RISK

As the Kaiser Center sits closed it is at increased risk of vandalism and deterioration. In the half-year that the Kaiser Center has been closed the building has already been subject to vandalism of the terra cotta sculptures in a north facing niches. The homeless are sleeping and erecting temporary shelters under the entry canopies and north niches. Fencing and security patrols are recommended to protect this cherished landmark.

The City's experience with the former Main library, now the African American Museum and Library of Oakland (AAMLO) offers a cautionary tale. That building, while closed for many years was subject to squatters and severe vandalism and deterioration. The restoration and adaptive reuse of that building was much more extensive and costly than had the building been kept in use.

Further, if the building sits vacant for an extended period, its present legal non-conforming status could be lost. If this were to happen, the future reopening of the theater could require extremely costly structural and building upgrades that would otherwise not be required if the building remained in operation.



Fox Theatre vandalism



Fox Theatre interior damage

5. FUNCTIONAL FEASIBILITY STUDY

5.1. FUNCTIONAL FEASIBILITY SUMMARY

The Kaiser Center offers a very desirable location for a new Main Library. Its prominent location at the foot of Lake Merritt is well suited for its important civic role and will significantly raise the visibility of the library. Its proximity to lake-related park resources, the Oakland Museum of California, Laney College and Alameda County buildings create the opportunity for a vibrant cultural district. The location is very well served by public transit and is well connected for walking or bicycling. In addition, the significant traffic and roadway improvements under design and funded through Measure DD will greatly enhance the bicycle and pedestrian connecting of the Kaiser Center to lake Merritt's pathways and beyond. There is significantly more parking available at the Kaiser site than the present library and there is the possibility for additional parking to be constructed in the area in the future.

The historic exterior of the Kaiser Center provides an excellent shell within which new construction can be in-filled to provide ample space of the highest quality for the required library program. All library services will fit efficiently in one building distributed logically on four to five levels around a central sky-lit atrium.

Preliminary "place holder" layouts demonstrate how the adaptive reuse of the Kaiser Arena as a new Main Library will create an exceptionally functional library.

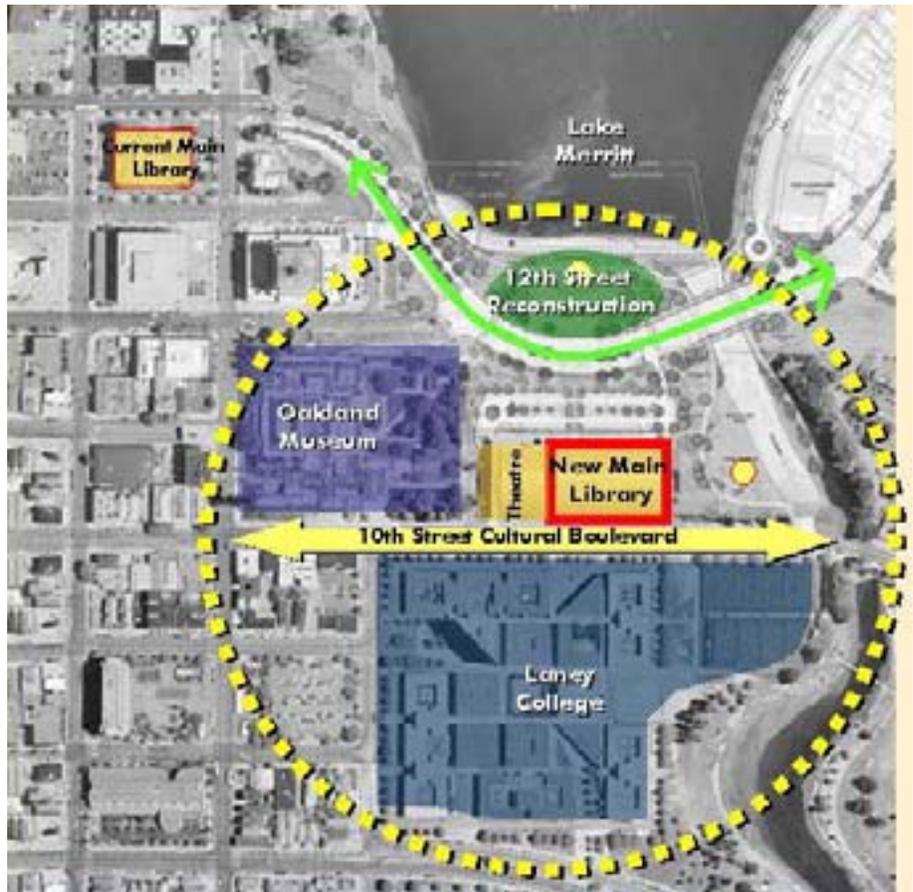
5.2. SUITABILITY OF LOCATION

Desirable Location

The Kaiser Center is located at 10 Tenth Street at the southern end of Lake Merritt. Lake Merritt is one of the City's most important open spaces and its shores are home to parks, walking and biking trails, a demonstration wetland, a habitat refuge, a sailboat house, a garden center, a future restaurant, a children's amusement area and other public amenities. In addition to the Kaiser Center the lake is ringed by prominent public and private institutions including the historic Cameron Stanford House, the Veterans Auditorium, Scottish Rites Center, the Lakeshore branch library and a new Catholic cathedral that is under construction.

The Kaiser Center is only one-quarter mile from the present Main library which itself is very near the Lake. A prominent location on the shores of Lake Merritt will fulfil the original vision of past community leaders for a Main library located on the shores of the lake.

FUNCTIONAL FEASIBILITY STUDY



The New Main library - at the heart of a cultural center

Anchor of a new Cultural District

The Kaiser Center is immediately adjacent to the Oakland Museum of California, one of the Bay Area's leading art and history museums. The Kaiser Center is also directly across the street from the Laney College campus of the Peralta Community College District. With the construction of a new Main library in the Kaiser arena and the reopening of the Calvin Simmons Theatre, there will be a critical mass of cultural and educational activities to form a new cultural district along Tenth Street. Tenth Street could be transformed into a much needed cultural spine that plays host to visual and performing arts, street fairs, and a variety of other cultural and civic celebrations.

Transit Access

The Kaiser Center site is presently served by more than nine AC Transit bus lines including routes 13, 14, 15, 40, 43, 59, 62, and 88 which all have stops within 0-3 blocks of the Kaiser Center. These routes serve the local neighborhoods, most sections of Oakland as well as more distant points in the East Bay. The Kaiser Center site is also on the route of the proposed RAPID

high-speed bus service that will run down the full length of International Blvd connecting east Oakland to the Lake, downtown and Berkeley. The site is only four blocks from Lake Merritt BART station and may be reached by foot or by bus making this location more conveniently accessible by transit to a large part of the entire Bay region.

Pedestrian and Bicycle Access

While the present collection of vehicular and pedestrian underpasses act as a barrier separating the Lake from the Kaiser Center the 12th Street Realignment Project will correct these problems and reconnect the new Main library site to the lake and all of its walking and bicycle trails. The Kaiser Center is well situated for Bicycle access. Tenth Street and new bike paths along the 12th Street Realignment greatly improve bicycle access to the Kaiser Center. Ample bicycle parking, and covered or secured options should be considered.

Automobile and Vehicular access

The Kaiser Center is well located on arterial roadways. The Kaiser Center fronts on the 12th Street realignment that connects directly to International Boulevard (14th Street) and is only two or three blocks from the Seventh Street/Eight Street corridor. Highway 880 has nearby northbound exits on Oak Street and southbound on Broadway. From Highway 80 or 24, the Center is accessible via Highway 980 and the Jackson Street exit. Access is also convenient from Interstate 580 via the Grand Avenue and Lakeshore exits and via Lakeside Drive. There is presently a vehicular drop off on both the east and west ends of the Kaiser center building .

Parking and Parking Need

Convenient parking is a component of library service that needs to be carefully evaluated. There are no well-established standards for parking requirements for large urban main libraries that are well served by public transit or that are located in areas with other parking options. City of Oakland zoning regulations do not have requirements specifically for library uses. City policies suggest promoting transit options and increased transit use to reduce traffic congestion, reduce pollution and increase community health.

Like some other urban main libraries such as the San Francisco Main library, the current Oakland Main library provides no off-street public parking and only provides 20 spaces for staff or city vehicles. Presently the library is served by on-street metered parking and nearby private pay lots.

In contrast to the present Main, the Kaiser Center has an off-street surface lot with a 200-car capacity. Compared to the present situation, the quantity of parking at the Kaiser is more in line with some other recent urban main libraries such as in Seattle or Minneapolis or as proposed in San Diego, that

FUNCTIONAL FEASIBILITY STUDY

provide 1 space per 1,000-2,000 square feet of library space. A parking study may be desirable to establish an appropriate parking requirement for the library.

Parking at the Kaiser Center

The present parking will be reconfigured as part of the Measure DD 12th Street Realignment Project, but the quantity of spaces will be maintained. On the east side there are opportunities to create dedicated accessible parking and short-term parking suited for shorter visits to the Main. There is metered parking on Tenth Street. This parking lot would be a resource for a new library and reopened theater uses. For the majority of anticipated uses the parking requirements of the library and the theater are complementary. Peak use of the library is anticipated to be in the early evenings and weekends which may coincide with scheduled events in the theater.

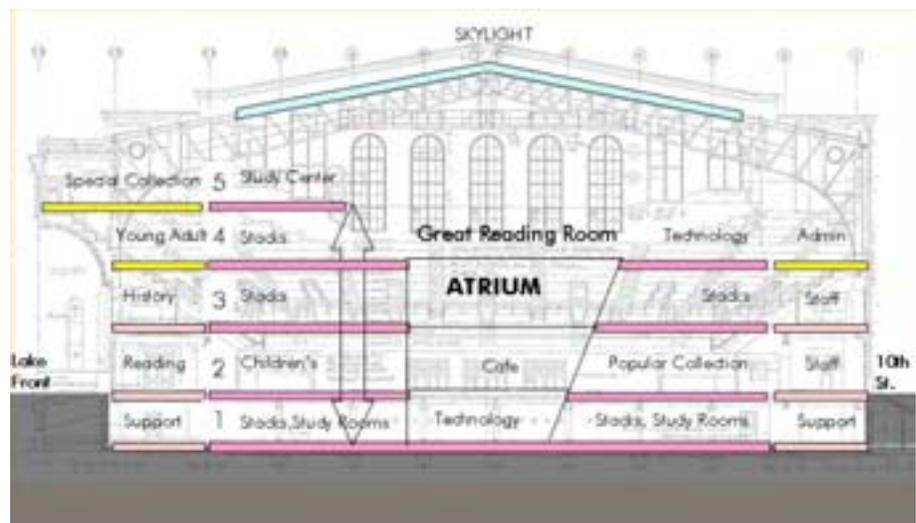
200 spaces of parking are available at the Kaiser Center which will greatly increase access to the Main library.

Nearby Parking

According to the City's Parks and Recreation website there are an additional 2,500 spaces available in the immediate vicinity of the Kaiser Convention Center. The adjacent Oakland Museum has its own parking structure for 175 cars. Laney College has parking lots for students and faculty and is planning on evaluating parking requirements and the possibility of a new parking structure in the near future.

Additional Parking Options

The lower level of the new construction within the arena could be designed to accommodate parking. The structural constraints of the foundations for



New library construction - concept

the historic exterior walls that are to remain will limit parking to the center infill portions providing only 30-40 new parking spaces. This limited quantity suggests the lower level be considered for better uses such as public, staff or support spaces.

If at a later date more parking were to be desired, the 200 space surface lot could be considered for construction of a below grade parking structure that could accommodate between 350-550 spaces on two to three levels.

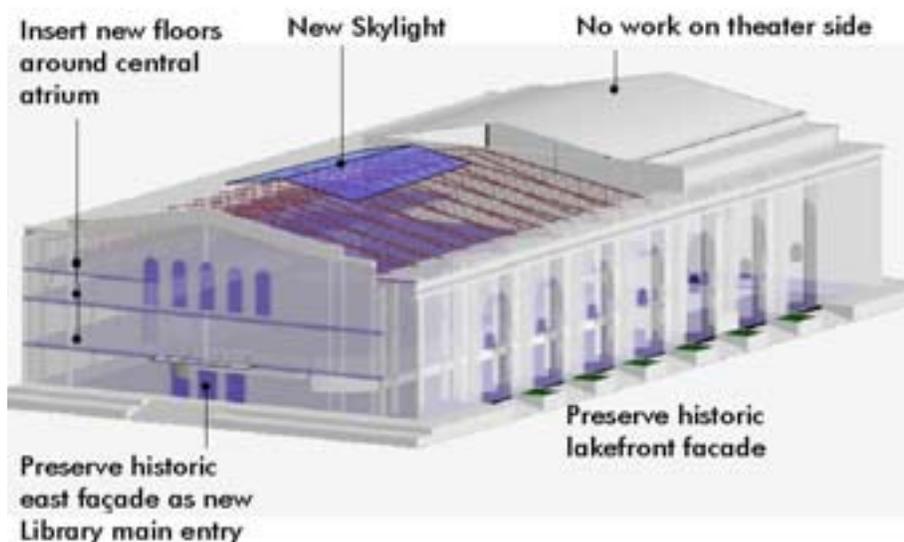
Service Access

Presently the theater and arena have service and loading access on the Tenth Street side. This loading area allows full size tractor-trailers to partially back-in to the building for unloading. When the theater is reopened for regular use it will still need to have stage access. The Tenth Street side appears to be the best suited for library service access.

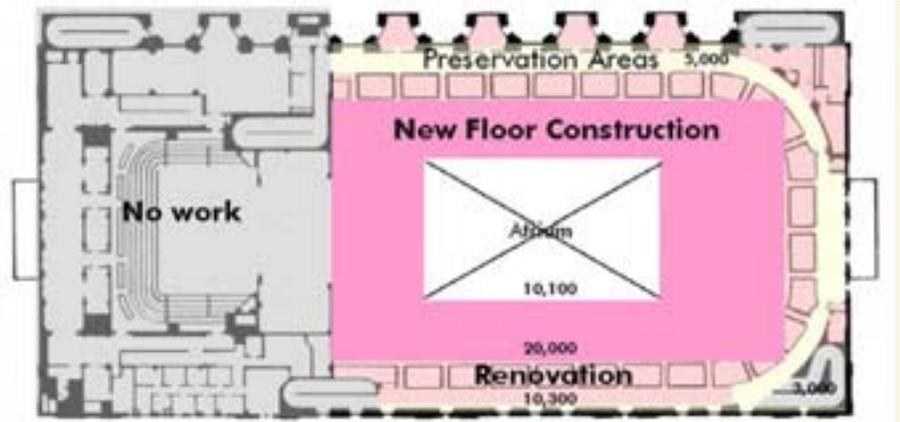
There is a possibility of reconfiguring the Tenth street side of the arena to accommodate library vehicles providing system-wide delivery and service support. The delivery and service needs and alternatives will be explored in a future design phase.

5.3. ADEQUATE ARENA INFILL CAPACITY FOR NEW MAIN LIBRARY SERVICES

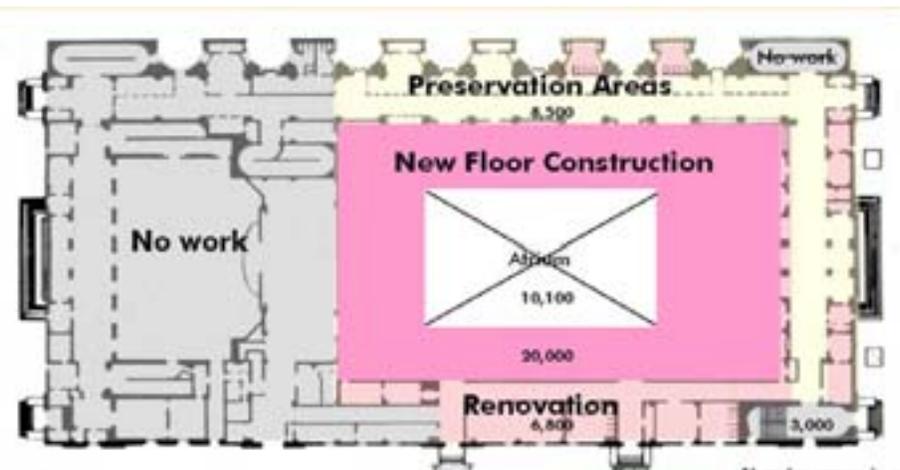
The arena side of the Henry J. Kaiser Convention Center has the capacity to be infilled with new construction to accommodate the new Main library building program requirement of 120,000 to 160,000 square feet. Each new floor level can include a large opening to create a central atrium. It will not be necessary



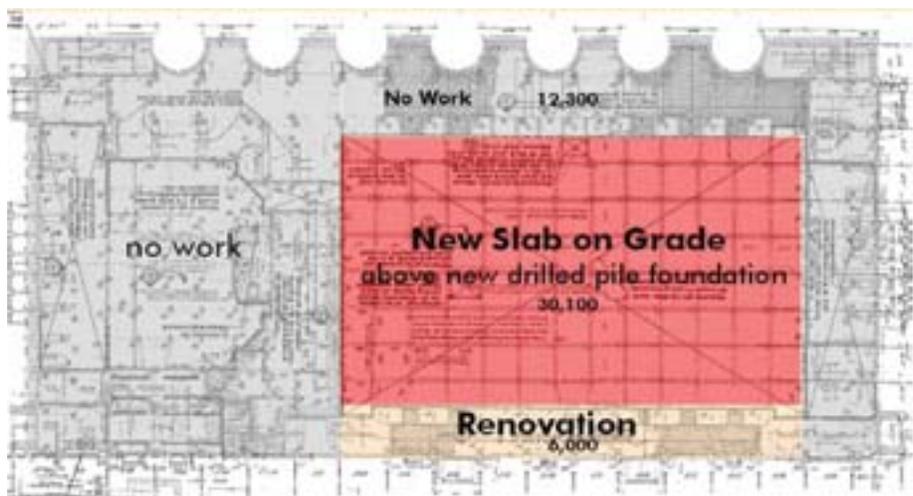
FUNCTIONAL FEASIBILITY STUDY



2nd Floor



1st Floor



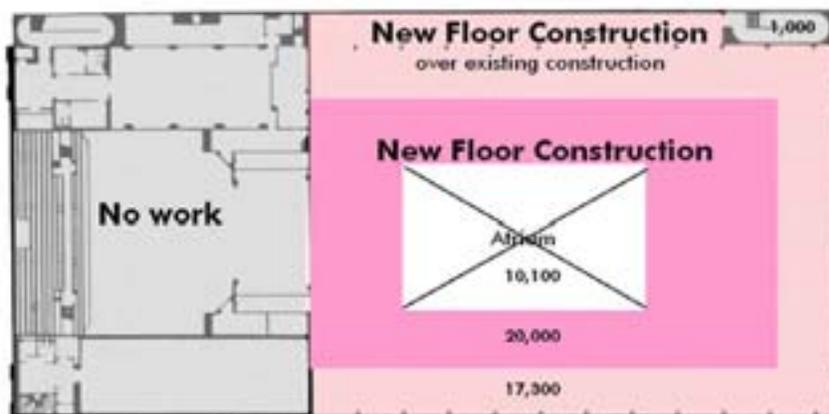
Lower Level



Roof Level



4th Floor



3rd Level

FUNCTIONAL FEASIBILITY STUDY

to include existing marginal spaces along existing basement perimeter, such as those with limited ceiling height and small spaces between the north niches or in and around the exit ramp inclines that would be costly and impractical to capture for new library building program spaces.

The dimensions of the arena footprint can accommodate new library floors between 30,000-40,000 square feet which is a comfortable floor area for main library services. Distributing the services on four to five levels affords efficient and convenient staffing.

5.4. MANY OPTIONS FOR AN EXCEPTIONAL FUNCTIONAL LIBRARY

A preliminary building program was organized onto a possible five levels of new construction. The floor layout diagrams and building section demonstrate that there are many ways in which the spaces can be organized and that the adaptive reuse of the Kaiser arena will make an exceptionally functional new Main library. The illustrative building section shows a hypothetical distribution of library functions. Other options will be explored in later project phases.

6. TECHNICAL FEASIBILITY

6.1. SUMMARY

Structural engineers from Rutherford and Chekene reviewed previous structural studies and geotechnical reports and have proposed a new structural approach to infill the arena with new floors around a central atrium to fulfill the library program. This approach proposes the selective removal of the arena floor and part of the basement floor below it, drilling new pile foundations upon which will be built new steel braced frames with concrete topped metal floor decks. This approach will bring the entire east side of the building into compliance with current codes and will likely improve the structural performance of the theater side to remain mostly as-is. Code Consultant and retired City of Oakland Building Official, Calvin Wong prepared a preliminary code analysis of the proposed project which was reviewed and confirmed with acting City Building Official Ray Derania and Fire Marshal Deputy Chief James A. Williams and their staffs. In this analysis it was determined that the relevant building codes permit the adaptive reuse of the arena portion of the Kaiser Center without needing to bringing the theater side of the building into compliance with the requirements of new construction. Conservation architect Carey & Company has confirmed that the proposed architectural and structural approach which includes preservation of the exterior and much of the interior historic fabric can be done in compliance with Secretary of Interior Guidelines for Historic Preservation. The study also found that the project can be designed to the highest quality sustainable design criteria and is budgeted for the Leadership in Energy and Environmental Design (LEED™) silver rating, a certification of high performance across many measures of sustainability. The proposed project will be an example of the best synthesis of historic restoration and state-of-the art design.

6.2. CODE STRATEGY

Change of Use and Continued Use of a Legal Non-Conforming Structure

While building codes are constantly evolving, existing buildings are generally permitted to remain in their original uses as originally constructed. This is generally referred to as legal non-conforming uses, which is how the Kaiser Center is presently classified.

As is required of all new construction, the proposed in-fill of the Arena volume will be designed to meet current codes.

Major alterations or changes of use, such as those contemplated in converting the Arena into a library, are potential triggers of more comprehensive mandatory upgrades.

In the 1980's, the building underwent a major renovation due to its declining

TECHNICAL FEASIBILITY

infrastructure and the need to be competitive in attracting smaller assembly events to the Arena as the larger events were shifting to the Oakland Coliseum/Arena and to the newly constructed Oakland Convention Center. Since the renovation work was voluntary and there was no change in the use of the building, the building code in effect at that time did not require all of the work being done to meet current codes. After the renovation, the building remained legal non-conforming, but with enhanced building systems. The project obtained various building code variances through the Board of Examiners and Appeals to preserve historic elements. A substantial number of accessibility elements were installed. The voluntary seismic upgrade work was intended to substantially meet the provisions of the State Historical Building Code.

While it is technically possible to engineer and reconstruct the existing Kaiser Center building to meet current code requirements for new construction, such an effort would be prohibitively expensive and economically unfeasible. This is particularly true on the auditorium side where structural and mechanical code upgrades would require significant removal of highly ornate decorative finishes that would be very difficult to replicate and reconstruct. Similarly, to bring the exterior fully up to present codes for new construction it is likely that the existing stonework and terra cotta relief sculptures would require removal, reinforcement and potential replacement. This type of effort and expense is typically reserved only for essential facilities and other infrastructure critical in emergencies. The direction of the City was to determine if there was an adaptive reuse strategy that would permit the continued operations with the majority of the existing construction to remain in its present condition.

A preliminary code review was prepared by Calvin Wong, former City of Oakland Building Official, and is included in the appendix. This review was discussed and confirmed with acting City Building Official Ray Derania. The State Building Code and the State Historic Building Code posit the determination of the scope of upgrades required with the local building official. Key findings in this review are:

- The proposed main library project requires approval from the Oakland Building Official on the building systems, operational programs, and mitigating measures to ensure that the existing theater will not become unsafe as a result of the library addition.

The general areas of risk include life safety, fire safety, sanitation, and public health.

To mitigate these risks:

- The building systems of the library should be self-contained within the library. This would include structural, plumbing, electrical, fire sprinklers, smoke control, and mechanical systems.
- The programmatic operation of the library should be self-contained. Exiting system, public restrooms, ADA access, employee and public paths of travel should all be contained in the library.

-
- Indirect impacts for lateral seismic loads should be fully evaluated to ensure that that load paths has not negatively affected the theater structural system.
 - A 1-hour fire rated occupancy separation (wall) separating the library and the theater should be considered. This can protect both uses from spread of fire and smoke.

Applicable Building Codes

Entitlement for using the current codes are established when a development application is filed. If the application is filed prior to the effective date of a newly adopted State code (such as the pending International Building Code), the project is entitled to use the code in effect at the time of application. Development applications are determine by the local jurisdiction. Development applications may include planning permits, application for alternate methods and materials to the building codes, and building permits.

Construction Type and Fire Rating

The existing building is classified as a legal nonconforming Type II-FR. It is nonconforming because the building doesn't fully comply with the type of materials and fire rated construction for Type II-FR. Based on the uses, floor area, and height of the building, this is the designated classification. All future addition, alterations, and repairs must be constructed with Type II-FR materials.

Based on the proposed additional floor areas, the building addition must maintain construction Type II-FR.

Allowable Floor Area

If the library is classified as B occupancy, the allowable floor area of the library could reach approximately 160,000 square feet.

If the library is classified as A-2.1 occupancy, the maximum allowable area in the library may be approximately 120,000 square feet.

Atrium Requirements

A central atrium organized under a restored historic skylight will bring daylight deep into the building and will assist customers with wayfinding. The construction of an atrium is governed by a number of codes with some of the following key requirements:

- Smoke control system with standby power and sized to handle all opened floors.

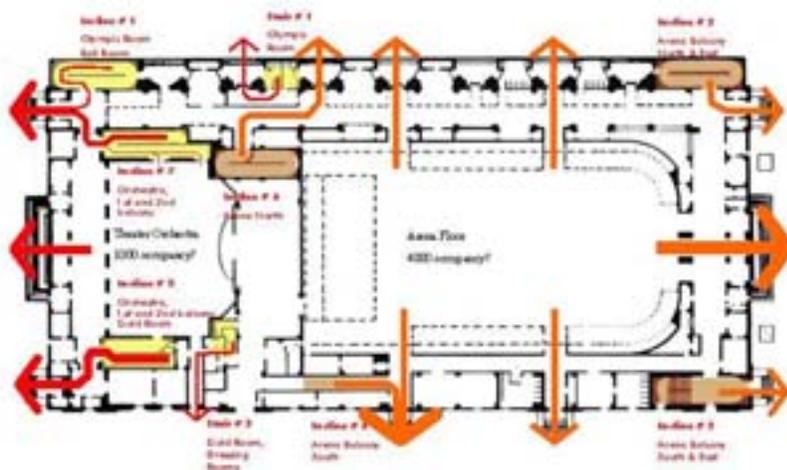
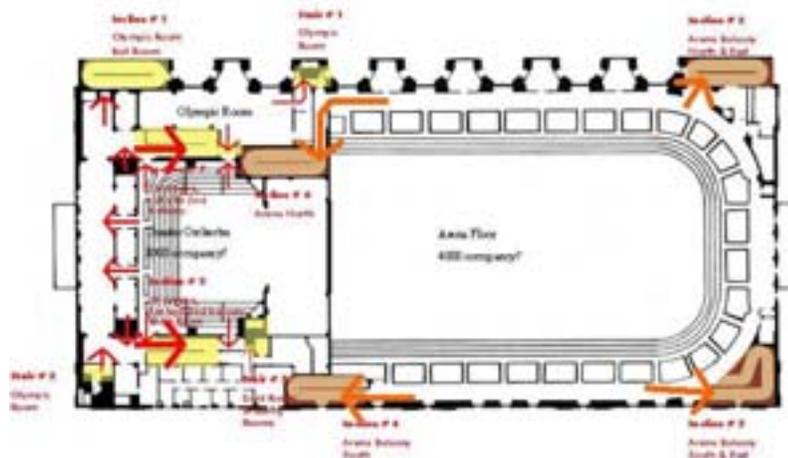
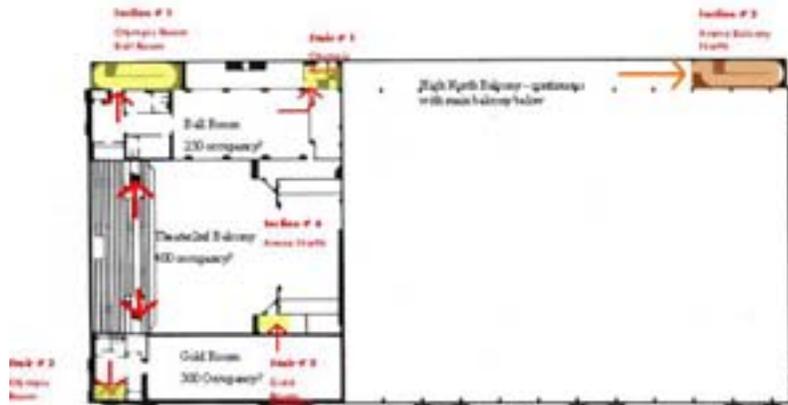
TECHNICAL FEASIBILITY

- Quantity of combustible furnishings in the atrium are limited per Fire Code.
- Fire sprinklers required throughout the building as a condition for an atrium can not be used to use to increase the allowable floor area.
- Only three floor levels can be opened into the atrium.

Exiting

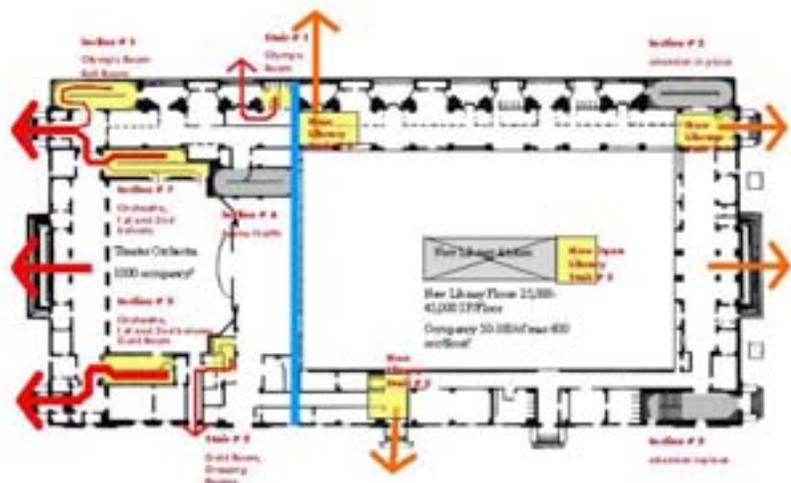
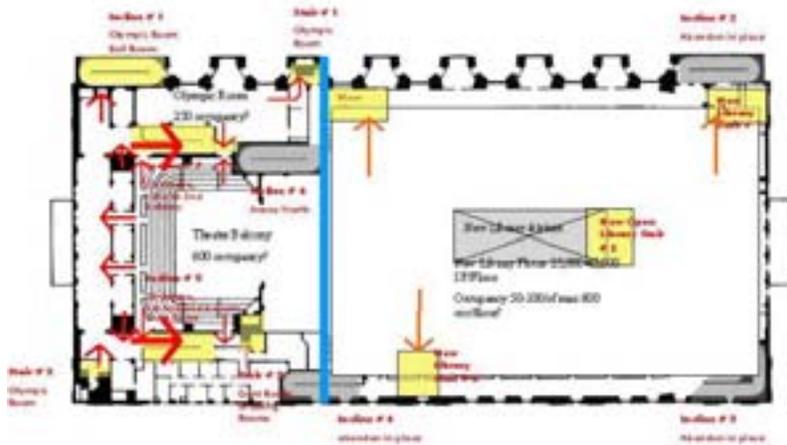
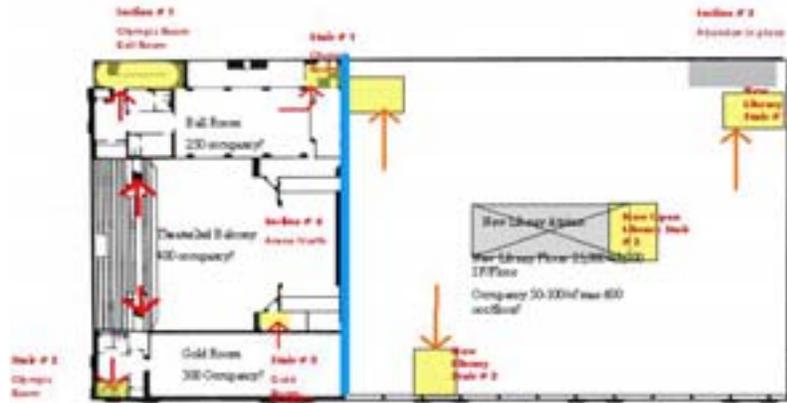
Exiting from the new library in-fill should be provided in new fire-rated stair enclosures located within the new in-fill and connecting to the exterior. One approach to this is illustrated the exiting diagrams. The exiting for the auditorium side of the building is comprised of stairs and high capacity inclined ramps. These will not be modified by the library project.

KAISER CENTER EXISTING EXITING DIAGRAMS



TECHNICAL FEASIBILITY

NEW MAIN LIBRARY IN KAISER ARENA - PROPOSED EXITING DIAGRAMS



6.3. STRUCTURAL FEASIBILITY

Structural engineers Rutherford & Chekene reviewed existing drawings and past engineering reports to understand the present conditions of the Kaiser Center and to propose structural strategies for the adaptive reuse of the Arena into a new main library.

Description of Existing Structure

The Henry J. Kaiser Convention center building is founded on wood piles approximately 60-70 feet deep. The above grade structure is an essentially complete steel frame. Walls and floors are constructed of cast-in-place concrete. Past material testing has indicated that the concrete is of low strength, probably 1500 psi. Lightweight three-hinged-arch trusses span over the Arena. The roof over the theater and around the perimeter of the Arena is concrete (slab) construction. The original skylights at the roof over the Arena, Ballroom and Gold Room have been replaced with sheathing panels. The steel framing and majority of roof covering over the Arena appears to be of unrated construction.

Past Structural Performance

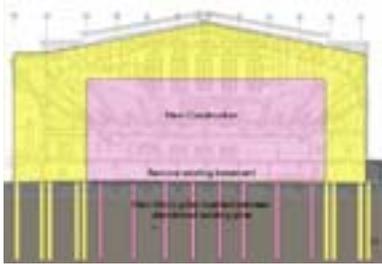
At the east end of the building (Arena portion), the wood piles were not driven to adequate depth. As a result, the structure settled more than 15 inches in its early years, causing significant damage to walls at the east end. Additionally, because the stability of the roof is dependent on resistance to outward thrust, cables were added across the building to resist this thrust and remove these forces from the piles. Although the rate of settlement appears to have slowed to a negligible amount by the mid-1940's, a geotechnical report by Charles H. Lee dated February 14, 1947 describes the possibility of renewed settlement "due to the disturbance of the existing hair-trigger static balance of the fill by vibration during driving of piles." This highlights the need to minimize disturbance of the soil in the vicinity of existing piles and to minimize changes in loading of existing piles.

In the 1980's the building was renovated. The renovations included limited seismic strengthening. In general, the work was performed on the Arena side for two reasons: 1) the auditorium side had more walls and diaphragms, and 2) work on the west side would have been at a significant cost premium. It is important to recognize that the 1982 renovation efforts did not bring the building into compliance with the codes in effect at the time, nor with current codes today. A May 11, 1982, memo by Henry Degenkolb, the structural engineer for the seismic strengthening, comments upon the expected seismic performance of the building, including the 1982 retrofit measures. At the conclusion of the memo Degenkolb states that: "In the foregoing comments, the city of Oakland and its officials must realize that we are at their express direction designing a seismic resisting system for this building that is much

TECHNICAL FEASIBILITY

less than that required by current or recent Building Codes in this area.” The balance of the memo describes both retrofit measures that were included and excluded and the fact that limited funding drove those decisions.

Structural Approach to Infill



New Library Construction - Infill

The structural approach currently under consideration is to build a new library structure within the Arena volume that would be founded upon new drilled piles, would contain an independent lateral system and would be seismically isolated from the existing building between the ground and the roof on all four sides. This new structure would be connected to the existing roof level.

This new work would be fully compliant with current structural performance requirements of new construction. New structural work would be limited to the Arena portion of the building with no structural upgrades of the theater portion of the building proposed. The structural approach to the Arena infill will result in seismic performance of the theater that is no worse and possibly much better than its existing condition.

The recommended structural approach does not propose the addition of a seismic joint that would physically separate the Arena exterior shell from the auditorium as this is not believed to be necessary and could be visible in the historic exterior facades.

It is likely that removal of the existing cables that were installed in 1934 between the lower hinges of the 3-hinge arches will be desirable to maximize the headroom available for added floors. This can be accomplished very economically by propping the trusses from the new structure in the Arena. Propping the trusses would have many advantages. It would place a significant portion of the roof load on the new pile foundation system relieving load on the existing foundations, which have been prone to settlement. It would allow the cables to be removed and at the same time eliminate the outward thrust on the north and south walls that have historically caused bowing and cracking of the exterior walls. It is unclear at this time whether the sloped concrete seating currently plays a significant role in resisting the outward thrust of the arches. The elimination of the outward thrust would allow for demolition of the sloped concrete seating, which might not be otherwise possible.

The connection of the existing roof to the new structure is intended to laterally brace the roof and the top of the exterior walls out of plane. With significantly reduced seismic loads, the exterior walls and seating structures should be capable of carrying themselves with little or no strengthening. Having reduced the demands on the roof diaphragm, it would be possible to reopen some or all of the original skylight.

Clever design and detailing would be required to ensure that both the force

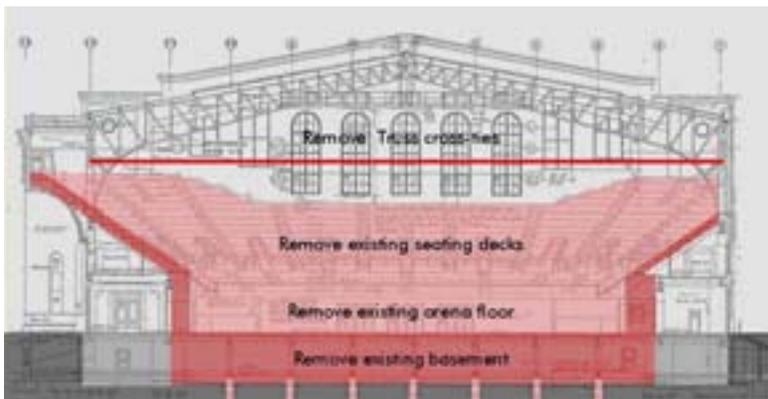
and the deformation demands on the existing structure would in fact be decreased rather than increased given the connection of the new structure and the existing roof. This can be accomplished by providing a strong stiff new structure and by surgically introducing flexibility in the existing building at key locations. One such location would be the knee of the roof truss at the north wall. With some study it is possible that the truss could be modified, with little or no visible effect, such that it would load the north wall laterally only at the roof and not at the lower hinge. Since the transverse niche walls, which are relatively stiff, terminate at about the lower hinge level, this would allow some flexibility between the roof and the niche walls with deformations taken up in out of plane bending of the longitudinal walls above the niches. Flexibility in the roof diaphragm, either existing or introduced, would also be beneficial.

It should be expected that the existing floors are not level. Survey data from 1948 indicates settlement along the south wall of 16" at one end of the Arena and 8" at the other. If the new structure can be treated as isolated functionally as well as seismically with discreet points of connection (possibly with shallow ramps) the new floors could be poured level instead of trying to build them to match existing slopes. This would simplify construction and therefore reduce costs. It would also provide some ability to tolerate any future differential settlement between the new and the existing structures.

Scope of Construction

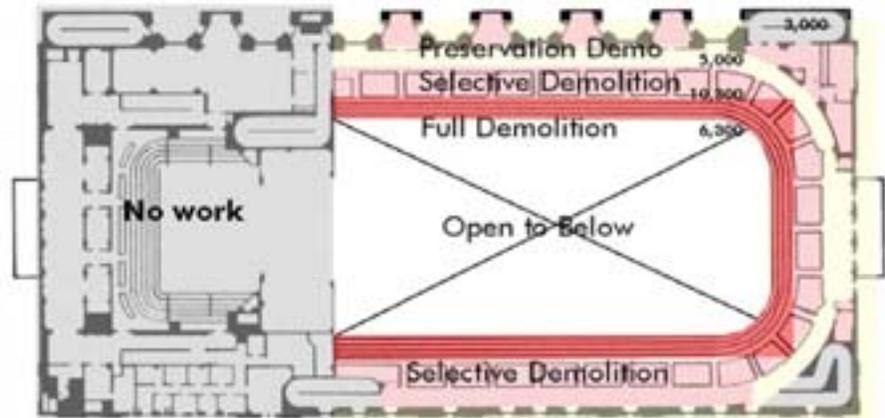
Demolition

The Arena main floor concrete slab beams and columns would be demolished and the basement floor slab might be demolished if there was a desire to deepen the basement. The Arena seating, which consists of concrete over steel framing, would be demolished. The main steel framing at truss lines, including the two diagonal C15x33 would remain in place. The cantilevered steel framing for the portion of the seating below the passageways (vomitoria) would be removed in its entirety. The sheathing panels that currently infill the original skylight would be removed.

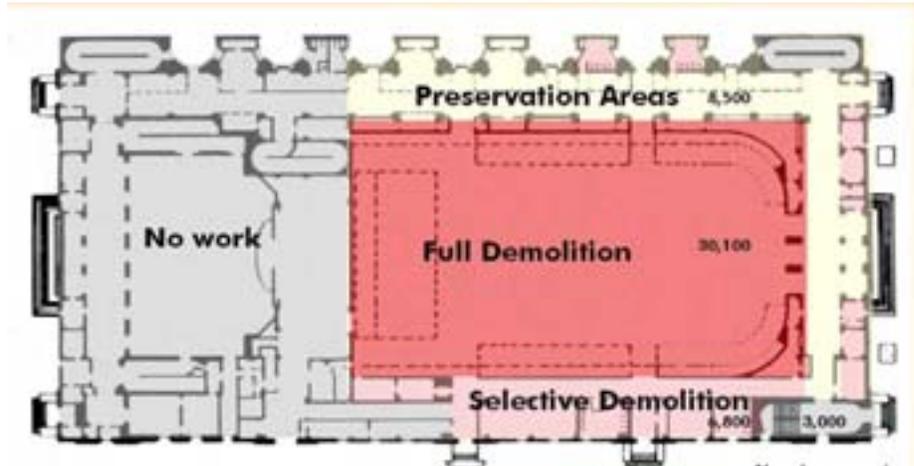


TECHNICAL FEASIBILITY

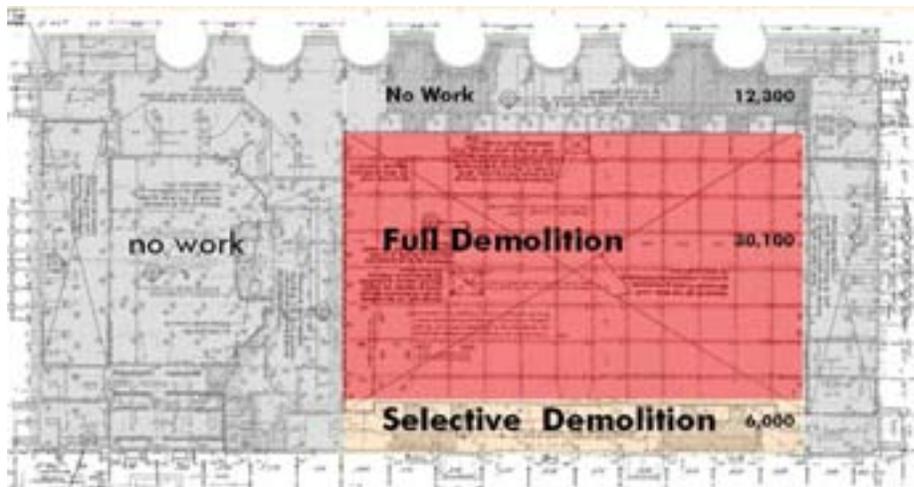
SCOPE OF SELECTIVE DEMOLITION



2nd Floor



1st Floor

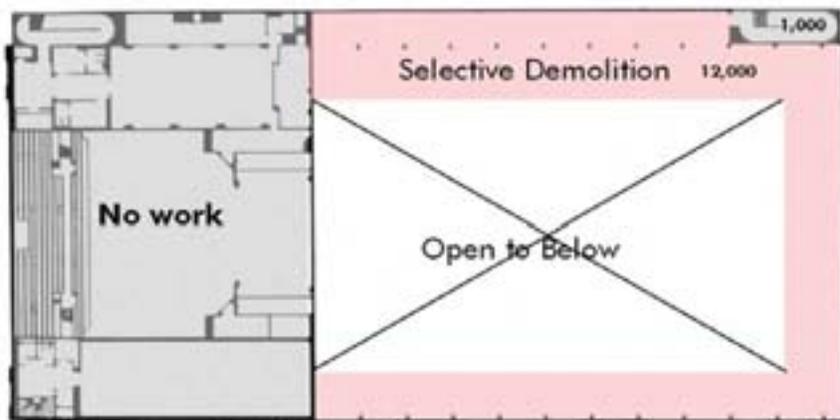


Lower level

SCOPE OF SELECTIVE DEMOLITION



Roof Level



3rd Floor

TECHNICAL FEASIBILITY

Temporary Construction

Construction sequencing would likely require that the existing tension cables be removed before the trusses could be propped by the new structure. Temporary support of the trusses would be required during this period.

New Construction

The new structure would be steel framed and founded on a new drilled pile foundation system such as that shown on Sketch SK-4. The floor slabs would be of concrete fill over metal deck. The lateral system would consist of braced frames, concrete shear walls, or a combination of the two. Connections between the new structure and the existing exterior walls at the roof level would be added or strengthened. In particular the east wall would be braced out of plane along its full width at an elevation approximately level with the eaves on the north and south walls.

Along the north wall of the Arena it is envisioned that new floor area will be constructed above the demolished seating. This floor area will be integral with the existing construction and structurally separate from the main new structure within the Arena. As such it will require braced frames for lateral support, and may require foundation strengthening at braced frame locations. To the extent that the weight of the new floor area can be limited to no more than the weight of the demolished seating, new foundation work for support of gravity loads can be avoided in this area. Where foundation strengthening is required, micropiles, which can be installed in low headroom areas with tight access constraints, will be utilized. Strengthening of roof to wall connections will also be required. As described above, modifications to the existing truss to eliminate its lateral load transfer to the wall at its lower hinge will likely be required.

Along the east wall of the Arena, similar measures will be taken to those described for the north wall. Added floor area above the demolished seating will be treated in a similar manner. Strengthening of roof to wall connections will be required. In addition, bracing of the east wall gable end out of plane will be required along its full width. This will likely be accomplished by adding steel strongbacks (vertical tubes anchored to the wall that extend from the highest floor diaphragm to the roof). The modifications to the existing truss, described for the north wall are not required at the east wall.

Along the south wall of the Arena, similar measures will be taken to those described for the north wall. Added floor area above the demolished seating will be treated in a similar manner. Strengthening of roof to wall connections will be required. The modifications to the existing truss, described for the north wall are not required at the south wall, except where the truss intersects the concrete walls of an incline.

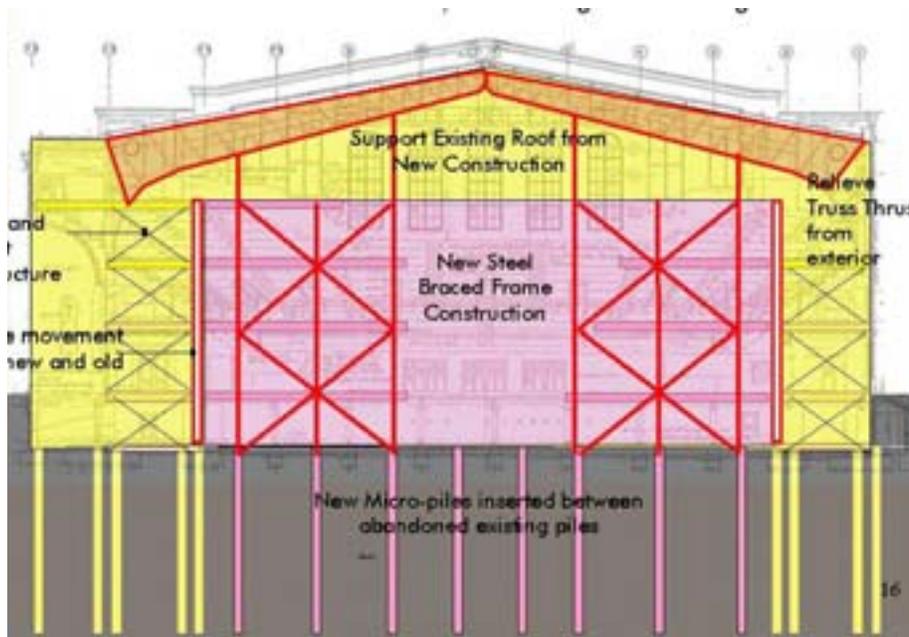
Rehabilitation

The roof deck over the Arena trusses would be partially or entirely replaced in the context of reopening the original skylight. If it is desirable to prop the trusses at locations other than the center hinge, strengthening of the trusses may be required. If significant mechanical equipment will be placed on the roof, localized strengthening of the existing trusses may be required.

It is anticipated that restoration of the terra cotta in the niches along the north façade will be limited to repair of cracks and small spalls, and repointing of open joints. It is not expected that seismic anchorage of the terra cotta will be required. A limited number of terra cotta units in the two westernmost niches may require replacement. The new units will be anchored with stainless steel hardware.

Possible Seismic Joint Separating Arena from Theater

Along the west edge of the Arena, the existing concrete wall will be considered part of the theater and will not be strengthened. As discussed above, the treatment of the seismic joint between the theater and the Arena will be the subject of negotiation with the building department. If a full seismic joint is required it will be on the order of 6" wide and will be placed on the Arena side of the common wall between the Arena and the theater. It would extend across the roof and down both the north and south walls (interior and exterior), as well



New Library Construction - Structure

TECHNICAL FEASIBILITY

as through the floor slabs along the north and south edges. If the architect and the preservation architect conclude that it is important to preserve the north and south facades without a seismic joint, and if agreement can be reached with the building department and the owner on this point, we would be pleased to support a structural solution that limits the joint to portions of the roof and eliminates it from the facades.

6.4. APPROACH TO HISTORIC PRESERVATION

Historical issues presented by the proposed adaptive reuse of Kaiser Arena were reviewed and evaluated by Historic Resource specialists Carey & Company. Their findings are summarized below and their memoranda are included in the appendix.

Historic Status

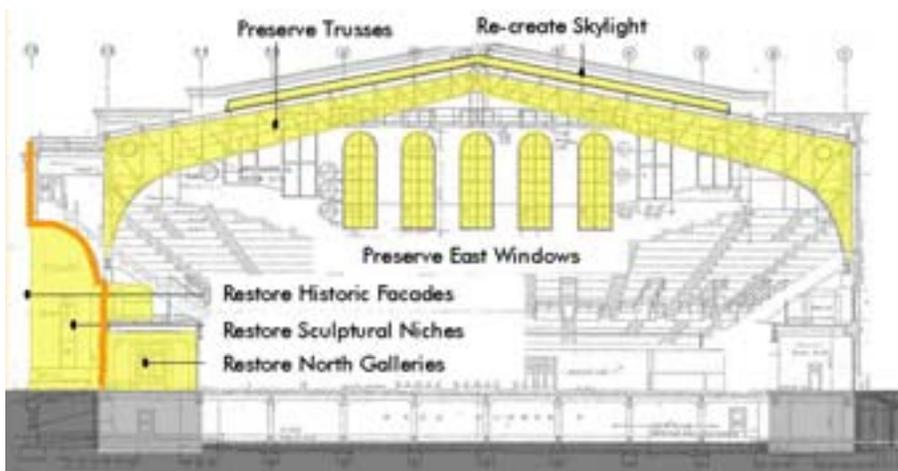
The Kaiser Convention Center building is a Designated City of Oakland Landmark and is also listed on the California Register. As such, it is subject to specific review procedures, and is also highly likely to come under careful scrutiny by Oakland's preservation community. Major preservation stakeholders in Oakland include the Oakland Heritage Alliance, and the Oakland Landmark's Board.

Historic Reviews and Input

The proposed project was presented to the Oakland Heritage Alliance, the community's non-profit preservation advocacy organization as well as the City's Landmarks Preservation Advisory Board.

The project may also be subject to CEQA review. If the project meets the Secretary of the Interior's Standards, then the project would be considered categorically exempt for Cultural Resources under CEQA.

If state funds are involved, the project would also come under review by the State Historic Preservation Office (SHPO). If federal funds are involved, it would come under Section 106 review.



TECHNICAL FEASIBILITY

Application of the Secretary of the Interior Standards

The project will build a new library structure within the Arena, leaving the theater portion of the building essentially untouched. The exterior walls will also be preserved, with the sculptural terra cotta elements on the north elevation repaired. The much less significant 10th Street elevation may be modified by the insertion of compatible new openings. The new interior construction within the Arena will likely be up to four stories high, attached to and supporting the roof but isolated from the exterior walls and from the theater portion of the building.

The proposed concept is consistent with the Secretary of the Interior's Standards for Rehabilitation. The most relevant Standards to review at this stage of the project, include Standards 1, 2, 3, 9, and 10.

1. *A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.*

2. *The historic character of a property shall be retained and preserved. The removal of historic materials or alterations of features and spaces that characterize a property shall be avoided.*

The western, theater portion of the building will retain its existing use. The eastern, Arena portion will have a compatible new use. The character-defining elements of this part of the building, including the trusses and the skylight (which is currently covered) will be retained and, in the case of the skylight, either partially or fully restored. Opportunities to retain portions of the gallery spaces will be explored as part of the conceptual design process. North, east and west exterior elevations will also be retained.

It may be argued that the Arena portion of the building is characterized by stadium seats and a large open volume. However, Standard 10 states that:

9. *New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Since the new library infill will be isolated from the exterior walls, the open volume of the Arena could be restored at some point in the future if that use is once again desired. This is highly unlikely, however, given the many other stadium venues that have been constructed in Oakland in the years since the Kaiser Center was constructed. In the unlikely event that this is contemplated, the new library infill, isolated from most elements of the existing structure, could be removed and the Arena seats could be reconstructed from original drawings.

Standards 3 and 10 also deal with the design of related new construction:

3. *Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.*

10. *New additions exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale and architectural features to protect the historic integrity of the property and its environment.*

These standards inform the ways in which new fabric and features relate to the existing historic ones. For this project, these two standards relate to the appearance of the library infill structure, any new openings or features on the building exterior, and any new site features. In general, these new features must be designed in such a way that they are compatible with, but cannot be mistaken for, original historic elements.

Specific elements of the project vis-à-vis these Standards are addressed in the following sections.

Preservation Strategies

The main entry for this portion of the building is currently at the East elevation. The entry consists of three large square openings, each containing two pairs of double doors. Highlighting this entry are a canopy and a monumental staircase (since supplemented by an accessible ramp). The elevation also includes double doors at either end. The elevation very closely matches the west. As one of the more significant elevations, this elevation should not be, or should only minimally be altered by the project. Therefore, the entry door configuration on this elevation should not be altered.

The very significant north elevation should not be modified, only cleaned and repaired. Each ornate monumental arches includes a pair of doors at each of. These doors, and especially the highly significant terra cotta-lined exedrae, should also not be altered. [scope of repair still in progress]

Repair cracks and smaller spalls with a proprietary restoration mortar, such as those manufactured by Edison or Jahn. The repairs would then be coated with a breathable masonry coating, tinted to match the surrounding terra cotta glaze.

More heavily damaged units should be replaced in kind. At this time, we do not believe that any units would require replacement.

Repoint open joints to match surrounding joints physically (strength,

composition) and visually (color, texture, profile).

The project proposes reopening some or all of the existing skylights. Surviving elements of the framing should be retained and repaired or, if missing or badly deteriorated, replaced in kind. If none of the historic assembly remains, it may be possible to replace it with a contemporary compatible glazing feature.

We would also recommend cleaning the exterior using the gentlest means possible. Existing historic windows, doors, light fixtures and other metal elements should also be examined and repaired as required.

Adaptive Reuse In-fill Strategies

The project proposes a relatively isolated infill that should appear distinct from the historic. That this assembly will be physically isolated from the walls will assist in visually distinguishing this feature. Two main strategies come to mind for the aesthetic of this infill structure. The first would be to create a very contemporary-looking infill structure. It would relate to the existing structure by a careful study of proportion and material selection. A second strategy would be to create a new infill assembly that is more neutral and subservient to the historic. Since the Arena interior is already relatively plain and unadorned, in this case the first strategy may be more appropriate. Whichever strategy is selected, it is critical that the character defining elements of the Arena that are preserved – the trusses, the skylight, the plaster proscenium arch on the west interior elevation, and the large arched windows on the east – are celebrated in the newly designed space.

The south 10th Street façade has always been a secondary elevation, and does lend itself to some modification. Currently, there are two minor doors and a roll-up loading door on this elevation. As what has always been a secondary elevation, this would lend itself to the insertion of new entry doors. Any new openings should, of course, meet the Secretary of the Interior's Standards, and particularly, Standards 3 and 10 (see above).

Other openings: The 10th Street elevation would also permit the introduction of new window openings, if sensitively placed. The most obvious place to insert new openings would be at existing solid panels, replacing these with glazing. Such panels exist at the top of the wall, and also near the base. Other openings may be possible, but would require careful study.

Mechanical features: The project will introduce new mechanical systems, with requirements to ventilate to the exterior. These new ventilation elements should be located on the roof, if possible. New system elements should be integrated into the new interior construction.

7. COST PLAN

7.1. SUMMARY

A cost plan was prepared to assist in planning for the project's implementation. A detailed estimate of probable construction cost was prepared by M. Lee Corporation for the 160,000 gross square feet (GSF) library program option and is included in the appendix. The cost plan for the 120,000 GSF library program is extrapolated from the 160,000 GSF library program cost model. Because of library shared use of the Kaiser theater 10,000 GSF less library space is required and is reflected in both cost plans. Hard costs that are eligible for bond funding include historic preservation, renovation, new construction, shelving, landscape, utilities and public art. Soft costs that are eligible for bond funding include engineering, design and management and community participation costs. Hard and Soft costs include multiple design, bid and construction contingencies. Escalation from June 2006 to the estimated mid point of construction in June 2009 is also estimated. Library furniture and technology costs that are not eligible for bond funding with contingency and escalation are also estimated and included in the cost plan below.

Summary of Cost Plan for the Adaptive Reuse of the Kaiser Arena as a New Main Library

Library Program Size	160,000 GSF	120,000 GSF
Shared use of Kaiser theater	10,000 GSF	10,000 GSF
Library Construction	150,000 GSF	110,000 GSF
Bondable Hard Costs	\$68,302,000	\$52,355,000
Bondable Soft Costs	\$29,370,000	\$22,513,000
Escalation	\$17,581,000	\$13,477,000
<u>Total Bondable</u>	<u>\$115,253,000</u>	<u>\$88,345,000</u>
Non-Bondable FFE Costs	\$8,910,000	\$6,534,000

Optional Theater Side Paint Carpet, Stage Sound And Lighting Upgrades

Optional Theater Upgrades	
New Paint, Carpet & Sound and Stage Lighting Upgrades	54,800 GSF
Bondable Hard Costs	\$2,906,000
Bondable Soft Costs	\$1,018,000
Escalation	\$707,000
<u>Total Bondable</u>	<u>\$4,631,000</u>

COST PLAN

Oakland Public Library branch projects have been built over the years with a combination of redevelopment funds, Mello Roos assessment districts, public and private grants and general fund reserves. The current Main library was funded by a City bond measure that has long ago been retired. What was true in the past is still true today and a civic project of this scale will likely require a citywide implementation strategy. The success of the 2002 Oakland Measure DD: Oakland Trust for Clean Water, Safe Parks Bond was a local indicator that this community might support a comprehensive local funding measure such as a new general obligation bond program. In this section, the key components required to implement this plan are discussed.

Operating and maintenance costs and funding are addressed in the Master Facilities Plan document.

7.2. COST PLAN

CAPITAL COST MODEL METHODOLOGY

Construction budgets are based on a public design-bid-build delivery process and on per-square-foot costs for demolition, temporary construction, historic rehabilitation and new construction. All costs are for the adaptive reuse of the arena only with the exception of full building new roofing, full building exterior cleaning and upgrades to the theater fire alarm system.

BONDABLE HARD COSTS

Demolition

Demolition costs are estimated for the structural removal and disposal of the arena floor, its supporting structure, the basement slab-on-grade and existing pile caps beneath it. It also includes the selective structural removal and disposal of the concrete arena seating decks leaving the steel support structure in place. Removal of the existing roof framing above the historic trusses is also included. For existing areas to be renovated, demolition scope includes removal of non-historic partitions and finishes. Existing non-historic building systems such as lighting, electrical, HVAC and plumbing will be removed. Existing arena exit ramps offer structural value to the perimeter zones of the building, but no functional value in the new library and will be left in place. While no hazardous material assessment was conducted as part of this study a general allowance for hazardous material abatement is included in the cost plan.

Temporary Construction

Temporary construction scope includes temporary supports of the roof trusses needed because their horizontal ties will likely be in the way of new construction. An allowance for interior barricades or other temporary supports is included in the cost estimate. A temporary library is not needed as the work on the Kaiser is expected to be completed while the library remains at its present location.

Renovation

Renovation includes both preservation, restoration and/or adaptive reuse of historic areas such as the east lobbies and north galleries as well as renovation and adaptive reuse to new library functions of the non-historical areas such as the south perimeter zone and parts of the lower level. Renovation scope includes structural upgrades of the existing perimeter walls and floors that will remain and modification and fireproofing of existing roof trusses to remain. Renovation scope also includes construction of new fire separation wall between the library and theater parts of the building.

Preservation of Exterior

To maintain visual continuity the proposed exterior preservation work is estimated for the full Kaiser Center building including both library and theater sides. Preservation of exterior scope includes repairs and cleaning to preserve the historic exterior stone, plaster, terra cotta, windows and metal work on the entire building.

Theater Side Scope

Upgrades to the theater fire alarm system are required and are included in the cost plan. As with the exterior preservation, the theater roof is budgeted for replacement. Optional interior finish and stage lighting and sound upgrades are budgeted outside of the library cost plan and are described later in this section.

New Construction

New construction scope includes new drilled micro-pile foundations, new library construction, new atrium construction, new roof framing over the library and new skylight. New stairs, elevators and restrooms are budgeted. New construction includes budgets for new high performance HVAC with raised access floor for air, power, data and telecommunications distribution systems. New lighting, new power including an emergency power generator required of a smoke exhaust system are included. New fire sprinklers will be provided. Seismic expansion joints between new and existing construction are also included. Code required, wayfinding and new exterior signage is included. Built-in case work for staff areas, kitchennettes and public copy areas is also included. Per City policy, construction will be to LEED™ silver rating, an indicator of broad sustainable design performance.

Stacks

A per-square-foot budget for stacks is provided to cover the variety of library shelving types that will be required. Library furniture is budgeted under fixtures, furnishings and equipment (FFE).

Surface Parking, Hardscape, Landscape

COST PLAN

A budget to reconfigure the east driveway to include short term and accessible parking opposite the east entry is provided. The north parking lot will be reconstructed as part of the 12th Street realignment project that will reconfigure the 200 existing spaces to remain and plant new landscape. A budget is provided to upgrade the paving and walkways and plantings immediately around the library.

Utilities

An allowance for new transformer, water, sewer and communication service hook ups is included.

General Conditions, Overhead & Profit and Contingencies

General conditions, overhead and contingencies appropriate to public construction projects in Oakland are included in the cost plan. A general contractor's general conditions and overhead and profit of 20% is included in each of the detailed estimated sections: demolition, temporary, renovation, exterior preservation and new construction. General conditions are based on contractor having full access to the building and normal construction hours. Restrictions on access or times of operation that may be required for simultaneous occupancy and use of the theater were not provided for in this cost plan. For each of detailed estimate sections a design contingency of 25% is added to provide for additional project requirements that are not defined in this early feasibility study. A 10% bid contingency is budgeted and provides a small cushion but assumes a competitive bidding climate.

A construction contingency of 15% for renovated areas and 10% for new construction areas is applied to estimated hard costs and hard cost allowances.

Public Art

Per City policy 1.5% of construction costs are budgeted for public art.

BONDABLE SOFT COSTS

Design Engineering and Construction Management

Soft costs utilize a budget of 41% of the hard costs, which includes engineering and design fees, City project management, and construction management costs, engineering and design fees for FFE and a 10% contingency on soft costs.

ESCALATION

A project schedule was prepared based upon project funding being secured and the project begun before the end of 2006. Construction is proposed to start by June 2008 and last two years. For cost planning purposes bondable budgets are escalated to the mid-point of construction in June 2009 or a period of three years of 6% per year cost rise or total of 18% escalation. Furniture and Equipment

bid a little later and have a 20% escalation applied to their total.

NON-BONDABLE FURNITURE FIXTURES AND EQUIPMENT

Furniture fixtures and equipment (FF&E) are budgeted on a cost per square foot basis for the full 150,000 square feet of library area. This includes library reading tables, study tables, carrels, study room furniture, study chairs, lounge chairs and meeting room chairs. FF&E includes custom millwork for display shelving, service desks, stack end panels and canopy tops. Stack signage is included as well. Equipment includes public access internet and catalog computers, staff work stations, materials security devices and audio visual systems.

OPTIONAL THEATER UPGRADES

The Kaiser Convention Center's Calvin Simmons Theater and three multi-purpose rooms were in good condition when the Center closed at the end of 2005. Most of its finishes date back from its mid 1980's renovation and are now approximately twenty years old and could use freshening up. New paint and carpet in all public spaces was estimated. Similarly, those familiar with the stage lighting and sound system proposed that both systems be upgraded. A general allowance was proposed without the benefit of an analysis or proposal for specific system upgrades.

COST PLAN

Cost Plan For A New Main At Kaiser 160,000 GSF Library Program
(150,000 Library Area)

Hard and Soft Costs

Bondable Hard Costs	<i>SF Area</i>	<i>Unit Cost</i>	<i>Project Cost</i>
Land			<i>n.a.</i>
Demolition	115,100 GSF	\$32 / GSF	\$3,727,000
Temporary Construction			\$528,000
Rehabilitation of Existing	36,600 GSF	\$318 / GSF	\$11,639,000
Preservation of Exterior			\$945,000
New Roof and Fire Alarm			\$1,115,000
New Construction	113,400 GSF	\$350/SF	\$39,690,000
Stacks, Main Library	150,000 GSF	\$7.50 / GSF	\$1,125,000
Surface Parking	10,000 GSF	\$15/SF	\$150,000
Hardscape	15,000 GSF	\$20/SF	\$300,000
Landscape	15,000 GSF	\$20/SF	\$300,000
Utilities allowance			\$250,000
Hazardous Materials Abatement Allowance			\$750,000
Construction Contingency Rehabilitation, Temp		15%	\$2,693,100
Construction Contingency, New		10%	\$4,181,500
Public Art		1.5%	\$907,785
Subtotal - Construction Hard Cost in 2006 dollars			\$68,302,000
Bondable Soft Costs			
Design, Engineering & Const. Mgmt.		43.0%	\$29,370,000
Subtotal - Construction Soft Cost in 2006 dollars			\$29,370,000
Escalation			
to 6/2009 ,3 years to mid point of constructon		18%	\$17,581,000
Total Bondable			\$115,253,000
Non-Bondable Furniture Costs			
FF&E	150,000 GSF	\$25 / GSF	\$3,750,000
Technology	150,000 GSF	\$20 / GSF	\$3,000,000
Furniture Contingency		10%	\$675,000
Escalation to 6/2010		20%	\$1,485,000
Total Non-Bondable			\$8,910,000

COST PLAN

Cost Plan For A New Main At Kaiser 120,000 GSF Library Program
(110,000 Library Area)

Hard and Soft Costs

Bondable Hard Costs	SF Area	Unit Cost	Project Cost
Land			<i>n.a.</i>
Demolition	115,100 GSF	\$32 / GSF	\$3,727,000
Temporary Construction			\$528,000
Rehabilitation of Existing	36,600 GSF	\$318 / GSF	\$11,639,000
Preservation of Exterior			\$945,000
New Roof and Fire Alarm			\$1,115,000
New Construction	73,400 GSF	\$350/SF	\$25,690,000
Stacks, Main Library	140,000 GSF	\$7.50 / GSF	\$1,050,000
Surface Parking	10,000 GSF	\$15/SF	\$150,000
Hardscape	15,000 GSF	\$20/SF	\$300,000
Landscape	15,000 GSF	\$20/SF	\$300,000
Utilities allowance			\$250,000
Hazardous Materials Abatement Allowance			\$500,000
Construction Contingency Rehabilitation, Temp		15%	\$2,693,100
Construction Contingency, New		10%	\$2,774,000
Public Art		1.5%	\$692,910
Subtotal - Construction Hard Cost in 2006 dollars			\$52,355,000
Bondable Soft Costs			
Design, Engineering & Const. Mgmt.		43.0%	\$22,513,000
Subtotal - Construction Soft Cost in 2006 dollars			\$22,513,000
Escalation			
to 6/2009 ,3 years to mid point of constructon		18%	\$13,477,000
Total Bondable			\$88,345,000
Non-Bondable Furniture Costs			
FF&E	110,000 GSF	\$25 / GSF	\$2,750,000
Technology	110,000 GSF	\$20 / GSF	\$2,200,000
Furniture Contingency		10%	\$495,000
Escalation to 6/2010		20%	\$1,089,000
Total Non-Bondable			\$6,534,000

COST PLAN

Cost Plan For Optional Theater Improvements

Hard and Soft Costs

Bondable Hard Costs	<i>SF Area</i>	<i>Unit Cost</i>	<i>Project Cost</i>
New Paint, Carpet & Stage Sound and Lighting Upgrade			\$2,641,000
Construction Contingency, New		10%	\$264,100
Subtotal - Construction Hard Cost in 2006 dollars			\$2,906,000
Bondable Soft Costs			
Design, Engineering & Const. Mgmt.		35.0%	\$1,018,000
Subtotal - Construction Soft Cost in 2006 dollars			\$1,018,000
Escalation			
to 6/2009 ,3 years to mid point of constructon		18%	\$707,000
Total Bondable			\$4,631,000

7.3. FUNDING OPTIONS

Summary

A comprehensive funding strategy is needed to implement the proposed library improvement projects. Funding strategies are discussed in more detail in the 2006 Draft Master Facilities Plan. Relevant strategies to implementation of a new Main Library at the Kaiser Arena are discussed below.

Lease of existing Main Library building to County

Alameda County owns several properties in the vicinity of the Main Library, including the county courthouse and administration buildings at Fallon & 12th and Oak & 12th. The county's space needs have been expanding and may require additional space in the future. The lease and rehabilitation of the current Main library facility at 125 14th St could potentially meet the needs the County's needed expansion. A lease would also ensure that the current Main library facility would remain a public building and would compliment the county's municipal complex.

General Fund

A basic approach to finance projects is to use available cash from the City's General Fund for each project. Unfortunately there are almost no funds available to implement any of the Master Plan Projects in this fund.

Redevelopment Area Funding

State of California Redevelopment law allows a redevelopment agency to obtain funds using "tax increment financing." This type of financing registers a total property tax value for the area and then allows any future increases in taxes (the "tax increment") due to increases in the assessed value of properties within the area to go to the Redevelopment Agency for use in stimulating development. The purpose of these redevelopment areas is to fund new projects that will create a healthier environment for businesses and residents. The Redevelopment Agency can then use the funds raised through the tax increment to rehabilitate properties, promote creation of jobs, improve streets and streetscapes, parks, and other public facilities, stimulate private business and development, and create investment to accomplish what could not be done by other public or private means.

The City of Oakland has nine Redevelopment Areas which could potentially tap into funding available through Redevelopment, either as supplemental funding as was done for the Prop. 14 Grant Application, or full funding for specific eligible projects. These areas are: the Oak Center and Acorn in West Oakland; Broadway/MacArthur/San Pablo Area and Stanford Adeline in north Oakland; Central District (downtown); Central City East; Oak Knoll; and the

COST PLAN

Coliseum Area and West Oakland/Oakland Army Base (the newest). Current or proposed libraries in Redevelopment areas include the West Oakland, Hoover, Asian, Main, San Antonio, Chavez, Melrose, Eastmont, Elmhurst, Martin Luther King, Jr., Brookfield, and Oak Knoll Libraries.

General Obligation Bonds

Since the passage of Proposition 46 on the June 3, 1986 ballot, cities have been able to issue general obligation bonds to acquire, construct or improve real property. General obligation bonds are the most efficient form of long-term debt financing because they require neither a reserve fund nor funded interest (i.e. capitalized interest) during construction or acquisition of the project. Therefore, general obligation bonds are smaller in size and annual total debt is correspondingly lower than any other form of long term debt financing. The major challenge of a general obligation bond is the required 2/3rds majority voter approval.

State Grants

The City of Oakland applied for and received a State Proposition 14 Grant in the third and final round of funding for a co-located Public-School Library with the Oakland Unified School District at the ACORN Woodland and EnCompass Academy Elementary School site at 81st and Rudsdale Avenue. The local match requirement for this grant was supplied by Redevelopment Area School set-aside funds within the Coliseum Redevelopment Area. The city had previously received a state grant through the 1988 state grant program which received matching funds through the Rockridge Community Facilities District and the City as a whole.

After two successful state library construction bonds in 1988 and 2000, the third proposed bond measure, Proposition 81, failed in June 2006. Statewide library leaders hope to place a similar ballot measure in the near future. If a future measure similar to Proposition 14 is passed it could be a source of grant funding of up to approximately \$20 Million.

Capital Campaigns

Many cities have received significant funding from capital fund raising campaigns tapping into wide spread support of the library from philanthropic individuals, foundations and corporations. private donations. The City of San Mateo's campaign for their new library hopes to raise ten million dollars.

8. APPENDICIES

8.1. EXISTING MAIN LIBRARY

Neighborhood Needs And Opportunities

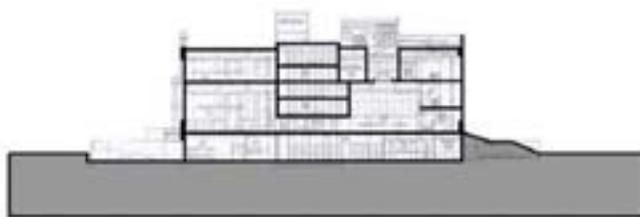
The Martin Luther King, Jr. Library, or King Library, serves the surrounding neighborhoods as far as Foothill Boulevard and to either side of International Boulevard.

This area has a relatively low median household income and high number of families, indicating, along with community input, a need for children's services and school support, literacy, and other community programs.

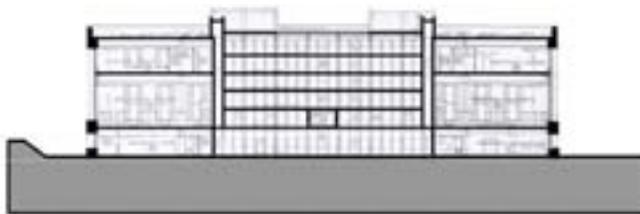
Technology access is important to this community, with almost 60% of current patrons surveyed using the library as their only access to computers; computer access was the top ranked service that patron surveys emphasized, followed by collection and information and referral. (Patron Survey)



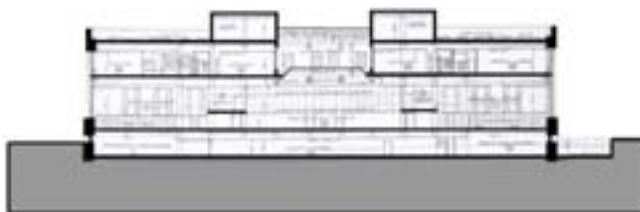
Digital Model of Existing Main Library



SECTION LOOKING WEST



SECTION LOOKING NORTH



SECTION LOOKING SOUTH

Area Table	Breakdown of SF		
	GOP	HAZP	Public Service
Ground Floor	27,800	33,400	7,300
First Floor	35,400	33,375	19,700
Mezzanine 1	3,100	2,170	2,000
Mezzanine 2	3,100	2,170	2,000
Second Floor	34,400	37,220	13,200
Mezzanine 3	2,900	2,030	2,000
Roof	1,100	0	0
Total	97,800	65,425	45,500

EXISTING MAIN

Existing Facility / Services

The existing facility is well-located for students as it is adjacent to the Lockwood Elementary and Havenscourt Junior High School, and other nearby parochial schools. It is also very visible to other community members at its location on a corner on International Boulevard.

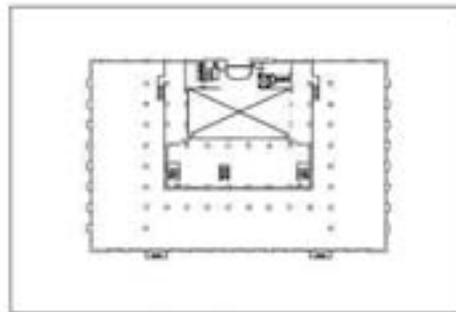
Despite its central location, the existing facility is land-locked on its current site, and unable to expand as needed to meet community needs.

EXISTING SPACE SUMMARY

Mezzanine 1st Floor

	GSF	NASF
Exist.	3,100	2,170

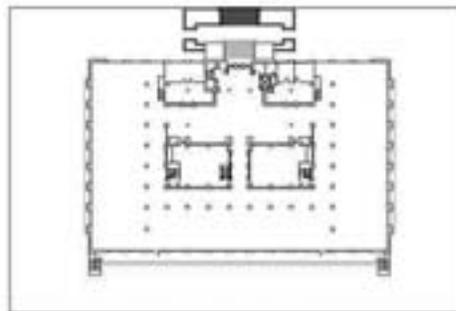
M1



1st Floor

	GSF	NASF
Exist.	24,600	17,200

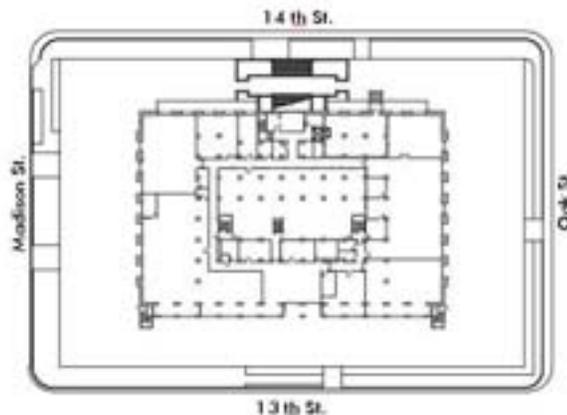
1



Ground Floor

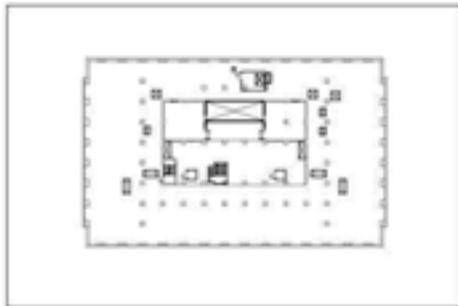
	GSF	NASF
Exist.	27,800	19,500

G



EXISTING SPACE SUMMARY

R

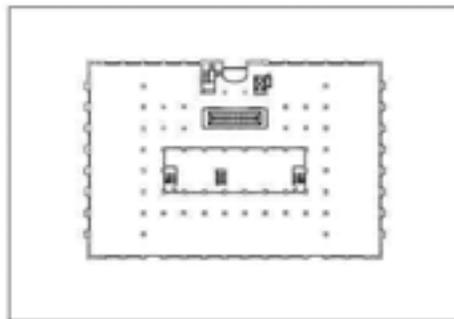


Roof Level

	GSF	NASF
Exist.	1,300	900

Not included in square footage calculations

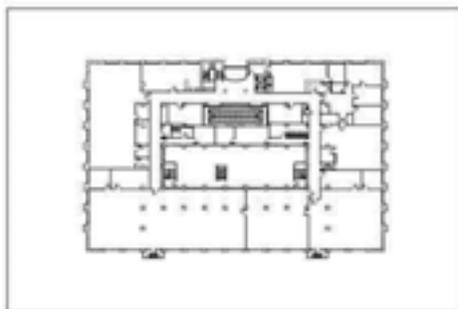
M3



Mezzanine 3rd Floor

	GSF	NASF
Exist.	2,900	2,000

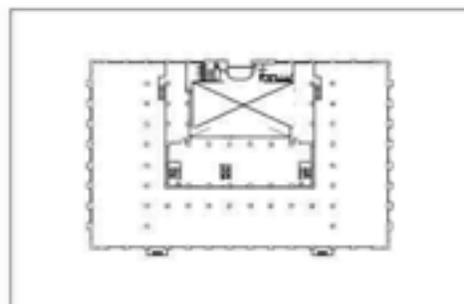
2



2nd Floor

	GSF	NASF
Exist.	24,600	17,200

M2



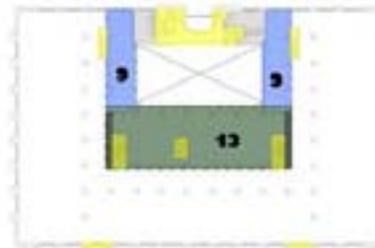
Mezzanine 2nd Floor

	GSF	NASF
Exist.	3,100	2,170

EXISTING MAIN

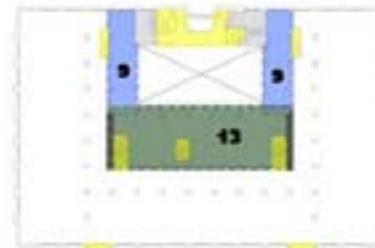
CURRENT USES IN MAIN LIBRARY

M2



Mezzanine 2nd Floor

M1



Mezzanine 1st Floor

- Staff
- Public Service
- Special Service

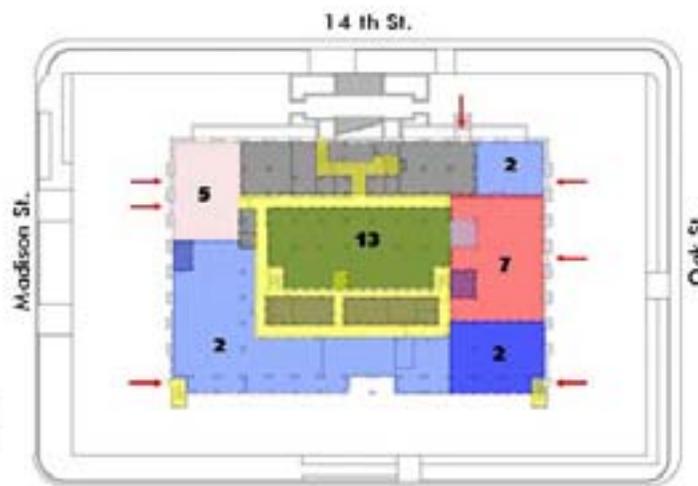
- 1 Administration
- 2 Systemwide Support Services
- 3 Technology
- 4 Staff Work and Support Areas
- 5 Auditorium/Meeting Room
- 6 Public Service Areas
- 7 Children's Room
- 8 Teen's Room
- 9 Art/Music/History/Literature
- 10 Science/Business/Social Science
- 11 Oakland History Room and Coll.
- 12 Magazine and Newspapers
- 13 Closed Stacks
- Circulation
- Mechanical and Restrooms

1



1st Floor

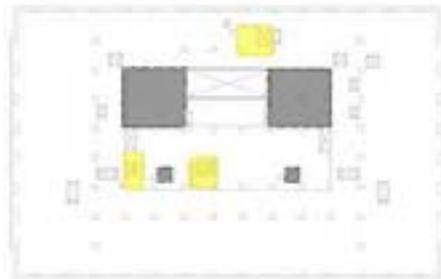
G



13th St.
Ground Floor

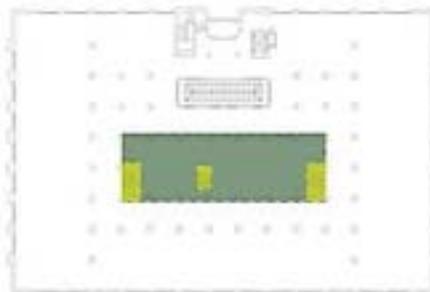
CURRENT USES IN MAIN LIBRARY

R



Roof Level

M3



Mezzanine 3rd Floor

2



2nd Floor

- Staff
- Public Service
- Special Service

- 1 Administration
- 2 Technical Service
- 3 Technology
- 4 Staff Service
- 5 Auditorium/Lecture Room
- 6 Public Room
- 7 Children's Room
- 8 Teen's Room
- 9 Art/Music/History/Literature
- 10 Science/Business/Social Science
- 11 Oakland History
- 12 Magazine and Newspaper
- Circulation
- Bathrooms
- Mechanical

8.2. OTHER DEVELOPMENT OPTIONS EXPLORED

In late 2004 through early 2005 a number of Main library development options were investigated as part of the Master Facility Plan process. These included renovation and expansion, demolition and new construction, and relocation options. These are summarized below in the following sections:

- 8.2.1: Expansion of existing Main and construction of a new Main Annex
- 8.2.2: Demolition and construction of a new Main library at present site
- 8.2.3: Other renovation options studied that do not fulfill program requirements
- 8.2.4: New sites for a new Main

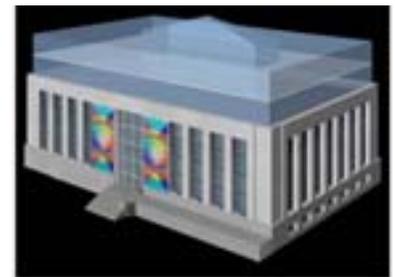


8.2.1 Expansion of existing Main and Construction of a new Main Annex

The option for expanding services at the existing Main Library facility to meet the service and square footage needs would include a comprehensive upgrade of the existing building with an expansion through the addition of 2 floors as well as construction of a new free standing annex building.

This option preserves the historic values of the existing library building's exterior and expands upwards with two floors as was believed to be envisioned in the original design. The stack core would be removed and replaced with a skylit atrium that would contain stairs, elevators and new structural frames that will strengthen the existing building. To meet the remaining balance of program area a new Main Library Annex building would need to be constructed to house a new 350 seat auditorium, meeting rooms and relocated administrative and technical services. The Annex would also provide parking for a minimum of 200 cars.

The challenges with this strategy include: acquisition of a site of sufficient size close enough to the existing Main Library; the need to stage temporary Main Library facilities while the existing facility is being renovated; and the operational issues for public and staff of having Main Library services split between two structures.



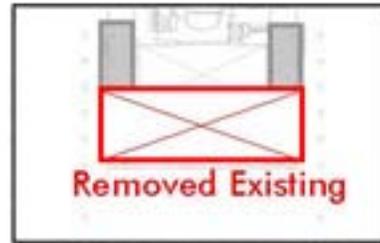
OTHER DEVELOPMENT OPTIONS EXPLORED

RENOVATION WITH 2 ADDITIONAL FLOORS

Mezzanine 2nd Floor

	GSF	NASF
Exist.	3,100	2,170
Remove	2,900	2,000
Total	200	170

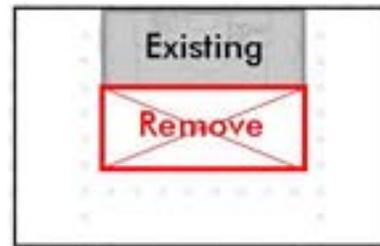
M2



Mezzanine 1st Floor

	GSF	NASF
Exist.	6,000	4,200
Remove	2,900	2,000
Total	3,100	2,200

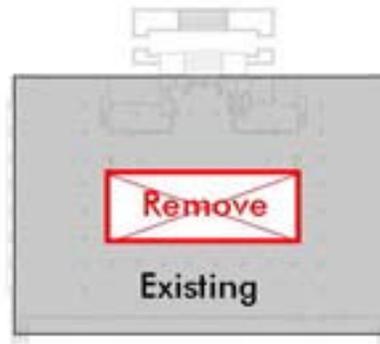
M1



1st Floor

	GSF	NASF
Exist.	24,600	17,200
Remove	2,900	2,000
Total	21,700	15,200

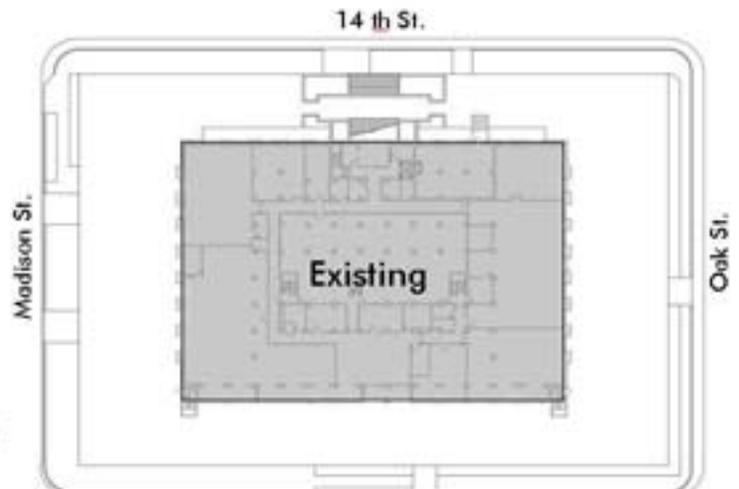
1



Ground Floor

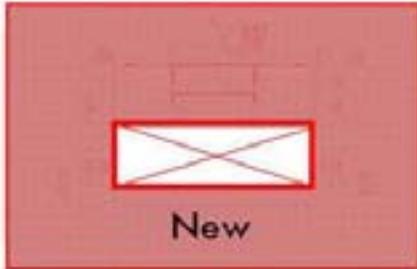
	GSF	NASF
Exist.	27,800	19,500
Remove	0	0
Total	27,800	19,500

G



OTHER DEVELOPMENT OPTIONS EXPLORED

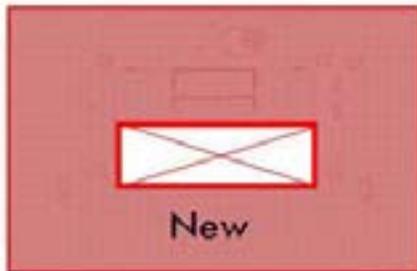
RENOVATION WITH 2 ADDITIONAL FLOORS



A2

Atrium 2nd Floor

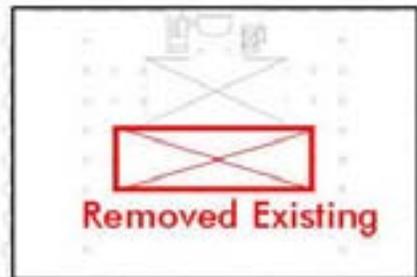
	GSF	NASF
Exist.	0	0
Addition	21,700	15,200
Total	21,700	15,200



A1

Atrium 1st Floor

	GSF	NASF
Exist.	0	0
Addition	21,700	15,200
Total	21,700	15,200



M3

Mezzanine 3rd Floor

	GSF	NASF
Exist.	2,900	2,000
Remove	2,900	2,000
Total	0	0



2

2nd Floor

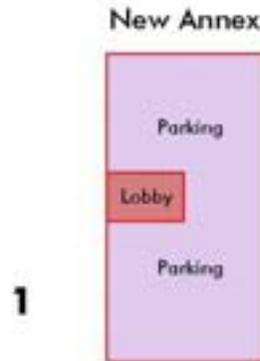
	GSF	NASF
Exist.	24,600	17,200
Remove	2,900	4,500
Total	21,700	12,700

OTHER DEVELOPMENT OPTIONS EXPLORED

ANNEX PLAN DIAGRAMS

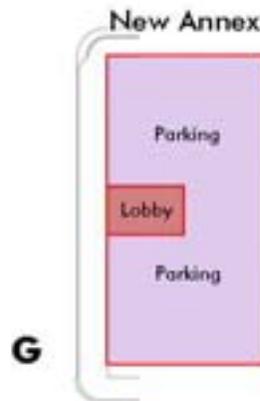
1st Floor

	GSF
Annex.	30,000



Ground Floor

	GSF
Annex.	30,000



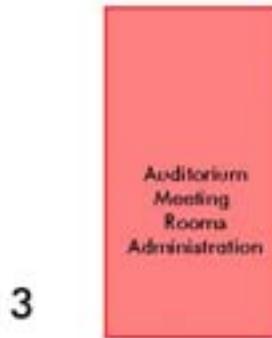
Lower Level

	GSF
Annex.	30,000



OTHER DEVELOPMENT OPTIONS EXPLORED

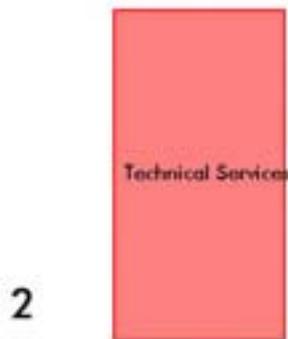
ANNEX PLAN DIAGRAMS New Annex



3rd Floor

GSF	
Annex.	30,000

New Annex



4th Floor

GSF	
Annex.	30,000

Existing Library Area Table (1)

	GSF		
	Exist	Enclose	Total
Ground Floor	27,800	0	27,800
First Floor	24,600	2,300	21,700
Mezzanine 1	4,300	2,300	3,300
Mezzanine 2	3,100	2,300	200
Second Floor	24,600	2,300	21,700
Mezzanine 3	2,300	2,300	0
Roof	1,300	1,300	0
Total	90,300	13,800	74,300

Library Annex Area Table (1)

	GSF		
	Exist	Addition	Total
Annex Lower Parking	0	30,000	30,000
Annex Ground Parking / Lobby	0	30,000	30,000
Annex Second Parking	0	30,000	30,000
Annex Third Tech Services	0	25,000	25,000
Annex Fourth Auditorium etc.	0	20,000	20,000
Total	0	135,000	135,000

Additional Library Area Table (2)

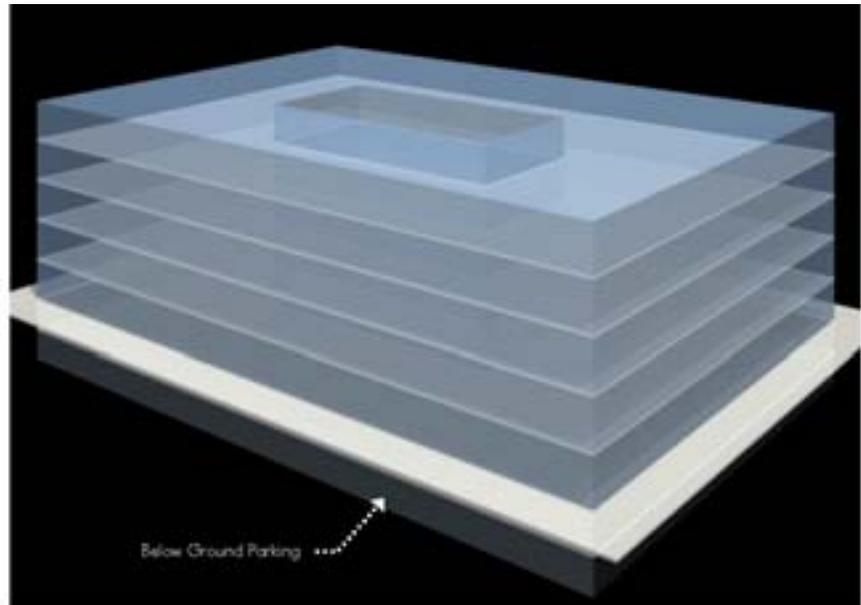
	GSF		
	Exist	Addition	Total
Additional Floor 1	0	20,000	20,000
Additional Floor 2	0	15,500	15,500
Total	0	35,500	35,500

Total Library Area Table (1+2)

	GSF		
	Exist	Addition	Total
Existing Retail	90,300	14,500	75,800
Additional Floor	0	35,500	35,500
Annex	0	135,000	135,000
Grand Total	90,300	205,100	296,400

OTHER DEVELOPMENT OPTIONS EXPLORED

8.2.2 Demolition and construction of a new Main library at present site



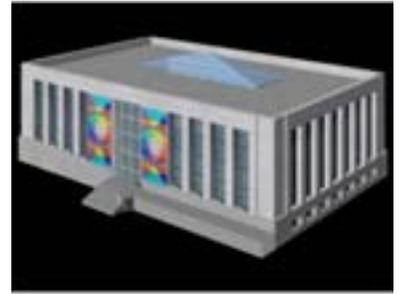
The present site of the Main library does present an opportunity to fulfil the needs of the library if the present building is removed and new construction with a larger footprint and additional levels is constructed in its place.

There are a variety of approaches to responding to the historical values of the building. These range from the preparation of an Historic American Buildings Survey (HABS) report, ranging from demolition, to salvage and reconstruction of the lobby, to design of new exterior elevations that are sympathetic to the Courthouse and Fire Alarm Building. Like the adaptive reuse of the Kaiser Center, this option does not require purchase of a site. As there is no opportunity for shared use of the Calvin Simmons Theater, the full building program with

Where as the Kaiser Center provides existing surface parking, the new construction development strategy should include two or more levels of parking below the library. To avoid interruption of Main library service, a temporary library should be set up in rental space or modular structures for a period of approximately two years. Because of the larger program area needing to be built, the need to build structured parking, and the need for a temporary Main library, this development strategy is significantly more expensive than the Adaptive Reuse of the Kaiser arena.

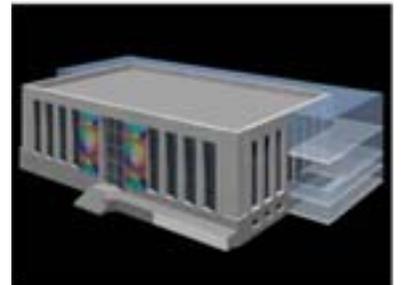
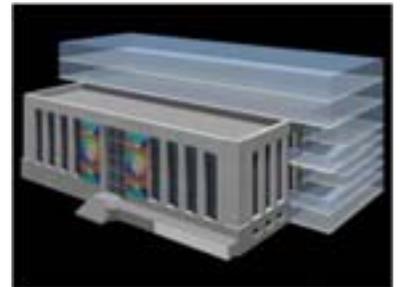
OTHER DEVELOPMENT OPTIONS EXPLORED

8.2.3 Other renovation options studied that do not fulfill program requirements



Renovation only with no expansion

*Alternate expansion concepts for
Existing Main facility*



OTHER DEVELOPMENT OPTIONS EXPLORED

Cost Plan For A Renovated Main At Existing Site + 2 New Floors + Annex
160,000 GSF Library Area

Hard and Soft Costs

Bondable Hard Costs	<i>SF Area</i>	<i>Unit Cost</i>	<i>Project Cost</i>
Land	30,000	\$150/SF	\$4,500,000
Demolition	80,000 GSF	\$32 / GSF	\$2,590,400
Temporary Construction			\$150,000
Rehabilitation of Existing	60,000 GSF	\$400 / GSF	\$24,000,000
Preservation of Exterior			\$700,000
New Floors above exist	50,000 GSF	\$400/SF	\$20,000,000
New Const Annex	50,000 GSF	\$375/SF	\$18,750,000
Stacks, Main Library	150,000 GSF	\$7.50 / GSF	\$1,125,000
Structured Parking	80,000 GSF	\$165/SF	\$13,200,000
Utilities			\$250,000
Hardscape	15,000 GSF	\$20/SF	\$300,000
Landscape	15,000 GSF	\$20/SF	\$300,000
Construction Contingency Rehabilitation, Temp		15%	\$7,116,060
Construction Contingency, New		10%	\$3,392,500
Public Art		1.5%	\$1,220,481
Subtotal - Construction Hard Cost in 2006 dollars			\$93,095,000
Bondable Soft Costs			
Temporary Library 3 years	60,000 GSF		\$6,000,000
Design, Engineering & Const. Mgmt.		43.0%	\$42,610,850
Subtotal - Construction Soft Cost in 2006 dollars			\$48,610,850
Escalation			
to 6/2009 ,3 years to mid point of constructon		18%	\$25,508,000
Total Bondable			\$167,213,850
Non-Bondable Furniture Costs			
FF&E	160,000 GSF	\$25 / GSF	\$4,000,000
Technology	160,000 GSF	\$19 / GSF	\$3,040,000
Furniture Contingency		10%	\$704,000
Escalation to 6/2010		20%	\$1,548,800
Total Non-Bondable			\$9,293,000

OTHER DEVELOPMENT OPTIONS EXPLORED

Cost Plan For A Renovated Main At Existing Site + 2 New Floors + Annex

120,000 GSF Library Area

Bondable Hard Costs	<i>SF Area</i>	<i>Unit Cost</i>	<i>Project Cost</i>
Land	30,000	\$150/SF	\$4,500,000
Demolition	80,000 GSF	\$32 / GSF	\$2,590,400
Temporary Construction			\$150,000
Rehabilitation of Existing	60,000 GSF	\$400 / GSF	\$24,000,000
Preservation of Exterior			\$700,000
New Floors above exist	50,000 GSF	\$400/SF	\$20,000,000
New Const Annex	10,000 GSF	\$400/SF	\$4,000,000
Stacks, Main Library	150,000 GSF	\$7.50 / GSF	\$1,125,000
Structured Parking	80,000 GSF	\$165/SF	\$13,200,000
Utilities			\$250,000
Hardscape	15,000 GSF	\$20/SF	\$300,000
Landscape	10,000 GSF	\$20/SF	\$200,000
Construction Contingency Rehabilitation, Temp		15%	\$7,116,060
Construction Contingency, New		10%	\$1,907,500
Public Art		1.5%	\$997,731
Subtotal - Construction Hard Cost in 2006 dollars			\$76,537,000
Bondable Soft Costs			
Temporary Library 3 years	60,000 GSF		\$6,000,000
Design, Engineering & Const. Mgmt.		43.0%	\$35,490,910
Subtotal - Construction Soft Cost in 2006 dollars			\$41,490,910
Escalation			
to 6/2009 ,3 years to mid point of constructon		18%	\$21,246,000
Total Bondable			\$139,273,910
Non-Bondable Furniture Costs			
FF&E	160,000 GSF	\$25 / GSF	\$4,000,000
Technology	160,000 GSF	\$19 / GSF	\$3,040,000
FF&E Tech Contingency		10%	\$704,000
Escalation to 6/2010		20%	\$1,548,800
Total Non-Bondable			\$9,293,000

OTHER DEVELOPMENT OPTIONS EXPLORED

Cost Plan For A New Main At Existing Site
160,000 GSF Library Area

Hard and Soft Costs			
Bondable Hard Costs	<i>SF Area</i>	<i>Unit Cost</i>	<i>Project Cost</i>
Land			
Demolition	80,000 GSF	\$32 / GSF	\$2,590,400
Temporary Construction			
Rehabilitation of Existing	-		
Preservation of Exterior			
New Floors above exist			
New Const	160,000 GSF	\$375/SF	\$60,000,000
Stacks, Main Library	150,000 GSF	\$7.50 / GSF	\$1,125,000
Structured Parking	80,000 GSF	\$165/SF	\$13,200,000
Utilities			\$250,000
Hardscape	5,000 GSF	\$20/SF	\$100,000
Landscape	5,000 GSF	\$20/SF	\$100,000
Construction Contingency Rehabilitation, Temp			
Construction Contingency, New		10%	\$7,736,540
Public Art		1.5%	\$1,160,481
Subtotal - Construction Hard Cost in 2006 dollars			\$85,102,000
Bondable Soft Costs			
Temporary Library 3 years	60,000 GSF		\$6,000,000
Design, Engineering & Const. Mgmt.		43.0%	\$39,173,860
Subtotal - Construction Soft Cost in 2006 dollars			\$45,173,860
Escalation			
to 6/2009 ,3 years to mid point of constructon		18%	\$23,450,000
Total Bondable			\$153,725,860
Non-Bondable Furniture Costs			
FF&E	160,000 GSF	\$25 / GSF	\$4,000,000
Technology	160,000 GSF	\$19 / GSF	\$3,040,000
Furniture Contingency		10%	\$704,000
Escalation to 6/2010		20%	\$1,548,800
Total Non-Bondable			\$9,293,000

OTHER DEVELOPMENT OPTIONS EXPLORED

Cost Plan For A New Main At Existing Site
120,000 GSF Library Area

Hard and Soft Costs

Bondable Hard Costs	<i>SF Area</i>	<i>Unit Cost</i>	<i>Project Cost</i>
Land			
Demolition	80,000 GSF	\$32 / GSF	\$2,590,400
Temporary Construction			
Rehabilitation of Existing	-		
Preservation of Exterior			
New Floors above exist			
New Const	120,000 GSF	\$375/SF	\$45,000,000
Stacks, Main Library	120,000 GSF	\$7.50 / GSF	\$900,000
Structured Parking	80,000 GSF	\$165/SF	\$13,200,000
Utilities			\$250,000
Hardscape	5,000 GSF	\$20/SF	\$100,000
Landscape	5,000 GSF	\$20/SF	\$100,000
Construction Contingency Rehabilitation, Temp			
Construction Contingency, New		10%	\$6,214,040
Public Art		1.5%	\$932,106
Subtotal - Construction Hard Cost in 2006 dollars			\$68,355,000
Bondable Soft Costs			
Temporary Library 3 years	60,000 GSF		\$6,000,000
Design, Engineering & Const. Mgmt.		43.0%	\$31,972,650
Subtotal - Construction Soft Cost in 2006 dollars			\$37,972,650
Escalation			
to 6/2009 ,3 years to mid point of constructon		18%	\$19,139,000
Total Bondable			\$125,466,650
Non-Bondable Furniture Costs			
FF&E	160,000 GSF	\$25 / GSF	\$4,000,000
Technology	160,000 GSF	\$19 / GSF	\$3,040,000
FF&E-Tech Contingency		10%	\$704,000
Escalation to 6/2010		20%	\$1,548,800
Total Non-Bondable			\$9,293,000

OTHER DEVELOPMENT OPTIONS EXPLORED

Cost Plan Comparisons

Library Program Size	160,000 GSF		
Development Option	New Main at Kaiser	Exist Main + 2 Floors + Annex	New Main at Exist Site
Shared use of Kaiser theater	10,000 GSF		
Library Construction	150,000 GSF	160,000 GSF	160,000 GSF
Bondable Hard Costs	\$68,302,000	\$93,095,000	\$85,102,000
Bondable Soft Costs	\$29,370,000	\$48,610,850	\$45,173,860
Escalation	\$17,581,000	\$25,508,000	\$21,246,000
<i>Total Bondable</i>	\$115,253,000	\$167,213,850	\$151,521,860
Non-Bondable FFE Costs	\$8,910,000	\$9,293,000	\$6,389,000
Library Program Size	120,000 GSF		
Development Option	New Main at Kaiser	Exist Main + 2 Floors + Annex	New Main at Exist Site
Shared use of Kaiser theater	10,000 GSF		
Library Construction	110,000 GSF	120,000 GSF	120,000 GSF
Bondable Hard Costs	\$52,355,000	\$76,537,000	\$68,355,000
Bondable Soft Costs	\$22,513,000	\$41,490,910	\$37,972,650
Escalation	\$13,477,000	\$21,246,000	\$19,139,000
<i>Total Bondable</i>	\$88,345,000	\$139,273,910	\$125,466,650
Non-Bondable FFE Costs	\$6,534,000	\$9,293,000	\$9,293,000

8.2.4 Other sites

Due to the inherent complexities of renovating and expanding the current Main library, a preliminary investigation and evaluation of other possible sites was conducted. As part of that effort site evaluation criteria were prepared.

1. Kaiser Convention Center Site
2. Existing Main Site
3. Existing Sears Site
4. Lake Merritt BART Parking Lot
5. MLK/Jefferson Site



ALTERNATIVE SITES

1. KAISER CONVENTION CENTER PARKING LOT

- Site Control is City owned, either by the City or Redevelopment Agency. Site may need to be leased from the Convention Center with a long term lease.
- Another possibility is using the Kaiser CC building if it is currently under-utilized

SITE INFORMATION

LOCATION : Civic/Lower Lake Merritt

AREA : 2.8 acres

LAND USE : Parking/Cultural

ZONING : S-2

HISTORIC : S-4



PRO'S

- Public use of site is compatible with Lake Merritt Master Plan
- Library use would add to the Cultural District
- Close proximity to BART
- Close proximity to Laney College as well as OUSD schools (La Escuelita and Lincoln)

CON'S

- HKCC parking would need to be accommodated in new design (approximately 215 spaces)
- Portion of the land is regulated by State Trust
- HKCC is a historic building, might be sensitive to new developments

2. EXISTING MAIN & FIRE ALARM BUILDING

- The Main library is a 1930's design which was altered both in ornamentation & site and built in 1949
- Possibility to partially use existing Main site in combination with another site by having administration and technical services at one site and public areas at another
- Fire Alarm building site is in the Lake Merritt Master plan.
- CALM (Citizen's Alliance for Lake Merritt) is adamant about retaining the Fire Alarm site as open space.

SITE INFORMATION

LOCATION : 125 14th Street + Fire Alarm Bldg

AREA : Civic/Lower Lake Merritt

LAND USE : Public

ZONING : S-2

HISTORIC : S-4



PRO'S

- Library currently owns Main Site
- Library's presence enhances to the Cultural District and Lake Merritt area
- Potential to synergize with Lake Merritt Master Plan work

CON'S

- HKCC parking would need to be accommodated in new design (approximately 215 spaces)
- Portion of the land is regulated by State Trust
- HKCC is a historic building, might be sensitive to new developments

ALTERNATIVE SITES

3. EXISTING SEARS BUILDING

- Six story building, currently only two floors are occupied
- Not an historic building

SITE INFORMATION

LOCATION : 1955
Broadway

AREA : Uptown

LAND USE : Commercial

ZONING : C-55

HISTORIC : S-6



PRO'S

- BART is located at the site
- Site could synergize with the Forest City development at the Uptown site

CON'S

- Building is currently partially occupied
- Site control maybe an issue as it is privately owned
- Site is constrained on all sides by streets and other buildings

4. BART PARKING LOT AT LAKE MERRIT STATION

- BART parking lot and BART and MTC headquarters are currently located at this site, but these uses have outgrown the structure and may be looking to move



SITE INFORMATION

LOCATION : 1955 Broadway
 AREA : Uptown
 LAND USE : Commercial
 ZONING : C-55
 HISTORIC : S-6

PRO'S

- BART is located at the site
- Site could synergize with the Forest City development at the Uptown site
- Library use would add to the Cultural District
- Close to Laney College and OUSD school (Lincoln)

CON'S

- BART and MTC timeline currently unknown
- Site maybe very expensive to build upon given that it is directly above the BART line
- May be constrained by cost and timeline



ALTERNATIVE SITES

5. MLK / JEFFERSON

- Site currently under consideration for other use
- Site would require parcel consolidation

SITE INFORMATION

LOCATION : MLK and Jefferson from 14-16th St

AREA : San Pablo Triangle

LAND USE : Mixed

ZONING : C-51/S-17



PRO'S

- Central Location in Downtown
- Proximity to BART/AC transit
- Proximity to Civic Center Complex
- Easy freeway access

CON'S

- Site currently being considered for another use, so may not be available
- Some sites currently occupied
- Separate sites would require consolidation
- Sites divided by a street

8.3. DOCUMENTS REVIEWED

List of Drawings received or reviewed by Group 4

The following drawings were collected from the on-site engineer's office, logged, and returned.

While a complete set of original drawings was not found, duplicate architectural and structural drawings were retrieved from the archives of Degenkolb Engineers, copied and distributed to Public Works Agency, Group 4 and Rutherford & Chekene.

Henry J. Kaiser Convention Center

*Strikethrough indicates drawings are progress versions and not as-builts

Date	Sheets	Prepared By
1952, 53, 54, 57, 64	E	City of Oakland Electrical Department
6/1/1960	O a k l a n d Auditorium	A.R.Taylor
7/23/1982*	Schedules and Abbreviations, Plans, key plans	Ratcliff Architects
7/23/1982	single line diagram, plans	Ratcliff Architects
7/23/1982	A l t e r n a t e s : Theater, orchestra pit, arena. Roof details, elevations, repairs, basement	Ratcliff Architects
7/23/1982	Electric	Ratcliff Architects
7/23/1982*	Plan, Elevations, A l t e r n a t e s , Details	Ratcliff Architects
7/23/1982*	Stair Details, Plans, demo	Ratcliff Architects
7/23/1982,*	AD; 8.18.1982	Rev. Ratcliff Architects
7/24/1982	single line diagram, plans	Ratcliff Architects

DOCUMENTS REVIEWED

8/16/1982	Schedules and Abbreviations & Plans	Ratcliff Architects
10/28/1983	SF-"" Control / Air supply	Ratcliff Architects - JYA Consulting Engineers
1/23/1984	As Builts	Food Service Facility As Builts
3/20/1985	Bid Set for new Main Switchboard	City of Oakland Office of Public Works Engineering and Design Services Architectural Services
11/16/1989	Loading Dock	David Byrens Architects HJKCC
1/31/1990	Elevations	Bell and Byrens
12/10/1991	E	Thayer Hall Consulting Engineers
4/10/1992	A sheets, M, E	Bell and Byrens
6/3/1992	E	Thayer Hall Consulting Engineers
4/17/2001		Morpheus Lights
no date	E	City of Oakland Office of Public Works Engineering and Design Services Architectural Services

Henry J. Kaiser Convention Center - Earthquake damage repairs

Date	Sheets	Prepared By
6/3/1993	Plans, Details	Architectural Resources Group

References Reviewed by Rutherford & Chekene, structural engineers

Original Structural Drawings by MC Couchot, dated October 9, 1912.

Seismic Retrofit Drawings by Ratcliff Architects and HJ Degenkolb Associates, dated 1982.

Oakland Auditorium Seismic Strengthening Calculations-Sections I to III by HJ Degenkolb Associates, dated 1982.

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8.4. ACKNOWLEDGEMENTS

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Friends Of The Oakland Public Library

Oakland Public Library Advisory Commission

Landmarks Preservation Advisory Board

Over 4,000 Community Participants And Respondents At Facility Master
Plan

Surveys and Focus Groups, 2003
Speakers Forums, Fall 2004
Library Open Houses, June 2006

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FEASIBILITY STUDY TO CONVERT THE ARENA PORTION OF THE KAISER CONVENTION CENTER INTO THE OAKLAND MAIN LIBRARY

CODE ISSUES By Calvin Wong

SUMMARY

As part of the Group 4 Architecture, Research + Planning, Inc. feasibility study to convert the arena portion of the Henry J. Kaiser Convention Center (HJKCC) to a new main library, a building code analysis was performed. Since the HJKCC is an existing historic building, the analysis required careful navigation through the various building codes to ensure that the study complies with the applicable building codes, preserves the building's historic fabric, meets the functional needs of the library, and doesn't trigger any major additional construction work. The study was reviewed by key senior City staff (including the Building Official and Fire Marshal) from the Building Services Department and Fire Prevention Division. Their recommendations were included the study.

We believe the study addresses the major building code requirements and is technically feasible.

This memo summarizes the major conceptual building code issues. As additional details of the study evolve, additional code analysis and assessments may be necessary to ensure there are no additional major building code issues that could negatively impact the project.

HJKCC BUILDING BACKGROUND

The HJKCC building was constructed in about 1914. The southeast portion of the building has a two level arena with about an 8,000 seating capacity. The northwest portion of the building has a three level theater with a seating capacity of about 2,000 and two separate ballrooms.

In the 1980's, the building obtained a major renovation due to its declining infrastructure and the need to be competitive in attracting smaller assembly events as the larger events were shifting to the Oakland Coliseum/Arena and to the newly constructed Oakland Convention Center. Since the renovation work was voluntary and there was no change in the use of the building, the building code in effect at that time did not require all the work to meet current codes. After the renovation, the building remained legal nonconforming, but with enhanced building systems. The project obtained various building code variances through the City's Board of Examiners and Appeals to preserve historical elements. A substantial number of accessibility elements were installed. The voluntary seismic upgrade work was intended to substantially meet with the provisions of the State Historical Building Code.

SCOPE OF CONCEPTUAL PROJECT

The conceptual project is to convert the existing arena in the HJKCC to a main library. The existing theater will substantially remain as is, but minor life-safety upgrades such as alarm and smoke detection system were considered. The project will include demolition of the existing seating area in the arena and building a new 4 to 5 level library structure (120,000 to 160,000 square feet of floor area) within the core of the arena. The new library structure will have a new atrium (similar to the Oakland Rotunda Building at Frank Ogawa Plaza).

SOCIAL AND ECONOMICAL BENEFITS

The location and the conversion of the HJKCC to the Main Public Library will create numerous benefits to the City. This will allow the library to establish more attractive, functional, progressive and contemporary programs for the community.

These programs will:

- Help support the education of the youths (since most public and private schools in Oakland have no meaningful libraries)
- Provide constructive alternative program and activities for the youths, especially in the evenings and weekends.
- Provide free access to books and the internet for the socially and economically diverse community.
- Provide valuable resources to the City's emerging population whose English is their second language.

The location:

- Is centrally located around an education area including Laney College, Oakland Museum, Dewey Academy, Lincoln School, and numerous private and charter schools.
- Will meet the demand from the emerging residential population in and around the downtown area.
- Will provide an additional destination point in the downtown area
- Is easy access for public and private transportation

The building is a major historical asset for the City and considered the Jewel on Lake Merritt. The conversion to a public library will:

- Preserve the building's historic features
- For the first time, provide continuous free public access into the building
- Provide a sustainable and community use for the building. Other proposed use, such as a trade center, historically has had short term success in Oakland.

FEASIBILITY STUDY GOALS

To develop a conceptual project that will:

- meet the programmatic needs for the Oakland Public Library
- be economically feasible
- comply with the applicable building codes
- not trigger any additional major upgrade work within the building beyond the library conversion/addition work
- preserve the historic fabric of the building

APPLICABLE BUILDING CODES

The building code analysis was based on the following current State adopted building codes:

- Oakland Building Code- 2001 California Building Code (CBC) with local amendments
- State Historical Building Code (Chapter 34, Division II in the CBC)
- State Library Construction Standards- Various amendments and adoptions in the CBC
- State Elevator Safety and Construction Codes- Elevator provisions in the CBC
- State Fire Code- 2000 Edition of Uniform Fire Code with NFPA provisions
- State Electrical Code – 1999 National Electric Code
- State Mechanical Code- 2000 Uniform Mechanical Code
- State Plumbing Code- 2000 Uniform Plumbing Code
- State/County Food Service and Preparation Standards

Entitlement for using the current codes are established when a development application is filed. If the application is filed prior to the effective date of a newly State adopted code (such as the pending International Building Code), the project is entitled to use the code in effect at the time of application. Development applications are determine by the local jurisdiction. Development applications may include application for alternate methods and materials to the building codes, interior demolition permits, and building permits.

The State has not established a definitive date for adoption or amendments to the pending new International Building Code (IBC). If the project becomes subject to the new code, it is anticipated that the technical requirements will not substantially impact this study. However, further code analysis should be performed when the IBC is adopted.

WHAT TRIGGERS LEGAL NONCONFORMING BUILDINGS TO COMPLY WITH CURRENT CODES?

When any of the following condition occurs to an existing building, all or the affected portion of that building may be required to comply with the current building codes.

1. Change in use- (Per section 3405 of the CBC see Attachment A)

When the activity, functions, or program in a building changes its occupancy classification, the building or affected portion of the building shall meet current code.

An exception may be granted by the Building Official when the change in use is less hazardous (see Attachment B for occupancy classifications and Attachment C for hazard rankings by classifications and building systems)

2. The actual addition, alteration, or repair work must meet current code (per section 3403.2 of the CBC, see Attachment D).

3. When the addition, alteration, or repairs makes all or a portion of the building unsafe, all or a portion of that building shall be upgrade to current code. Unsafe is determined by the Building Official, but it is generally defined as increased hazards to life safety, fire safety, sanitation, and health. The building systems become unsafe if they are more hazardous than before the addition or alteration (per section 3403.2 in the CBC, see Attachment D).

SPECIAL DESIGN AND OPERATION CRITERIA FOR THE BUILDING

To mitigate any potential negative impacts to the existing theater from the library addition and operation, the following general guidelines were established and approved by the Building Official and Fire Marshal:

- The building systems of the library should be self contained within the library. This would include separate structural, plumbing, electrical, fire sprinklers, smoke control, and mechanical systems that will be independent from the theater's system.
- The programmatic operation of the library should be self contained. Exiting system, public restrooms, ADA access, employee and public paths of travel should all be contained in the library.
- Indirect impacts for lateral seismic loads should be fully evaluated to ensure that that load paths has not negatively affected the theater structural system.
- A 1-hour fire rated occupancy separation (wall) separating the library and the theater should be considered. This can protect both uses from spread of fire and smoke.
- The alarm system in the theater is enhanced based on value engineering analysis that will include an interconnecting alarm or early warning system for the library and theater portions of the building.

ALTERNATIVE MEASURES TO MITIGATE FULL CODE UPGRADES

The following CBC provisions allow alternative measures in lieu meeting current codes:

1. State Historical Building Code per section 3403.5 CBC (Attachment D)
2. Alternate methods and materials that meets the intent of the code per section 104.2.8 CBC

PROPOSED AND EXISTING USES AND THEIR DESIGNATED OCCUPANCY CLASSIFICATIONS

See Attachments B and E for descriptions of occupancy classifications

Existing Uses

Theater- A-2.1 or A-1 (if it has legitimate stage as defined in the CBC)
Ballrooms- A-3
Arena- A-2.1

Propose Uses

Library – B (civic administration or educational use above 12th grade)

Potential Accessory Uses- Which will be less than 10% (total floor area) of the library use

Storage rooms – S-1
Café – B (less than 50 people) or A-3 (50 to 299 people)
Offices- B
Assembly rooms or areas- A-3
Merchandise sales- M

TYPE OF BUILDING CONSTRUCTION

See Attachment F for the requirements for the various types of construction

The existing building construction type is classified as a legal nonconforming Type II-FR. It is nonconforming because the existing materials and fireproofing in the building doesn't fully comply with the type of materials and fire rated construction for Type II-FR. However, based on the uses, floor area, and height of the building, this is the minimum type of construction permitted by the current building code. All future addition, alterations, and repairs must be constructed with at least Type II-FR materials.

TYPE OF BUILDING CONSTRUCTION (Continue)

The Building Services Department recommended that the proposed atrium addition be constructed as Type I-FR. This would require 3-hour rated fireproofing on the new steel columns and beam. Fireproofing on the existing structural columns and beams may remain as is provided they are not altered. The existing roof trusses may require additional fireproofing due to the atrium addition. The fire rating of the trusses will depend on the minimum height between the roof truss and the closest floor level directly below. If it is 25 feet or more, fireproofing/protection may be omitted for the entire roof system. If the height is more than 18 feet, but less than 25 feet, the code could be interpreted to require a 1-hour fire rated roof system. Otherwise, if the height is 18 feet or less, the roof system (including the trusses) must be 2-hour fire rated protection as required for Type II-FR construction.

ALLOWABLE FLOOR AREA

If the library is classified as B occupancy, the total allowable floor area of the library could reach about 160,000 square feet for Type II-FR construction.

ATRIUM REQUIREMENTS

- The critical code requirement for atriums includes the following elements:
- Smoke control system with standby power and sized to handle all opened floors.
 - Quantity of combustible furnishings in the atrium are limited per Fire Code
 - Fire sprinklers required throughout the building as a condition for an atrium can not to use to increase the allowable floor area.
 - Only three floor levels can be opened into the atrium

These elements were factored into the study.

EXITING SYSTEM

The placement and number of exits must be optimized to address the maximum distance travel, the library occupants have a separate exiting system from the theater occupants, and the stairway system also facilitate the programmatic use of the library. Conceptual exiting systems meeting these criteria were factored into the study.

PARKING GARAGE

The concept of converting the basement into a garage appears to be feasible. The design must factor the 7 foot height clearance, placement of mechanical systems, street access, traffic queuing, ADA parking, placement of the new structural columns, and carbon monoxide seepage. However, due to the existing and proposed columns in the basement, the number of useable parking spaces would be limited and therefore, may not be cost/beneficial.

STRUCTURAL REQUIREMENTS

The proposed structural concept by Rutherford and Chekene is a solid approach. However, additional detail design and analysis will be required within the existing building:

- if the portion of the new library exiting system exits through the existing building, those exits must be substantially up to current code;
- if the library plans to place stacked books on the existing floor areas, additional lateral and vertical loads must also be evaluated;
- if the southeast windows are going to be reopened:
- to determine if the existing skylights and roof above the new structure can meet current code performance.
- to verify that structural work will not negatively impact the theater.
- to determine if the existing sprinkler system have adequate seismic bracings
- to mitigate potential differential settlement between the new and existing structures.

The Building Services Department has reviewed the structural concept and has raised two recommendations:

1. A seismic joint is installed long the roof line between the Arena and the Theater or a structural analysis demonstrates that the joint isn't necessary and/or an alternative method is used to prevent earthquake forces from the Arena portion of the building from damaging the Theater portion of the building.
2. The City acknowledges that the building will not be used as an essential facility in the event of any disaster.



Notes on the Structural Concept for the Kaiser Auditorium

Rutherford & Chekene

June 14, 2006

Historic Background

A brief background is provided to aid in understanding the proposed structural concept.

The Kaiser Convention Center was constructed in 1914. The western third of the building contains a 2,000 seat formal theatre, characterized by finished spaces on multiple levels. The eastern two thirds houses an arena with a seating capacity of about 8,000. The arena space is generally unfinished or simply finished. The space was originally designed to have the feel of an outdoor space with the center portion of the roof covered by skylight, including a retractable portion. Lightweight three-hinged-arch trusses span over the arena.

The structure has an essentially complete steel frame. Walls and floors are constructed of cast-in-place concrete. Past material testing has indicated that the concrete is of low strength, probably 1500 psi. The roof over the theater and around the perimeter of the arena is concrete (slab) construction. The original skylights at the roof over the arena have been replaced with sheathing panels. The steel framing and majority of roof covering over the arena appears to be of unrated construction.

The building is founded on wood piles approximately 60-70 feet deep. At the east end of the building (arena portion), the piles were not driven to adequate depth. As a result, the structure settled more than 15-inches in its early years, causing significant damage to walls at the east end. Additionally, because the stability of the roof is dependent on resistance to outward thrust, cables were added across the building to resist this thrust and remove these forces from the piles. Although the rate of settlement appears to have slowed to a negligible amount by the mid 1940's, a geotechnical report by Charles H. Lee dated February 14, 1947 describes the possibility of renewed settlement "due to the disturbance of the existing hair-trigger static balance of the fill by vibration during driving of piles." This highlights the need to minimize disturbance of the soil in the vicinity of existing piles and to minimize changes in loading of existing piles.

In the 1980's the building was renovated. The renovations included limited seismic strengthening. A May 11, 1982 memo by Henry Degenkolb, the structural engineer for the seismic strengthening, comments upon the expected seismic performance of the building, including the 1982 retrofit measures. At the conclusion of the memo Degenkolb states that: "In the foregoing comments, the city of Oakland and its officials must realize that we are at their express direction designing a seismic resisting system for this building that is much less than that required by current or recent Building Codes in this area." The balance of the memo describes both retrofit measures that were included and excluded and the fact that limited funding drove



those decisions. In general, the work was performed on the arena side for two reasons—(1) the auditorium side had more walls and diaphragms, and (2) work on the west side would have been at a significant cost premium. It is important to recognize that the 1982 renovation efforts did not bring the building into compliance with the codes in effect at the time, nor with current codes today.

Structural Concept

The structural approach currently under consideration is to build a new library structure within the arena that is connected to the existing roof level and structurally isolated from the existing building between the ground and the roof on all four sides. This structure would contain an independent lateral system founded upon new drilled piles. The arena portion of the building would be seismically retrofit with the goal of achieving equivalent seismic performance to that expected of a new building designed to the California Building Code (CBC). The retrofit work would be focused on the arena portion of the building with the goal of doing no work to the theater portion.

While the decision to provide no upgrade of the theater portion of the building would be easiest to make if a seismic joint were introduced between the theater and the arena, we believe that arguments can be made that even without a seismic joint the structural approach we are pursuing will result in seismic performance of the theater that is no worse and possibly much better than would be expected in its existing condition. If the architect and the preservation architect conclude that it is important to preserve the north and south facades without seismic joints, and if agreement can be reached with the Building Department and the owner on this point, we would be pleased to support a structural solution that does not include a full seismic joint between the theater and the arena. Preliminary discussions with the Building Department indicate that this approach will be acceptable with no joint in the north and south walls as long as a joint is included across the roof. The Building Department has indicated that it would be receptive to elimination of the joint in the roof as well with adequate structural analysis. We believe that significant cost would be added to the project if it were to include seismic improvements to bring the theater up to current code.

The seismic performance expected of a building designed to the California Building Code is summarized in the SEAOC Blue Book as follows:

Structures designed in conformance with these requirements should, in general, be able to:

- 1. Resist a minor level of earthquake ground motion without damage.*
- 2. Resist a moderate level of earthquake ground motion without structural damage, but possibly experience some nonstructural damage.*



3. Resist a major level of earthquake ground motion-of an intensity equal to the strongest earthquake, either experienced or forecast, for the building site-without collapse, but possibly with some structural as well as nonstructural damage.

It is important to understand that seismic damage to the arena side of the existing building, consistent with that expected for a new code designed building, would still be possible after the retrofit. Seismic damage to the theater side of the existing building could be greater than that expected for a new code designed building.

It is likely that removal of the existing cables that were installed in 1934 between the lower hinges of the 3-hinge arches will be desirable to maximize the headroom available for added floors. This can be accomplished very economically by propping the trusses, at their centerpoint, from the new structure in the arena. Propping the trusses would accomplish many good things. It would place a significant portion of the roof load on the new pile foundation system relieving load on the existing foundations, which have been prone to settlement. It would allow the cables to be removed and at the same time eliminate the outward thrust on the north and south walls that have historically caused bowing and cracking of the exterior walls. It is unclear at this time whether the sloped concrete seating currently plays a significant role in resisting the outward thrust of the arches. The elimination of the outward thrust would allow for demolition of the sloped concrete seating, which might not be otherwise possible.

The connection of the existing roof to the new structure is intended to laterally brace the roof and the top of the exterior walls out of plane. With significantly reduced seismic loads, the exterior walls and seating structures should be capable of carrying themselves with little or no strengthening. It is possible that in-plane strengthening of the north and south walls, such that they would have the strength to support both the arena and the theater for CBC demands, would be required to justify the omission of the seismic joint in the north and south facades. Having reduced the demands on the roof diaphragm, it would be possible to reopen some or all of the original skylight.

Clever design and detailing would be required to ensure that both the force and the deformation demands on the existing structure would in fact be decreased rather than increased given the connection of the new structure and the existing roof. This can be accomplished by providing a strong stiff new structure and by surgically introducing flexibility in the existing building at key locations. One such location would be the knee of the roof truss at the north wall. With some study it is possible that the truss could be modified, with little or no visible effect, such that it would load the north wall laterally only at the roof and not at the lower hinge. Since the transverse niche walls, which are relatively stiff, terminate at about the lower hinge level, this would allow some flexibility between the roof and the niche walls with deformations taken up in out of plane bending of the longitudinal walls above the niches. Flexibility in the roof diaphragm, either existing or introduced, would also be beneficial.



It should be expected that the existing floors are not level. Survey data from 1948 indicates settlement along the south wall of 16” at one end of the arena and 8” at the other. If the new structure can be treated as isolated functionally as well as seismically with discreet points of connection (possibly with shallow ramps) the new floors could be poured level instead of trying to build them to match existing slopes. This would simplify construction and therefore reduce costs. It would also provide some ability to tolerate any future differential settlement between the new and the existing structures.

Scope of Construction

Demolition (See SK-1 & SK-2)

The arena main floor concrete slab beams and columns would be demolished and the basement floor slab might be demolished if there was a desire to deepen the basement. The arena seating, which consists of concrete over steel framing, would be demolished. The main steel framing at truss lines, including the sloped C15x33 beams would remain in place. The cantilevered steel framing for the portion of the seating below the vomitoria would be removed in its entirety. The sheathing panels that currently infill the original skylight would be removed.

Temporary Construction

Construction sequencing would likely require that the existing tension cables be removed before the trusses could be propped by the new structure. Temporary support of the trusses would be required during this period.

New Construction (See SK-3, SK-4, & SK-5)

The new structure would be steel framed and founded on a new drilled pile foundation system such as that shown on Sketch SK-4. The floor slabs would be of concrete fill over metal deck. The lateral system would consist of braced frames, concrete shear walls, or a combination of the two.

Along the north wall of the arena it is envisioned that new floor area will be constructed above the demolished seating. This floor area will be integral with the existing construction and structurally separate from the main new structure within the arena. As such it will require braced frames or shear walls for lateral support, and may require foundation strengthening at braced frame locations. To the extent that the weight of the new floor area can be limited to no more than the weight of the demolished seating, new foundation work for support of gravity loads can be avoided in this area. Where foundation strengthening is required, micropiles, which can be installed in low headroom areas with tight access constraints, will be utilized. Strengthening of



roof to wall connections will also be required. As described above, modifications to the existing truss to eliminate its lateral load transfer to the wall at its lower hinge will likely be required.

Along the east wall of the arena, similar measures will be taken to those described for the north wall. Added floor area above the demolished seating will be treated in a similar manner. Strengthening of roof to wall connections will be required. In addition, bracing of the east wall gable end out of plane will be required along its full width. This will likely be accomplished by adding steel strongbacks (vertical tubes anchored to the wall that extend from the highest floor diaphragm to the roof). The modifications to the existing truss, described for the north wall are not required at the east wall.

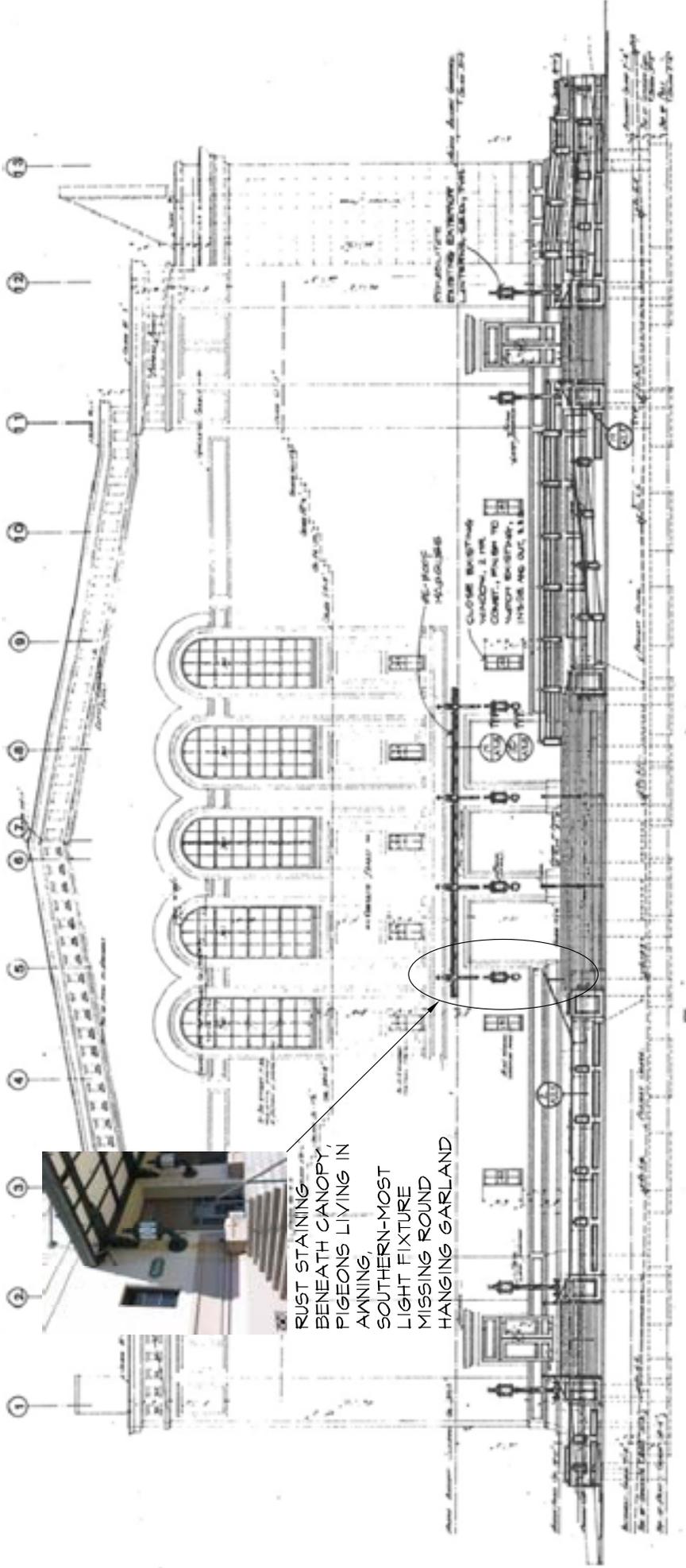
Along the south wall of the arena, similar measures will be taken to those described for the north wall. Added floor area above the demolished seating will be treated in a similar manner. Strengthening of roof to wall connections will be required. The modifications to the existing truss, described for the north wall are not required at the south wall, except where the truss intersects the concrete walls of an incline.

Along the west edge of the arena, the existing concrete wall will be considered part of the theater and will not be strengthened. As discussed above, the treatment of the seismic joint between the theater and the arena will be the subject of negotiation with the building department. The seismic joint across the roof will be on the order of 6" wide and will be placed on the arena side of the common wall between the arena and the theater. If the architect and the preservation architect conclude that it is important to preserve the north and south facades without a seismic joint, and if agreement is reached with the building department and the owner on this point, we would be pleased to support a structural solution that limits the joint to portions of the roof and eliminates it from the facades. As discussed above, preliminary discussions with the building department indicate that the joint can be eliminated from the north and south facades.

Rehabilitation

The roof deck over the arena trusses would be partially or entirely replaced in the context of reopening the original skylight. If it is desirable to prop the trusses at locations other than the center hinge, strengthening of the trusses may be required. If significant mechanical equipment will be placed on the roof, localized strengthening of the existing trusses may be required.

It is anticipated that restoration of the terra cotta in the niches along the north façade will be limited to repair of cracks and small spalls, and repointing of open joints. It is not expected that seismic anchorage of the terra cotta will be required. A limited number of terra cotta units in the two westernmost niches may require replacement. The new units will be anchored with stainless steel hardware.



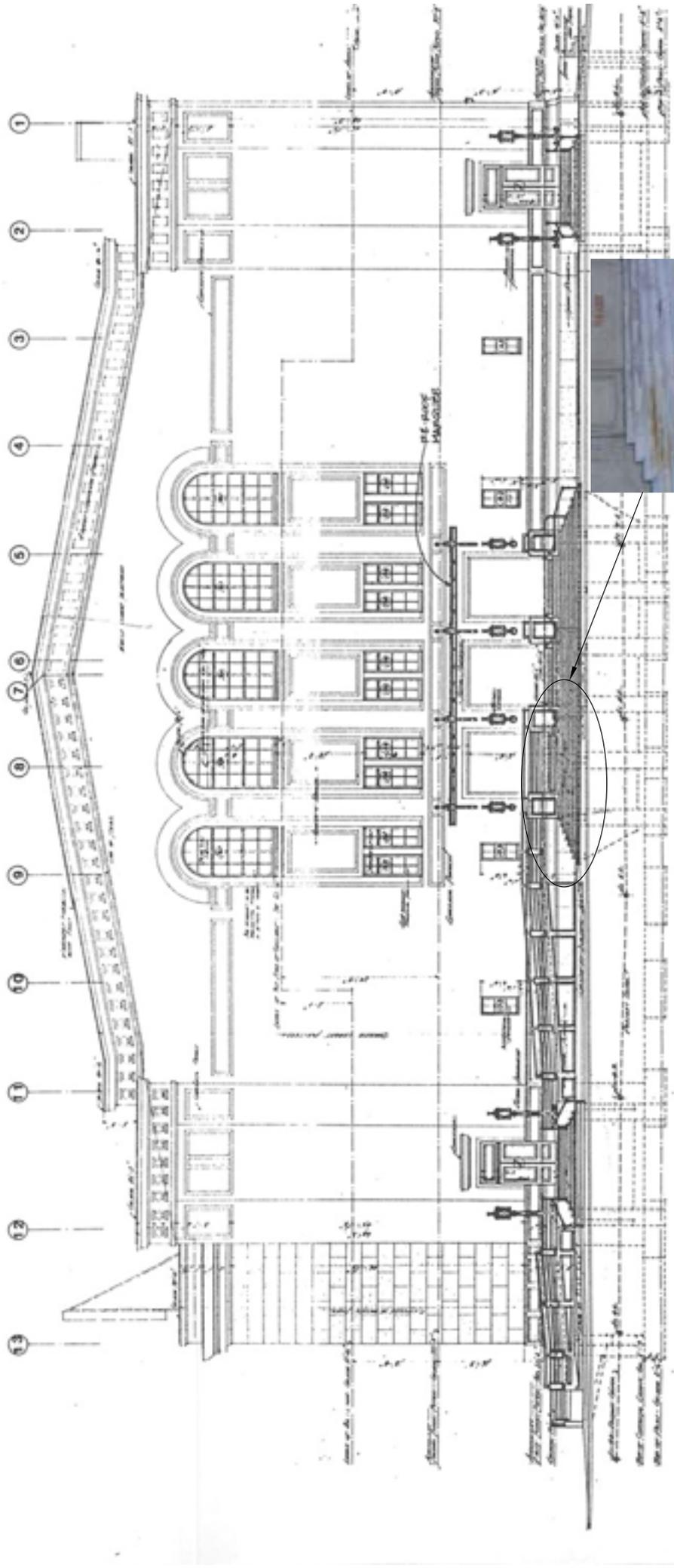
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 LIGHT FIXTURE
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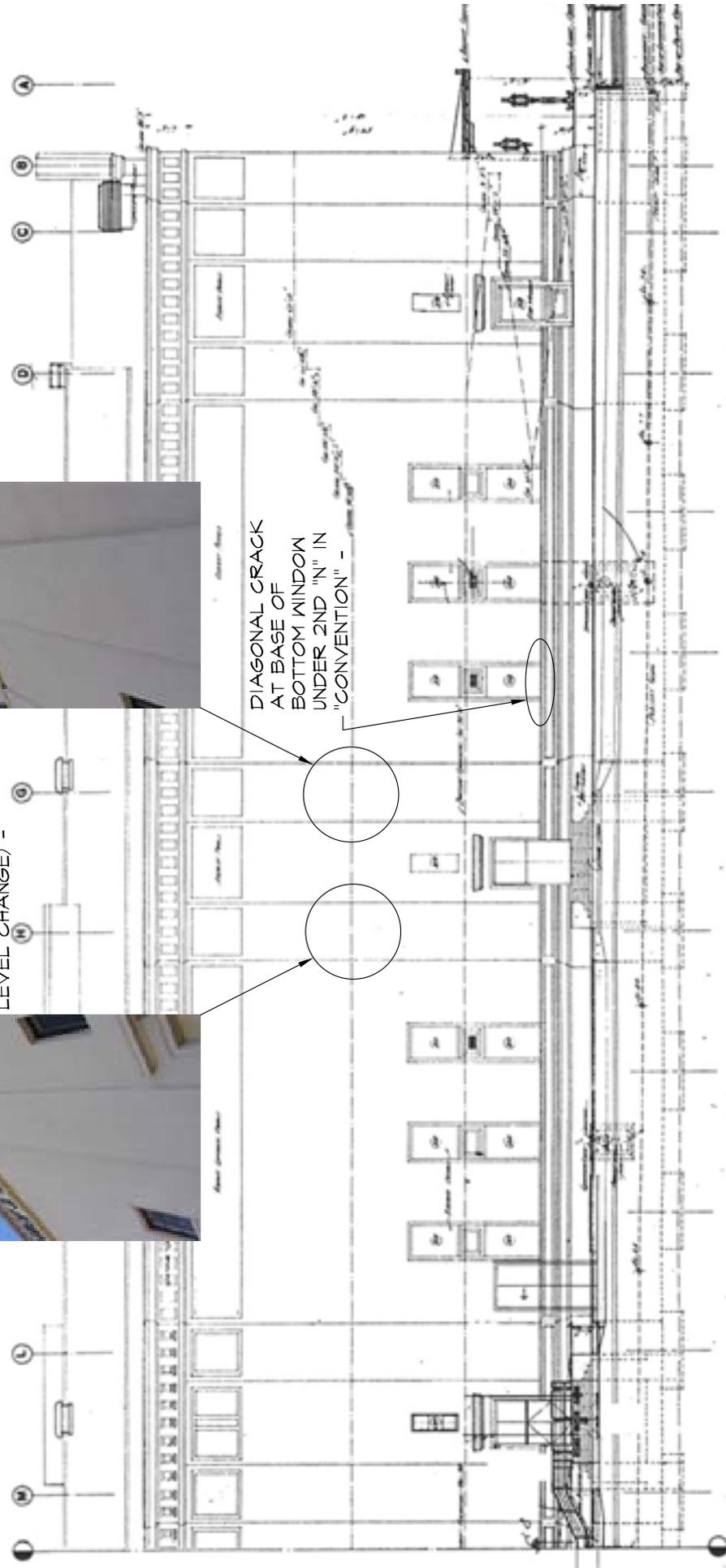
SIMILAR CRACK UNDER "E" IN "CONVENTION," BUT NOT AS BAD -



LARGE CRACK UNDER "R" IN "KAISER" HALF WALL DOWN WALL (AT LEVEL CHANGE) -

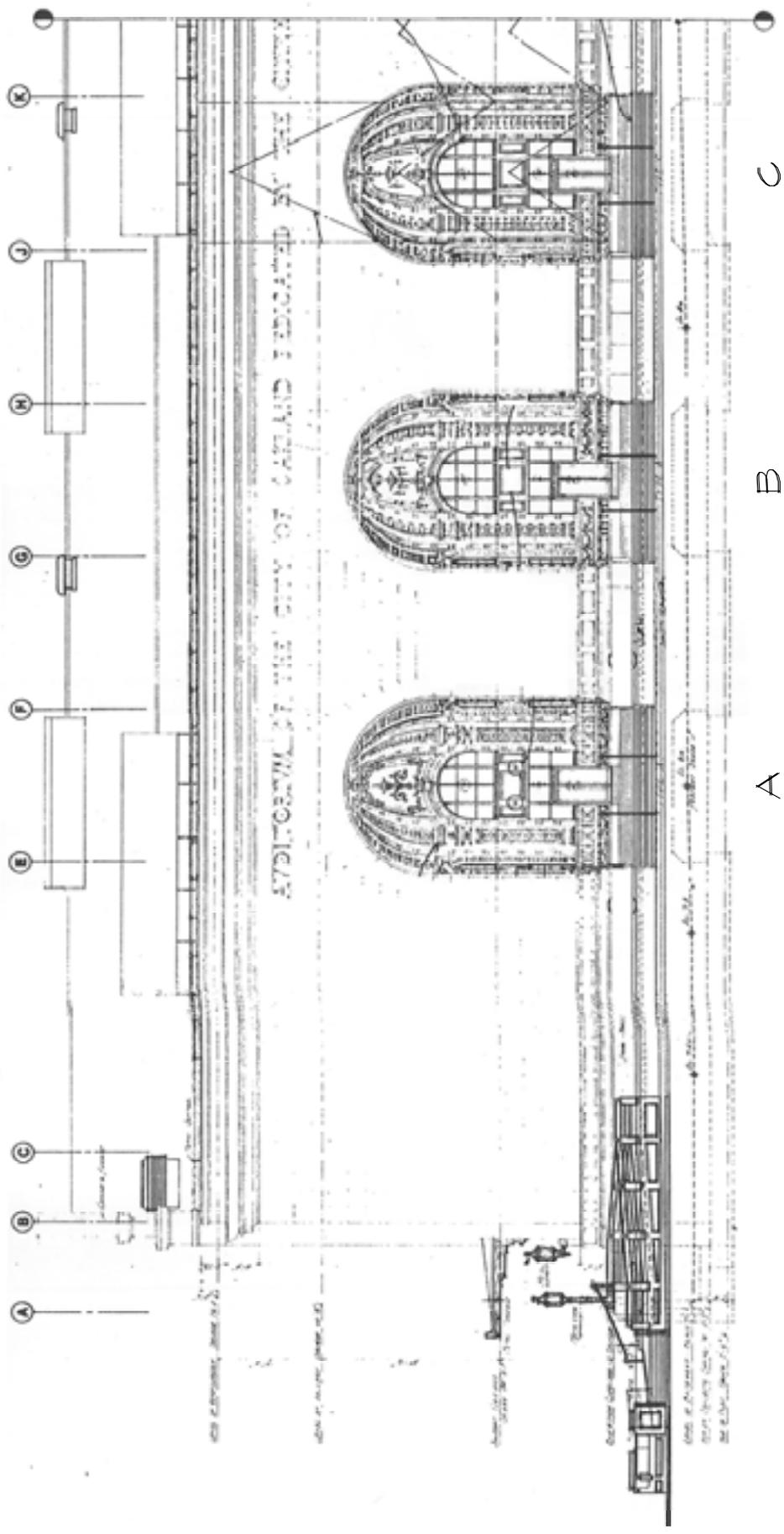


DIAGONAL CRACK AT BASE OF BOTTOM WINDOW UNDER 2ND "N" IN "CONVENTION" -



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ARCHITECTURE

SOUTH ELEVATION (EAST END)
NOT TO SCALE



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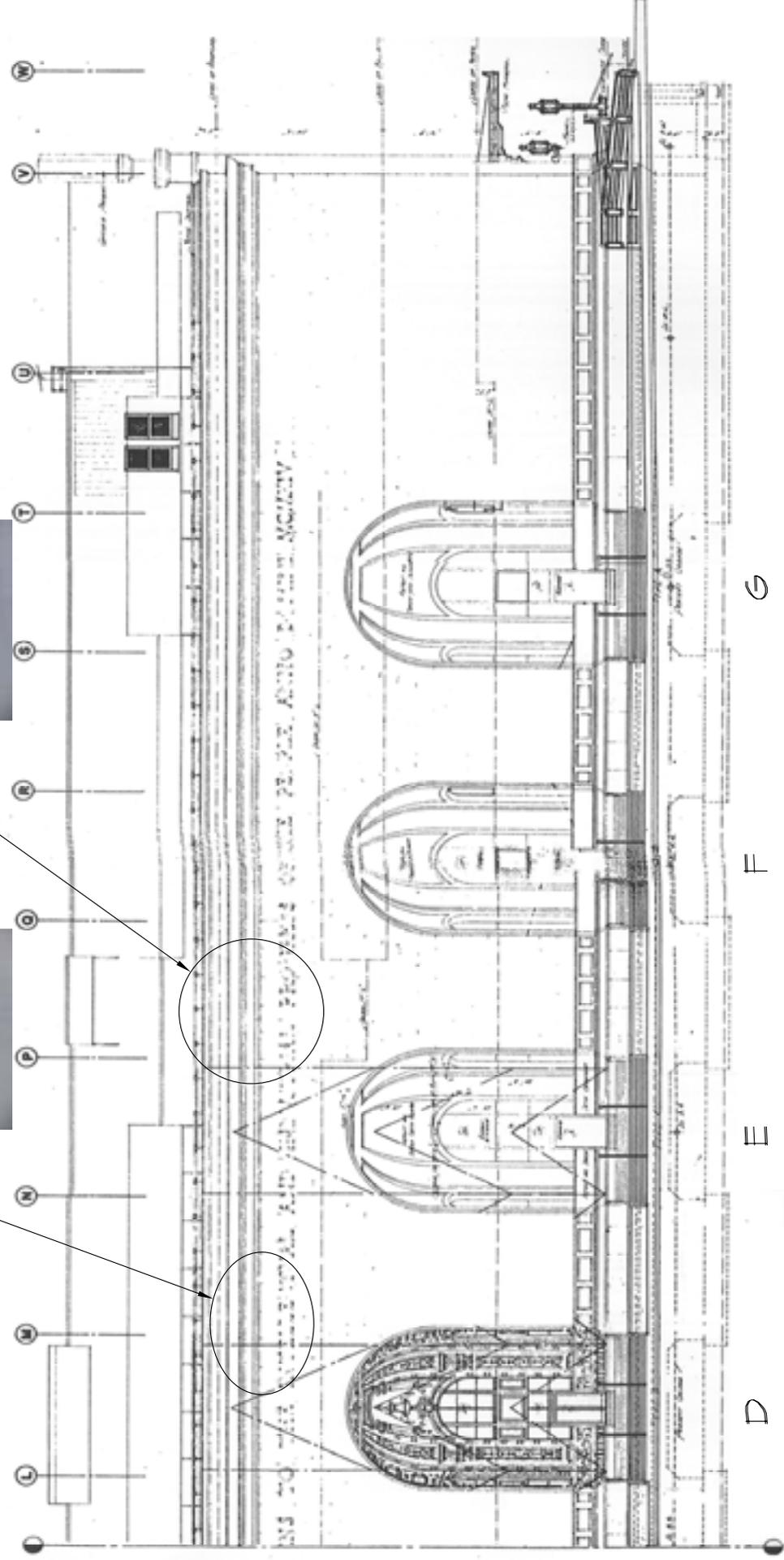
NORTH ELEVATION (EAST END)

NOT TO SCALE

WATER STAIN WITH RUST -
CHECK DRAINS,
SPOT CLEAN STAIN



WATER STAIN -
CHECK DRAINS,
SPOT CLEAN STAIN



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NORTH ELEVATION (WEST END)

NOT TO SCALE



SPALLED
ROSETTE
COAT BROKEN
EDGE

NICHE A

NOT TO SCALE



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ARCHITECTURE



PREVIOUS
BAD PATCH -
REPLACE



SPALLED
ROSETTE -
COAT BROKEN
EDGE



MINOR SURFACE SPALL -
COAT EXPOSED BISQUE

NICHE B

NOT TO SCALE



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3 SURFACE
SPALLS -
PATCH AND COAT



(TOP)



SPALLED CORNER PIECE -
COAT BROKEN EDGES

NICHE C

NOT TO SCALE



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ARCHITECTURE



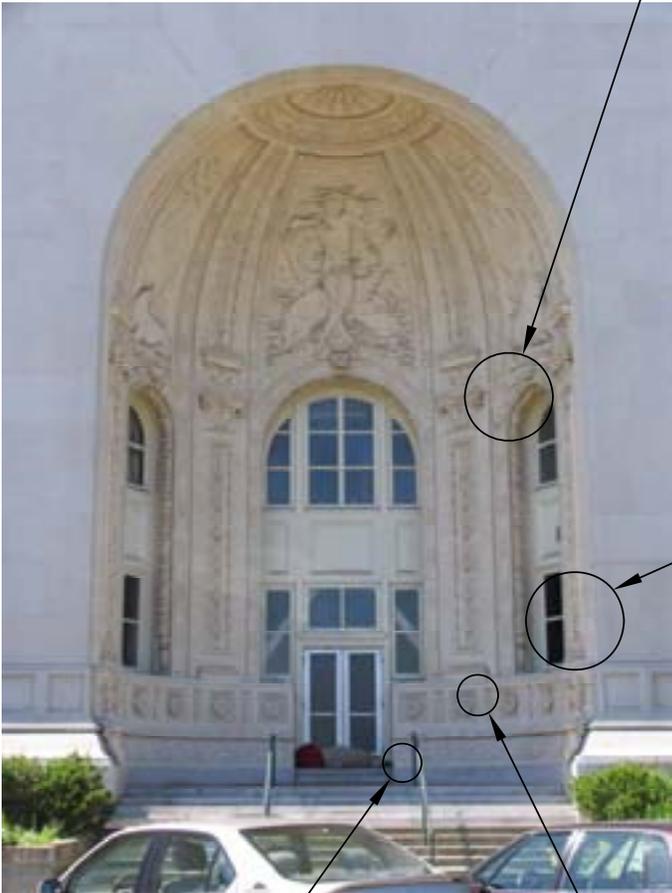
VERY MINOR SPALL -
COAT EXPOSED BISQUE

NICHE D

NOT TO SCALE



CAREY & CO. INC.
ARCHITECTURE



BAD PATCH -
REPLACE



CRACK -
PATCH, POSSIBLE
UNIT REPLACEMENT



MINOR SPALLS -
PATCH AND COAT



MINOR SPALLS -
PATCH AND COAT

NICHE E

NOT TO SCALE



CAREY & CO. INC.
ARCHITECTURE



MINOR CRACK
PATCH AND COAT



MINOR SPALL
PATCH AND COAT



MINOR SPALL
PATCH AND COAT

NICHE F

NOT TO SCALE



CAREY & CO. INC.
ARCHITECTURE



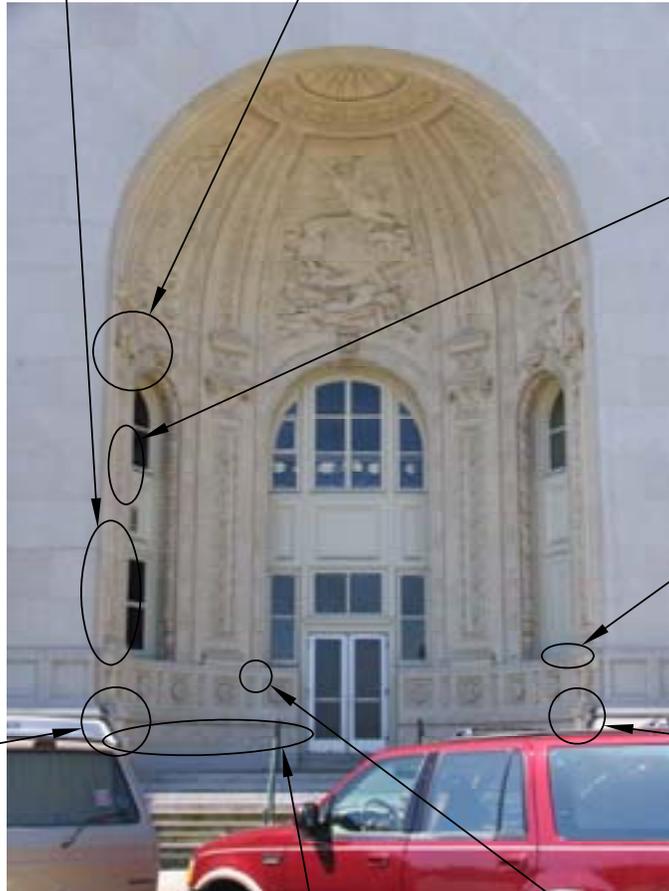
LARGE CRACK:
PATCH - POSSIBLE
UNIT REPLACEMENT



CRACK
PATCH AND COAT



MINOR CRACK
PATCH AND COAT



MINOR SPALLS
PATCH AND COAT



SPALLED CORNER
UNIT
COAT BROKEN EDGE



MINOR SPALL
PATCH AND COAT



NUMEROUS MINOR
SPALLS:
(POSSIBLE VANDALISM)
PATCH AND COAT



CRACK
PATCH

NICHE G

NOT TO SCALE



CAREY & CO. INC.
ARCHITECTURE

Oakland Public Library

**Feasibility Study of
Adaptive Reuse of Kaiser Arena
as a New Main Library
(150,000 GSF Scheme)**

**Preliminary Construction Cost Estimate
(An Opinion of Probable Construction Cost)**

Owner:
City of Oakland

Prepared for
Group 4 Architectural Research + Planning
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Prepared by
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Cost Estimating & Scheduling
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Oakland, CA 94612
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06/14//2006

file: 752OakLib-KaiserCC

Oakland Public Library

**Feasibility Study of
Adaptive Reuse of Kaiser Arena
as a New Main Library**

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**Oakland Public Main Library -Adaptive Reuse of Kaiser Arena
Feasibility Study
Preliminary Construction Cost Estimate
Preamble**

06/14//2006

- 1 This general plan construction cost estimate, which represents our opinion of probable construction cost, consists of the following integral sections:
 - a Basis of Estimate
 - b Estimate Summaries
 - c Estimate Details

- 2 The scope of estimate is based on the following:
 - a Feasibility Study of the Adaptive Reuse of Kaiser Arena as a New Main Library - Draft Report June 2006 by Group 4
 - b Notes on the Structural Concept for the Kaiser Auditorium by Rutherford & Chekene dated June 14, 2006.
 - c Notes on Historical Preservation by Carey & Company dated June 2006.
 - d Selective architectural & structural drawings of the existing Henry J. Kaiser Convention Center dated 23 July 1982.
 - e Observations during the site visit on January 25, 2006.
 - f Clarifications with Architect & Engineer.
 - g Area allocation by Group 4 dated 6/12/2006.

- 3 The estimate includes the following scope of work:
 - a Full demolition of the Arena below the roof trusses down to and including basement slab
 - b Temporary structural support and construction of existing structure.
 - c Renovation and upgrading of the perimeter areas of Arena.
 - d Construction of a new library within the existing envelope of the Arena, including new skylights and roofing.
 - e Associated roof replacement and fire alarm upgrade for the Theater area
 - f Associated miscellaneous work

- 4 The estimate specifically excludes the following items:
 - a Any work in the Theatre and the Ballrooms areas except limited improvements
 - b Exterior wall, doors and windows replacement, except cleaning and minor repair work.
 - c Hazmat abatement, if any
 - d Legal fees and finance costs
 - e Permit & plan check fees
 - f Utility connection fees
 - g Owner's administration costs
 - h Design, engineering, consulting and other soft costs
 - i Survey services, materials lab
 - j Project/Construction management

**Oakland Public Main Library -Adaptive Reuse of Kaiser Arena
Feasibility Study
Preliminary Construction Cost Estimate
Preamble**

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- k Change orders during construction
- l Cost escalation beyond the date of this estimate (we recommend 6% per year for the next three years)
- m Library equipment & furnishing

It is assumed that the above items, if needed, are included elsewhere in the owner's overall project budget.

- 5 The estimate is based on the following assumptions:
 - a The work will be constructed as one general contract..
 - b All work will be done during regular working hours. Assumed no overtime work is required.
 - c Unit costs are based on prevailing wage rates.
 - d The estimate is based on estimated prices, current as of June 2006, with a minimum of four responsible and responsive bids under a competitive bidding environment for a fixed price lump sum contract.
- 6 Allowances have been used for items which are required but are currently undefined.
- 7 The unit prices used in the direct cost estimate section are composite unit prices which include costs for material, labor, equipment and subcontractor's/supplier's mark-ups.
- 8 The following markups are added to the direct cost at the summary level:
 - General contractor's general condition, overhead & profit.
 - Design contingency to cover the costs of unforeseen design changes and the uncertainty of early quantity estimates.
 - Bid contingency to cover unforeseen construction and bid market conditions.
- 9 Cost Escalation
 - No cost escalation has been included in this estimate. We recommend that client carry a 6% per year average increase for the escalation for the next three years to the mid-point of construction.
- 10 The following is a list of some items that may affect the cost estimate:
 - a Modifications to the scope of work or assumptions included in this estimate
 - b Unforeseen sub-surface conditions such as rock and hazardous material
 - c Special phasing requirements
 - d Restrictive technical specifications or excessive contract conditions
 - e Any specified item of equipment, material, or product that cannot be obtained from at least three different sources
 - f Any other non-competitive bid situations.

**Oakland Public Main Library -Adaptive Reuse of Kaiser Arena
Feasibility Study
Preliminary Construction Cost Estimate
Preamble**

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- 11 The estimate has been prepared using accepted practices and it represents our opinion of probable construction costs. It is intended to be a determination of fair market value for the project construction. It is not a prediction of low bid. Since we have no control over market conditions (such as surges in steel and cement prices) and other factors which may affect the bid prices, we cannot and do not warrant nor guarantee that bids or ultimate construction costs will not vary from the cost estimate.
- 12 Please note that the estimate has been prepared based on very preliminary information and design assumptions which are subject to verifications and changes as the design progresses. An updated estimate should be prepared when more specific and detailed design information is available.
- 13 Abbreviations used in the estimate:
 - CY = cubic yard
 - EA = each
 - GSF = gross square foot
 - LB = pound
 - LF = linear foot
 - LOC=location
 - LS = lump sum
 - SF = square foot

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Grand Summary				06/14//2006	
	Section	Total	GSF	\$/GSF	% of Total
	GRAND ESTIMATE SUMMARY				
	New Added Area		113,600		
	Renovated Area		36,400		
	Total Area		150,000		
1.0	EXISTING WORK				
1.1	DEMOLITION	\$3,727,000	115,100	\$32.38	6%
1.2	TEMPORARY CONSTRUCTION	\$528,000	115,100	\$4.59	1%
1.3	REHABILITATION OF (E) AREA	\$11,639,000	36,600	\$318.01	20%
1.4	PRESERVATION OF EXTERIOR	\$945,000	150,000	\$6.30	2%
1.5	ROOFING & F.A. @ THEATER WORK	\$1,115,000	93,600	\$11.91	2%
2.0	NEW AREA CONSTRUCTION	\$39,522,000	113,400	\$348.52	69%
	TOTAL In 2006 Dollars	\$57,476,000	150,000	\$383.17	100%
3.0	ADD: THEATER IMPROVEMENTS In 2006 Dollars	\$2,640,990	93,600	\$28.22	
Note:	For a complete scope of the estimate including assumptions & qualifications, please also read the attached "Preamble" and "Estimate Details"				

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Summary for 113,400 SF New Floor Area		06/14//2006		113,400 GSF	
Ref.	Section		Total Cost	\$/GSF	
	SEE SECTION 5B) FOR DETAILS				
A10	FOUNDATIONS				
A1010	FOUNDATIONS		190,460	1.68	
A1020	SPECIAL FOUNDATIONS		1,662,000	14.66	
A1030	SLAB ON GRADE		213,050	1.88	
	FOUNDATIONS		2,065,510	18.21	
B10	SUPERSTRUCTURE				
B1010	FLOOR CONSTRUCTION		5,375,785	47.41	
B1020	ROOF CONSTRUCTION		576,000	5.08	
B1030	STAIR CONSTRUCTION		770,000	6.79	
	SUPERSTRUCTURE		6,721,785	59.28	
B20	EXTERIOR CLOSURE	EXISTING			
B30	ROOFING				
B3010	ROOF COVERINGS		268,800	2.37	
B3020	ROOF OPENINGS		1,212,000	10.69	
	ROOFING		1,480,800	13.06	
C10	INTERIOR CONSTRUCTION				
C1010	PARTITIONS		936,340	8.26	
C1020	INTERIOR DOORS		180,800	1.59	
C1030	SPECIALTIES		651,350	5.74	
	INTERIOR CONSTRUCTION		1,768,490	15.60	
C30	INTERIOR FINISHES				
C3010	WALL FINISHES		263,296	2.32	
C3020	FLOOR FINISHES		801,875	7.07	
C3030	CEILING FINISHES		758,100	6.69	

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Summary for 113,400 SF New Floor Area		06/14//2006 113,400 GSF		
Ref.	Section		Total Cost	\$/GSF
	INTERIOR FINISHES		1,823,271	16.08
D10	CONVEYING SYSTEMS			
D1010	ELEVATORS & LIFTS		840,000	7.41
	CONVEYING SYSTEMS		840,000	7.41
D15	MECHANICAL			
D1520	PLUMBING		1,814,400	16.00
D1530	HVAC		3,175,200	28.00
D1540	FIRE PROTECTION		703,600	6.20
	MECHANICAL		5,693,200	50.20
D50	ELECTRICAL			
D5010	ELECTRICAL DISTRIBUTION		1,070,600	9.44
D5020	LIGHTING & BRANCH WIRING		1,814,400	16.00
D5030	COMMUNICATION & SECURITY		963,900	8.50
D5040	SPECIAL ELECTRICAL SYSTEMS		708,750	6.25
	ELECTRICAL		4,557,650	40.19
E10	EQUIPMENT			
E1022	LIBRARY EQUIPMENT			
	EQUIPMENT			
E20	FURNISHINGS			
E2010	FIXED FURNISHINGS			
E2020	MOVABLE FURNISHINGS			
	FURNISHINGS			
	TOTAL DIRECT COSTS		24,950,706	220.02
	GENERAL CONDITIONS, OVERHEAD & PROFIT	20%	4,990,141	44.00

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Summary for 113,400 SF New Floor Area		06/14//2006 113,400 GSF		
Ref.	Section		Total Cost	\$/GSF
	Sub-Total		29,940,847	264.03
	DESIGN CONTINGENCY	25%	5,988,169	52.81
	Sub-Total		35,929,017	316.83
	CONSTRUCTION MANAGER			
	Sub-Total		35,929,017	316.83
	ESCALATION To start of construction To mid point of construction	TO BE ADDED		
	SUBTOTAL		35,929,017	316.83
	BID CONTINGENCY	10%	3,592,902	31.68
	Sub-Total		39,521,918	348.52
	DESIGN FEES PERMITS, LICENSES, FEES	TO BE ADDED TO BE ADDED		
	ESTIMATE TOTAL FOR BUILDING		39,521,918	348.52

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena
 Feasibility Study
 Preliminary Construction Cost Estimate
 Work on Existing Arena

06/14//2006

Elem.	Description	Quantity	U.o.M.	Unit Cost	Total	
G10	DEMOLITION					
	Demolish including haul-off					
	Concrete slab, main floor	30,100	sf	5.50	165,550	
	Concrete beams, main floor	2,575	lf	55.00	141,625	
	Pile caps	63	ea	1000.00	63,000	
	Concrete columns, basement	63	ea	1500.00	94,500	
	Basement slab	30,100	sf	3.50	105,350	
	Arena concrete seating & supporting steel framing	18,300	sf	16.00	292,800	
	Selective demolition, non-struct area	23,100	sf	8.00	184,800	
	Selective demolition, preservation area	13,500	sf	17.00	229,500	
	Cantilevered steel framing for seating below Vomitoria	26	ea	4000.00	104,000	
	Tension cables	1	ls	50000.00	50,000	
	Roofing	48,400	sf	1.50	72,600	
	Roof deck	48,400	sf	3.00	145,200	
	Mechanical	115,100	sf	2.50	287,750	
	Electrical	115,100	sf	2.80	322,280	
	DIRECT COSTS -DEMOLITION					2,258,955
	GENERAL CONDITIONS, OVERHEAD & PROFIT				20%	451,791
	Sub-Total					2,710,746
	DESIGN CONTINGENCY				25%	677,687
	Sub-Total					3,388,433
	ESCALATION				TO BE ADDED	
SUBTOTAL					3,388,433	
BID CONTINGENCY				10%	338,843	
TOTAL - DEMOLITION					3,727,276	
G20	TEMPORARY CONSTRUCTION					
	Temporary support of trusses	11	ea	20000.00	220,000	
	Other temporary construction/support	1	ls	100000.00	100,000	

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena
 Feasibility Study
 Preliminary Construction Cost Estimate
 Work on Existing Arena

06/14//2006

Elem.	Description	Quantity	U.o.M.	Unit Cost	Total
	DIRECT COSTS -TEMPORARY CONSTRUCTION				320,000
	GENERAL CONDITIONS, OVERHEAD & PROFIT			20%	64,000
	Sub-Total				384,000
	DESIGN CONTINGENCY			25%	96,000
	Sub-Total				480,000
	ESCALATION			TO BE ADDED	
	SUBTOTAL				480,000
	BID CONTINGENCY			10%	48,000
	TOTAL - TEMPORARY CONSTRUCTION				528,000
G30	REHABILITATION OF EXISTING ARENA				
	Structural separation Arena/Theater	1	ls	400000.00	400,000
	Prop the trusses	11	ea	50000.00	550,000
	Modify knees of roof trusses at north wall	20	ea	10000.00	200,000
	Roof & skylights	See New Work Section			
	Renovate bath rooms	4	ea	50000.00	200,000
	Out of plan wall bracing at east wall	10	ea	10000.00	100,000
	Seismic rehabilitation	1	ls	600000.00	600,000
	One hour fire proofing to structural steel	48,000	sf	4.00	192,000
	Paint exposed roof trusses	48,000	sf	1.50	72,000
	Renovate existing non-historical areas	23,100	sf	100.00	2,310,000
	Renovate existing historic areas	13,500	sf	180.00	2,430,000
	DIRECT COSTS -REHABILITATION OF EXISTING ARENA				7,054,000
	GENERAL CONDITIONS, OVERHEAD & PROFIT			20%	1,410,800
	Sub-Total				8,464,800
	DESIGN CONTINGENCY			25%	2,116,200

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena					
Feasibility Study				06/14//2006	
Preliminary Construction Cost Estimate					
Work on Existing Arena					
Elem.	Description	Quantity	U.o.M.	Unit Cost	Total
	Sub-Total				10,581,000
	ESCALATION			TO BE ADDED	
	SUBTOTAL				10,581,000
	BID CONTINGENCY			10%	1,058,100
	TOTAL - REHABILITATION OF EXISTING ARENA				11,639,100
G40	PRESERVATION OF EXTERIOR ELEVATIONS				
	General cleaning of exterior elevations				
	Solid wall	72,700	sf	1.00	72,700
	Windows	3,500	sf	3.00	10,500
	Doors	7,000	sf	3.00	21,000
	Minor repair & painting of canopies	2,800	sf	12.00	33,600
	Replace (E) door with glazed bronze door	7	pair	10000.00	70,000
	Repair/patch damaged terra cotta	15	locs	6000.00	90,000
	Replace damaged terra cotta	5	locs	15000.00	75,000
	Examine & repair historic windows, doors, light fixtures and other metal elements	1	ls	200000.00	200,000
	DIRECT COSTS -PRESERVATION OF EXTERIOR ELEVATIONS				572,800
	GENERAL CONDITIONS, OVERHEAD & PROFIT			20%	114,560
	Sub-Total				687,360
	DESIGN CONTINGENCY			25%	171,840
	Sub-Total				859,200
	ESCALATION			TO BE ADDED	
	SUBTOTAL				859,200
	BID CONTINGENCY			10%	85,920
	TOTAL - PRESERVATION OF EXTERIOR ELEVATIONS				945,120
G50	ROOFING & F.A. @ THEATER				

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena						06/14//2006
Feasibility Study						
Preliminary Construction Cost Estimate						
Work on Existing Arena						
Elem.	Description	Quantity	U.o.M.	Unit Cost	Total	
	Replace roofing	26,800	sf	6.00	160,800	
	Upgrade fire alarm system	93,600	sf	5.50	514,800	
DIRECT COSTS -ROOFING & F.A. @ THEATER					675,600	
GENERAL CONDITIONS, OVERHEAD & PROFIT				20%	135,120	
Sub-Total					810,720	
DESIGN CONTINGENCY				25%	202,680	
Sub-Total					1,013,400	
ESCALATION				TO BE ADDED		
SUBTOTAL					1,013,400	
BID CONTINGENCY				10%	101,340	
TOTAL - ROOFING & F.A. @ THEATER					1,114,740	

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Details for New Floor Area						06/14//2006	113,400 GSF
Elem.	Description	Quantity	U.o.M.	Unit Cost	Total	Assumptions/Remarks	
A1010	FOUNDATIONS						
	Continuous footings/grade beams	2,140	lf	89.00	190,460	2'x2' ftg	
	FOUNDATIONS				190,460		
A1020	SPECIAL FOUNDATIONS						
	Drilled piles, 80 ft long	189	ea	8000.00	1,512,000	600 gsf/ea	
	Pile caps	60	ea	2500.00	150,000		
	SPECIAL FOUNDATIONS				1,662,000		
A1030	SLAB ON GRADE						
	Slab on grade	30,100	sf	5.50	165,550	5" thick, (E) AB,	
	Premium for elevator pits	5	ea	8500.00	42,500		
	Waterproofing elevator pits	5	ea	1000.00	5,000		
	SLAB ON GRADE				213,050		
B1010	FLOOR CONSTRUCTION						
	Structural steel framing,	964	ton	3500.00	3,374,000	17 lb/gsf	
	Connection: new struct & (E) ext wall	680	lf	200.00	136,000	At roof level	
	Metal decking	83,300	sf	3.95	329,035		
	Concrete fill, reinforce	83,300	sf	8.50	708,050	Light wt conc	
	SOFP to structural steel	964	ton	325.00	313,300		
	Expansion joint assembly	2,010	lf	200.00	402,000	With (E) floor @ 3 levels	
	Misc. items	113,400	sf	1.00	113,400		
	FLOOR CONSTRUCTION				5,375,785		
B1020	ROOF CONSTRUCTION						
	New roof deck & framing	38,400	sf	15.00	576,000		
	ROOF CONSTRUCTION				576,000		
B1030	STAIR CONSTRUCTION						
	Fire stairs	3	ea	150000.00	450,000	Bsmt to roof	
	Grand stair	1	ea	320000.00	320,000	Bsmt to 4/F	
	STAIR CONSTRUCTION				770,000		
B2010	EXTERIOR WALLS						
	Existing						
	EXTERIOR WALLS						

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Details for New Floor Area						06/14//2006 113,400 GSF	
Elem.	Description	Quantity	U.o.M.	Unit Cost	Total	Assumptions/Remarks	
B2020	EXTERIOR WINDOWS Existing						
	EXTERIOR WINDOWS						
B2030	EXTERIOR DOORS Existing						
	EXTERIOR DOORS						
B3010	ROOF COVERINGS New roofing	38,400	sf	4.50	172,800		
	Roof insulation	38,400	sf	2.50	96,000		
	ROOF COVERINGS				268,800		
B3020	ROOF OPENINGS Skylights	10,100	sf	120.00	1,212,000		
	ROOF OPENINGS				1,212,000		
C1010	PARTITIONS Interior partitions of metal studs & gypsum board	68,040	sf	8.50	578,340	0.6 sf/gsf	
	Atrium parapets/guardrails	1,600	lf	180.00	288,000	Allowance	
	Operable partitions	1,000	sf	70.00	70,000	Allowance	
	PARTITIONS				936,340		
C1020	INTERIOR DOORS Interior door/frame/hardware	113	ea	1600.00	180,800	1 per 1000 gsf	
	INTERIOR DOORS				180,800		
C1030	SPECIALTIES						
	Toilet partitions & accessories - with Rehab						
	Cabinetry & finish carpentry	113,400	gsf	2.50	283,500		
	Book drop	1	ea	10000.00	10,000		
	Lockers	80	ea	275.00	22,000		
	Main signage	1	ls	20000.00	20,000		
	General signage & graphic	113,400	gsf	1.50	170,100		
	Visual display board, allow	1	ls	17500.00	17,500		
	Wall & corner guards, allow	1	ls	10500.00	10,500		
	Fire extinguisher & cabinet	1	ls	10000.00	10,000		
	SS recessed entry grilles	1	ls	3500.00	3,500		
	Projection screen	1	ls	15000.00	15,000		
	Flag pole	1	ls	4200.00	4,200		

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Details for New Floor Area						06/14//2006 113,400 GSF	
Elem.	Description	Quantity	U.o.M.	Unit Cost	Total	Assumptions/Remarks	
	Misc. specialties	113,400	gsf	0.75	85,050		
	SPECIALTIES				651,350		
C3010	WALL FINISHES						
	Paint on gypsum board	136,080	sf	1.20	163,296		
	Allow for special finishes/wall paper	1	ls	100000.00	100,000		
	WALL FINISHES				263,296		
C3020	FLOOR FINISHES						
	Stone tile	2,000	sf	40.00	80,000	entry	
	Cork	28,350	sf	7.50	212,625	25% of total	
	Vinyl tiles	3,000	sf	3.00	9,000		
	Carpet tile	80,050	sf	5.00	400,250		
	Bathroom finishes	1	ls	100000.00	100,000		
	FLOOR FINISHES				801,875		
C3030	CEILING FINISHES						
	Decorative wood ceiling	14,000	sf	25.00	350,000		
	Gypsum board, painted	3,000	sf	7.50	22,500		
	Acoustical tiles	96,400	sf	4.00	385,600		
	CEILING FINISHES				758,100		
D1010	ELEVATORS & LIFTS						
	Passenger elevators, 5 stops, 2 doors	3	ea	180000.00	540,000		
	Freight elevators, 5 stops, 2 doors	2	ea	150000.00	300,000		
	ELEVATORS & LIFTS				840,000		
D1520	PLUMBING						
	Plumbing budget allowance	113,400	gsf	16.00	1,814,400	80 fixtures	
	PLUMBING				1,814,400		
D1530	HVAC						
	HVAC system, budget allowance	113,400	gsf	28.00	3,175,200		
	HVAC				3,175,200		
D1540	FIRE PROTECTION						
	Fire sprinkler system, design build	113,400	gsf	4.00	453,600		
	Smoke control system at Atrium	1	ls	250000.00	250,000		

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena Feasibility Study Preliminary Construction Cost Estimate Details for New Floor Area						06/14//2006 113,400 GSF	
Elem.	Description	Quantity	U.o.M.	Unit Cost	Total	Assumptions/Remarks	
	FIRE PROTECTION				703,600		
D5010	ELECTRICAL DISTRIBUTION						
	Power distribution	113,400	gsf	5.00	567,000		
	Wiring devices, including conduits & conductors	113,400	gsf	4.00	453,600		
	Emergency power	1	ls	50000.00	50,000		
	ELECTRICAL DISTRIBUTION				1,070,600		
D5020	LIGHTING & BRANCH WIRING						
	Lighting & branch wiring	113,400	gsf	16.00	1,814,400		
	LIGHTING & BRANCH WIRING				1,814,400		
D5030	COMMUNICATION & SECURITY						
	Communication & security	113,400	gsf	8.50	963,900		
	COMMUNICATION & SECURITY				963,900		
D5040	SPECIAL ELECTRICAL SYSTEMS						
	Fire alarm system	113,400	gsf	5.50	623,700		
	Clock system	113,400	gsf	0.75	85,050		
	SPECIAL ELECTRICAL SYSTEMS				708,750		
E1022	LIBRARY EQUIPMENT						
	Library Equipment Allowance		NIC			shows up outside of budget	
	LIBRARY EQUIPMENT						
E1025	AUDIO-VISUAL EQUIPMENT						
				With Library Equipment			
E2010	FIXED FURNISHINGS						
	Furnishing Allowance		NIC				
	FIXED FURNISHINGS						

Oakland Public Main Library -Adaptive Reuse of Kaiser Arena					
Feasibility Study				06/14//2006	
Preliminary Construction Cost Estimate					
Work on Existing Arena					
Elem.	Description	Quantity	U.o.M.	Unit Cost	Total
	THEATER IMPROVEMENTS				
	New painting	54,800	sf	2.00	109,600
	New carpet	54,800	sf	7.50	411,000
	Upgrade sound system	54,800	sf	9.00	493,200
	Upgrade lighting system	54,800	sf	10.00	548,000
	Upgrade fire alarm system			With Library Section	
	Replace roofing			With Library Section	
	Theater "As Is" area	38,800	sf	1.00	38,800
	DIRECT COSTS -THEATER IMPROVEMENTS				1,600,600
	GENERAL CONDITIONS, OVERHEAD & PROFIT			20%	320,120
	Sub-Total				1,920,720
	DESIGN CONTINGENCY			25%	480,180
	Sub-Total				2,400,900
	ESCALATION			TO BE ADDED	
	SUBTOTAL				2,400,900
	BID CONTINGENCY			10%	240,090
	TOTAL - THEATER IMPROVEMENTS				2,640,990