Background:
In the Fall of 2012 Plum Architects and Louisa Van Leer Design collaborated to assist the Friends of the Southwest Museum in preparing three conceptual designs with cost estimates to help reimagine what the historic Southwest Museum could be. The fruits of these labors were presented to Council Member Ed Reyes and a variety of City Planners, Architectural Historians, Community Leaders during several Working Group Sessions sponsored by Council District 1 and the City of Los Angeles in the Fall of 2013. The purpose of the Working Group Sessions was to bring all the parties to the table to help restart the dialogue concerning the fate of Southwest Museum, which is threatened with closure if further action is not taken. The Autry Museum is currently in control of the Southwest Museum Facility and the Casa de Adobe Facility as well as the extensive collection of museum artifacts. At the time of this printing it is not yet clear what the fate of the Museum will be.

Design Approach
Our design approach was to fully explore the myriad of options to rehabilitate the existing Southwest Museum with special emphasis placed on utilizing all corners of the existing Historic Register Building, including the Caracol and Torrance Towers. June 2013

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LOUISA VAN LEER DESIGN

SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN

N

N.T.S.
11.7.12

SITE PLAN

SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN

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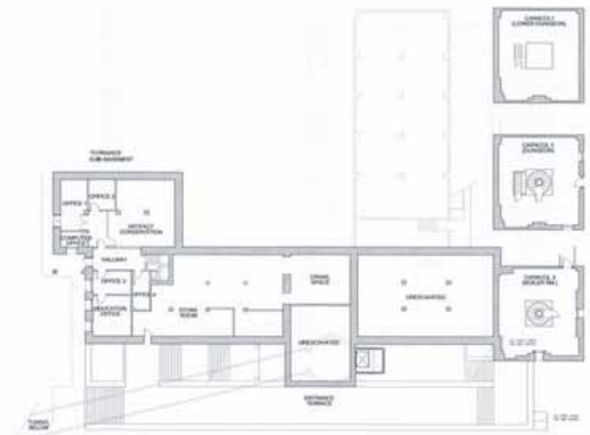
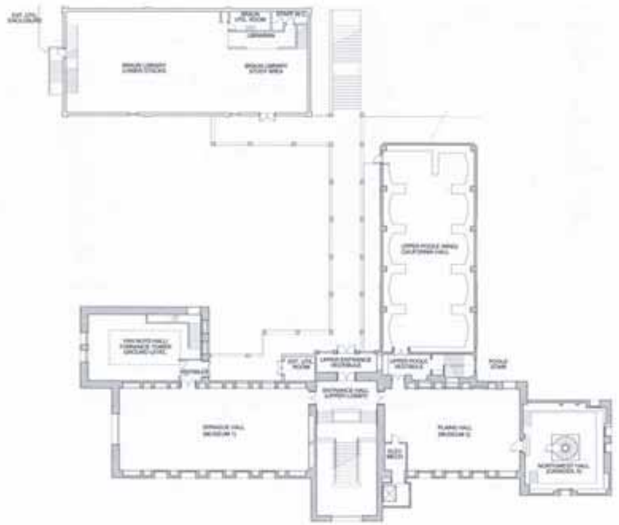


BASEMENT PLAN

FIRST FLOOR PLAN



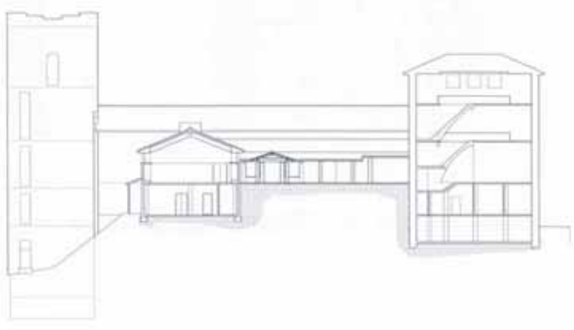
2ND FLOOR PLAN

3RD FLOOR PLAN
(4TH FLOOR SIMILAR)

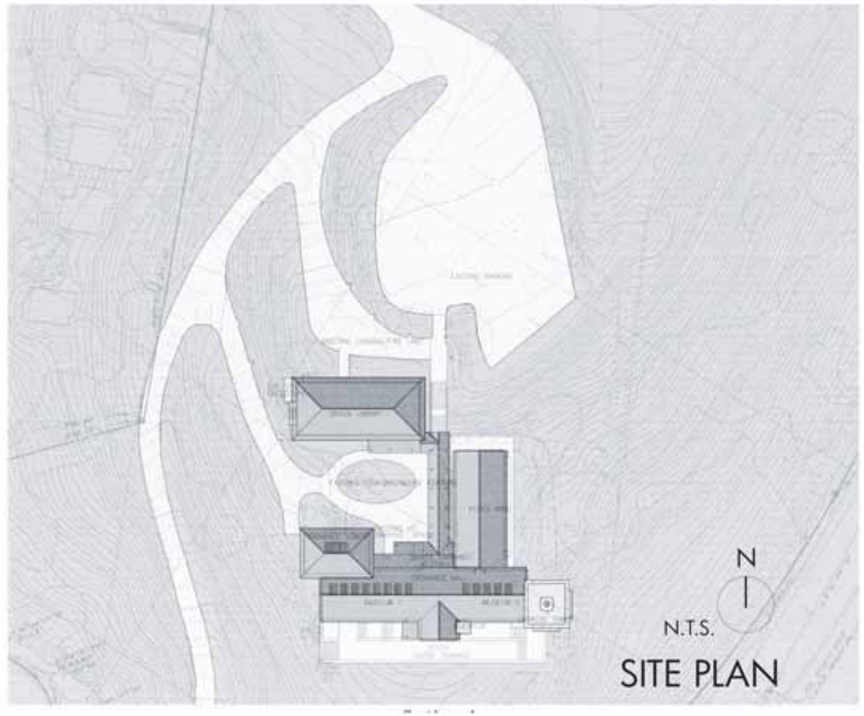
SOUTH ELEVATION

NORTH ELEVATION

SECTION: SPRAGUE, PLAINS & CARACOL



SECTION: POOLE & TORRANCE



SITE PLAN

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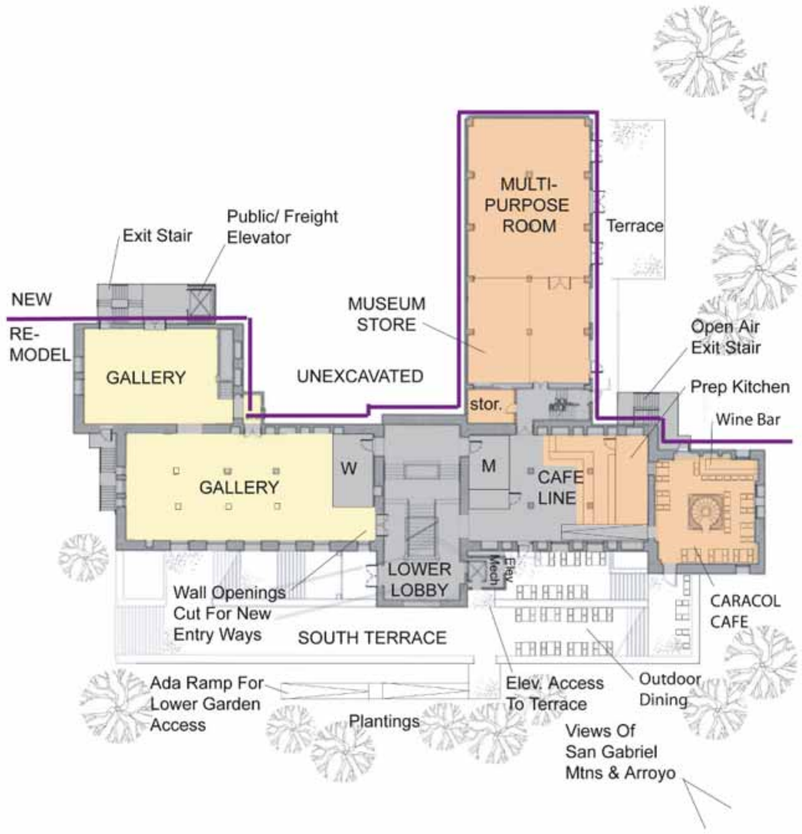
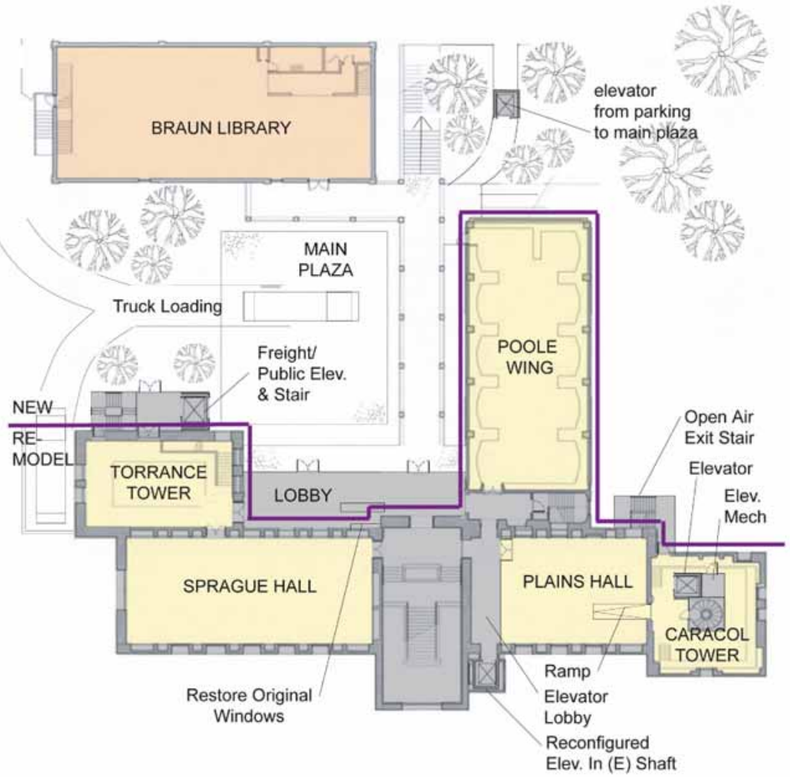
EXISTING BUILDING

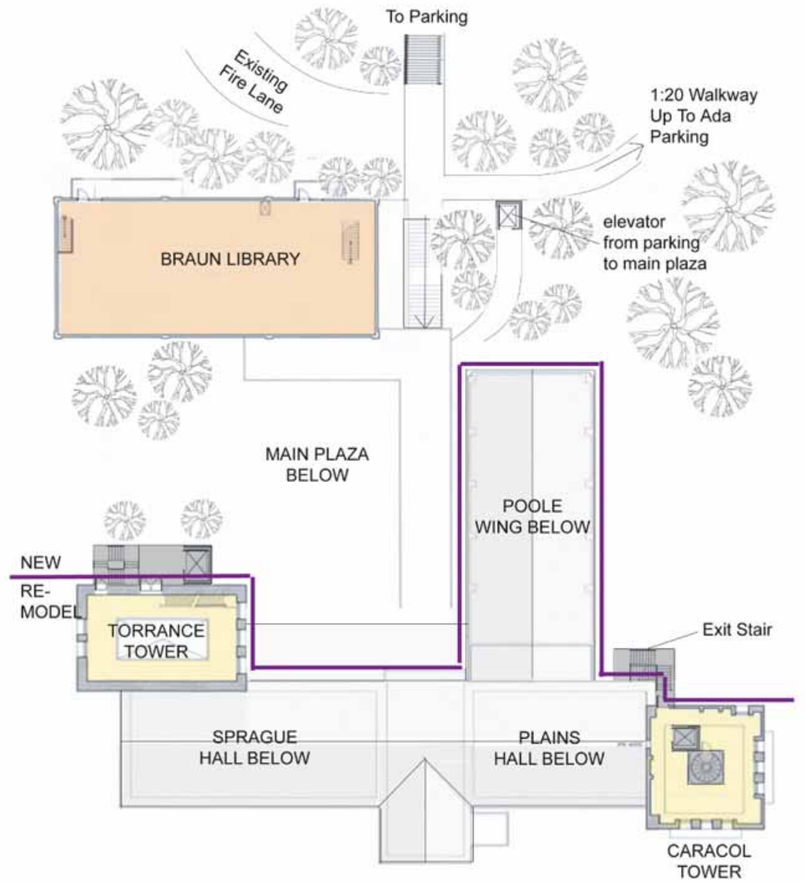
SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN



1ST FLOOR
(basement not shown)



2ND FLOOR



3RD FLOOR
(4th floor similar)

GALLERY SQUARE FOOTAGE: 9,875 SF Existing
13,998 SF Proposed Option A

LEGEND:

GALLERY PROGRAM | CIRCULATION & CORE FUNCTIONS | NON-GALLERY PROGRAM | ADMIN/SUPPORT PROGRAMS | BOUNDARY LINE BETWEEN NEW & REMODEL CONSTRUCTION

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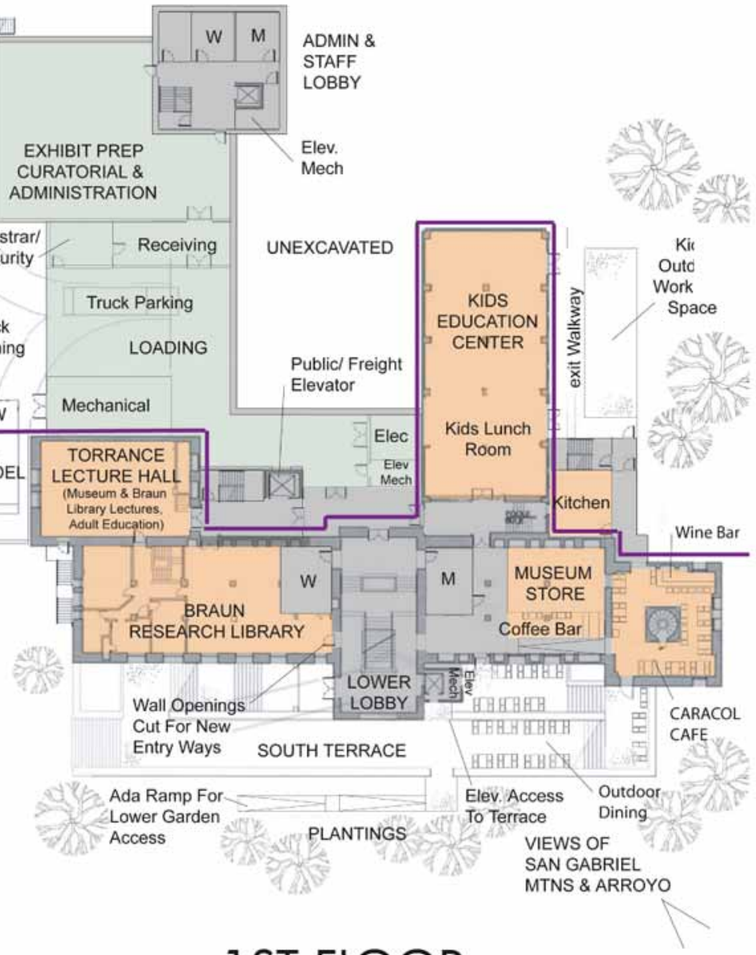
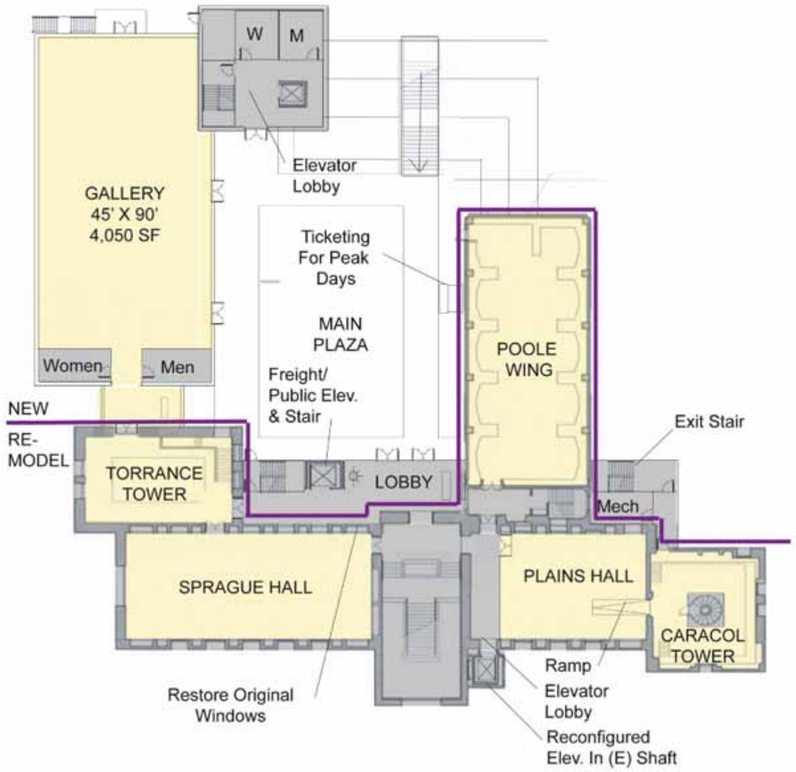
OPTION A

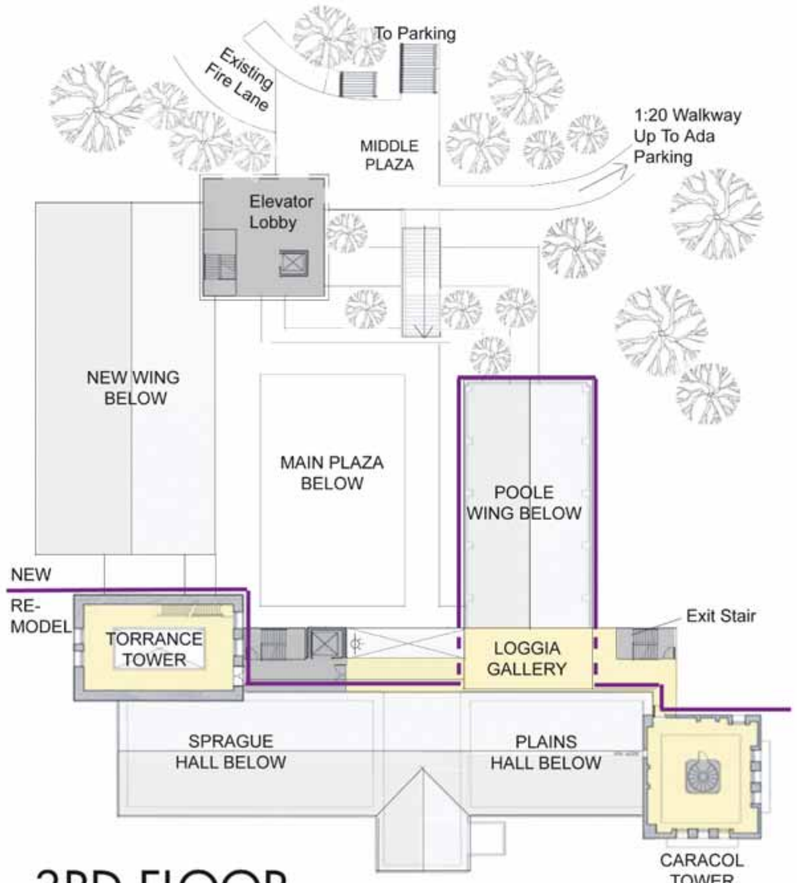
SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN



1ST FLOOR
(basement not shown)



2ND FLOOR



3RD FLOOR

4TH FLOOR
(partial)

GALLERY SQUARE FOOTAGE: 9,875 SF Existing
17,495 SF Proposed Option B

LEGEND:

GALLERY PROGRAM | CIRCULATION & CORE FUNCTIONS | NON-GALLERY PROGRAM | ADMIN/SUPPORT PROGRAMS | BOUNDARY LINE BETWEEN NEW & REMODEL CONSTRUCTION

N

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10.4.12

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OPTION B

SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN

OPTION B:
SKETCH VIEW FROM THE NORTH

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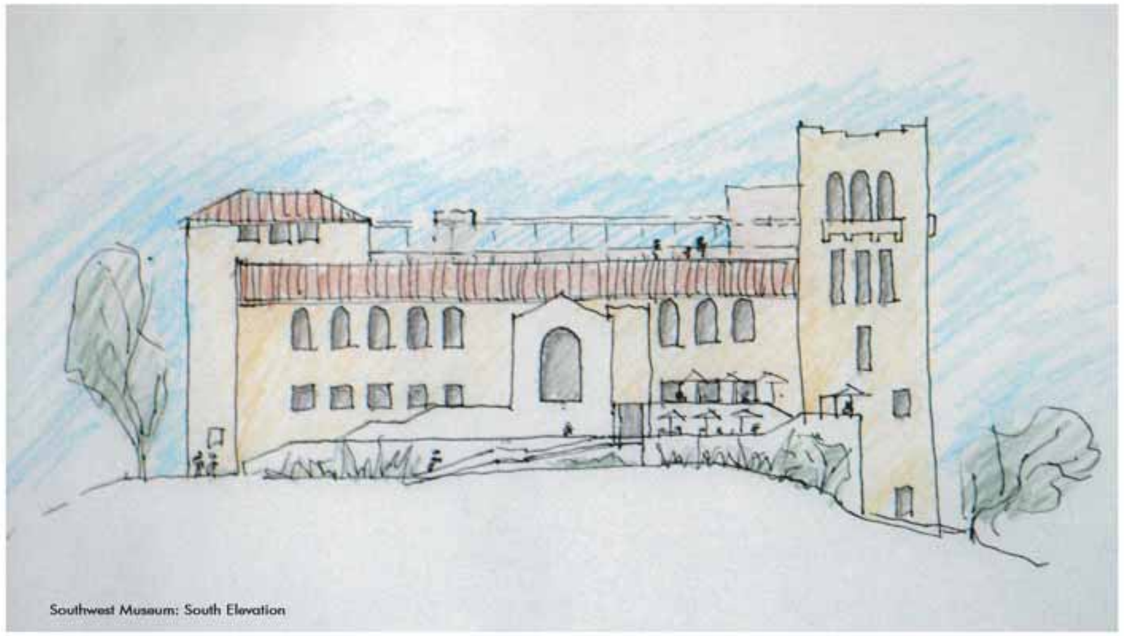
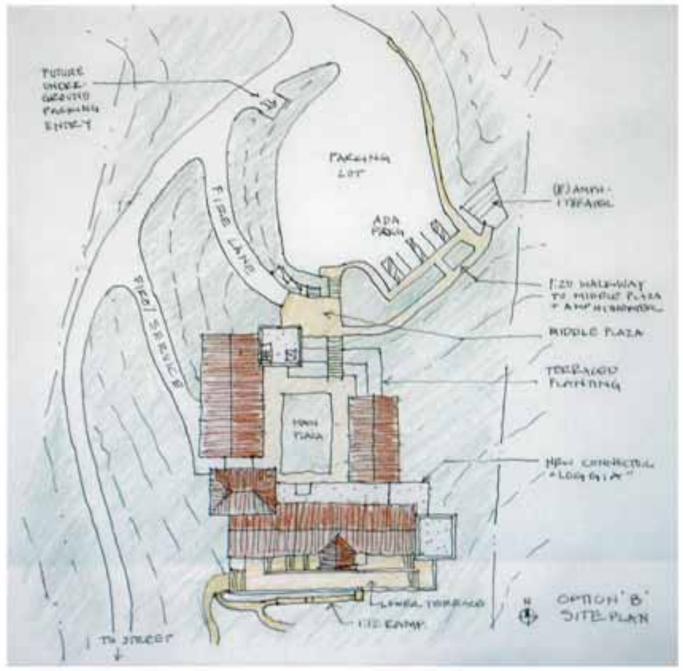
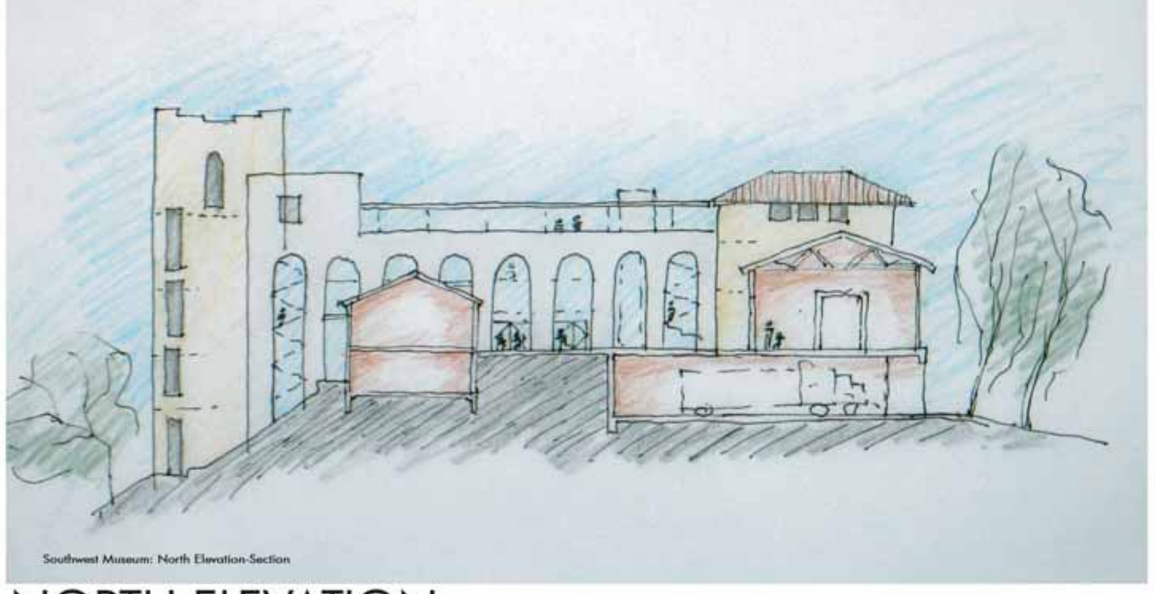
OPTION B
SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN



SOUTH ELEVATION



SITE PLAN



NORTH ELEVATION

EAST ELEVATION

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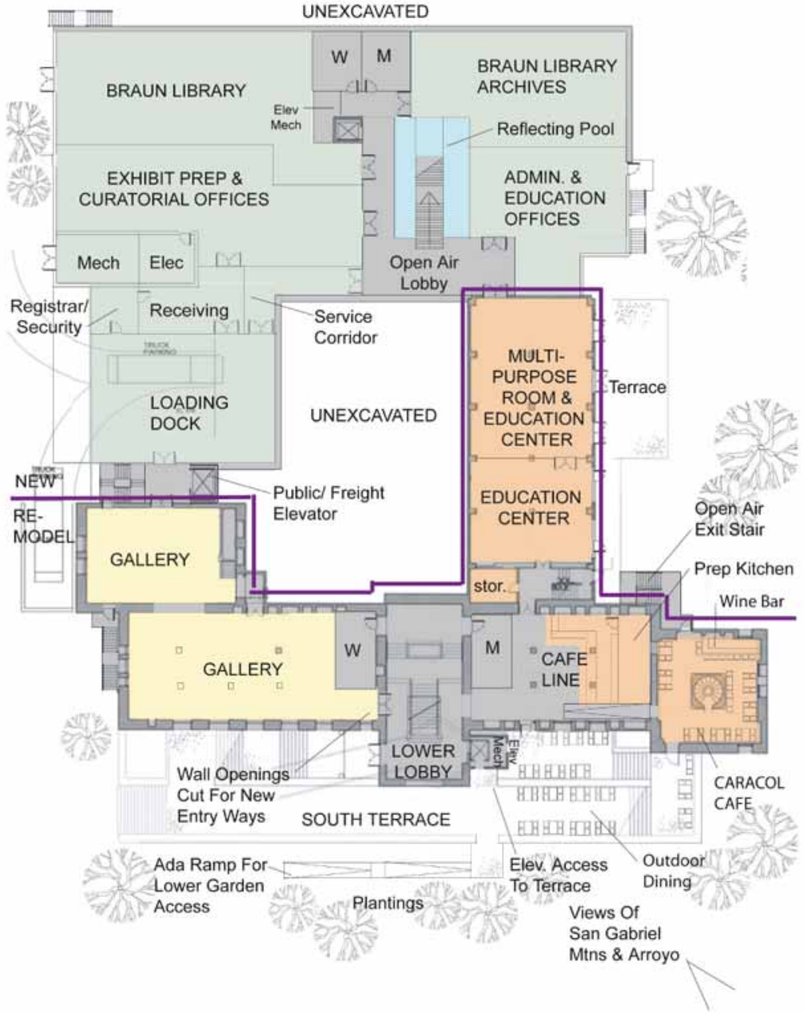
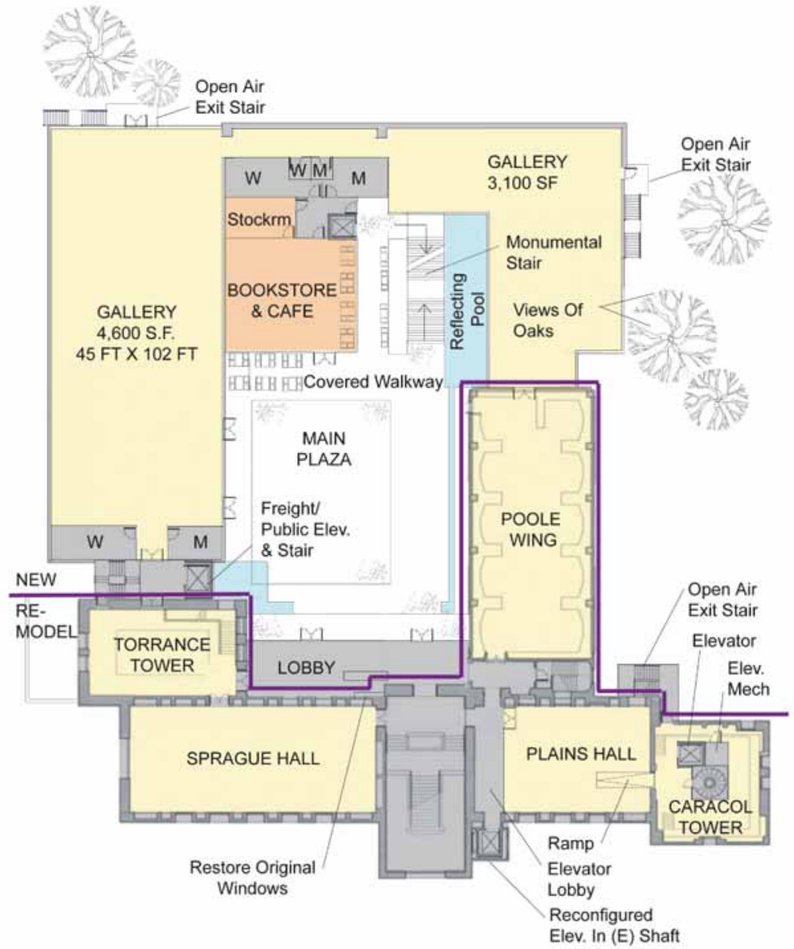
OPTION B

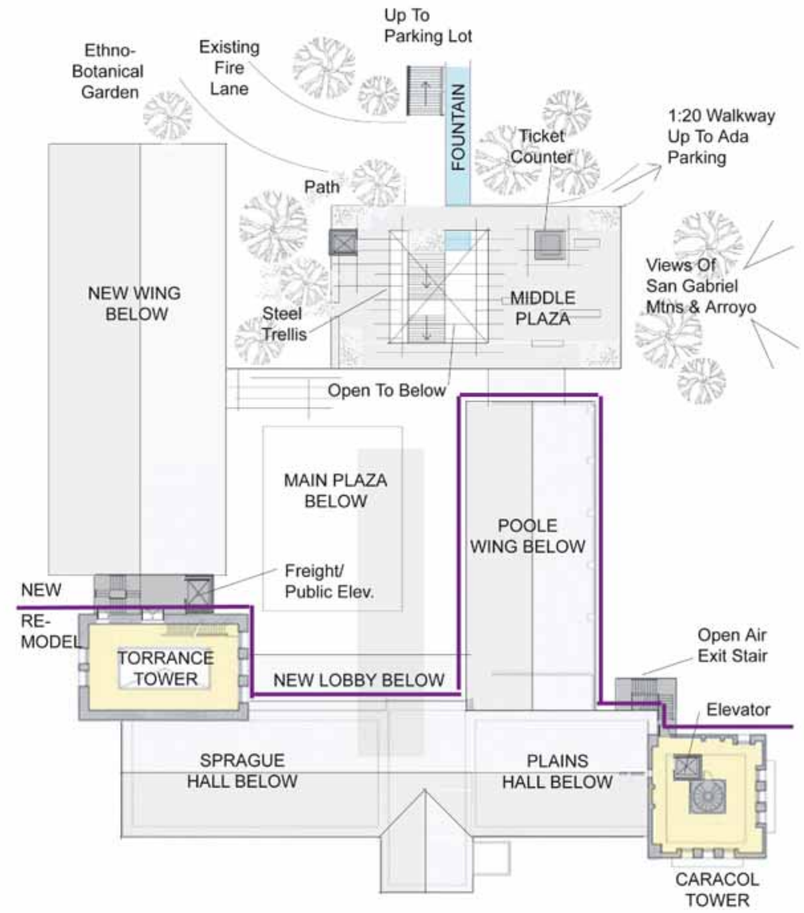
SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN



1ST FLOOR
(basement not shown)



2ND FLOOR



3RD FLOOR
(4th floor similar)

GALLERY SQUARE FOOTAGE: 9,875 SF Existing
21,698 SF Proposed Option A-1

LEGEND:

GALLERY PROGRAM | CIRCULATION & CORE FUNCTIONS | NON-GALLERY PROGRAM | ADMIN/SUPPORT PROGRAMS | BOUNDARY LINE BETWEEN NEW & REMODEL CONSTRUCTION

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10.4.12

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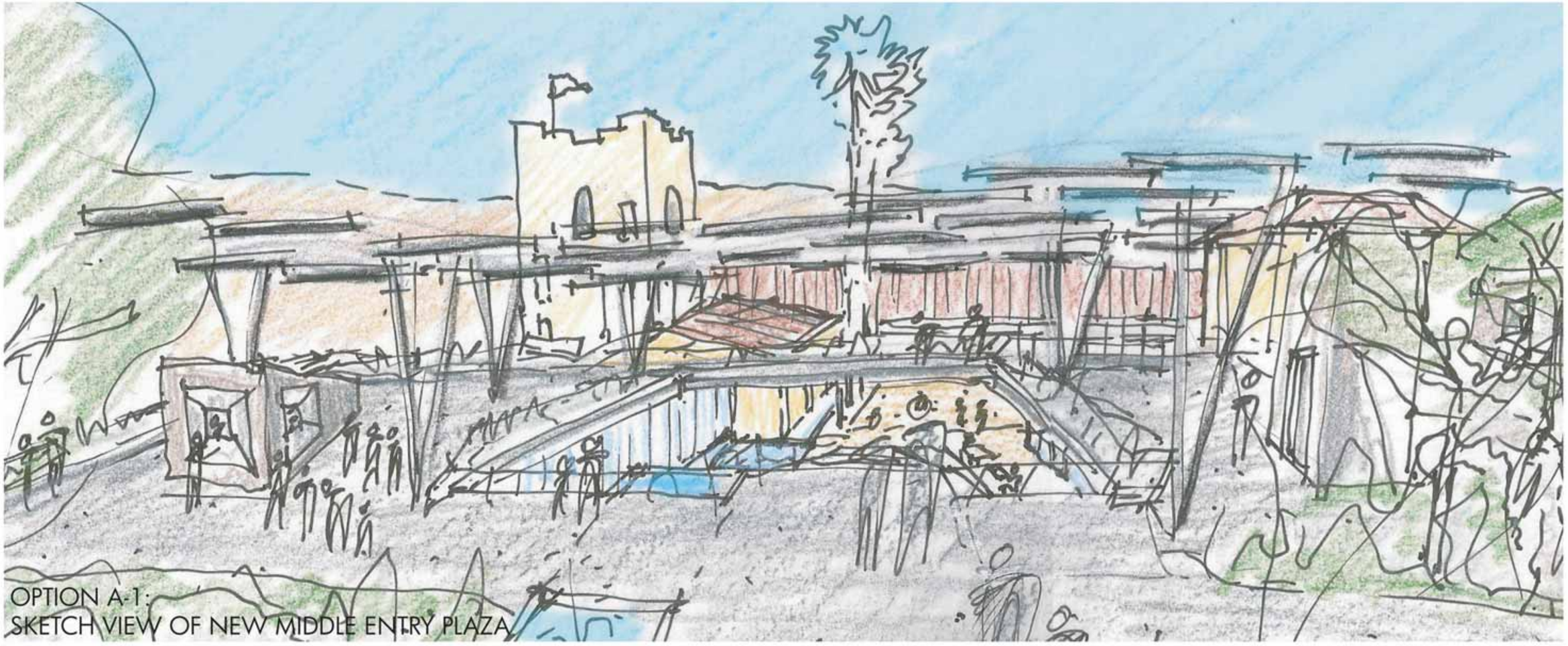
OPTION A-1

SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN



OPTION A-1:
SKETCH VIEW OF NEW MIDDLE ENTRY PLAZA

Ball-Nogues Studio - *Liquid Sky*, 2007 - Installation for 15.1 Contemporary Art Center's Young Architect's Program
Courtesy of Ball-Nogues Studio and MOCA - photo © Mark Lentz

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OPTION A-1
SOUTHWEST MUSEUM REHABILITATION: CONCEPTUAL DESIGN

PLUM

architects

August, 2012

Code Analysis for Southwest Museum: Conceptual Design Phase

Overview:

The Southwest Museum opened in 1914 and is nearly 100 years old. The Museum is listed on both the National Register of Historic Places (No.92001270) and Los Angeles Historic-Cultural Monuments (No. 283). Given its well documented historic pedigree, any restoration design of the museum can expect to fully utilize the California Historic Building Code (CHBC). The CHBC grants greater latitude for historic structures in how current building codes are interpreted. Given the Southwest Museum's Landmark status, its construction type which has the highest, best fire resistance rating (Type I construction: cast in place concrete) the assumption of both fire sprinklers will be included in the restoration design and that the structure will remain a museum, the code Analysis below works on the assumption that the CHBC can be applied favorably to restore the structure to the utmost, while preserving the character defining elements of the building.

Referenced Codes:
2010 California Building Code
2010 California Historic Building Code
2010 ADA Standards
Los Angeles Municipal Code

Construction Type: Type I (cast in place concrete)
Occupancy type: A-3
Occupancy load: 15 SF per Occupant
1 means of egress required for 49 and under Occupants = 735 SF and under
2 means of egress required for any space in a floor above or below grade.
More points of egress may be required per space or room based on occupant load and occupancy type.

Stairway widths: Minimum width is 44" For stairs serving an occ. load of less than 50 then 36" wide stairs are acceptable.

ADA – an accessible route will be required from disabled parking spaces to museum entrance and full access to all public spaces will be required as well to most staff areas. Accessible restrooms and drinking fountains will also be required.

Analysis of issues specific to the Caracol and Torrance Towers

Caracol Tower:

Existing SF per floor = 702 SF after (e) spiral stair case is deducted
Occupant load is less than 49 Occupants per floor (if mezzanine is not accessible) therefore only one means of egress is required per floor, however two means of egress are required with any structure over 1 floor in height. With the landmark status of the building there is a probability that the Historic Building Code will allow the existing spiral stair to fulfill one of the exit requirements, requiring that only one additional means of egress will be required. There will need to be an enclosed exit corridor at the bottom of the Caracol Tower stair in one of the storage rooms, exiting directly to the outside.

Mezzanines: if the Caracol mezzanines are accessible to gallery patrons then that SF is added to the floor below, adding approx. 225 SF + 702SF = 927 SF.
The existing mezzanines are quite narrow it is also unknown at this point if the width allows for accessible passage without modification.

Spiral Stairs: Calif. Historic Building Code allows for "distinct fire hazards" to be remedied by providing an Automatic Sprinkler System, except number of egress requirements. A new exit stair tower can be accommodated on the North side of the Caracol. For the other required exit stair, can the existing spiral stair be utilized? While spiral stairs are not allowed for egress under current code, the Historic Building Code may allow the existing spiral stairway to serve as one of the means of egress especially given the very light occupant load, full fire sprinklers and Type I construction of the building.

Stairway widths: Minimum width is 44" However, stairs serving an occupant load of less than 50 people then 36" wide stairs are okay

High Rise: the Caracol Tower does not fall under High Rise requirements

Torrance Tower:
Existing Atrium Space.
Existing SF per floor = 470 SF after (e) open stair is deducted
The occupant load is less that 49 occupants per floor, adding a single exit stair and addition of sprinklers may very well allow the tower to come into compliance under the Historic Building Code.
The existing stair appears to be 36 inches wide which is permissible for occupant loads under 50.
The open stair would be exempted from enclosure due to fire sprinklers.

Atrium issues: The Torrance atrium interconnects over 2 floors, under ordinary conditions the atrium would need to be enclosed, however because of the historic nature of building and the addition of fire sprinklers there is a good chance this will not be required or an alternate means of enclosure will be accepted with further research.

SEISMIC SAFETY

The existing SW Museum building may not be required to be completely seismically upgraded to current building codes. The California Building Code stipulates that if the building does not constitute a change in occupancy type (i.e. it remains a museum) and new additions to the structure are either seismically independent or, if structurally connected, do not impact the existing structural loads more than 5% then modifying the existing structural system will not be required per sections (3403.3) but mostly under 3404, 3401.4 and historic buildings 3409.

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August, 2012

Cost Estimate for Southwest Museum: Conceptual Design Phase

General Overview:

The cost estimate for the Plum Architects Conceptual design was prepared in October 2012 by Bartlett Consulting, Inc., Daniel Bartlett, Principal with over 20 years of experience as a Senior Estimator in a broad range of public building and construction types. The basis of the cost estimate was the conceptual design drawings prepared by Plum Architects in the Fall of 2012 and the 2004 "Southwest Museum Rehabilitation Study," Prepared by Levin and Associates with cost estimating component by Davis, Landon & Adamson.

Overview of Phasing & Pricing:

The design approach can be phased if deemed necessary. The general breakdown of scope and cost of each phase is as follows:

PHASE 1	$28 mil	Basic building restoration, safety and ADA upgrades and Loggia Connector
PHASE 2	$22 mil	New exhibition wing, new partial underground loading and staff areas, parking upgrades.
TOTAL	**$50 mil**	**(rounded)**

Overview of costs: (all dollar amounts in millions)

Phase 1 + 2:
57,580 SF @ $490/SF
17,500 SF gallery space + 3,000 SF if Braun Library is located offsite

$28.2	Construction Costs (see detailed estimate from Bartlett Consulting)
$ 5.0	Allowance for Parking Upgrades
$33.2	Subtotal Construction
$ 6.6	Construction Contingency (20%)
$ 10.6	soft cost incl. FF&E (32%)
$ 50.4 mil	Total

3298 Pierce Street, San Francisco, CA 94123, telephone 415 837 0900

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August, 2012
Hydraulic Elevators for Mayan Tunnel - Southwest Museum : Conceptual Design Phase

General Overview:
The conceptual designs prepared by Plum Architects call for a new high-rise hydraulic elevator to carry museum patrons from the Mayan Tunnel up to a new 2nd Floor Lobby (the existing traction elevator stops at the 1st floor lobby).

The 2014 Levin Report indicated that adding a stop would not be possible with a traction elevator because a large mechanical penthouse would be required at the top of the existing elevator tower on the south side of the building, presenting a distinct preservation design challenge. However, if a high rise hydraulic elevator was used instead of a traction, a stop could be added without increasing the overall height of the existing elevator tower. High Rise Hydraulic Elevators are being used more and more in rehab projects in major US Cities. There are four different types of high rise hydraulic elevators that are good candidates for the Southwest Museum Project.

Note that the existing hoistway is currently oversized and would be suitable for a range of additional high rise hydraulic equipment.

Cantilevered Rope Hydraulic

100 foot travel distance
Front and side entries okay
No extensive pit or overhead clearance required
More space is required because rail and jack are located on the side or rear

Twin Jack Roped Hydraulic

This application is a holeless design where wire ropes are utilized in conjunction with two hydraulic jacks. The elevator car is lifted with a 2:1 ratio which means that for every foot that the hydraulic jack rises, the elevator car rises two feet. The use of two jacks, one on each side of the elevator, provides maximum structural stability.

- Advantages
  - No jack hole drilling is required which eliminates cost and the possibility of ground contamination
  - Travel can be as great as 100 feet without drilling for a hydraulic jack
  - Accommodates front and side openings
  - No extensive pit or overhead clearance is required
  - Large platform designs and higher capacities can be accommodated
- Disadvantages
  - Because the rail and hydraulic jack equipment is located on the side or rear of the elevator additional hoistway space is required
  - Greater installation time than a conventional installation

Traction Low Rise Geared

This application utilizes a geared machine, ropes, and a counterweight. The main guide rails are mounted on the side of the elevator car and two additional guide rails are mounted on one side or the rear for the counterweight. The geared machine is generally located above the hoistway. In a non-typical application the geared machine can be located at a lower landing next to the hoistway.

- Advantages
  - No risk of oil contamination
  - Accommodates front and side openings
  - Nearly unlimited floor travel
  - Has a greater energy efficiency than hydraulic applications
  - Allows for significantly greater car speeds than a hydraulic application
  - Superior performance to that of a hydraulic application
- Disadvantages
  - Substantially higher material cost than hydraulic applications
  - Greater structural considerations because the elevator is supported at the top of the hoistway

Machine Roomless

This application utilizes a gearless machine, ropes, and a counterweight. The main guide rails are mounted on the side of the elevator car and two additional guide rails are mounted on one side or the rear for the counterweight. The gearless machine is mounted inside the hoistway. Machine roomless elevators are an economical and intelligent alternative to typical traction elevator systems.

- Advantages
  - No risk of oil contamination
  - Has a greater efficiency than a typical geared traction application
  - Superior performance to that of a typical geared traction application
  - Flexible elevator location and layout
  - Superior building efficiency
  - No machine room which allows more productive & rentable building space
- Disadvantages
  - Substantially higher material cost than hydraulic applications
  - Elevator maintenance costs are generally higher
  - Newest of all elevator technologies
  - Depending on the authority having jurisdiction code issues may arise