
CHAPTER 4: ALTERNATIVES ANALYSIS

4.1 Introduction and Overview

According to CEQA, an EIR must describe a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic project objectives, and would avoid or substantially lessen any of the proposed project's significant effects. Additionally, a "No Project" alternative must be analyzed. An EIR must evaluate the comparative merits of the alternatives.

The range of alternatives in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasonable choice. An EIR need not consider every conceivable alternative to a project. Rather, the alternatives must be limited to ones that meet the project objectives, are feasible, and would avoid or substantially lessen at least one of the significant environmental effects of the project. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

The EIR must briefly describe the rationale for selection and rejection of alternatives and the information the Lead Agency relied on when making the selection. It also should identify any alternatives considered, but rejected as infeasible by the lead agency during the scoping process and briefly explain the reasons for the exclusion. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects.

This chapter identifies two alternatives that attain some of the project objectives, are feasible, and could avoid or lessen environmental impacts; in addition the No Project Alternative is discussed. This chapter concludes by analyzing the environmentally superior alternative.

An EIR is required to evaluate and analyze the impacts of a No Project Alternative. The purpose of evaluating the No Project Alternative is to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. However, the No Project Alternative is not the baseline for determining whether the proposed project's impacts are significant, unless it is identical to the existing environmental setting analysis that establishes the baseline (*CEQA Guidelines*, Section 15126.6(e)(1)).

The No Project Alternative analysis must discuss the existing conditions and what would be reasonably expected to occur in the foreseeable future if the project were not approved based on current plans and/or available infrastructure and community services (*CEQA Guidelines*, Section 15126.6(e)(2)).

For individual development projects on an identifiable location, the No Project Alternative compares the environmental effects of the property remaining in its existing state. However, if other future uses of the land are predictable, such uses also should be discussed as possible and the project should be compared to those uses (*CEQA Guidelines*, Section 15126.6(e)(3)). Therefore, the No Project/No Build Alternative evaluates what could happen at the project site were no changes requiring discretionary actions were to take place. Alternatives 2 and 3 evaluate different preservation alternatives consistent with the Secretary of the Interior's Standards for Rehabilitation.

4.2 Project Objectives

As discussed in Chapter 2, Project Description, the project objectives are:

- To address seismic safety concerns associated with a building that is nearly 100 years old.
- To remodel, reconfigure and renovate a dysfunctional building in order to improve accessibility and support the campus need for faculty offices and lounge areas, modern teaching facilities including seminar rooms, flexible instruction areas, informal meeting spaces, and new/expanded psychology experiment and interview rooms.
- To preserve the historic Swan Hall Building in a cost effective manner that will allow it to be a vital part of campus operations while maintaining the appearance of the historic quadrangle located east of Swan Hall. Occidental College has and will continue to seek to maintain the historic character of its Myron Hunt buildings while ensuring that its programmatic needs are met.
- To provide additional faculty offices and meeting space in a building that encourages and supports communication between faculty and students in a pleasant and efficient manner.
- To abate hazardous lead paint and asbestos present in building materials.
- To undertake renovation activities in a timely manner in order to allow faculty and staff to move back in to the building as quickly as possible.
- To meet sustainability objectives for the campus by designing the renovation and addition to meet LEED Silver Standards.

4.3 Alternatives Eliminated from Further Consideration

An EIR must briefly describe the rationale for selection and rejection of alternatives. The Lead Agency may make an initial determination as to which alternatives are potentially feasible and, therefore, merit in-depth consideration, and which are clearly infeasible. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (*CEQA Guidelines*, Section 15126.6(f)(3)). This section identifies alternatives considered by the Lead Agency, but rejected as infeasible, and provides a brief explanation of the reasons for their exclusion. As noted above, alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects (*CEQA Guidelines*, Section 15126.6(c)).

CEQA Guidelines Section 15126.6(f)(2) requires examination of an alternative location for the project if such locations would result in the avoidance of or lessening of significant impacts. As noted above, many of the project objectives relate to addressing issues associated with Swan Hall. An Alternative location would not address those issues. However, if the Swan Hall renovation were not to proceed the College eventually may need to replace the unsuitable space in Swan Hall as well as provide upgraded faculty offices and other space currently proposed for the Addition. Where this replacement space would be located would require further study on the part of the College. There are a number of building opportunity sites available on the campus (including the Addition site); the one most suitable to the uses in Swan Hall would require further evaluation.

A Preservation Only Alternative (i.e. preservation of Swan Hall alone without accompanying addition) was rejected, as it would not meet the critical project objective of providing additional faculty offices and

meeting space. In addition, the range of alternatives presented herein would be sufficient to achieve a reduction of impacts below a level of significance.

One structural solution for preservation of Swan Hall was rejected as infeasible. Under this solution isolation bearing pads would be placed below the existing structure. Under such an alternative the existing structure would be decoupled from the ground and shored and disconnected from the existing foundations. A new isolation and foundation system would then be constructed below the existing structure. It is anticipated that isolated bearing pads would be substantially more expensive (approximately \$5 million dollars or more as compared to the proposed project or as compared to the structural scheme proposed in Alternative 2, Preservation Alternative below which would include reinforced concrete shear walls at a cost of up to \$1.95 million more than the proposed project). Construction of isolation bearing pads would also impact the athletic track, at least during construction and potentially permanently. Since there is a preservation Alternative that would cost substantially less than isolated bearing pads this alternative was eliminated from further consideration.

4.4 Alternative 1: No Project/No Build

The current site conditions are described in Chapter 2, Project Description, and in Chapter 3. As noted above, most of the project objectives are associated with renovating the Swan Hall structure, in addition providing additional space for faculty offices and meeting rooms is a key project objective. If Swan Hall were not renovated it is likely that it would be painted and patched; faculty and staff would remain in Swan Hall for the foreseeable future. The College would undertake a thorough review of existing space and available building opportunity sites to determine how and where best to provide new academic program space. The result of this process would likely be a new project, not an alternative to the current project.

Environmental Impact

Under the No Project/No Build Alternative, Swan Hall would remain un-restored with space that does not meet the needs of the College and does not allow access for disabled students and staff. No elements would be introduced under this alternative that would change the existing aesthetic character of Swan Hall or its surrounds. The seismic condition of Swan Hall would remain unimproved, potentially making the building vulnerable in the event of an earthquake. The existing condition of the building is considered unsatisfactory by the College and its staff in terms of access and office configurations. As noted, above it is anticipated that faculty could eventually move out over time and the building would become anachronistic and could become less well used over time making it a less-well integrated and vital part of campus life than at present.

Comparison to Project Objectives

This alternative would meet none of the project objectives.

4.5 Alternative 2: Preservation Alternative with Three-Story Addition

This alternative would preserve Swan Hall in accordance with the Secretary of Interior Standard's for Rehabilitation. The three-story addition would be as proposed for the project but the connection to Swan Hall would not overlap the roof of the current building.

Environmental Impact

This alternative could meet the Secretary of the Interior's Standards through the retention of exterior materials and application of structural reinforcement from the interior of the existing façade. The level of seismic safety would be the same as the proposed project.

The Preservation Alternative would use the same structural solution as the proposed project with new reinforced concrete shear walls and in the same locations behind the exterior façade and between windows as the proposed project. The interior layer of hollow clay tile would be cut and removed. The exterior layer of hollow clay tile is not anchored to the existing structure, therefore it would need to be secured in place. Areas of the tile wall were damaged in the Northridge earthquake and care must be taken not to further damage these areas. The original exterior façade including the hollow clay tile would be anchored into the new shear walls with a continuous membrane adhered to the back of the hollow clay tile with anchors protruding into the concrete. Existing plaster would be retained and repaired as feasible; the existing paint and elastomeric coating that is trapping moisture in some locations must be removed. Since installation of new shear walls would require opening up wall cavities on the interior side to install structural work, the interior wall would be re-built from modern materials to retain the original configuration.

The original window frames would be left in place for repair/replacement as needed and the original window sash would be rehabilitated. Under this alternative, utilities and building systems (mechanical, electrical, plumbing) would be replaced similar to the proposed scheme. Similarly, since the interior floor level layout is not considered character-defining, the re-building of new flat floor slabs in the center of the building (Middle Swan) to aid accessibility (ADA – Americans with Disabilities Act) and improve the adaptive re-use of the original dormitory building would meet the Standards.

To meet the Standards, the central (Middle Swan) entry doors on the Quadrangle (east elevation) would remain operative to maintain the longstanding connection to the main campus quadrangle. The proposed project retains the two flanking entries on the Quadrangle and provides an internal vestibule with access to an elevator and steps to reach the new floor level. (These doorways may no longer serve as the main access into the building.) The proposed project would reconstruct the central entry and doors (Middle Swan) from the exterior, but the floor level would be raised behind the doors and enclosed for office space. To meet the Standards, the Preservation Alternative includes a vestibule and stair connection behind the central entry doors. Alternatively, the construction behind the doors could be reversible with the possibility of removal for access. At a minimum, any interior layout that prevents use of the original entryways should be reversible. The west decorative entry doorway would also be retained in form or profile sufficient to recall the original doorway although changes would be necessary for the new addition to connect. The proposed scheme has a partial re-use of the connecting doorway but little retention of original materials or opening sizes. Similar to the proposed scheme, the roof tile would be salvaged and re-installed and the carved wood roof eaves would also be retained and where needed, repaired in place.

With the project, the proposed addition would be larger in square footage and taller in height than Swan Hall. The main body of the addition would be located 26 feet away from the west side of the original building and would not be immediately visible above the Swan Hall roof when viewed from the Quadrangle immediately in front of Swan Hall (although it would be visible from in front of the buildings across the Quadrangle). With the project, the connecting structure would touch the original building and would mimic the original roof; it would also overlap the massing of the original building thereby subsuming the Swan Hall building into the larger project that would not meet the Standards. To meet the Standards, the Preservation Alternative would include a connecting structure no taller than the overhanging eaves of the original building that does not overlap the top of the original building so that the edge of the original roof would remain continuous. The connecting structure should be as distinct as possible from the original

building. Only the distinct visual separation between original building and the addition allows for the larger size of the addition to meet the Standards.

The addition would also more clearly meet the Standards if the connecting structure did not totally obscure the tripartite division of the original building. The center portion of the original building projects out approximately eighteen inches and is highlighted by plaster quoins running the full height of the façade at the corners of this element. The tripartite division accentuated by the decorative corners would be obscured by the proposed project. The Preservation Alternative would narrow the connector piece enough to reveal the corner decoration, resulting in a connecting structure that tapers to about 24 feet wide as compared to 30 feet wide with the proposed project, or would have a notched area in plan adjacent to Swan Hall that exposes the original central façade's corners.

This alternative would be undertaken under the supervision of a qualified architectural historian with knowledge of construction techniques to ensure that historic fabric was preserved as appropriate to meet the Secretary of the Interior's Standards for Rehabilitation.

Comparison of Preservation Alternative with Three-Story Addition to Secretary of the Interior's Standards for Rehabilitation

The Preservation Alternative is analyzed below for compliance with the Secretary of the Interior's Standards for Rehabilitation.

Standard 1. Swan Hall was adapted from residential dormitory uses to academic offices in 1960, both uses that supported the residential college's educational mission. The 1960 project reconfigured interior spaces. The Preservation Alternative again would reconfigure the interior to support ongoing academic requirements. The Preservation Alternative continues a use that supports the purpose of the College's historic mission. In addition, there is little original historic fabric in the building's interior, so the proposed changes would not impact any historic interior features. The Preservation Alternative would comply with Standard 1.

Standard 2. The Preservation Alternative would repair the exterior cladding. Architectural details such as quoins (corner details), window and door surrounds would remain and be repaired in place if repairs are needed. The central entry on the east facade would be closed no longer providing access. The original west entry would be removed and reconfigured for a direct connection to the new addition. The opening sizes would be modified and the decorative surround omitted. The Preservation Alternative would retain most of the exterior historic fabric. While the central door on the east façade would become inoperable, it would remain in place.

The connection to the new addition would be located on the west elevation, which is effectively the rear elevation, as it does not face the quadrangle open space. As such it is the best location to attach a building addition. In the Preservation Alternative the connector piece would be narrower and thus would reveal the corner decoration or would have a notched area in plan adjacent to Swan Hall that exposes the original east façade's corners.

The Preservation Alternative would retain and preserve the historic character of the building through retention of its exterior historic fabric, features and spatial relationships that characterize the property. The narrower building addition connection option further reduces loss of historic fabric and features. The Preservation Alternative would comply with Standard 2.

Standard 3. The Preservation Alternative would retain the building's exterior except for the area on the rear, west façade, which would connect with the Addition. The connection would not create a false sense of

historical development as the building addition is designed to be distinct, yet compatible, with the original building. The Preservation Alternative would comply with Standard 3.

Standard 4. Standard 4 is not applicable to the Preservation Alternative as there are no changes to the property that have acquired historic significance in their own right.

Standards 5 and 6. The distinctive exterior features of Swan Hall would be retained and preserved. Deteriorated historic features would be repaired rather than replaced. Historic exterior features of the building including quoins (corner details), window and door surrounds, and window frames would be repaired in place. Window sashes would be removed and salvaged for repair and reinstallation. Original doors would be removed, repaired and reinstalled. Entry surrounds would be repaired in place. Roof eaves would be retained and repaired where needed. Roof tile would be removed and reinstalled. The Preservation Alternative would comply with Standards 5 and 6.

Standard 7. The condition of the exterior plaster is not completely known and removal of an earlier elastomeric coating may be necessary. Repair and in some areas a new finish coat may be required. These areas would be repaired with as minimal impact as possible to the overall plaster construction. While the finish coat may need substantial repair, the overall plaster assembly would remain intact and the repair would match as close as possible to the original finish, thus this process would comply with Standard 7.

Standard 8. This Standard deals with archeological resources. As the original building site and foundation would remain this Standard is not applicable to the site. The location of the addition is an area that could have the potential for archeological resources but previous environmental review of the campus indicates that the potential for archeological resources is low. If any archeological resources were identified, the project would be required to conduct appropriate mitigation. Thus the Preservation Alternative would meet Standard 8.

Standard 9. This Standard concerns the possible changes from additions including minimizing loss of historic materials and differentiation of old and new while providing a compatible addition. A new building is proposed to the west of Swan Hall that would be attached to Swan Hall at the center of its west façade by a narrow building element. The proposed addition is larger in square footage and taller in height than the original building. The main body of the addition is not immediately visible above the Swan Hall roof when viewed from the Quadrangle. The Addition under the Preservation Alternative would consist of a connecting structure that would be no taller than the overhanging eaves of the west side of the original building and would not overlap the top of the original building. The connecting structure would be distinct from the original building. The Preservation Alternative would comply with Standard 9.

Standard 10. The new exterior design of the Addition would generally leave the original building unchanged, except for the central area of the west façade where the new connecting structure would be located. The Addition under the Preservation Alternative would maintain the original roofline to the extent feasible and decorative detail at the location of the connection. The Preservation Alternative also includes a new floor slab at a level that is above the original main entry door threshold on the Quadrangle (east facade) that would block use of the central doors. The doors would be retained in place; at a future date the slab could be modified to allow for use of the doors. Thus this change could be reversible and therefore potentially consistent with this standard. The Preservation Alternative would comply with Standard 10.

The Preservation Alternative would meet all of the Secretary of the Interiors Standards for Rehabilitation (Standards 1 through 10).

Comparison to Project Objectives

This alternative would meet the following project objectives:

- To address seismic safety concerns associated with a building that is nearly 100 years old.
- To remodel, reconfigure and renovate a dysfunctional building in order to improve accessibility and support the campus need for faculty offices and lounge areas, modern teaching facilities including seminar rooms, flexible instruction areas, informal meeting spaces, and new/expanded psychology experiment and interview rooms.
- To provide additional faculty offices and meeting space in a building that encourages and supports communication between faculty and students in a pleasant and efficient manner.
- To abate hazardous lead paint and asbestos present in building materials.
- To meet sustainability objectives for the campus by designing the renovation and addition to meet LEED Silver Standards.

This alternative may not fully address the following objectives:

- To preserve the historic Swan Hall Building in a cost effective manner that will allow it to be a vital part of campus operations while maintaining the appearance of the historic quadrangle located east of Swan Hall. Occidental College has and will continue to seek to maintain the historic character of its Myron Hunt buildings while ensuring that its programmatic needs are met.
- To undertake renovation activities in a timely manner in order to allow faculty and staff to move back in to the building as quickly as possible.

The Project Architect believes that preserving the hollow clay tile and exterior plaster as proposed in this alternative may not be as cost effective as the proposed project. In addition the Project Architect has indicated that preservation of the tile and plaster may result in additional construction time as compared to the project as proposed potentially resulting in faculty and staff being unable to move back in to the building as quickly as anticipated with the proposed project. However, as noted below there may be elements of the project as proposed that could add to construction time.

The total cost of renovating Swan Hall under the proposed project is estimated at \$7.86 million, with an additional \$10.92 million required to construct the Addition and \$1.02 for temporary facilities.

Two estimates, one by an estimator retained by the Project Architect (the Cumming estimate, see Appendix C.2) and one by a peer review estimator (the O'Halloran estimate, see Appendix C.1, KCK Historic Resource Assessment) identify the *additional* cost of the Preservation Alternative as follows:

Cumming Estimate: \$1.95 million (1.5 million in construction costs plus \$450,000 in soft costs)

O'Halloran Estimate: \$816,000 to \$1.16 million (566,000 in construction costs plus \$250,000 to \$450,000 in soft costs).

Both these estimates assume that the north and south walls would be rehabilitated, however, recent exploration of those walls shows that considerable intervention has already occurred in these locations (as well as portions of the west wall) and reconstruction with new materials (including removal of the hollow

clay tile) may be an appropriate preservation approach there. If the north and south walls were not included in the preservation estimates above the difference in costs would be somewhat reduced resulting in both estimates of the increased costs of preservation being less than identified above.

The difference between the two cost estimates raise a number of issues about cost and scope of the proposed project as compared to the preservation alternative. There are a number of issues that account for some of the differences. The proposed project calls for extensive matching of existing building details. The Project Architect specifies use of laser scanning and other documentation of the building prior to demolition. Use of this software by contractors and translation into construction documents is speculative. Contractors and subcontractors are not used to working with such documentation as a basis for their fabrication and construction. The Cumming estimate calls out that standard bid procedures and contracting are assumed. Such a process may not fully allow for accurately matching the existing building and could lead to quality control issues in the matching and/or additional costs. Some details are more certain in the preservation scheme such as location of original window frames that will remain in place unless replacement is required.

Throughout the building are a number of plaster details that would need to be recreated in the proposed project. Since existing details are already in place, there is no more work involved in the preservation alternative, and more work could be involved to create those details for the project. For the structural work, the existing exterior wall would be able to serve as the outer formwork for installation of concrete shear walls. A deduct for conditions such as in-place formwork has not been accounted for in the Cumming estimate of the preservation alternative. The need to precisely engineer new shear walls in a fully new exterior wall configuration would require additional coordination to get the dimensioning correct to be able to accurately build the new finish façade on the exterior.

The Cumming cost estimate indicates substantial added work needed for the exterior plaster. No studies are currently available to indicate that the plaster would need such extensive intervention; existing plaster appears to be generally intact and in place. The stabilization of the building structural system would further minimize potential for damage or loss. Some areas were repaired following the 1994 Northridge Earthquake. A two-sheet document with damage photos and partial plans indicates that typical plaster "X" cracking occurred between openings. The damage is limited to the short end walls of the building (north and south) and the immediate corners. There is one area of plaster roughly 4 foot x 4 foot that has broken off the wall on the south at the east corner. A slightly grainier plaster texture may be evident at this location. It is not documented and not that evident in many locations, but the plaster skin may have been covered or partly coated by a textured or elastomeric paint. There is no obvious visible evidence of fundamental moisture or other damage issues, other than in small, localized areas. If a coating has been applied, it could be removed without altering the basic construction assembly. The underlying improvement to the stability of the building through new shear walls and floor slabs as well as membrane behind the clay tile would make the existing plaster much more stable than previously in a seismic event.

The Cumming cost estimate identifies additional soft costs for the Preservation Alternative (A&E, Construction Management fees) but does not indicate additional costs for details and reviews to ensure a satisfactory replication that would not be necessary in the preservation project. It is anticipated that additional work would be needed by the Project Architect for the proposed project to ensure accuracy in as-built conditions and replication in the field with modern construction specifications and techniques. One example is the work needed to help ensure that individually cut window and frames can be reinstalled in a replication structure (proposed project) that is constructed based on typical details rather than full original details and dimensions. In the case of the window frames, more documentation and inventory may be needed if they are all removed as with the proposed project as opposed to being left in place for repair or replacement. The proposed project would rely on extensive documentation and cataloguing to keep various parts of the window assembly together. The reinstallation of window frames in the new structure may be an

issue because the original hollow clay tile construction is not precise and there are a variety of fluctuating dimensions for window opening size and depth in the existing walls. Questions of use of familiar modern construction details in the proposed project by subcontractors would need to be managed to maintain original profiles. The time necessary for this work may not be fully reflected in the proposed project fees. The building systems, interior layout and other internal workings of the building would be almost identical in both schemes, so there should be little change in the Architect's work for the vast majority of the building components in the Preservation Alternative. At the current stage of the documentation, switching to the Preservation Alternative may incur additional design and engineering fees in the range from \$250,000 to the \$450,000 included in the Cummings cost estimate. In general, the other soft costs are anticipated to be similar for both the project and the Preservation Alternative.

The cost difference between the Cumming and O'Halloran estimates is in part the difference in final products anticipated. The proposed project would not be able to precisely duplicate the original building and many of its details would be based on modern construction specifications that relate to the modern materials and compositions being used in the proposed project, such as details for the decorative entry surrounds, windows openings and cornices. The areas of intended preservation may be less successful in the proposed project for example in terms of the number of rehabilitated window units due to the extra handling and the process to re-insert the original frame into a newly built simulation that may not precisely match dimensions for each window opening.

In summary, there is a difference of opinion between experts with respect to costs and time to construct that could be required for the Preservation Alternative as compared to the project as proposed. The subjects of these differences (time and costs) are considerations in whether the applicant can reasonably feasibly implement the Preservation Alternative. The Project Architect believes, based on his professional judgment, that the Preservation Alternative would take longer to construct than the project as proposed. As discussed in detail above and presented in Appendices C.1 and C.2 the Project Architect and his cost estimator (Cumming) believe, based on their professional judgment, that the Preservation Alternative would cost more than the project as proposed. The peer reviewers (KCK and O'Halloran) believe that costs would not be as great as anticipated by the Project Architect and Cumming, although costs are still anticipated to be substantially more than the project as proposed. The peer reviewers believe, again based on their professional judgment, that construction time would not be substantially greater for the Preservation Alternative. CEQA Section 15151 indicates that, "[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

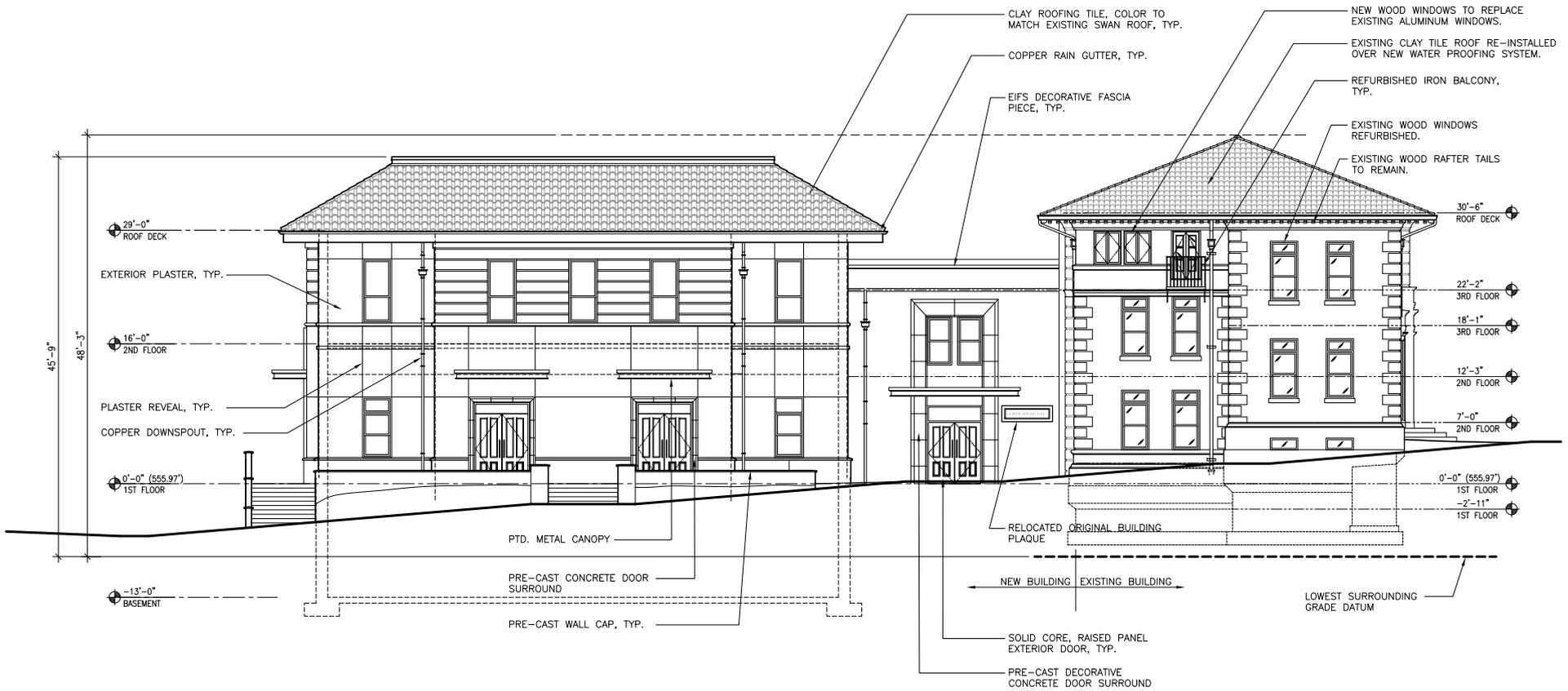
This alternative is currently under consideration by the College.

4.6 Alternative 3: Preservation Alternative with Two-Story Addition

This alternative would preserve Swan Hall in accordance with the Secretary of Interior Standard's for Rehabilitation in the same manner as Alternative 2 above. The proposed Addition however would be two stories rather than three.

Environmental Impact

This alternative would lower the new addition to a height less than or equal to Swan Hall (see **Figure 4A-1**) and would have even less impact on the existing building and the existing context, but that reduction would not be necessary to meet the Standards if the connecting structure was modified as identified for Alternative 2 above.



SOURCE: Brian R. Bloom Architect, 2010

Swan Hall Renovation and Addition ■

Figure 4-1

Two Story Addition Alternative

Comparison of Preservation Alternative with Two-Story Addition to Secretary of the Interior's Standards for Rehabilitation

This Alternative would meet all of the Secretary of the Interiors Standards for Rehabilitation (Standards 1 through 10) in the same manner as Alternative 2, but with an Addition that would be shorter than Swan Hall.

Comparison to Project Objectives

This alternative would meet the following objectives

- To address seismic safety concerns associated with a building that is nearly 100 years old.
- To remodel, reconfigure and renovate a dysfunctional building in order to improve accessibility and support the campus need for faculty offices and lounge areas, modern teaching facilities including seminar rooms, flexible instruction areas, informal meeting spaces, and new/expanded psychology experiment and interview rooms.
- To preserve the historic Swan Hall Building in a cost effective manner that will allow it to be a vital part of campus operations while maintaining the appearance of the historic quadrangle located east of Swan Hall. Occidental College has and will continue to seek to maintain the historic character of its Myron Hunt buildings while ensuring that its programmatic needs are met.
- To abate hazardous lead paint and asbestos present in building materials.
- To undertake renovation activities in a timely manner in order to allow faculty and staff to move back in to the building as quickly as possible.
- To meet sustainability objectives for the campus by designing the renovation and addition to meet LEED Silver Standards.

However, the Preservation with a Two-Story Addition alternative would not fully address the following objective as it would not provide sufficient space in the building additions to meet the demand:

- To provide additional faculty offices and meeting space in a building that encourages and supports communication between faculty and students in a pleasant and efficient manner.

4.7 Comparison of Alternatives

The following **Table 4-1** compares impacts of to character defining features as a result of the Project and Alternatives 2 and 3. The No Project Alternative is not included in the table since it would result in minimal changes to character defining features. The height of the connecting structure is the key feature for retaining resource integrity and not the height of the addition itself, therefore, the impacts of Alternatives 2 and 3 with respect to character defining features are the same. The reduced height of the addition would further reduce the impact (even further below significance as compared to Alternative 2) but is not considered necessary to meet the Secretary of the Interior's Standards for Rehabilitation and therefore to mitigate impacts to a less than significant level.

**TABLE 4-1
COMPARISON OF CHANGES TO SWAN HALL CHARACTER DEFINING FEATURES, PROJECT AND
ALTERNATIVES 2 AND 3**

Character-Defining Feature	Project	Alternatives 2 and 3
Structural -- hollow clay tile	Removal of all hollow clay tile, interior and exterior.	Option 1: Outside hollow clay tile wall and wall returns at openings would be retained; interior hollow clay wall would be removed. Option 2: Retain interior and exterior hollow clay tile, place isolation pads under structure.
Exterior plaster and cast details	Removal of all exterior cladding including architectural features such as quoins (corner details), window and entry door surrounds. Reconstruction with all new materials.	Repair exterior cladding. Architectural features such as quoins (corner details), window and door surrounds would remain and be repaired in place where needed.
Windows	Windows including frames would be removed and salvaged for repair and reinstallation. Two small windows on west omitted.	Window frames would remain in place and be repaired in place. Window sash would be removed and salvaged for repair and reinstallation
Doors, east elevation	Original doors removed and reinstalled. Entry surround demolished and reconstructed. North and south doors will remain operable; Middle Swan doors would be inoperable due to interior reconfiguration.	Original doors removed and reinstalled. Entry surround repaired in place. Interior reconfiguration to allow for all doors to be operable or easily reversible from built layout.
Doors, west elevation	Original doors removed and entry surround demolished. New internal passage through to addition.	Original doors removed. Entry surround incorporated into new connection to addition. New basement door within window pattern
Roof	Roof tile on Swan to be removed and reinstalled. The new addition to the west would overlap and cut into portion of original roofline and eave trim.	Roof tile on Swan to be removed and reinstalled. Roof eaves to be retained and repaired where needed. The new addition would be designed to transition without overlapping or cutting into Swan Hall's roof.
Overall resource integrity	Original façade and decorative elements mostly removed and demolished	Retention of exterior façade and decorative elements along with roof and windows
Overall resource identity	New addition overlaps and subsumes original smaller building	Reduced "connector" height provides visual separation of original building
Trees on parcel to west	Trees removed for new building wing	Trees removed for new building wing
Source: KCK Architects, September 2010		

4.8 Environmentally Superior Alternative

The focus of the alternatives analysis is on reducing potentially significant impacts of the proposed project. The proposed project would result in one significant impact and that would be the impact on historic resources through the loss of historic fabric.

An EIR must identify the environmentally superior alternative. While the No Project/No Build Alternative may result in the least impact in the short-term, it is likely that over time the building would deteriorate and would not continue to be a vital part of the campus. An earthquake could result in serious damage to the building. Alternative 3, Preservation Alternative with Two-Story Addition would result in the least environmental impact and would therefore be the Environmentally Superior Alternative. However, this alternative would not meet the project objective to provide additional faculty office and meeting space to the extent needed to meet demand, in addition this alternative reduces impacts further than necessary to achieve a less than significant impact. Alternative 2: Preservation Alternative with Three Story Addition would result in Less than Significant impacts on the historic resource Swan Hall and would not result in any other potentially significant adverse impacts.