

Rosewood Courts

Preservation Economic Feasibility Assessment



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For
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Introduction

This Preservation Economic Feasibility Assessment has been prepared by h+uo architects at the request of the Housing Authority of the City of Austin (HACA). The goals of this assessment are to analyze options and provide cost estimates for: the historic treatment of Rosewood Courts; retrofitting the buildings to meet current code regulations for energy efficiency and user comfort; and reconfiguring the unit floor plans to approach parity with modern affordable housing units; such as those planned to be built on this site.

This assessment includes:

- Study of three building types, including two one-story buildings & one two-story building;
- Study of 1-, 2-, and 3-bedroom unit types;
- Assessment for Multifamily Residential category of use;
- Identification of exterior changes consistent with preservation standards as outlined in the RFQ;
- Identification of interior changes consistent with local building codes, accessibility standards, visitability, and HACA program requirements listed in the RFQ;
- Cost estimates associated with the recommended improvements

This assessment excludes:

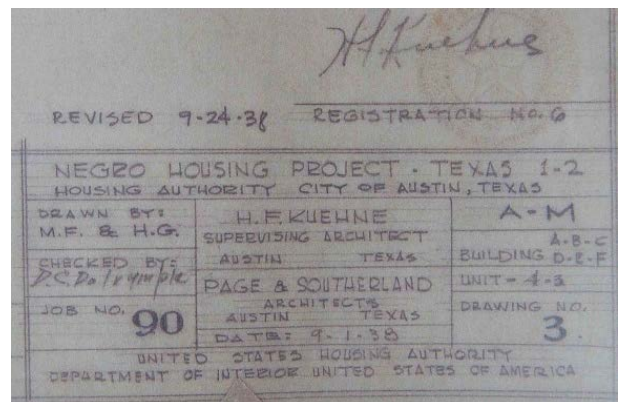
- Site improvements
- Green building rating certifications, such as Austin Energy Green Building Certification, LEED Certification, Energy Star, etc.
- Assessment for supplementary uses such as Mixed-Use, Commercial, Retail, Live-Work, etc.

Project History

Built on the site of Emancipation Park, one of the original Juneteenth parade grounds in America, Rosewood Courts in Austin, Texas was commissioned by the United States Housing Authority Federal Works Agency in the 1930s. The architect of record was Page & Southerland Architects with H.F. Kuehne acting as the supervising architect. The project was completed in two phases.

Phase 1 drawings labeled “Negro Housing Project - Texas 1-2” were issued in September of 1938 and consisted of 14 one-story brick buildings, five building types, and 60 individual residential units. Phase 2 drawings labeled “Negro Housing Project - Texas 1-2A” were issued in December of 1939 and consisted of 11 two-story brick buildings, six building types, and 70 individual residential units. Construction occurred between 1939 and 1941. At completion, Rosewood Courts consisted of 25 buildings and 130 residential units sited within an approximately 8-acre parcel of land in central east Austin.

The buildings were designed to be fire-proof, so they were built with non-combustible materials. The exterior walls and interior load-bearing walls consist of two wythes of brick with an air gap in between. Non-load-bearing interior partition walls consist of a single wythe of brick. The exterior brickwork was unpainted but it is unclear whether the interior brick walls were painted originally. The windows were operable steel casements with horizontal muntin divided lights, single-pane glass, and insect screens. The foundation, floors, ceilings, stairs, and roofs were cast-in-place concrete. Decorative features included steel trellises at the front entries, mail slots, and custom-designed clothes lines.



Sample original titleblock

SECTION 1

Historic Treatment Priorities

1: Site Preservation

Although site analysis is outside the scope of this assessment, it is necessary to mention the role that site preservation plays in receiving a historic designation. An important requirement for National Designation is that the original spatial relationships between the buildings be maintained. To this end, The Secretary of the Interior's Standards for the Treatment of Historical Properties (SISTHP) does not recommend "removing or relocating historic buildings on a site or in a complex of related historic structures." Given this, the first priority for the historic treatment of Rosewood Courts should be to determine which buildings to preserve and, consequently, how this decision will affect HACA's historical designation goals.

It should also be noted that the current site conditions do not comply with the Texas Accessibility Standards (TAS) or the Uniform Federal Accessibility Standards (UFAS). The extreme slopes that exists on this site will need to be addressed during redevelopment to ensure accessible routes are added to comply with state and federal regulations.

2: Exterior Restoration

The second priority for the historic treatment of Rosewood Courts is addressing the exterior façades of the buildings. In the context of historical designation this assessment will evaluate the option to restore the appearance of the original facades, as documented in the drawings and early photographs included in the following pages. This would include replacing key exterior elements such as roofs, windows, doors, and trellises. Reference the Summary of **Section 2** for a full itemization of the exterior façade treatment options.

3: Interior Rehabilitation

The third priority for the historic treatment of Rosewood Courts is the building interiors. In discussions with the Texas Historical Commission it was made clear that interior space is included in the historical designation evaluation. Therefore, the approach of this assessment was to retain as much of the original interior conditions as possible while also achieving HACA's goals to have the buildings comply with current code, life safety, and accessibility standards. Reference the Summary of **Section 3** for a full itemization of the interior restoration items suggested. While this is the last priority for historic treatment purposes, it is the first priority in making the apartment units energy efficient, livable, and comfortable for inhabitants for decades to come.

SECTION 2

Exteriors: Historic Treatment Design Strategies per the *Secretary of the Interior's Standards for the Treatment of Historic Properties (1995)*

Documentation of Original Exterior Design

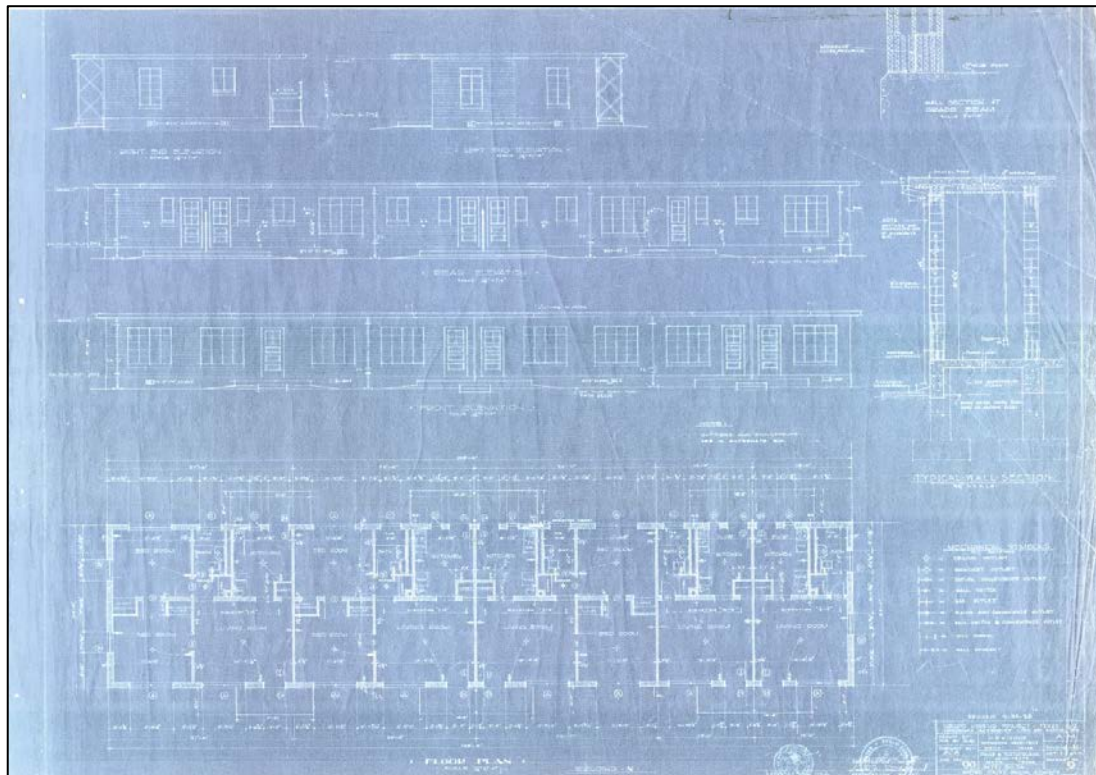
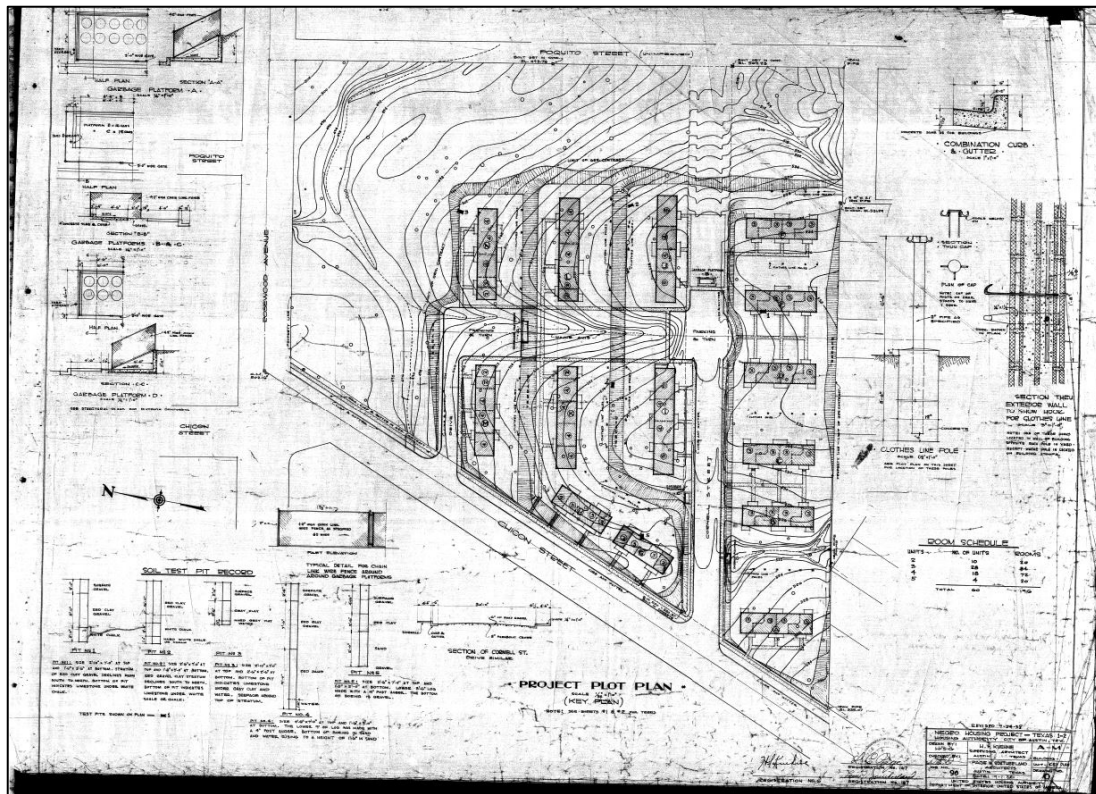
Shown below is a photograph taken near the end of construction of Phase 2 of Rosewood Courts, around 1941. The concrete and brick structures were built in the international architectural style, and are early examples of modernism in the United States.



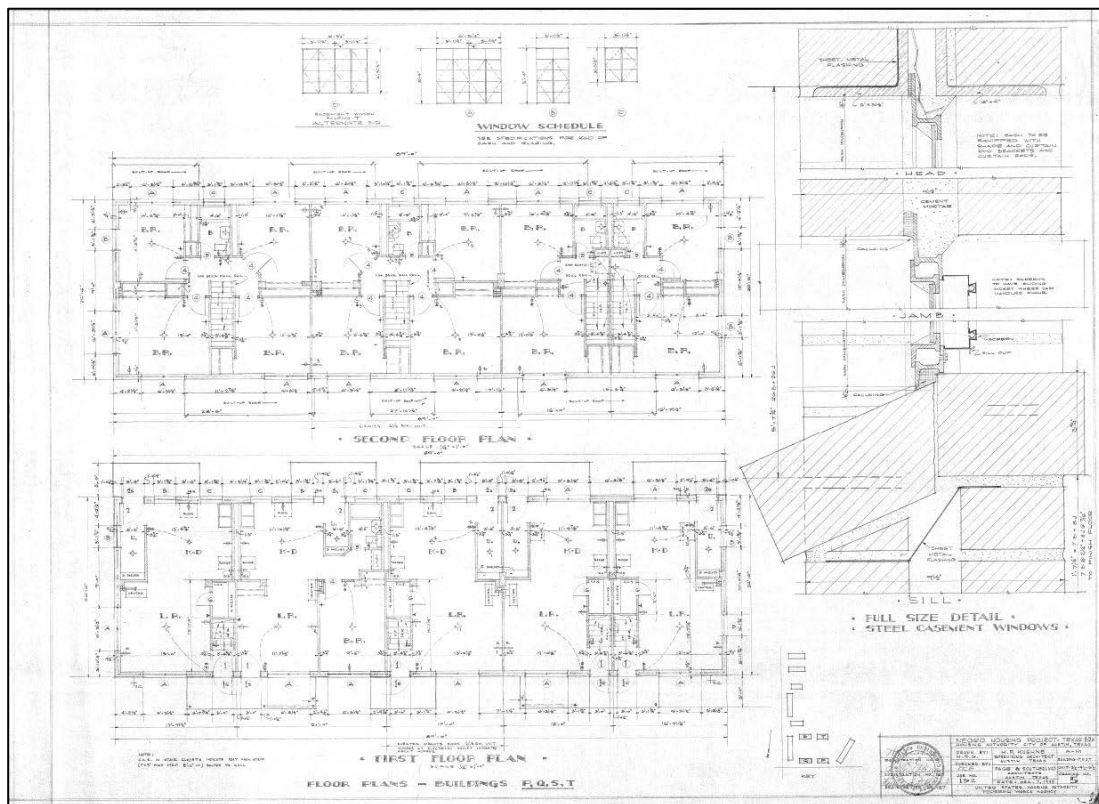
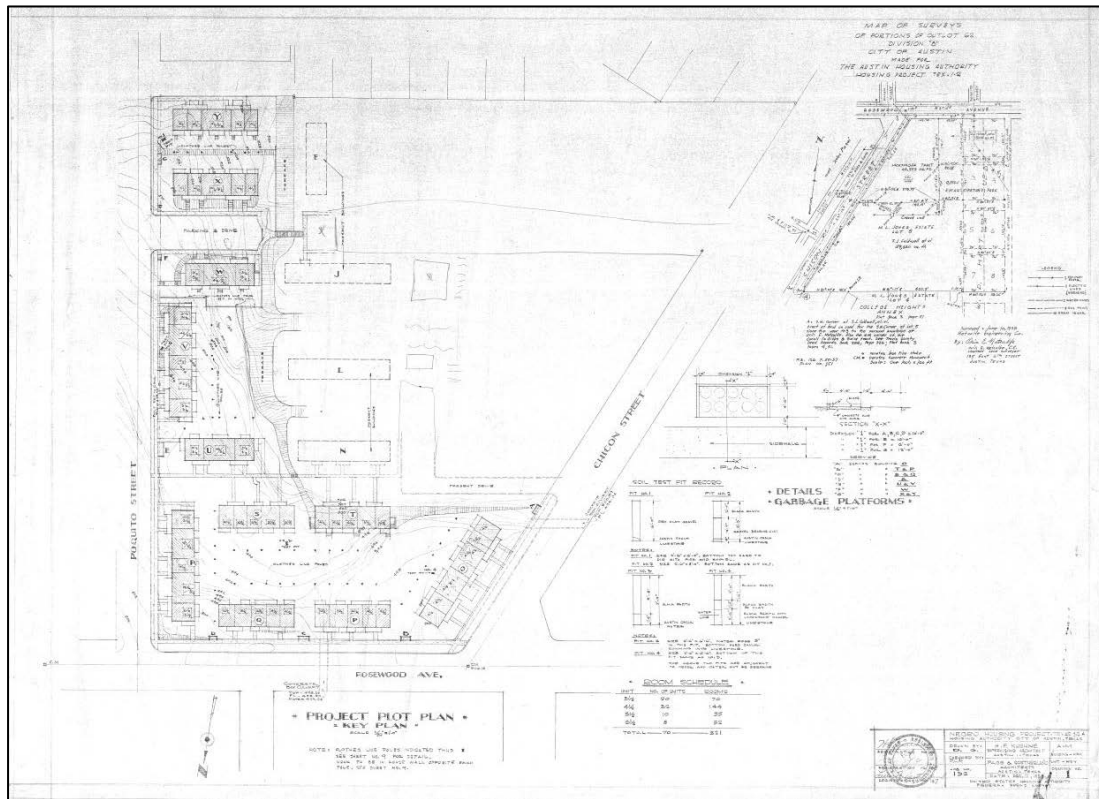
Site photograph taken near the end of construction. Topography changes are visible.

Many of the original architectural drawings for both construction phases exist in digital form today. In addition, digital drawings from 1972 are available which detail a third phase consisting of “modernizations” for the project. What follows are selected drawings from each of the design phases for Rosewood Courts.

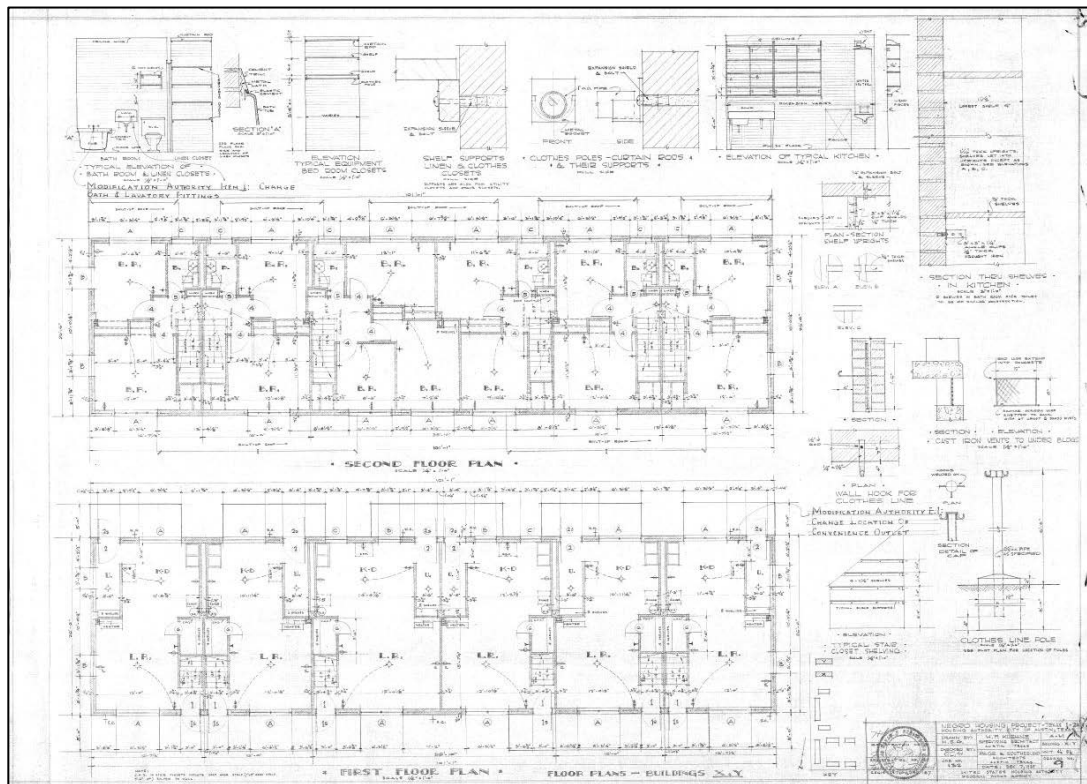
1938 Selected Drawings – Phase 1 – Single-story structures



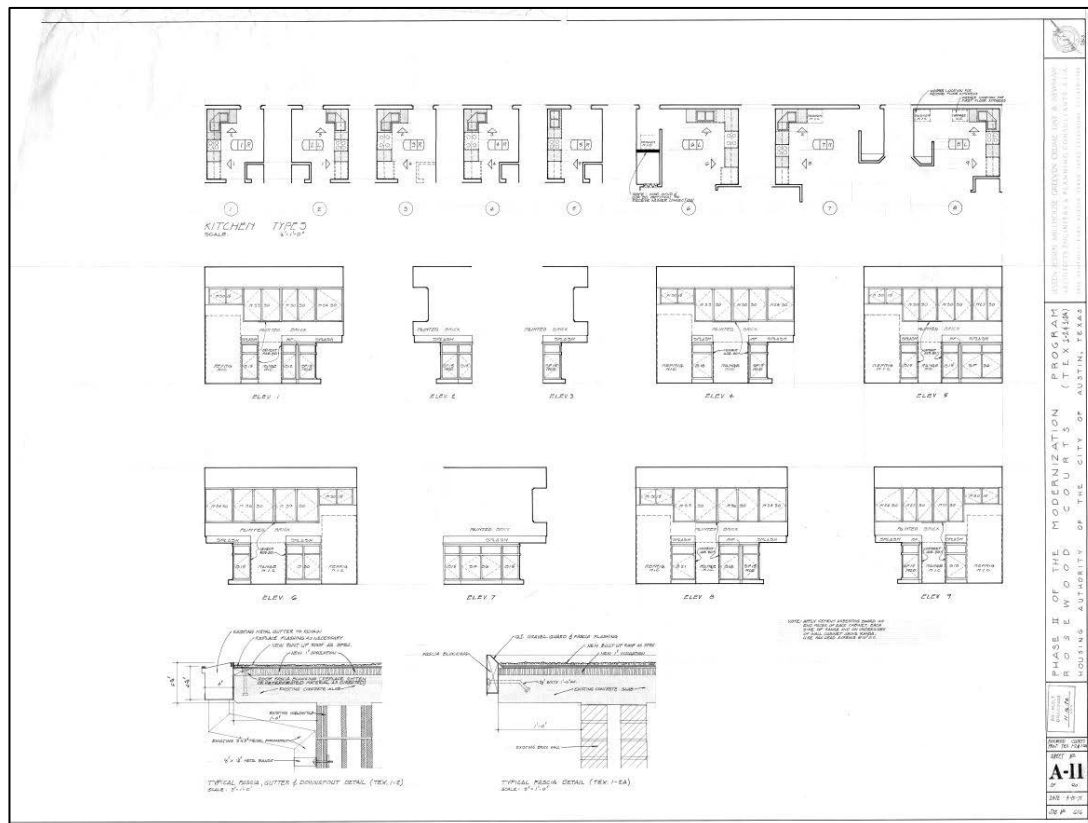
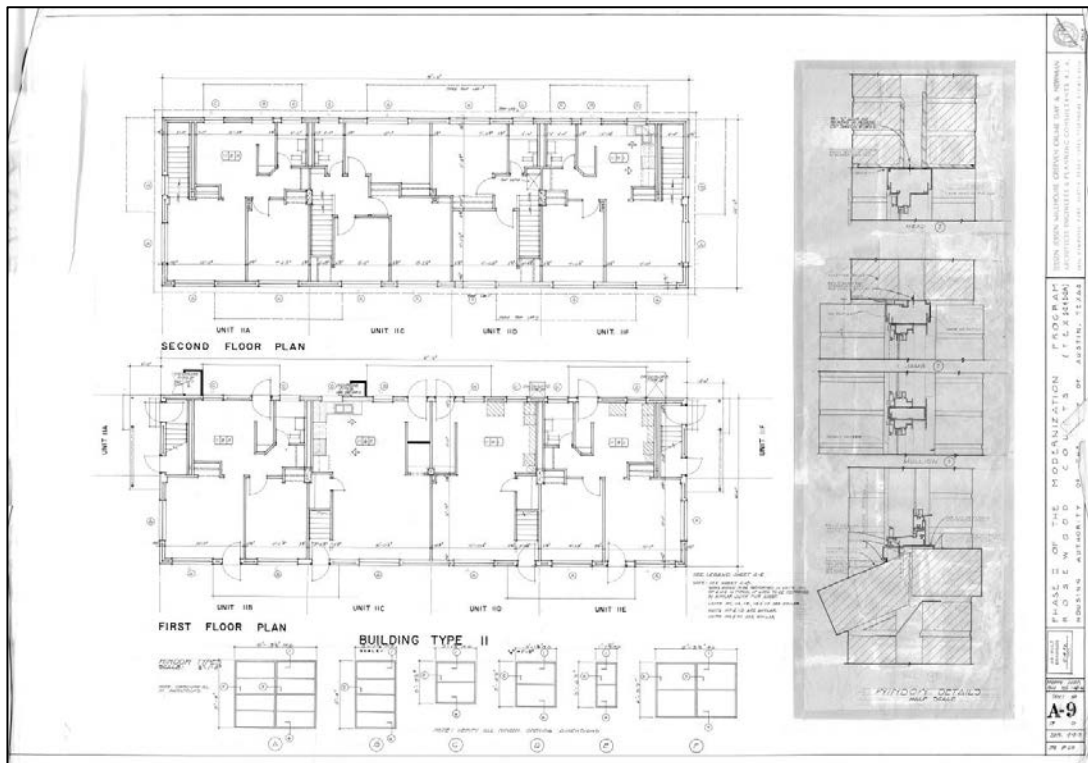
1939 Selected Drawings – Phase 2 – Two-story structures



1939 Selected Drawings – Phase 2 – Two-story structures (continued)



1972 Selected Drawings - Modernization



Early Exterior Photographs



Early Exterior Photographs (continued)



Alterations

In 1972, “modernization” alterations made to the original structures included the following.

Exterior:

- The steel casement windows were replaced with aluminum single-hung windows.
- The rooftop insulation, built-up roof, and associated metal fascia were replaced, maintaining the original design.
- New brick water heater closets were constructed on the exterior rear façade of each building. The water heaters originally located in the Kitchens were relocated to new exterior closets.
- Various site improvements were made such as pressure-washing sidewalks, placing sod, and painting retaining walls.

Interior:

- Original kitchen sinks and shelving were removed. New kitchen layouts were designed and installed which included adding more cabinets and relocating kitchen sinks.
- Some interior doors were replaced with walls and minor walls were added to shift closet locations.

Additionally, significant changes occurred at later dates including:

Exterior:

- Added hipped/gabled roofs to each building.
- Removed gutters and downspouts.
- Removed all or some elements of the decorative steel trellises at unit entries.
- Removed and bricked-in mail slots at entries.
- Partially bricked-in some Bathroom windows and replaced window with smaller shower windows.
- Coated the exterior brick in a layer of paint. This alteration was somewhat recent, occurring after the photograph below was taken in 1999.

Interior:

- Electrical conduit and outlets were added on the inside face of interior walls.
- A variety of miscellaneous minor changes to the interiors.



Photo showing original brick color during volunteer clean-up event near Poquito St.

Current Exterior Photographs



Eligibility for Local, State, and National Historic Designations

City of Austin

The City of Austin Historic Preservation Office's Historic Zoning Application Packet states: "Once designated, all proposed exterior site and building changes (other than routine maintenance) to a historically zoned tract require advance review and approval by the City Historic Landmark Commission." Therefore it is important to note that applying for city historic designation should only be considered after any buildings which are to be demolished are removed.

State of Texas

The Texas Historical Commission is the agency which governs state designations. There are two types of state designations which Rosewood Courts may be eligible for.

***State Antiquities Landmarks** are designated by the THC and receive protection under the Texas Antiquities Code. State Antiquities Landmarks have legal protection. Listing in the National Register is a prerequisite for State Antiquities Landmark designation of a building or structure.*

***Recorded Texas Historic Landmarks (RTHLs)** are properties judged to be historically and architecturally significant. The Texas Historical Commission awards Recorded Texas Historic Landmark designation to buildings at least 50 years old that are judged worthy of preservation for their architectural and historical associations. Participation in the Official Texas Historical Marker process is an integral part of the RTHL designation.*

<http://www.thc.texas.gov/preserve/projects-and-programs/national-register-historic-places/historic-designations-texas>

The **State Antiquities Landmark** designation of historic buildings requires prior listing in the National Register of Historic Places, which is federal. The criteria for this state designation essentially mirrors the National Register criteria, as described in the next section. A **Recorded Texas Historic Landmark** designation requires that a property have both historic and architectural significance. The criteria for designation are explained below.

Recorded Texas Historic Landmarks are properties judged to be historically and architecturally significant. The Texas Historical Commission (THC) awards RTHL designation to buildings at least 50 years old that are worthy of preservation for their architectural and historical associations. This is a designation that comes with a measure of protection under state law. The purchase and display of the RTHL marker is a required component of the designation process. The owner's consent is required to nominate a property as a RTHL.

...

***Age:** Buildings or other historic structures may be eligible for RTHL designation upon reaching 50 years of age. In some cases, structures older than 50 years that have been altered may be eligible, if those alterations occurred at least 50 years ago and took place during a significant period of the structure's history.*

***Historical Significance:** As with applications for subject markers, it is the responsibility of the applicant to establish, through written and photographic documentation, the historical significance of a structure.*

Architectural Integrity: *In reviewing applications for RTHL designation, the THC considers not only the historic persons or events associated with a structure, but also the architectural integrity of the building or structure. The structure should maintain its appearance from its period of historical significance and should be an exemplary model of preservation. In no case can a structure be considered for the RTHL designation if it has been moved in the past 50 years or if artificial (aluminum, vinyl, asbestos, etc.) siding applied to its exterior within the preceding 50 years covers and/or alters its historic architectural materials or features.*

Source: www.thc.texas.gov/preserve/projects-and-programs/recorded-texas-historic-landmarks

National

The national designation which Rosewood Courts could earn is being listed on the National Register of Historic Places. This designation is defined as follows.

National Register of Historic Places *is a federal program administered in our state by the Texas Historical Commission in coordination with the National Park Service. Listing in the National Register provides national recognition of a property's historical or architectural significance and denotes that it is worthy of preservation. Buildings, sites, objects, structures and districts are eligible for this designation if they are at least 50 years old and meet established criteria. Plaques are available, but not required, for this designation.*

<http://www.thc.texas.gov/preserve/projects-and-programs/national-register-historic-places/historic-designations-texas>

A National Register nomination for Rosewood Courts was previously prepared by a local citizen and was forwarded to the Keeper of the National Register for review. The Keeper provides feedback on changes to the nomination and then forwards it to the National Parks Service (a department within the U.S. Department of the Interior) for final determination. Eligibility of the Rosewood Courts project as it currently exists has been confirmed without issue. However the final determination on this particular nomination is still pending. Future nominations are always possible.

Being listed on the National Register comes with no restrictions and is just a designation, unless federal funds are used on the property to make modifications, in which case Section 106 of the National Historic Preservation Act (NHPA) would apply. Section 106 of the NHPA requires that the Advisory Council on Historic Preservation reviews the effects of any proposed work on historic properties. Further conversations with National Register staff and the Keeper would be necessary to determine whether removal of existing buildings could be considered an adverse effect on the property.

Preservation

The *Secretary of the Interior's Standards for the Treatment of Historic Properties (1995)* provides the following standards which define the term “Preservation” (with underlining of pertinent aspects added):

Standards for Preservation

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Source: www.nps.gov/history/local-law/arch_stnds_8_2.htm (emphasis added)

Preservation Project-Specific Scoping Elements

The **Preservation** historic treatment has the least requirements of the three options under consideration. Rosewood Courts is eligible for the National Register of Historic Places as it exists today, despite alterations. Therefore, *Preservation* would be an appropriate historic treatment to select if the primary goal is to maintain the buildings indefinitely in an “as-is” condition.

Rehabilitation

The Secretary of the Interior's Standards for the Treatment of Historic Properties (1995) provides the following standards which define the term "Rehabilitation" (with underlining of pertinent aspects added):

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will 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 elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will 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.

Source: www.nps.gov/history/local-law/arch_stnds_8_2.htm (emphasis added)

Rehabilitation Project-Specific Scoping Elements

The **Rehabilitation** historic treatment is the most appropriate for the Rosewood Courts. This approach allows the greatest flexibility to achieve the goals of this project as stated in this assessment. The interior spaces would be allowed to be modified to accommodate new or updated uses, and the exterior facades could or could not be restored to the same appearance as the original. While a *Rehabilitation* historic treatment does not require that altered features of the project's exterior be restored to the original condition, restoring the exteriors to the appearance of the original is often pursued with this approach.

Restoration

The *Secretary of the Interior's Standards for the Treatment of Historic Properties (1995)* provides the following standards which define the term “Restoration” (with underlining of pertinent aspects added):

Standards for Restoration

1. A property will be used as it was historically or be given a new use which reflects the property's restoration period.
2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.
6. Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.
7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.
8. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
9. Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
10. Designs that were never executed historically will not be constructed.

Source: www.nps.gov/history/local-law/arch_stnds_8_2.htm (emphasis added)

Restoration Project-Specific Scoping Elements

The **Restoration** historic treatment is the most stringent option. This approach requires that the property be carefully restored to its original condition and the original use or another historically appropriate use is maintained. The removal of buildings contributing to the special relationships of the original site would not be allowed. This historical treatment approach is not advisable for this project.

Historic Treatment Summary and Recommendation

Summary

The Technical Preservation Services department of the National Park Service (U.S. Department of the Interior) offers the following succinct summary of the differences between four options for the historic treatment of properties. The fourth option below is not being considered for this project.

Preservation focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.

Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.

Restoration depicts a property at a particular period of time in its history, while removing evidence of other periods.

Reconstruction re-creates vanished or non-surviving portions of a property for interpretive purposes.

Source: www.nps.gov/tps/standards/four-treatments.htm

The **Preservation** historic treatment classification has the least requirements but would not result in a historically accurate or much improved property. The **Rehabilitation** of Rosewood Courts would allow for alterations to the property to meet current-day uses but would still require that the property appear as much like the original as possible. Given that the original affordable housing use of this property will be maintained, it seems possible to achieve the more stringent **Restoration** historic treatment classification. However, the current plan to demolish most of the historic buildings would preclude the **Restoration** classification. The **Reconstruction** historic treatment does not apply to this project which is still intact and does not require re-creating portions of the property.

Recommendation

Of the four choices, it is the recommendation of this assessment to **Rehabilitate** Rosewood Courts, with the minimum possible allowances made to bring the exterior envelope into compliance with the current *International Energy Conservation Code*, Visitability, and ADA requirements as adopted by the City of Austin. While restoration of altered features is not required for historical designation, *Rehabilitation* provides the greatest flexibility to achieve the goals set forth by HACA. These strategies are discussed in the following sections.

While not required, as part of a worthwhile historic rehabilitation, we highly recommend the following original distinctive exterior features be restored:

- a. Flat Roofs
 - a. Remove wood gable construction.
 - b. Patch any holes or other damage in concrete roofs.
 - c. Add insulation and waterproof membrane to flat roof. See attached details.
- b. Gutters and Downspouts
 - a. Add gutters and downspouts, per original design. See attached details.
- c. Windows
 - a. Remove aluminum single-pane windows and replace with new energy efficient and thermally-broken windows closely matching the appearance of the originals.

- b. Match the mullion pattern and thickness of the original steel casement windows with false divided lights (muntins on both the exterior and interior sides of glass, with black spacers between glass panes) to recreate the appearance of the originals.
 - c. A mixture of casement and fixed windows are recommended, with cost-savings coming from fewer casements and more fixed glazing. Casement windows would be located where required for Bedroom fire egress and, minimally, for ventilation in Living Rooms, Kitchens, and Bathrooms.
 - d. Remove the infill masonry at the bricked-over Bathroom windows and replace the window with new full-sized window matching original facade design.
- d. Doors
 - a. Replace doors with those having the same appearance as the originals but meeting energy code. Prime and paint.
- e. Screen Doors
 - a. Replace screen doors with recreations of the original wood designs. Prime and paint.
- f. Exterior Brick
 - a. Option 1 (recommended): Remove paint on exterior brick to reveal original masonry.
 - b. Option 2: Repaint brick a color that matches the original brick.
- g. Decorative Steel Trellises at Entries
 - a. Replace missing trellis elements with steel recreations of the originals.

Building Envelope Updates Recommended to Meet Energy Code

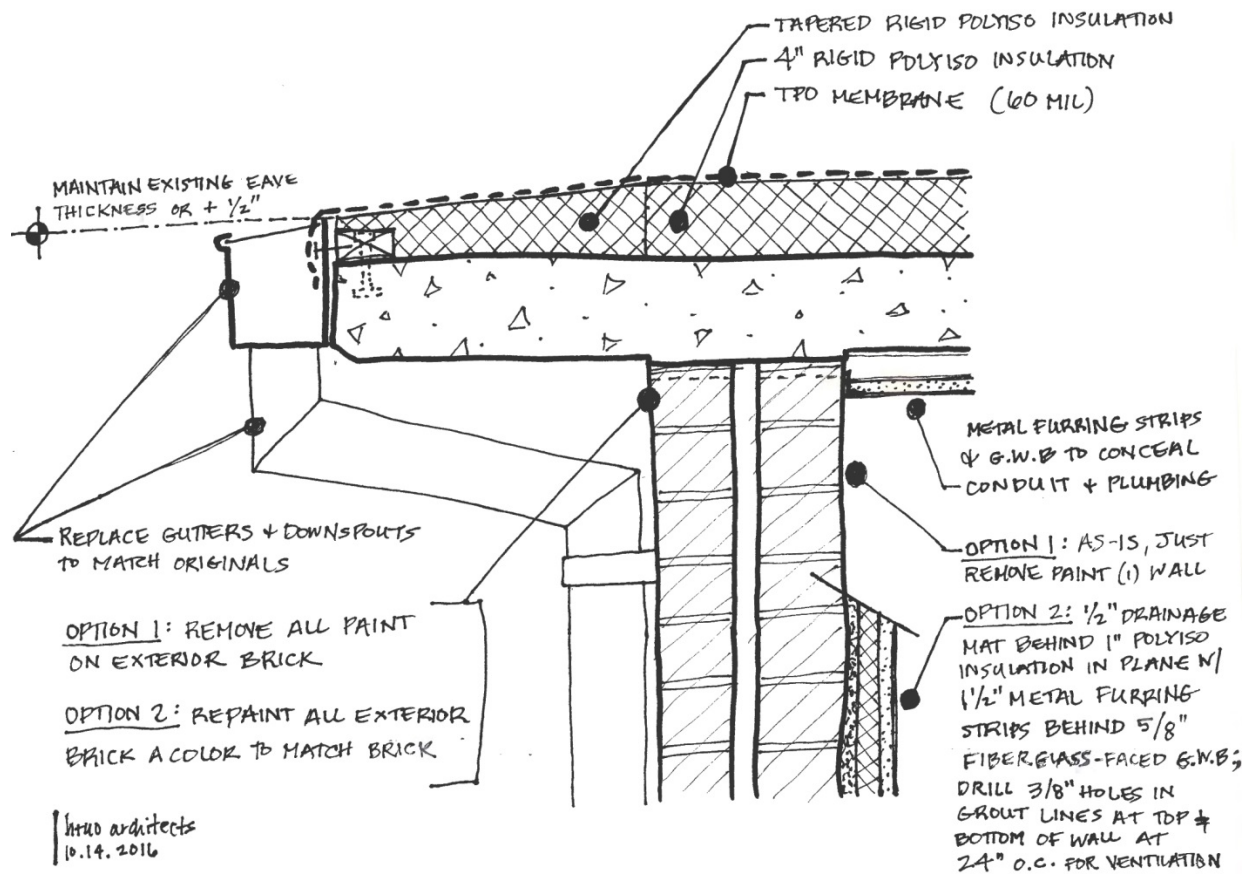
Under the *International Existing Building Code (IEBC)* historic buildings are exempt from current energy code requirements. However it's a project priority to make the buildings more thermally comfortable for the residents. Consequently, in addition to the improvements suggested above for the historic rehabilitation there are several changes to the buildings' thermal envelopes that are needed to comply with the current energy code as adopted and amended by the City of Austin. The current version of the code at the time of this assessment is the *2012 International Building Code (IBC)* and the *2015 International Energy Conservation Code (IECC)*. It is very likely that a newer version of the code will be in effect by the time the Rosewood Courts rehabilitation is permitted for construction.

What follows is an assessment of each portion of the exterior envelope with recommendations for how to comply with current code for specific assemblies and elements.

Roof

The following sketch illustrates several key elements of the rehabilitation of Rosewood Courts. These include both the restoration of missing historic exterior features as well as the rehabilitation of the building envelope to meet thermal current energy code requirements. The following key elements are included in the detail below:

- Restoring missing gutters and downspouts
- Increasing insulation on the roof to 4" thickness (originally 1" of unknown insulation provided)
- Adding insulation at the walls (optional)
- Treating the exterior brick by either removing the paint or repainting to match the brick color (options)

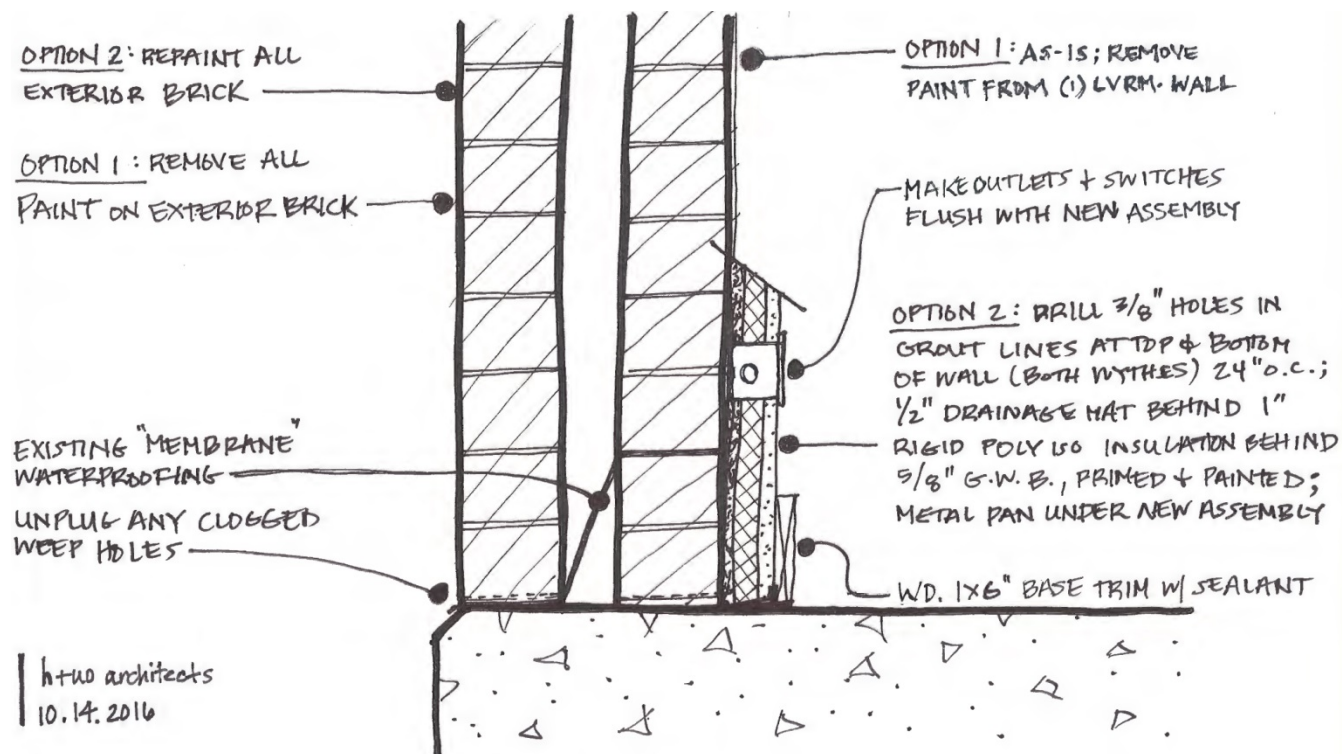


In addition to roof s, we recommend **porch awnings** receive insulation and thermoplastic membrane roofing per the detail above to help eliminate heat transfer through exposed concrete porches. Exposed electrical conduit and plumbing pipes on the **ceilings** would be concealed as shown.

Exterior Walls

The following key elements are included in the detail below:

- Adding a drainage mat, insulation, and gypsum wall board (optional)
- Treating the exterior brick by either removing the paint or repainting to match the brick (options)



Windows

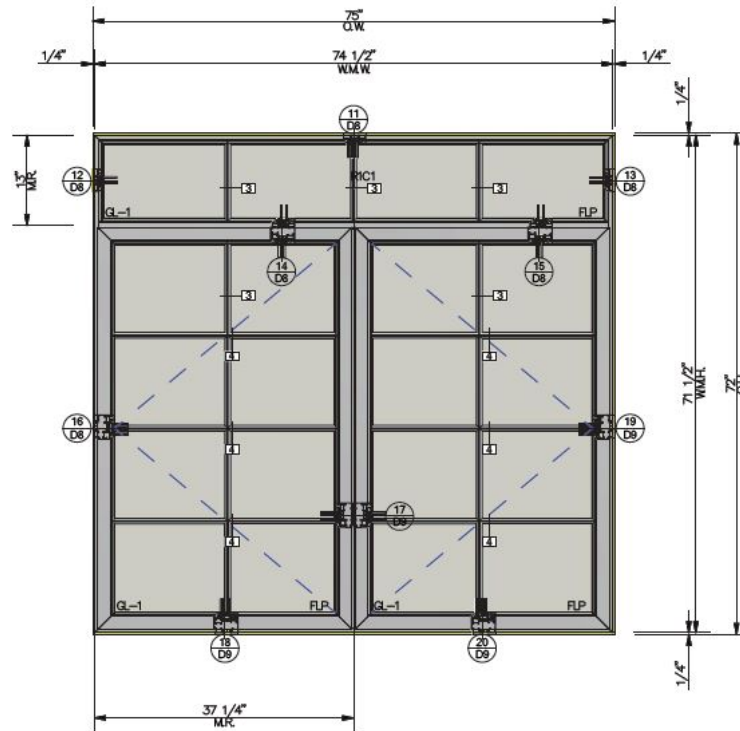
h+uo architects has consulted with a recommended historic windows consultant and manufacturers' representative, Cliff Helterbran (CH Group, LLC, 214-649-7021, chelterbran@me.com). Together we selected the most economically appropriate and historically accurate window model to install at Rosewood Courts, after removing the existing single-pane aluminum windows from 1972.

The specific window we identified is thermally-broken and will meet energy code. It will match the profile and mullion pattern of the original steel casement windows using the more affordable false divided light option with muntins on the exterior sides of the glass, aligned black spacers between glass panes, in lieu of the more expensive historic "true" divided light windows. The selected window can also be obtained in a mixture of casement and fixed types, with cost-savings coming from fewer operable casements and more fixed glazing. Operable casement windows would be located in Bedrooms for fire egress and for cross-ventilation in Living Rooms and Kitchens. Note that any windows within 24" of any door will need to be tempered glass.

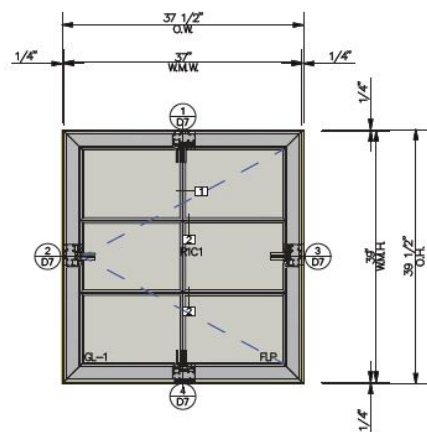
Manufacturer:
Product Line:

Peerless Architectural Windows and Doors
Timeless (in the G651, G659, and other configurations as required per originals)

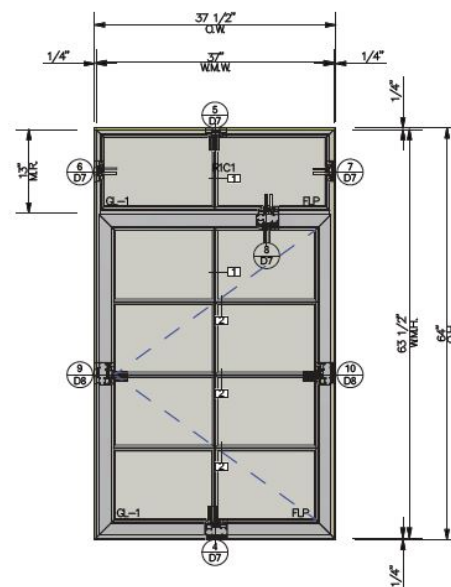
Replacement windows from the above manufacturer would look similar to the drawings provided by Peerless, below. For comparison, the drawings of the original windows are provided on the following page.



G659 timeless — G659
QTY. 1 THUS



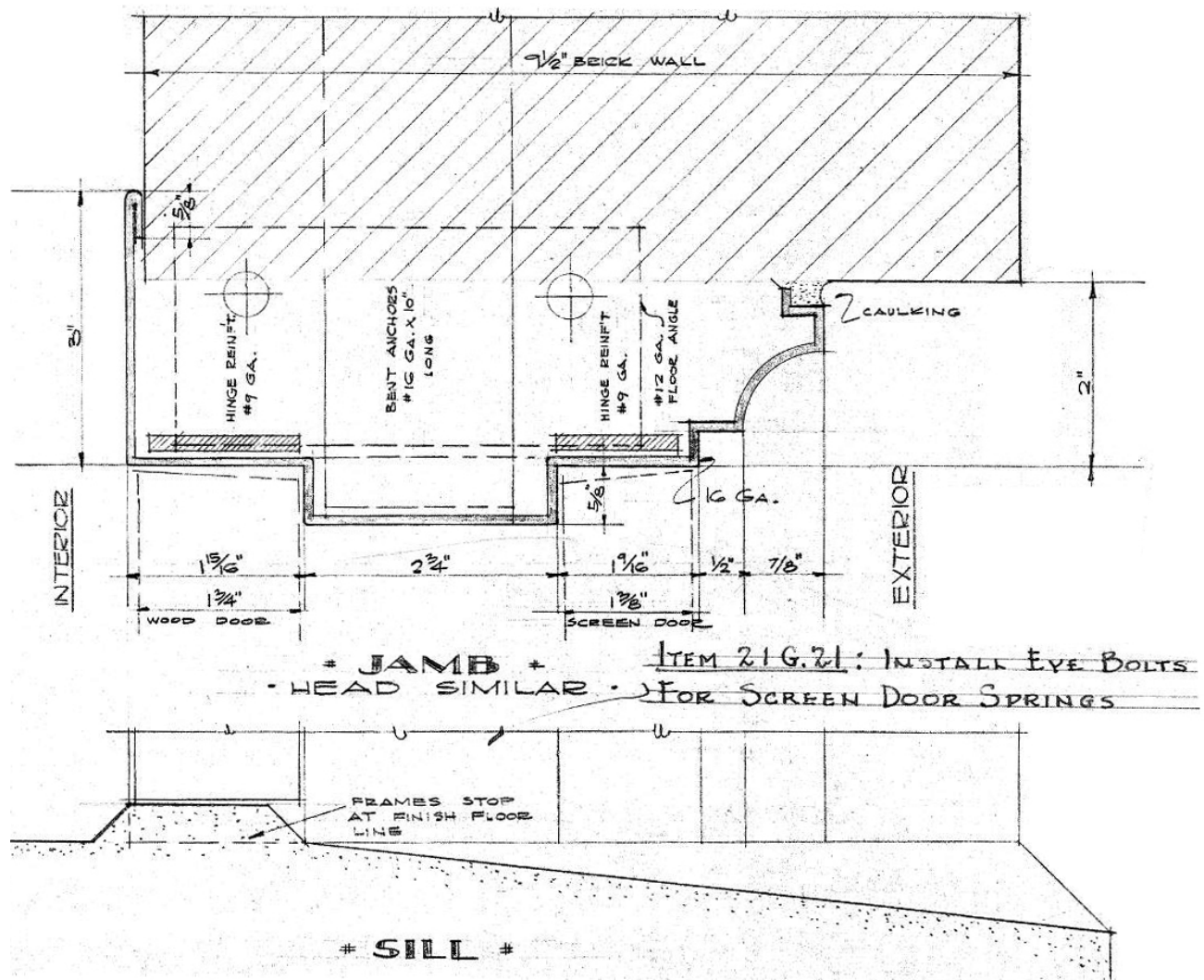
G651 timeless — G651
QTY. 1 THUS



G657 timeless — G657
QTY. 1 THUS

Exterior Doors

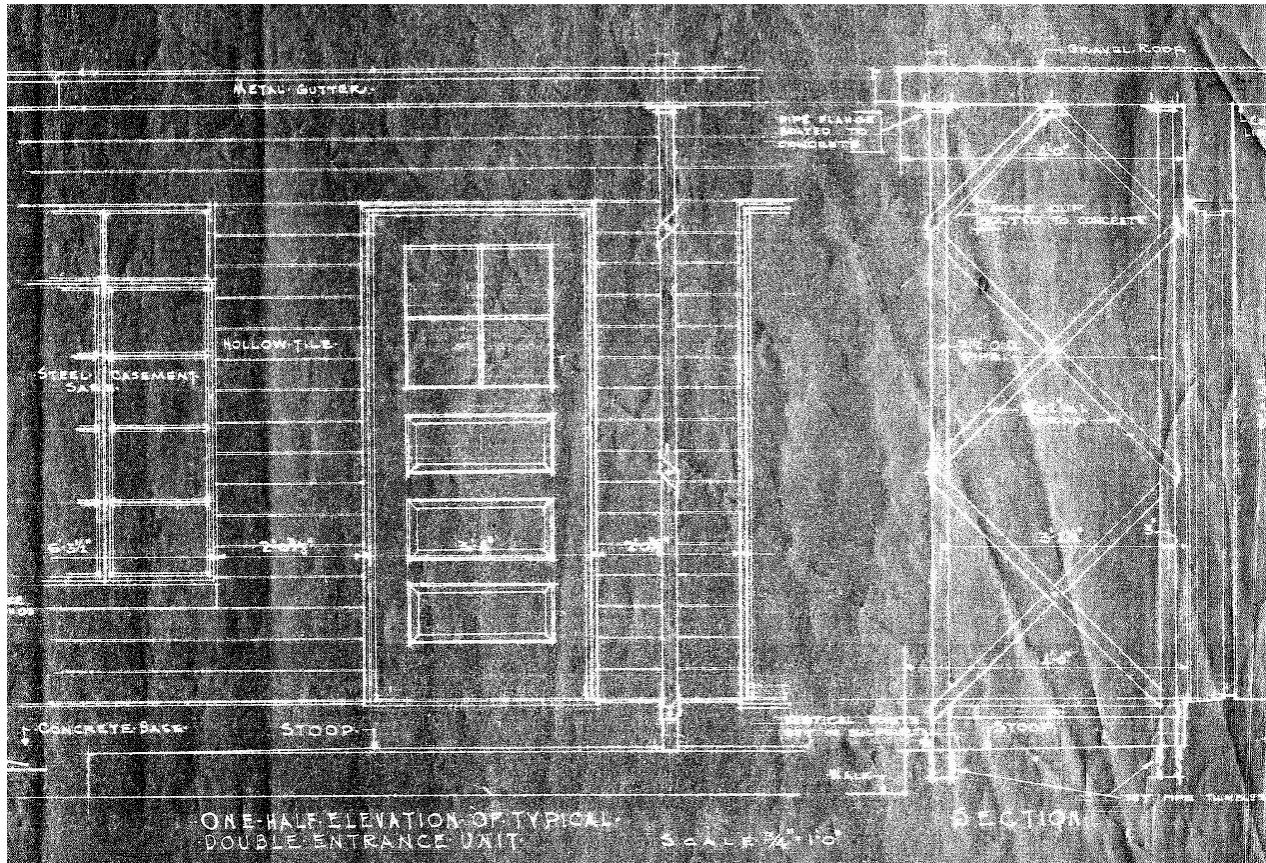
For those original metal door frames which are still intact, we suggest keeping them in place and reusing them. If the original door frame is damaged it should be replaced with a new steel door frame. It is assumed that existing exterior door frames will require gypsum wallboard return if the thicker exterior wall assembly is selected, per the previous details. The exterior doors Option 1 is to install custom wood doors which match the same panel layout as shown in the original construction documents, with simulated divided lites to match the original design. Option 2 is to create the same design using an insulated metal door, also with simulated divided lites. Wood **screen doors** to match the originals should be constructed as part this door assembly, for either option.



Original drawing showing Door Details

Steel Trellises

One of the few decorative features of the Rosewood Courts is the steel “trellis” or awning support at the front entries. We recommend fabricating replicas of the originals and reinstalling these distinctive features. The following drawings describe this element for reconstruction with more information being available in the Exterior Elevations of each building type in the original construction documents.



Original drawings showing Steel Trellis at 1-Story Buildings

Exterior Finishes

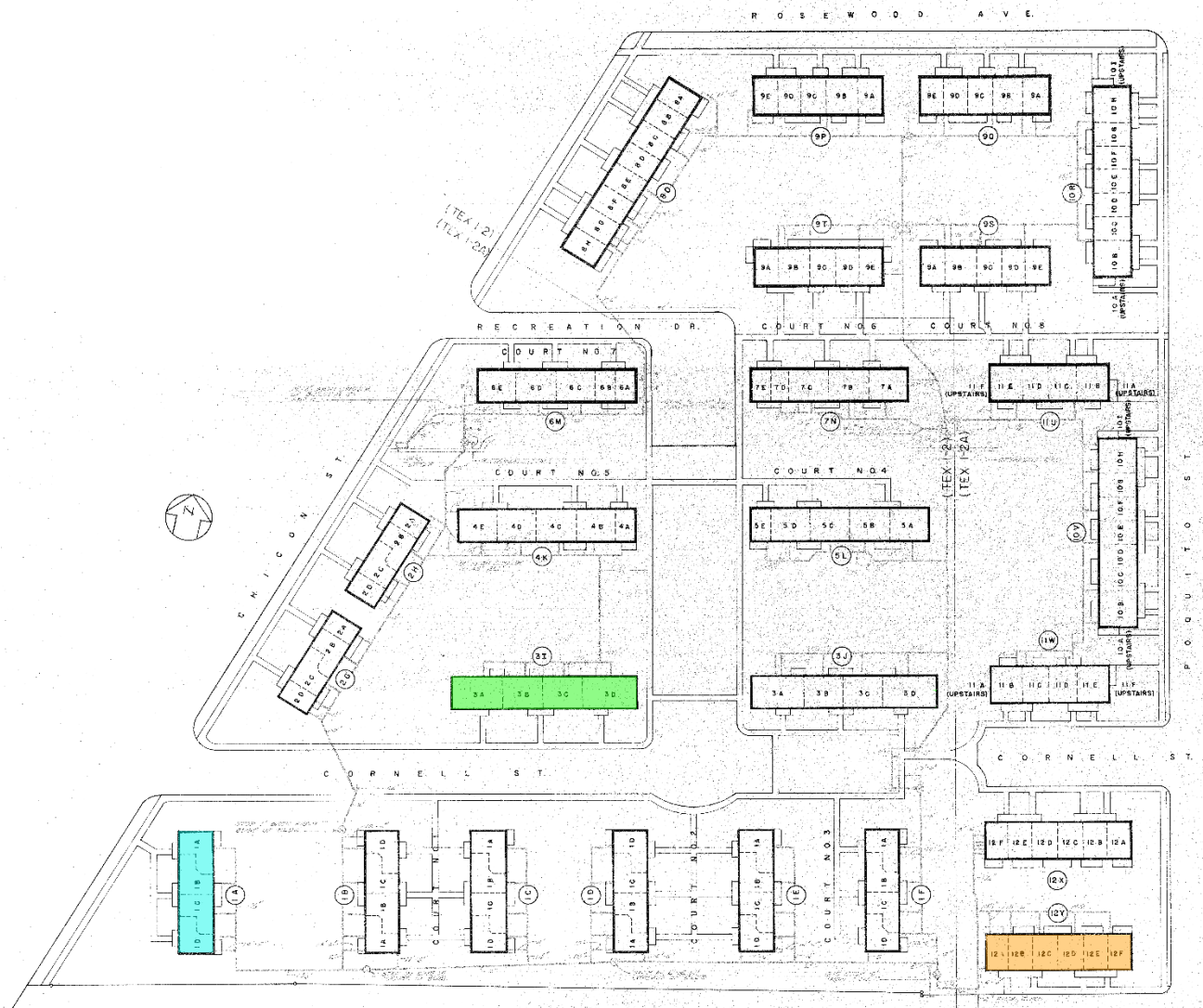
Roofs:	60 mil TPO roofing membrane over 4" rigid polyiso (tapered rigid polyiso for 12" sections at roof eave perimeter)
Fascia:	Wood 1x fascia, primed and painted, with sheet metal flashing. See original details.
Gutters:	Replace gutters to match originals. See original details.
Downspouts:	Replace downspouts to match originals. See original details.
Exterior Walls:	Option 1: Remove all paint from exterior brick. Option 2: Repaint exterior brick.
Exterior Door Frames:	Reuse existing steel frames (or replace with new steel frame if too damaged) Gypsum wallboard returns due to new thicker walls
Exterior Doors:	Option 1: 1- 3/4" solid core wood door with paneling and simulated divided lite to match originals Option 2: 1- 3/4" hollow metal steel door with paneling and simulated divided lite to match originals
Screen Doors:	Recreate wood screen doors to match originals per drawings; prime and paint.
Windows:	Aluminum thermally broken windows with muntins on the exterior and interior face of glass with black spacer aligned with muntin in between the panes for a simulated divided light, in sizes and mullion pattern matching original drawings.
Steel Trellis:	Repair and recreate steel trellises at each Entry per the drawings; prime and paint.

SECTION 3

Interiors: Re-use and Rehabilitation of Existing Buildings

While many elements of the building exteriors could be restored to be consistent with the original historic buildings, we suggest the interior spaces be rehabilitated via remodeling to allow for improved living conditions. What follows is a study showing one example of how three example building types might be rehabilitated to achieve the HACA's programmatic goals.

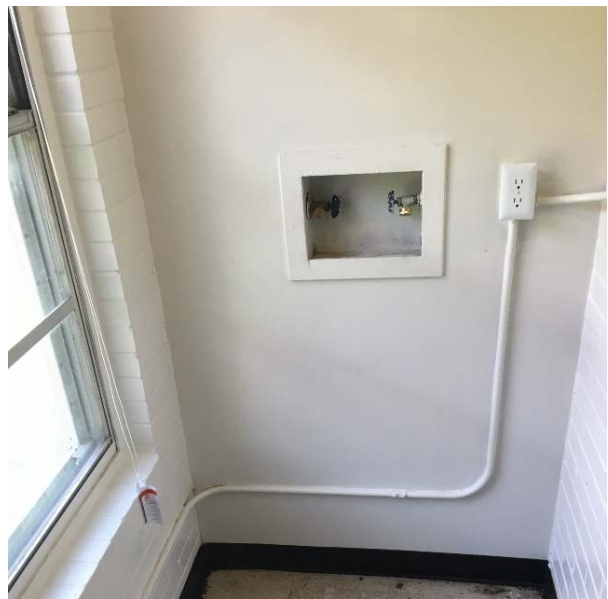
For the purposes of assessing the interior floor plan layouts, we selected three example buildings based on their unit mix and site proximity. These represent three different building types: 1127 Chicon is Building Type 1 (shown below in **blue**), 1916 Cornell is Building Type 3 (shown below in **green**), and 1136 Poquito is Building Type 12 (shown below in **orange**). 1127 Chicon is a single-story building containing four one-bedroom apartment units. 1916 Cornell is a single-story building containing two two-bedroom units and two three-bedroom units. 1136 Poquito is a two-story building containing five two-bedroom units and one three-bedroom unit.



Site Plan indicating three building types studied for possible Interior redesign

Documentation of Existing Conditions

The existing interior conditions create a less than desirable environment for residents to live. What was considered to be socially acceptable living conditions in 1938 is no longer acceptable almost 80 years later. For example, most interior walls are brick and do not allow for residents to hang pictures on the walls. Psychologically this may inhibit residents from fully feeling like Rosewood Courts is their home. Additionally, there are several areas that need to be modified to meet current code and improve the usability of the units. The existing bathrooms do not comply with the City of Austin Visitability Ordinance or allow handicap access. There are currently no central air conditioning system or clothes dryer connections.



Recommended Rehabilitation

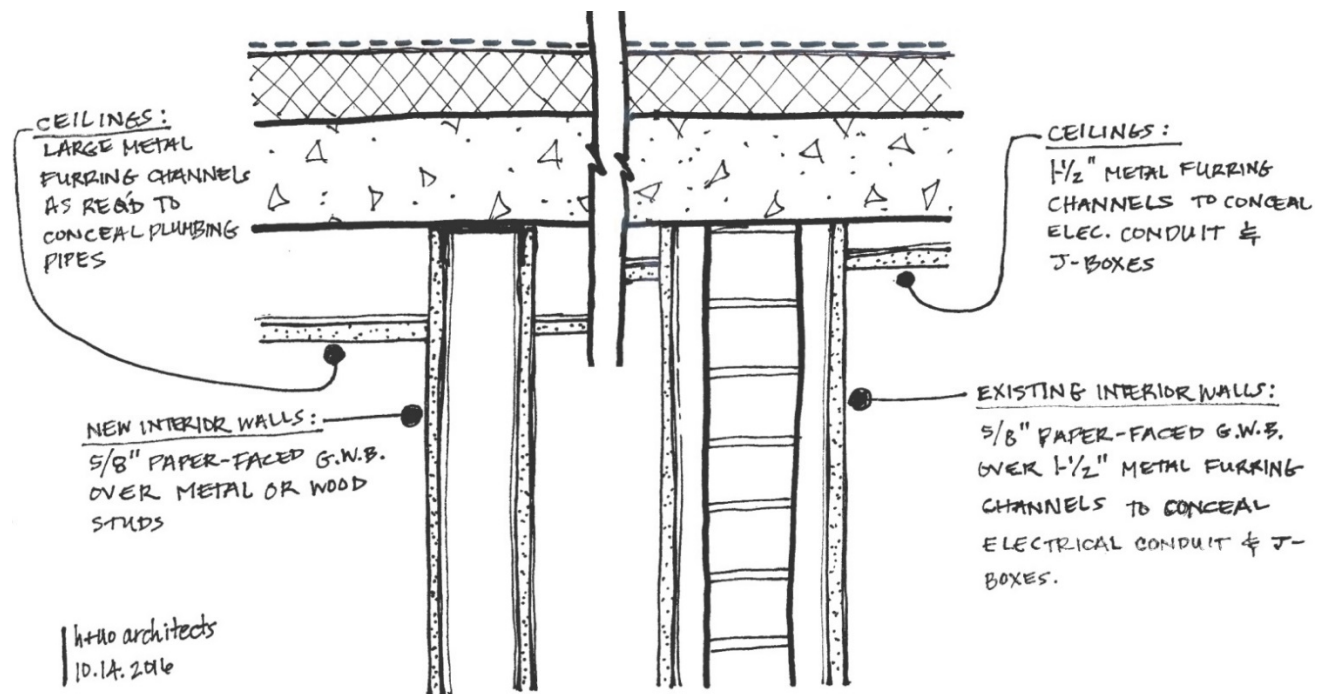
In order to preserve the best possible chance of achieving historical designation while also respecting the economic limitations of the project, the approach of this study was to retain as many of the existing interior walls and structure as possible to create prototypical designs that may be used to extrapolate costs of various building types.

Walls & Ceiling

Interior walls and ceilings are exposed brick and concrete respectively. Psychologically, this may leave residents with a cold, institutional feeling. This also means conduit, receptacles, and light fixtures are all surface mounted creating a cluttered look and allowing a place for dirt and grease to collect, which is especially unsanitary at the backsplash above the range.

The following detail sketch illustrates the proposed treatment to interior walls intended to address the concealment of electrical conduit and plumbing pipes and allow for a surface for residents to hang personal effects. The following key elements are included in the detail below:

- Providing concealment for electrical conduit running along walls
- Providing concealment for plumbing pipes and electrical conduit at ceilings
- Treatment for existing and new wall conditions allowing residents to hang personal items



Stairs

The existing poured-in-place concrete stairs in building type 12 meet current building code regulations, but 7 1/2" risers and 10 1/2" deep treads make it difficult to easily maneuver up and down the stairs. Our estimate does not include an option for replacement of these stairs with more suitable 7" risers and 11" treads because this would likely require the relocation of front doors and windows, which is not an option for exterior façade historic rehabilitation standards.

Structural Systems

The concrete floor and roof slabs have concrete beams that bear on structural brick walls. In some cases in order to provide the most desirable floor plan it will mean partial removal of these bearing walls. While the designs presented below do not require this, an alternative bearing wall option is included in the cost estimate to capture this possibility. Unit cost figures for structural steel and concrete masonry unit walls have been included to account for possible future designs which remove bearing walls. The amount included in the estimate can be subtracted from the overall total if this option is not needed. These options will need to be weighed against the historical designation guidelines as SISTHP does not recommend demolishing existing load bearing walls. A balanced approach will lend itself to achieving the desired project goals.

Mechanical Systems

There is currently no central HVAC system inside the apartments. The units have standalone furnaces in the living room and tenants are allowed to purchase a window A/C unit. The masonry exterior walls radiate heat inward during the hot Texas summers creating uncomfortable interior conditions and the frequently undersized window units struggle to keep up with the cooling and dehumidification demand. Further, the window units are located in the living room and are inadequately equipped to properly condition spaces farther away, like the kitchens which are located in the back of the apartments. New energy-efficient central heat pump systems will help mitigate the humidity problems and provide a more comfortable living space. The condensing units would be located outside adjacent to the building on a concrete pad and surrounded by a metal screen to compliment the historic look of the porch trellises. The air-handlers will be located within a furred-down ceiling cavity in the new interior hallways in front of the bathroom shown in the drawings presented later in this section. It is important that a highly efficient system be used as low-income tenants must pay for the electric bill.

Electrical Systems

Existing exposed wire mold, lighting, and receptacles are an eyesore and should be covered up. The proposed wall assembly system will solve this by furring out the existing brick walls and covering the furring strips with gypsum board. This will allow all wiring and receptacles to be concealed, while also creating an opportunity for recessed lighting if desired. Additionally, the existing wiring and electrical panels appear to be original and must be replaced. The proposed furred-out wall system will facilitate an easy rewiring process.

Plumbing Systems

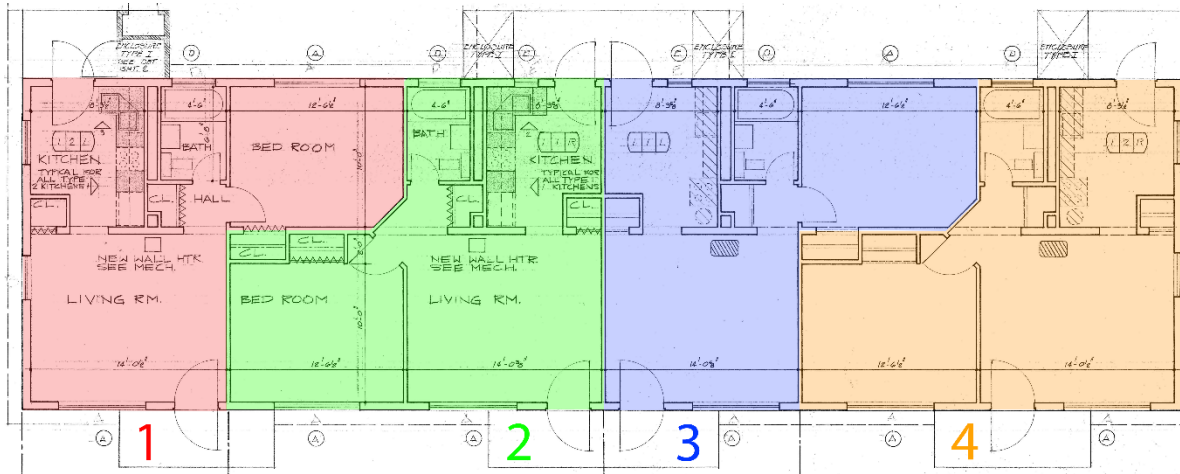
The existing bathtub is a sub-standard 4'-6" long and the existing water closets do not meet current City of Austin water conservation requirements. The existing plumbing fixtures are inadequate and should be replaced with code-compliant fixtures and accessible fixtures where designated. Additionally, the plumbing piping should be replaced where possible. The existing drain lines are cast iron and have aged and become too brittle to function properly. Further, in the type 12 two-story units, the bathrooms are upstairs and therefore are not handicap accessible. The leaky drain pipes in these restrooms are exposed in kitchen ceilings below which is unsanitary particularly when located above cooking stoves.

Interior Options

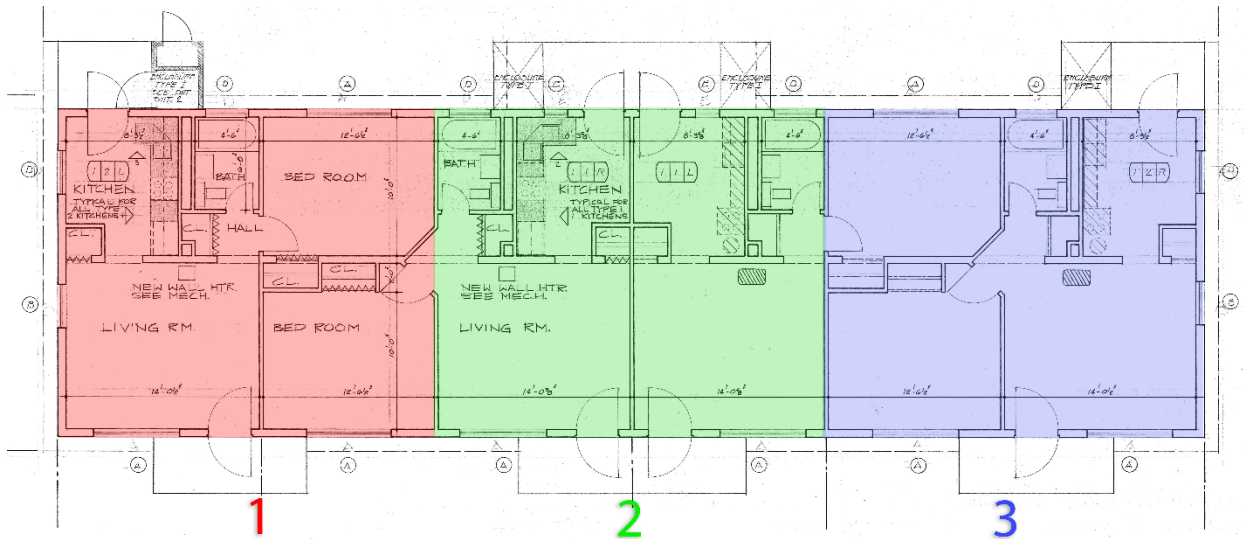
Stairs: Keep existing stairs, which are code-compliant

Ceilings:	5/8" gypsum, primed and painted (moisture-resistant at Bathrooms) over 1-1/2" metal resilient channels (OR larger size to cover plumbing as required)
Exterior Walls (inside):	Option 1: Add nothing; remove paint from Living Room wall with the front door Option 2: 5/8" fiberglass-faced gypsum wall board, primed and painted over 1" polyisocyanurate insulation over 1/2" drainage mat in plane with 1-1/2" metal furring strips
Interior Walls (brick):	5/8" paper-faced gypsum, primed and painted (moisture-resistant at damp locations) over 1-1/2" metal furring strips with gyp. returns as needed at new thicker walls
Interior Walls (new):	5/8" paper-faced gypsum, primed and painted (moisture-resistant at damp locations) Option 1: over metal studs Option 2: over wood studs
Interior Door Frames:	Reuse existing steel door frames where left in place per new floor plans Option 1: steel door frames at new interior door locations Option 2: wood door frames at new interior door locations
Interior Doors:	Option 1: 1- 3/8" wood door with paneling to match originals per drawings Option 2: 1- 3/8" wood door with paneling generally similar to originals (if cheaper)
Interior Door Trim:	Paint-grade pine 1x4", primed and painted, mitered corners
Base Trim:	Paint-grade pine 1x6", primed and painted; (no vinyl due to off-gassing)
Flooring:	Linoleum Tile (no vinyl due to off-gassing) Broadloom Carpet in Bedrooms 12x12" Ceramic Tile in the Bathrooms
Wall Tile:	3x6" ceramic subway tile backsplash above Kitchen counter to underside of uppers 4x4" ceramic tile on three sides of shower/tub surround
Cabinets:	Wood cabinets and drawers Brushed aluminum drawer and door pulls, ADA compliant
Sinks:	Stainless steel double-basin Kitchen sink and new faucet Porcelain under-mount Bathroom sink and new faucet
Tubs:	Porcelain bathtub and shower trim/faucets
Toilet:	Porcelain low-flow (one-flush) tank type toilet with elongated seat
RR Accessories:	(2) 24" towel bars (1) towel hook (1) towel ring near sink ADA grab bars at toilets and bathtubs as required

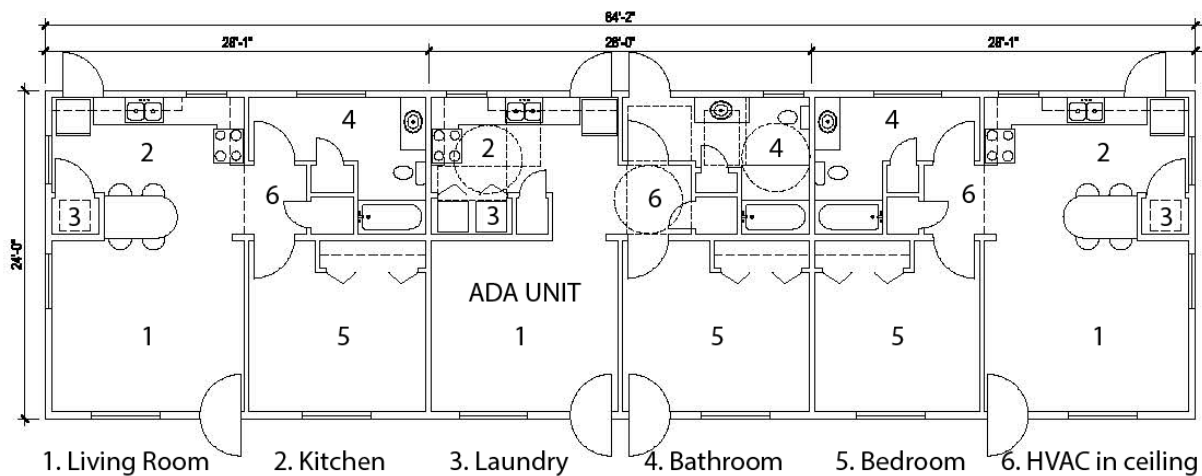
Residential Building Type 1 Floor Plan



Building Type 1: Existing Unit Grouping

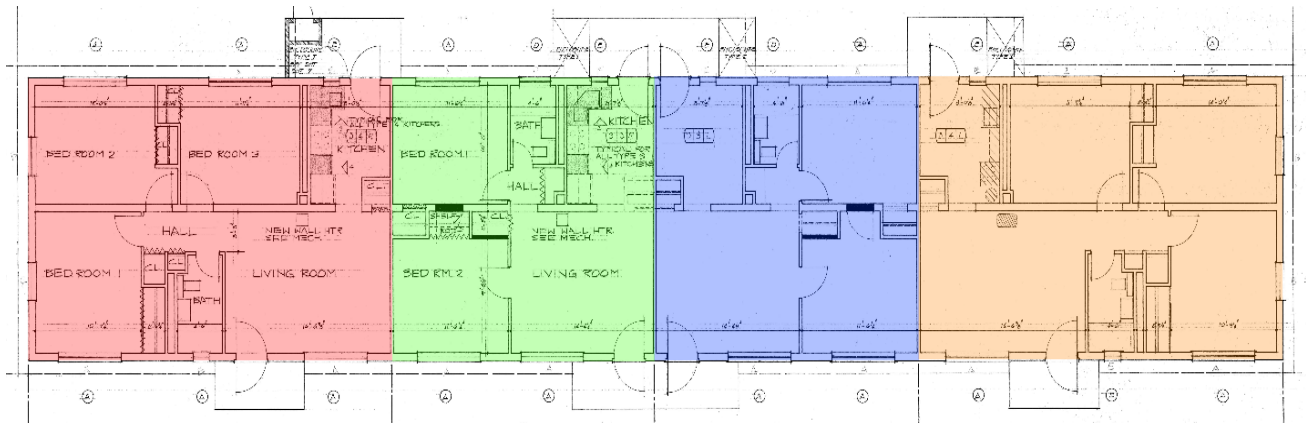


Building Type 1: Proposed Unit Grouping

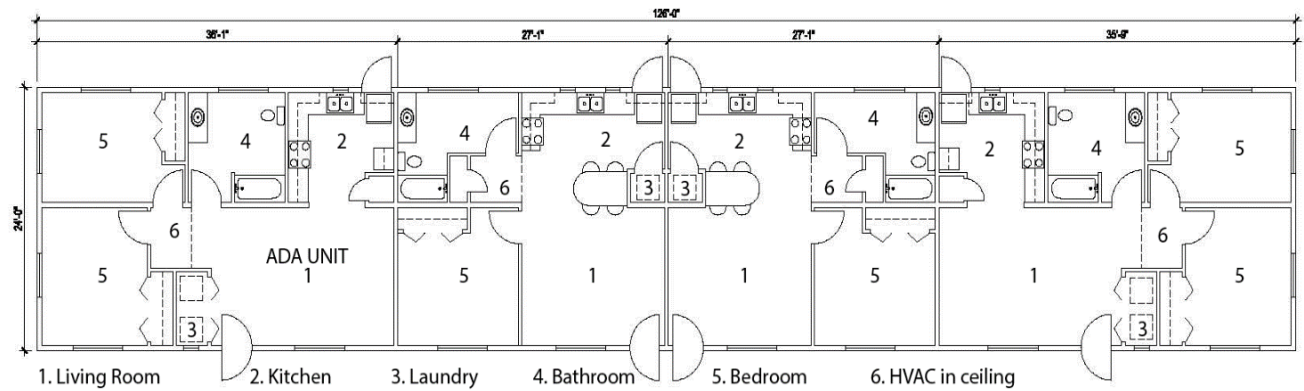


Building Type 1: Proposed Floor Plan

Residential Building Type 3 Floor Plan

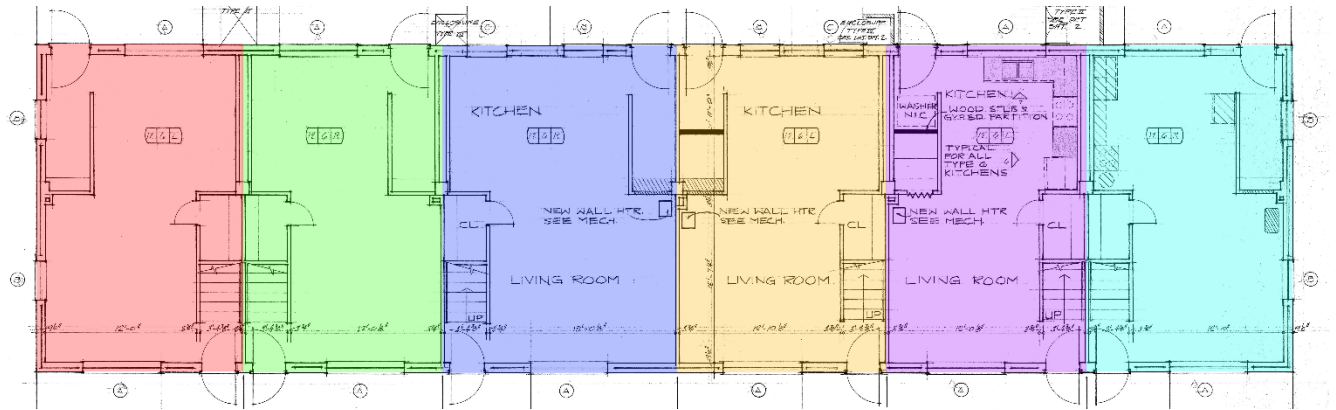


Building Type 3: Existing Floor Plan

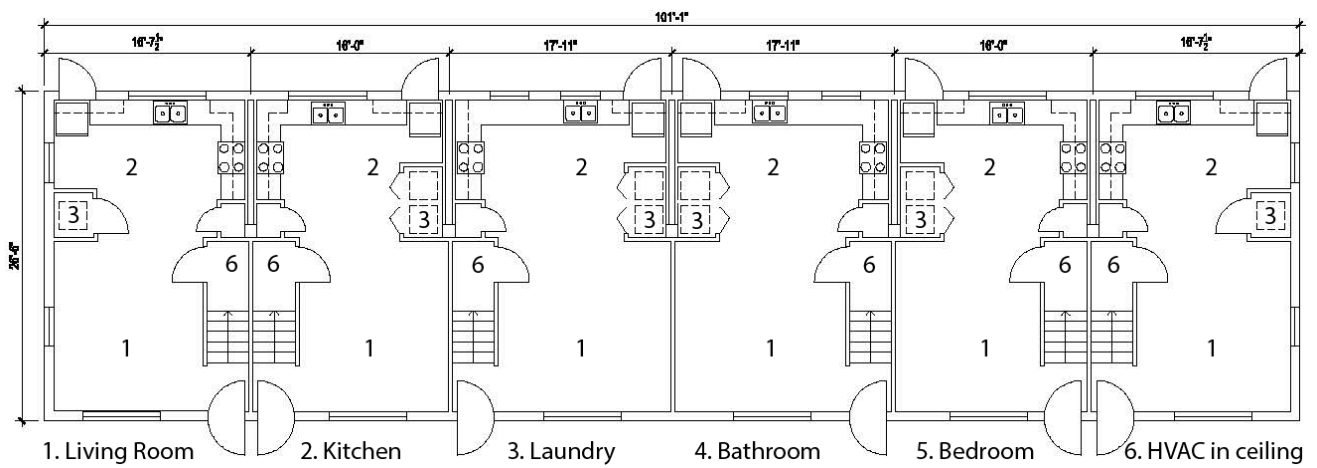


Building Type 3: Proposed Floor Plan

Residential Building Type 12 Floor Plan (1st Floor)

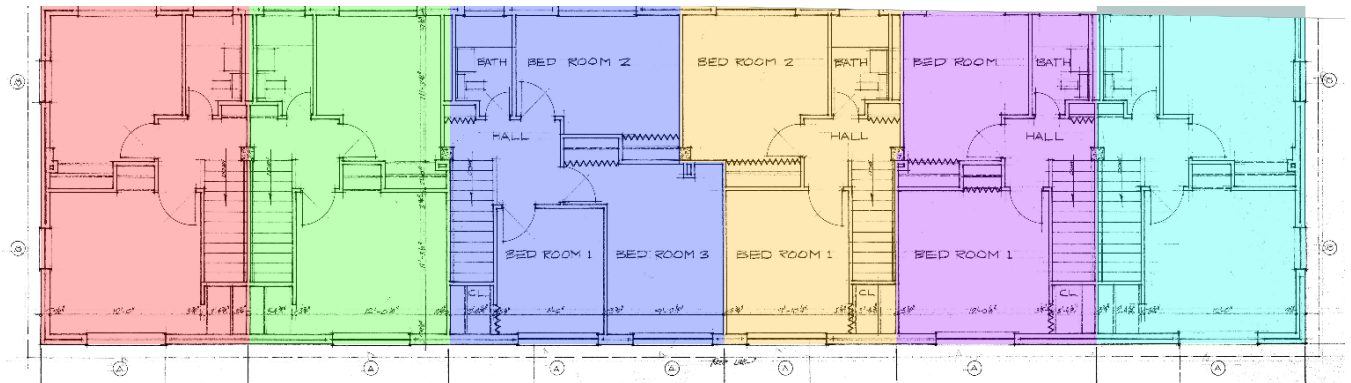


Building Type 12: Existing Floor Plan (1st Floor)

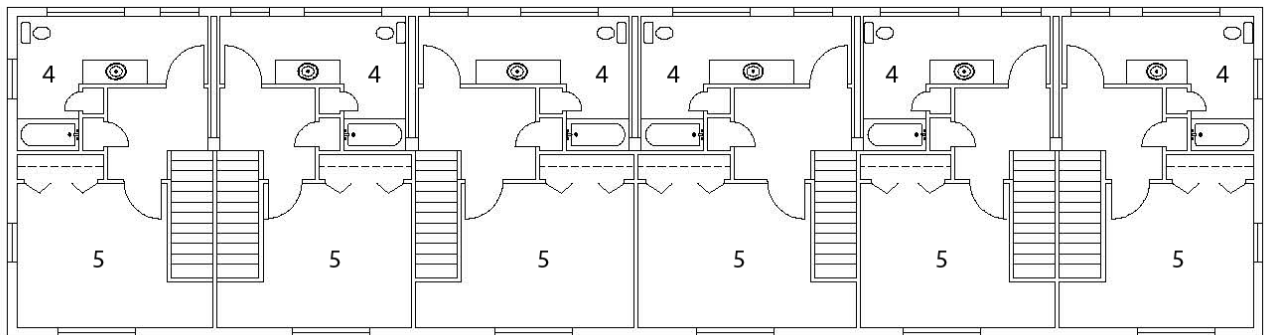


Building Type 12: Proposed Floor Plan (1st Floor)

Residential Building Type 12 Floor Plan (2nd Floor)



Building Type 12: Existing Floor Plan (2nd Floor)



Building Type 12: Proposed Floor Plans (2nd Floor)

Recommended Unit Quantities

In order to retain the existing historical character of the buildings no exterior additions have been proposed. Consequently, in order to implement the outlined programmatic changes, trade-offs will be necessary. Specifically, our recommendations to increase the comfort, health, and safety of the residents would result in a reduction of the total number of bedrooms and units currently provided at Rosewood Courts. The tables below illustrate these changes.

	Existing		Option 1	
	# Units	# Bedrooms	# Units	# Bedrooms
Building Type 1	4	4	3	3
Building Type 3	4	10	4	6
Building Type 12	6	13	6	6

Comparison Table: Unit and Bedroom counts

	Existing Unit Mix			Option 1 Unit Mix		
	1 Bedroom	2 Bedroom	3 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom
Building Type 1	4	-	-	3	-	-
Building Type 3	-	2	2	2	2	0
Building Type 12	-	5	1	5	1	0

Comparison Table: Unit Mix

	Existing Unit Size (SF)			Option 1 Unit Size (SF)		
	1 Bedroom	2 Bedroom	3 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom
Building Type 1	450	-	-	600	-	-
Building Type 3	-	615	810	615	810	-
Building Type 12	-	775	900	775	900	-

Comparison Table: Approximate Unit Sizes (+/-)

While the loss of these beds is not ideal, it affords comparable living space for residents of the historic buildings as compared to the new units being planned at Rosewood Courts.

SECTION 4

Feasibility Assessment Summary

Site

As noted previously the site improvements are excluded from the scope of this assessment, however it is evident that significant site work would be required to create accessible routes to each of the rehabilitated buildings as well as to address the site drainage of stormwater. The site grading is quite steep and does not currently provide the required accessible routes from an accessible parking space to the buildings or from each building to the Leasing Office. It is our recommendation that these site issues be addressed in concurrence with any redevelopment work.

Additionally, it is important to acknowledge the role that site preservation plays in receiving a State or Federal historic designation. This study found that the original spatial relationships between the buildings is a significant factor when determining a designation. Based on our discussions with Gregory Smith, the National Register Coordinator for the Texas Historical Commission, it is unclear whether Rosewood Courts would be eligible to be listed on the National Register of Historic Places, if any of the existing buildings were to be demolished. The National Parks Service (NPS), the federal department that administers the National Register, is uncomfortable giving what would amount to “permission” to demolish historically significant structures by pre-determining how many of Rosewood Courts’ buildings could be demolished and still be eligible for the National Register designation. Without knowing this future decision we can only suggest adhering as closely as possible to the requirements to maintain the original spatial relationships between the buildings that are to remain.

Exterior

As it acknowledges the need to alter or add to a historic property to meet continuing or changing uses, it is recommended that *Rehabilitation* will provide the best historical treatment path to achieve the goals of this project set forth by HACA. While not required under the *Rehabilitation* path this assessment also recommends the original distinctive exterior features be restored. These items have been documented in Section 2 and included in the cost estimate for consideration. Since the international style designed buildings have few distinctly characteristic features, it is extremely important that they be restored in order to bring these buildings back to their original style and appear recognizable.

Interior

Per HACA’s program requirements the interior floor plans were evaluated to determine how they could best be modified to better accommodate the residents. The recommended layouts are one of many possible solutions, but serve to provide an appropriate level of associated costs so that they adequately reflect other possible designs solutions with a similar scope. While these layouts do result in the loss of several bedrooms, they ultimately provide better living conditions for residents with little disruption to the original structure; keeping the historic nature of the buildings intact.

APPENDIX A

Outline Specifications

02 4119	Selective Demolition
02 8213	Asbestos Abatement
02 8319.13	Lead-Based Paint Abatement
04 0120.91	Masonry Restoration
05 5000	Metal Fabrications
06 1000	Rough Carpentry
06 2000	Finish Carpentry
06 4100	Architectural Wood Casework
07 0190.81	Joint Sealant Replacement
07 2113	Foam Board Insulation
07 5423	Thermoplastic-Polyolefin Roofing
07 6200	Sheet Metal Flashing and Trim
07 7123	Manufactured Gutters and Downspouts
07 9200	Joint Sealants
08 1100	Metal Doors and Frames
08 1400	Wood Doors
08 1466	Wood Screen Doors
08 5113	Aluminum Windows
09 2116	Gypsum Board Assemblies
09 3013	Ceramic Tiling
09 6500	Resilient Flooring
09 9100	Painting
10 2813	Toilet Accessories
10 4416	Fire Extinguishers
11 3100	Residential Appliances
22 0000	Plumbing
23 0000	HVAC
26 0000	Electrical
31 0000	Misc. Sitework

APPENDIX B

Cost Estimate

The Cost Estimate has been broken out by each building type included in this assessment as well as by each material specification section. Additionally, there are six options included that address different parts of the building to allow flexibility and decision making to occur. Lastly, the contingency is shown as 15%. This percentage is higher than typical projects, but it helps to account for the unknown conditions that occur with historical projects as well as for the inflation that is likely to occur between the releases of this assessment and when redevelopment actually occurs.



BAILEY ELLIOTT CONSTRUCTION, INC.
Rosewood Conceptual Estimate

BAILEY ELLIOTT CONSTRUCTION, INC.

PROJECT: Rosewood Conceptual Estimate
ADDRESS: TBD
ARCH: hatch+ulland owen architects
OWNER: City of Austin
DATE: December 1, 2016

Note:
Exterior is Renovation
Interior is Rehabilitated
Sitework by others

		SF of Units	# Units	# Buildings	
Building Type 1	1 Bedroom	600	3	1800	
Total SF for Type 1 Building					1,800
Building Type 3	1 Bedroom	615	2	1230	
	2 Bedroom	810	2	1620	
Total SF for Type 3 Building					2,850
Building Type 12	1 Bedroom	775	5	3875	
	2 Bedroom	900	1	900	
Total SF for Type 12 Building					4,775
Total Rentable: 9,425 sf					9,425

	PERCENT OF TOTAL	NOTES	COST/SF	DESCRIPTION	Building Type 1 COST	Building Type 3 COST	Building Type 12 COST
		See Below		General Conditions			
		By Owner	01.30.00	Permits/Fees	0	0	0
2.18%			01.60.00	Cleanup	22,524	22,524	15,699
0.14%			01.80.00	Surveying/Inspections	1,300	1,300	1,300
0.21%			01.87.01	Perimeter Fence	1,950	1,950	1,950
8.33%			02.40.00	Demolition	47,810	70,480	114,420
		By Others	03.10.00	Site Concrete	0	0	0
1.50%			03.40.00	Building Concrete	12,900	15,200	13,800
3.80%			04.40.00	Masonry	20,759	29,819	55,583
2.31%			05.40.00	Steel	15,970	20,328	28,217
			06.10.00	Carpentry	0	0	0
			06.10.03	Lumber Suppliers	0	0	0
			06.20.01	Trusses	0	0	0
2.26%			06.60.00	Millwork	14,060	19,209	29,842
3.82%			07.10.00	Roofing	22,419	34,357	49,903
0.26%			07.40.00	Waterproofing	1,691	2,256	3,384
0.53%			07.60.00	Insulation	3,410	4,548	6,822
			07.80.01	Fireproofing	0	0	0
4.79%			08.20.01	Glass/Windows	27,600	39,200	67,000
1.88%			08.40.01	Exterior Doors	15,000	15,000	22,500
2.14%			08.40.08	Interior Doors	12,525	16,950	30,175
			09.10.00	Plaster	0	0	0
7.70%			09.20.00	Drywall	41,672	62,264	111,186
1.75%			09.40.00	Paint	11,705	14,825	22,205
1.01%			09.60.00	Flooring	5,400	8,550	14,325
1.12%			09.80.00	Ceramic Tile	7,218	9,624	14,436
0.40%			10.20.01	Interior Specialties	2,728	3,490	5,010
			10.30.01	Learning Center Allow.	0	0	0
0.29%			10.40.01	Allowances	1,875	2,500	3,750
0.93%			11.30.00	Appliances	6,000	8,000	12,000
			11.68.13	Playground Equipment	0	0	0
0.37%			12.20.00	Furnishings	2,250	3,000	5,000
			14.20.00	Elevator	0	0	0
0.23%			21.10.00	Fire Protection	1,472	1,964	2,946
6.35%			22.10.00	Plumbing	40,946	54,594	81,891
4.30%			23.10.00	HVAC	24,622	35,830	59,745
4.83%			26.10.00	Electrical	28,613	40,151	66,226
			27.20.02	Communications	0	0	0
1.79%			31.10.00	Site Work	11,508	15,344	23,016
0.14%			31.10.09	Termite Treatment	900	1,200	1,800
0.09%			31.80.00	Environmental	600	800	1,200
			32.10.00	Striping	0	0	0
0.70%			32.20.00	Fences	4,500	6,000	9,000
		None	32.90.00	Landscaping/Irrigation	0	0	0
0.70%			33.10.00	Utilities	4,500	6,000	9,000
			31.80.06	Rain Water Harvesting	0	0	0
			35.10.00	Water Quality	0	0	0
			198.09	TOTAL COSTS	416,427	567,257	883,331
	0.22%		0.65	88.10.01 General Liability	1,374	1,872	2,915
	0.20%		0.59	88.10.02 Builder's Risk	1,237	1,685	2,623
		Not Included		88.99.02 Owner Protection Liability	0.00%		
	1.34%		3.98	88.30.01 P&P Bonds	9,600	11,850	16,100
	13.41%		39.74	01.10.00 General Conditions	87,960	116,582	169,973
	4.92%		14.58	88.88.88 Contractor's Fee	30,996	41,955	64,497
	13.04%		38.65	Contingency	82,140	111,181	170,916
		Tax Exempt		88.20.01 Taxes	0.0000		
				TOTAL ESTIMATED COST	629,734	852,382	1,310,355
				SF #s based on rentable project	349.85	299.08	274.42

Options:						
Exterior Walls	Option 1 (Included in Base Bid)	Remove all paint from exterior brick & tuck-point brick	Cost in Bid	20,302	27,444	42,030
	Option 2	Prime and paint exterior brick	Credit	(9,398)	(27,438)	(16,291)
Exterior door	Option 1	Use 1-3/4" SC WD door with paneling and simulated divided lite to match original	Add:	19,325	26,150	46,575
	Option 2 (Included in Base Bid)	Use 1-3/4" HM door with paneling and simulated divided lite to match original	Cost in Bid	12,525	16,950	30,175
Interior walls (existing)	Option 1	Remove paint	Credit	(3,556)	(4,042)	(2,412)
	Option 2 (Included in Base Bid)	Add 5/8" fiberglass faced GWB, prime and paint over 1" polyiso over 1/2" drain mat and 1-1/2" metal furring strips	Cost in Bid	10,904	15,238	25,739
Interiors Walls (new)	Option 1 (Included in Base Bid)	5/8" paper faced gyp primed and painted over metal studs	Cost in Bid	13,648	20,851	36,785
	Option 2	5/8" paper faced gyp primed and painted over wood studs	Credit	682	1,043	1,839
Interior Door Frames	Option 1	HM Frames at new doors	Add:	5950	7,475	13,325
	Option 2 (Included in Base Bid)	WD frames at new doors	Cost in Bid	1275	1,725	3,075
Interior Doors	Option 1	1-3/4" WD door with paneling to exactly match original drawings	Add:	8075	10,925	19,475
	Option 2 (Included in Base Bid)	1-3/4" WD door with paneling to be similar to original	Cost in Bid	2550	3,450	6,150