

ENVIRONMENTAL EFFECTS REPORT FOR CAMPUS GREENWAY AT GEORGIA STATE UNIVERSITY

Atlanta, GA

Abstract

The proposed Campus Greenway project requires the demolition of the Kell Hall building and adjacent raised plaza. State law requires an environmental effects report for state funded projects which have the potential to impact the natural, physical, and cultural and environments.

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Executive Summary

In order to create Georgia State University's (GSU) Campus Greenway the existing Kell Hall building and adjacent raised plaza would be demolished. The purpose of this report is to document the current conditions and environment of Kell Hall and the plaza and consider the benefits of alternatives compared to demolition of the building. The project site is within an urbanized area and no protected vegetation or fauna were located in the project area. Groundwater and historical resources have the greatest potential for impact from the proposed project.

Maintaining Kell Hall in its current use would not meet the goals of the University. The presence of the building interferes with the proposed features of the Greenway Plaza, including the lawn, seating, and other amenities provided for pedestrians. The removal of the building would not only create grade-level connectivity between the surrounding buildings and streets, it would also provide a campus green space.

Kell Hall and adjoining Library Plaza demolition and creation of a Campus Greenway idea was part of the Campus Master Plan of 2012 by Sasaki Associates and previous Master Plans of 2006 and 1999. The Campus Greenway concept was based on providing safe and open street level pedestrian connectivity between Sparks Hall, Arts and Humanities, Library North, and Langdale Hall.

"This greenway will replace large areas of concrete and asphalt with a much needed beautiful outdoor study and social space for the students and dramatically improve student experience at the academic core of the campus." – GSU President Becker.

1.0 Project Description

The proposed Campus Greenway Plaza would provide students and other pedestrians with a scenic pathway to and from the nearby buildings such as Sparks Hall, Langdale Hall, the Arts and Humanities Building, and the University Library. The Greenway would include a 22-foot wide sidewalk extending from Peachtree Center Avenue SE to Collins Street SE. A lawn, removable bollards, and seating would be installed along the sidewalk. Stairs would be constructed to connect Langdale Plaza to the proposed greenway. In addition, stairs would be constructed to the east of Courtland Street SE that would provide access from the street to the greenway. Seating would also be arranged near both stairways. In order to construct the greenway and surrounding pedestrian amenities, the existing Kell Hall building and raised plaza would be demolished.

2.0 Existing Conditions

Kell Hall was a former parking garage that was converted into an academic building by GSU in 1946. The building has seven floors.

2.1 Location

The subject project is located on the northeast side of Peachtree Center Avenue SE between Gilmer Street SE and Decatur Street SE. The project is bounded by the GSU Library, Sparks Hall, Langdale Hall, and the Arts & Humanities Building. Interstate 75 (I-75) is located northeast of the project and Interstate 20 (I-20) is located south of the project (See Appendix A: Figures 1 and Figure 2).

2.2 Geology/Soil

The subject property is located within the Piedmont Physiographic Province. The soil present within the project area is classified as urban. No additional soil types are present in the project area (See Appendix A: Soil Map).

2.3 Surface/Groundwater Hydrology

2.3.1 Surface Water

No surface waters are present within the project corridor.

2.3.2 Ground Water

Ground water in this area is linked to the Clear Creek Watershed and is at the top of the watershed gradient. No Phase I Environmental Site Assessment has been conducted and is not required on this State project. The demolition will remove only the above-ground structure. Below grade foundation piles will be left in place with little or no ground disturbance. There is no evidence at this time that suggests the existence of Leaking Underground Storage Tanks.

2.4 Wetlands/Floodplain

No wetlands or floodplains were identified within the project area.

2.5 Flora/Fauna

No protected flora or fauna were identified within the project area.

2.6 Archaeology/History

2.6.1 Archaeology

An archaeology study was not included in the 2014 Historic Preservation Plan. It is known that a pottery workshop, established in 1846, existed on the site where Sparks Hall is today. The demolition of Kell Hall and the plaza will not impact the Sparks Hall footprint. Soils disturbance beneath the building and plaza slabs will be minimal but any discoveries of archaeological interest will be evaluated.

2.6.2 History

Originally constructed as the Ivy Street Parking Garage in 1925 and alternatively called the Bolling Jones Building, Kell Hall has served as a classroom and academic building at the core of the Georgia State University campus since 1946.

Named after the original building's owner, Mr. Bolling Jones, Jr., the Bolling Jones Building appears to have been the first multi-story parking garage of its type and size in Atlanta. Innovative for its purpose built use, it also was completed with automatic sprinklers, steam heat, electric lighting, and elevators. Structural engineer W.E. Matthews of Lockwood-Greene & Company designed the Bolling Jones Building using the Ramp Buildings Corporation of New York's patented d'Humy Motoramp system of zigzagged half-levels and condensed tandem ramps, which maximized the space capacity. The half-level ramps reduced their steepness, which allowed cars to drive from the ground to the topmost floor without shifting gears.

The Ivy Street Garage included six-stories of parking spaces, a service center that offered "washing and polishing" and "such other light service", as well as commercial spaces for retail stores, commercial offices, and a lounge for chauffeurs. The construction of the building took two years and nearly \$1,000,000.

Advertisements and articles over the two decades indicate the building's continued use as a parking garage and as well, leased to several business including a piano warehouse and offices for the United Mine Workers union.

Following World War II, enrollment at the Georgia Tech Evening School of Commerce (and also known as the Atlanta Center), what later became Georgia State University, increased

dramatically with the flood of veterans returning home creating a critical need for more classroom and academic space. College President at the time, George Sparks purchased the Ivy Street Garage for \$296,000 with the goal of converting the building to become the college's first dedicated campus property. Funding came from the 1944 Surplus Property Act which made federal resources available for converting buildings to educational facilities. An abundance of post-WWII supplies and manpower reduced the cost of conversion of the 180,000 square foot facility for a total cost of \$100,000. The parking garage floor-to-floor ramps remained in the building and led to it being known by students as the "Rampway", which also became the title of the student yearbook.

Classes began in the new building in March of 1946. The school occupied only two floors at first and leased the remaining space. Other tenants included Southern Bell Telephone Co., Franklin Tire Co., a sawmill, the state Board of Regents, and the teachers' retirement system. The sixth floor was used as rehearsal space for the Atlanta Symphony Orchestra and also housed two bowling alleys.

The Evening School of Commerce, an extension of the Georgia School of Technology, was founded in 1913. In 1947 the school was renamed the Atlanta Division of the University of Georgia and in 1955 renamed again to the Georgia State College of Business Administration. By 1961, as the school grew in size and scope of education, its name was changed for a third time to Georgia State College. In 1969 its name was finally changed to Georgia State University.

In 1964 the Ivy Street Garage building was formally dedicated as Kell Science Hall, after the first dean of the Evening School of Commerce, Wayne Saille Kell.

Until this year Kell Hall housed the Geosciences, Astronomy, Chemistry and Biology departments, as well as research and instructional labs, all of which necessitated periodic renovation and modifications to the building to support growth of the academic programs.

The raised plaza adjacent to Kell Hall was designed by Atlanta architectural firm Aeck and Associates and constructed in 1972.

2.6.3 Architectural Synopsis

Kell Hall fronts Peachtree Center Avenue (formerly Ivy Street) and adjoins Georgia State University's Langdale Hall to the southwest and the Arts and Humanities building to the

northeast. Behind Kell (south and southeast) are two raised plazas with parking and loading areas below. Also sharing the block with Kell are the University's Library and Sparks Hall.

Kell Hall is a six-story reinforced concrete building with a penthouse level occupying less than half the building's floorplate. Floors are staggered a half-level down at each floor, towards the rear of the building, with a series of inter-floor ramps connecting each level and half-level. The building contains 180,000 square feet of interior floor space.

Foundation

The building appears to sit on a concrete slab on and slightly below grade. Cast-in-place conventional concrete with cast concrete columns supporting a two-way slab and beam structural systems. The slab on grade is assumed to be supported by reinforced concrete piles.

No invasive or exploratory investigation on the foundation was conducted. Demolition of the building will remove all above-grade features while preserving existing pile and foundation structure.

Structure

A defined lateral load-resisting system was not apparent. However, as with most d'Humi Motoramp system construction, the Kell Hall building likely utilizes a cast-in-place, post-tensioned concrete construction with monolithic connections between slabs, beam and round columns. The structural frame is reinforced concrete cast-in-situ; composite concrete system consisting of prestressed, precast concrete joists and beam soffits with cast-in place beams and slab; reinforced concrete columns; and shear walls with reinforcement by means of bars, beam and girder units and wire mesh for floors and roofs.

The building's core is a poured-in-place concrete structure of staggered floors, divided into two sections, where the floors of one fourth the building being halfway between the floors in the other three-fourths by inclined ramps. These ramps were used to connect the various floors a half story apart and were arranged to permit continuous travel up or down the building. Currently the building's ramps are used as hallways from floor to floor.

The primary structure (slabs, beams, columns, bearing walls, etc.) generally appears to be in good condition. There were no apparent signs indicative of instability or structural failure.

Roofing

The flat roof is a cast-in-place reinforced (beam and girder units and wire mesh) concrete slab with a built up roofing membrane. Exterior walls extend above the roof line to varying heights forming a parapet.

No issues with the roof or roofing were observed though evidence of past water damage and staining on the interior were noted. Discussions with maintenance personnel indicate that there are no active roof leaks or drainage concerns.

Exterior

The Peachtree Center elevation is separated by eight pilasters and seven recessed vertical bays which are located between the pilasters. On the Peachtree Center elevation the façade is clad in yellow-golden glazed face brick with a crenelated parapet and terra cotta tile Gothic embellishment at the corners. The base of the building's pilasters and a belt course above the ground floor is clad in grey limestone.

The northernmost bay features a Gothic-inspired raised pedestrian entry with decorative limestone elements. The third bay from the north is the primary entrance to the building and features curved glass-block walls and a modern glazed entry. This bay originally contained one of two historic vehicular passages into the building. The second vehicular passage, along with two historic retail storefronts and two additional pedestrian entries were removed and infilled with a matching yellow-golden glazed brick. Two light fixtures bracketing the remaining historic pedestrian entrance remain, but no other historic features or building signage remain.

Vertical rows of punched openings punctuate the recessed bays. Original windows are multi-lite fixed steel windows with an operable central awning sash. Each window sill is made of concrete. All windows along Peachtree Center were removed and replaced with aluminum windows.

The south elevation is connected from the second to the sixth floor, beginning roughly at the second structural bay, to Langdale Hall with the first floor adjacent to a covered vehicular drive. The exposed wall on the south elevation has been infilled with original oversized brick and straight-stacked concrete masonry units and is painted white. The north elevation is entirely obscured by the Arts and Humanities building. The east elevation, which retains most of its original steel windows, has been covered in white-painted stucco.

The building's exterior shows no signs of significant damage or issues concerning the integrity of the building. All materials at the exterior appear to be in satisfactory condition excepting for minor damage, spalling, cracking, and environmental staining and soiling typical of a building of this age and location.

Interior

The interior walls are comprised of varying materials ranging from concrete block, lath/ plaster, vinyl wall covering, drywall or gypsum wall board with paint finish, wood paneling with coatings and stains and metal support assemblies. In select areas, original interior walls are present and are comprised of oversized brick with molded wood base.

Conditions on the interior run the gamut of issues typical of deferred maintenance and heavy use. As well, the building was, at the time of this assessment, being vacated and in the process interior conditions have been exacerbated and in several cases, left unrepaired. No conditions of critical concern were noted.

The presence of hazardous materials in the building, including lead paint and asbestos containing materials, has been confirmed through a hazardous material survey. Past remediation work was noted on the seventh floor penthouse level and in other select areas.

Flooring

The building's core is a structure of staggered floors where the flooring is formed using poured concrete with cast-in -place construction. Layers of flooring finishes were noted throughout the building, likely representing several renovation campaigns. Original tongue and groove wood flooring was noted at the seventh floor level.

Flooring is generally in poor condition. In some areas the original concrete floors are exposed, revealing original painted parking stall lines.

Ceiling

Acoustical tile ceilings are the standard throughout the interior of the building. The ceiling is suspended beneath concrete slab construction. Other ceiling materials include plaster, fiberglass panels, and gypsum board.

No issues with the ceilings were observed though evidence of past water damage, bubbling of plaster and staining on the interior. Discussions with maintenance personnel indicate that there are no active roof leaks or drainage concern.

Windows and Doors

The west elevation windows along Peachtree Centre Avenue have been replaced with aluminum windows which appear to be in stable condition.

Remaining original steel windows on the east and portions of the south elevations are in need of regular maintenance but do not exhibit any critical conditions.

Many original window openings, especially on the north and south elevations, have been blocked in. Historic images indicate that many of these bays may never have contained windows.

Raised Plaza

The raised plaza directly behind Kell Hall, referred to as Library Plaza, was constructed in 1972. The plaza was designed to provide outdoor areas for student gatherings and events. The plaza allowed for preservation of vehicular parking beneath the structure until additional parking areas/structures could be provided on the campus perimeter. These decks and lots have since been created.

The plaza has multiple levels. From Kell Hall, the plaza can be accessed from a platform associated with the Langdale Plaza. The modern entrance to Kell is at its lower second floor level. From this level, the Langdale Plaza descends via a ramp and stairs to the Library Plaza,

punctuated by large brick and concrete planters. From this level one can enter both the library building and Sparks Hall. Amphitheater-like stairs descend to a landing and a single run of stairs to the ground level parking and circulation below the plaza. Another single run stairs ascends up to Courtland Street at the south end of the plaza. Benches, low-walls, and moveable tables and seating are scattered around the site. There is one exterior, enclosed elevator tower providing alternative vertical circulation.

The plaza is in stable condition and no conditions of critical concern were noted. The current plaza creates accessibility challenges and continues to grade-separate important parts of the campus.

2.6.4 Historic Significance

Kell Hall was recommended "Not Eligible" in the June 2014 Georgia State University Campus Historic Preservation Plan produced by Stantec, which stated that "Kell Hall does not retain its historic integrity due to multiple alterations." The report went on to recommend that Kell Hall, along with three other campus buildings, be included in Category 3 of the Institutional Value index, reserved for buildings that have no institutional value.

The report states: "Resources included in Category 3 possess limited historic or aesthetic merits, no potential for adaptive re-use, and are not critical to the mission-based educational needs of the Institute. These resources are candidates for removal or replacement with facilities that better serve the current mission of the Institute. Category 3 resources meet one or more of the following criteria: Do not contribute to the character of the institution; are not related to the history and traditions of the institution and its education mission; are common examples of architectural styles, engineering methods, artistic values or landscape architecture; do not contribute to the interpretation of the history, development, or the tradition of the institution; or have no value for continued or adaptive use"

The report also evaluates the condition of Kell Hall to be in category D – Seriously Defective: "The building/feature/system is no longer performing its intended purpose; the building/feature/system is missing; deterioration or damage affects more than 25% of the building/ feature/system and cannot be adjusted or repaired; the building/feature/system shows

signs of imminent failure or breakdown; or the building/feature/system requires major repair or replacement.”

The Stantec Campus Preservation Plan evaluated Kell Hall within the context of the physical campus and campus planning processes. As such, the recommendations reflect the framework of the 2012 Campus Master Plan and earlier Strategic Plan. No additional information on methodology reveals the process used to make the determinations on eligibility, integrity, or condition. The Stantec report does acknowledge that the history of Kell Hall is important enough to be thoroughly documented before demolition.

Were Kell Hall evaluated independently as a historic resource and understood via its original design and use and through its subsequent adaptation as a classroom facility for a significant institution, it would be determined that the building retains much of its original, character-defining features, including: the concrete structure, infilled brick walls, yellow-gold brick façade, concrete ramps and floors, pipe guard rails, original interior partitioned spaces defined by brick walls and molded wood baseboards, original bands of steel windows, and rooftop penthouse and ventilation structure. As well, the building clearly tells the story of GSU’s beginnings as a night school struggling to find affordable, adequate space for its nascent institution. Serving an academic function for 72 of its 93 years, the building has taken on a significance within the history of Georgia State University and has permeated the school’s culture, in part acknowledged with the eponymous school publication the “Rampway”, which ceased publication in 1996.

As such, the authors of this report find that Kell Hall satisfies the Category 2 Institutional Value criteria defined in the Campus Historic Preservation Plan: Kell Hall possess architectural and aesthetic value; is a good example of an architectural style and engineering methods; contributes to the interpretation of the history, development, and tradition of the institution and the City of Atlanta; and may have some potential for continued or adaptive use. The question of whether the building has value for continued or adaptive use is discussed in the following section.

Kell Hall is eligible under Criterion A of the National Register of Historic Places Criteria for Nomination for its local significance as it relates to GSU's history and under Criterion C as a representative example of an important building type and technology, an early parking garage building utilizing the d'Humy Motoramp system.

This report agrees with the Stantec conclusion that the existing condition of the building is seriously defective and does not provide usable academic space for the University. In its current condition the building is functionally deficient, does not meet several code requirements, and has a number of systems that are well beyond their serviceable life.

2.7 Cultural/ Social

Currently Kell Hall houses the Geosciences, Chemistry and Biology departments, as well as research labs. Removal of the building may affect faculty and student operations in these programs. As of the writing of this report, all academic functions have been relocated to other University facilities.

2.8 Energy

No specific studies were done to investigate the energy gain or loss on Kell Hall. The building has not been renovated to meet current green energy standards or state law.

3.0 Environmental Effects of Proposed Action

Potential soil contamination from the project site will be addressed during demolition and mitigation. A Phase I Environmental Site Assessment (ESA) is not required for this project.

Stormwater management and floodplain management will be addressed during design and construction of the proposed greenway.

No new visual intrusions are proposed. No changes in population or vehicular traffic are foreseeable. No increases in noise or changes to air-quality are expected.

4.0 Adverse Environmental Effects Which Cannot Be Avoided

The demolition of Kell Hall will remove a campus building that is a good example of an architectural style and engineering methods which contribute to the history of the university.

5.0 Alternative to the Proposed Action

The demolition of Kell Hall provides GSU with the opportunity to create a campus greenspace into a largely urban environ. This proposed greenspace would complement Hurt Park (2 acres) and Woodruff Park (3 acres), each just one block away. There are also several smaller greenspaces associated with the campus or adjacent buildings that this proposed greenspace would supplement.

The following alternatives are examples of three general approaches to adaptive use that attempt to satisfy the same objectives of the proposed project. These include restoration to an original use, rehabilitation to a new use, and preservation of an existing use. These approaches have some corollaries to the Secretary of the Interior's Standards for the Treatment of Historic Buildings; restoration, rehabilitation, and preservation.

Each alternative is accompanied by a magnitude of cost estimate calculated using a gross square footage multiplied by industry averages and historic costs of similar work. Certain costs related to demolition are calculated using estimates provided by GSU. The overall cost of demolition of Kell Hall and the raised plaza and the creation of the Greenway is estimated at roughly \$7,700,000, construction contingency not included. The demolition portion alone is estimated at \$2,500,000 not including general conditions and fees. Of that \$2.5 million labor and materials cost, a little over \$700,000 is to gut the building and a little over \$300,000 to remove the plaza. Gutting the existing interior partitions added beginning in 1946 and demolishing the plaza are two constants between the three alternative.

The general magnitude cost estimates provided below are only illustrative and do not contain a number of industry standard assumptions, contingencies, or inflations. These figures should only be used to broadly compare alternatives as they are presented in this text. All alternatives include significant interior demolition and abatement, as well as renovation to the proposed alternative use.

Alternative 1

Retain Kell Hall for original use, demolish the raised plaza: This alternative recognizes the value of Kell Hall as a functional parking structure that embodies the energy and materials of its

composition and is an asset within its dense urban environment. Removing the raised plaza achieves the objective of creating a ground level greenspace, albeit smaller than the one proposed, with pedestrian circulation routed under Langdale Hall's existing overhanging bay – shifting the proposed pedestrian route to the south by several feet.

While Kell Hall is not suitable for classroom use and it may be infeasible to make it suitable, it satisfies the demands of a modern parking structure and would likely hold 600-1000 vehicles based on historic counts. It should be noted though that all new GSU planned or constructed parking has been located at the perimeter of the campus and that their stated intent is to remove parking from the academic core and also to convert some streets to pedestrian use only to reduce vehicular traffic in this area of the campus. This alternative would not satisfy the GSU goals of encouraging use of MARTA and other mass transit commute options and removing parking from the campus academic core.

In this alternative, in addition to providing parking, the historic retail spaces on Peachtree Center Avenue would be reactivated. From the original design, some interior office space may also be provided. This alternative may qualify for the state and federal Historic Rehabilitation Tax Credit if done to the Secretary of the Interior's Standards for the Treatment of Historic Properties.

For the scope described above a general magnitude estimate of \$9.1 million is provided.

Alternative 2

Retain Kell Hall for a new use such as housing and demolish the raised plaza. Just as with Alternative 1, this alternative recognizes the multiple values of the existing building while also trying to achieve the stated goals of the originally proposed project. In this alternative, greenspace and pedestrian circulation are still improved from the existing condition (though significantly smaller in size), demolition of the building's original elements is minimized, and the historic and character-defining features of the building are retained.

Adapting a parking structure to a new use does not come without its challenges. In this case, however, the design of this historic parking facility does not inhibit alternative uses as a

modern parking structure would. That is, the level floor areas, adequate floor to ceiling heights, and dried-in condition of the building suggest feasible alternative uses. One such use has been demonstrated by the Savannah College of Art and Design as their SCADpad; an innovative project that transformed portions of a parking structure into student housing. This approach retains the parking function of the building, but replaces many of the parking spaces, specifically at the perimeter of the building, with micro housing units – allowing residents to drive up to their unit and park nearby. This alternative is not consistent with the goals of the GSU 2012 Campus Master Plan in creating a student housing precinct along Piedmont Avenue.

This alternative may qualify for the state and federal Historic Rehabilitation Tax Credit if done to the Secretary of the Interior’s Standards for the Treatment of Historic Properties.

For the scope described above a general magnitude estimate of between \$18.1 and \$24.8 million is provided.

Alternative 3

Do nothing; a requirement for the discussion of alternative uses is consideration of an approach that does not change the current function of the building. In this scenario, the building would require significant upgrades to its mechanical systems as well as the systems required to support its academic functions. For most of its life, Kell Hall has supported the physical sciences, which has necessitated the ad hoc installation of supplemental and scientific mechanical systems, including running ducts out of windows and up onto the roof. This has resulted in many system inefficiencies and an aesthetic burden. To remedy this for its current use, a comprehensive and holistic approach to systems design should be undertaken.

Additionally, the existing ramps in Kell Hall are not ADA compliant and the elevators are undersized for the building’s level of use. A completely new circulation system, both vertical and horizontal, would have to be designed and would likely require an infeasible level of effort to remedy.

For the scope described above a general magnitude estimate of between \$31 and \$47.2 million is provided.

6.0 Short-Term Use Vs. Long-Term Value

There is currently no short-term use as the building is now vacant. Long-term value is seen in the introduction of a green space into the urban campus environment and increased grade-level connectivity.

7.0 Benefit Statement

The creation of a campus greenway is proposed to demonstrate the viability of creating and preserving a natural campus-like environment in the midst of a harsh and hard urban context. The Greenway is a definitive statement regarding the university's commitment to modify and improve upon the urban campus experience for its community of students, faculty, staff, and researchers. The Greenway Project will provide a safe, inviting environment in which the university community can conduct its business of learning and research. It will address the shortage identified in the Campus Master Plan as a much needed social and interaction space outside of the typical classroom and research lab.

8.0 Irreversible Commitments of Resources

If unidentified underground storage tanks (UST) are encountered during construction, guidelines for contamination removal will be applied.

The demolition of Kell Hall would irreversibly remove a 93 year old structure from the urban landscape and as well would constitute a loss of embodied energy and material.

9.0 Potential Mitigation

To be determined

Appendix A

- Figure 1: Project Location Map
- Figure 2: Project Aerial
- Soil Map