Georgia State University

Courtland Street Reconstruction
Campus Impact Study

Approved Report
Revised January 6, 2017

PRAXIS3 architecture + multidisciplinary design

Table of **Contents**

A Executive Summary

This report was prepared for Georgia State University to evaluate the various impacts of the proposed Georgia Department of Transportation (GDOT) in-kind replacement of the Courtland Street Bridge. Overall campus impact and building by building impacts were assessed and documented. In depth discussions with administrators and building users were utilized to formulate recommendations for each affected facility.

The project as currently described by the GDOT will have a serious impact on the GSU campus. Courtland Street cuts through the heart of the campus; its closing and subsequent loss of access to the Collins Street corridor below will affect pedestrian and vehicular circulation, general building access, loading and trash access, building exiting, emergency services access, and Americans with Disabilities Act (ADA) compliant access.

Every building adjacent to the viaduct will be impacted, including Sparks Hall, Library North, Library South, the G Parking Deck, the Courtland Building, the Courtland North Building, the GSU Sports Arena Complex, the University Bookstore and University Student Center West and the GSU Volleyball Courts. Impacts range from moderate to severe, and in one case will render a structure unusable for the duration of the project.

In general, it is the University's wish that the GDOT reevaluate the absolute necessity of the project. If the project is deemed necessary, then we suggest a five year postponement to allow GSU time to finish nearby projects and to prepare for the bridge replacement project. If neither is possible, then all care must be taken by the GDOT and their project contractor in working closely with the University to coordinate schedules and mitigate negative impact.

Under no circumstances should the GDOT project start before January 2018. As described in this document, physical planning will be needed to provide for protective structures and other measures necessary to keep certain vital facilities open during construction. Noise and additional traffic caused by construction equipment are other significant concerns of the University. It is also imperative that Decatur Street pedestrian and vehicular access be maintained throughout the project, with necessary closings taking place at off- hours and over weekends for the duration of the project

The project also provides some opportunities for the University including:

- *The opportunity to rethink the pedestrian circulation design and the overall aesthetics of Courtland Street corridor.*
- *The opportunity to improve Collins Street for students and other pedestrians.*
- *The opportunity to improve loading and building access for all structures along the Courtland-Collins corridor.*
- *The opportunity to provide better building entries for structures along the corridor, particularly for the Bookstore, Student Center and the Library Complex.*
- *The opportunity to make the Courtland-Collins corridor work within the context of planned campus improvements as dictated by the Campus Master Plan.*

These problems, opportunities and recommendations are described in detail in the following report. Costs are estimated by our cost consultant and responsibilities for various impact mitigation projects are assigned. Depending upon agreements with the City of Atlanta and the Georgia Department of Transportation these costs and responsibilities may be subject to change.

Decatur Street, the heart of the GSU campus

B Courtland Street Bridge Replacement Project Overview

The Courtland Street Bridge Replacement Project
The Georgia Department of Transportation has determined that the Courtland Street Bridge in Downtown Atlanta needs to be replaced. The bridge replacement project will be an in-kind project and will replace the bridge with a new one matching the existing design. It will also necessitate the closing of Collins Street located directly below the Courtland viaduct.

The bridge and viaduct runs through the heart of the Georgia State University campus. Its reconstruction will represent major complications to normal campus functions and will cause the university to functionally modify several adjacent buildings. This report analyzes the impact of the bridge demolition and reconstruction and makes recommendations to the University on ways to mitigate disruption to the overall functioning of the campus and to specific buildings.

According to the GDOT, the current schedule for the bridge replacement anticipates a Public Information/ Detour Meeting in fall 2016, Supplemental FFPR in November 2016, Environmental Document Update in Spring 2016, Right of Way certification in May 2017, with a July 2017 contract let date. The total project is expected to take 2 years to complete.

According to the Bridge Inspection Report dated 2006:
The Courtland Street Bridge was originally constructed in 1906, rebuilt in 1958 and rehabilitated in 1971 and 1995. The existing Courtland Street Bridge over MARTA, CSXT, and Decatur Street is 1,077 feet long and has 28 spans with a maximum span length of 84 feet. The existing bridge width is 60 feet out to out and 45 feet gutter to gutter.

The existing Courtland Street bridge structure has shown signs of major deterioration over the last few years and is now in need of a full replacement. The most recent sufficiency rating is 48.09 (2006 Revised Concept Report). Sufficiency ratings reflect the overall structural condition of the bridge. The sufficiency rating is a score between 0 and 100, which is computed based primarily on structural conditions, deck width, and guardrail type. The lower a structure's sufficiency rating, the less stable the structure and the greater the potential hazard to the public. According to GDOT policy, a sufficiency rating below 50 indicates that the bridge is structurally deficient as well as functionally obsolete and therefore a candidate for replacement. The bridge has been temporarily shored in the area north of the CSXT rail lines. However, the bottom of the concrete deck is spalling in numerous locations resulting in chunks of concrete falling off and endangering the public below. Based on the in service condition of the bridge, it has also been posted for load restriction.

Georgia State University Impact
The project as currently described by the GDOT will have a serious impact on the GSU campus. Courtland Street cuts through the heart of the campus; its closing and subsequent loss of access to the Collins Street corridor below will affect pedestrian and vehicular circulation, general building access, loading and trash access, building exiting, emergency fire and ambulance access and ADA access.

Every building adjacent to the viaduct will be impacted including Sparks Hall, Library North, Library South, the G Parking Deck, the Courtland Building, the Courtland North Building, the GSU Sports Arena Complex, the University Bookstore and University Student Center West and the GSU Volleyball Courts. Impacts range from moderate to severe, and in one case, will make a structure unusable for the duration of the project. This report outlines the impact for each structure and makes recommendations for mitigation.

GSU Concerns
Aside from direct access and other problems caused by construction, GSU also has concerns about its effect on other critical campus projects. These projects include Kell Hall and Library Plaza Demolition, Library North Addition, and the Classroom South Addition. All projects, with anticipated start dates nearing, may overlap with the bridge reconstruction. Given their locations close to Collins Street (a major project staging area), the potential for conflict is high.

In general, it is the University's wish that the GDOT reevaluate the absolute necessity of the project. If the project is deemed necessary then we suggest a five year postponement to allow GSU time to complete nearby projects and to prepare for the bridge replacement project. If neither is possible, then all care must be taken by the

GDOT and the project contractor in working closely with the University to coordinate schedules and mitigate impact.

Under no circumstances should the GDOT project start before January 2018. As described in this document, physical planning will be needed to provide for protective structures and other measures necessary to keep certain vital facilities open during construction. Noise and additional traffic caused by construction equipment are other significant concerns of the University. It is also imperative that Decatur Street pedestrian and vehicular access be maintained throughout the project, with necessary closings taking place at off-hours and over weekends.

GDOT and the project contractor should remain aware at all times that they are working in the center of an active campus with over 30,000 students and take due care to protect students, faculty, staff and the general public from potential harm. Constant site oversight and surveillance will be necessary.

GSU Opportunities

As the project proceeds it is important to note that its completion provides the University with several important opportunities, listed below:

- *The opportunity to rethink the Courtland street corridor.* The street currently offers little in the way of campus amenity. It is not student or bike friendly and offers GSU little opportunity for school branding or identity.

  As suggested by the GSU President in his letter to the GDOT Commissioner:
  The inclusion of wider sidewalks, humanly scaled pedestrian and vehicular lighting, improved crosswalks, and possible GSU branding elements in the form of graphics, signage and banners should be made a top priority.

  It is important to note that the current GDOT project does NOT anticipate any improvement over the current viaduct design but instead is described as an in-kind project, simply replacing exactly what currently exists. This kind of thinking represents a significant lost opportunity for the campus and the City of Atlanta.
- *The opportunity to improve Collins street for students and other pedestrians.* This corridor occupies the center of the GSU campus and should be treated as a primary campus feature. The area under the viaduct should be thought of as an important campus place with provisions for student circulation and interaction. Special lighting and other features should also be considered for this unique campus location.
- *The opportunity to improve loading and building access for all structures along the Courtland-Collins corridor.* A mish-mash of loading docks, trash holding areas and access ramps has accumulated over the years as the GSU campus has grown. The closing and rebuilding of the corridor gives the chance for a complete rethinking of these elements, their separation, function and relationship to student circulation routes.
- *The opportunity to provide better building entries for structures along the corridor, particularly for the Bookstore, Student Center and the Library Complex.* Improved street-fronts along Courtland and Collins Streets offer excellent chances to reimagine building entrances and signage opportunities for GSU.

On-going Dialog

Finally, should the project progress as currently envisioned, we expect that all mitigation solutions should be in place before the start of the demolition phase of the project. As the project progresses, unanticipated problems may arise. These issues should be immediately identified, discussed by all parties, and resolved accordingly. It is recommended that a standing coordination meeting including representatives of GSU, GDOT and the project contractor happen on a monthly or biweekly basis for the duration of the project.

Costs of Construction Mitigation

This report outlines potential costs of mitigations required by the campus. Further, these costs will be broken down into GDOT and City of Atlanta specific responsibilities.

C Impact and Recommendations

Extent of Courtland Street Bridge Replacement Project

C1 General Campus Impact

Construction Disruption

The demolition and reconstruction of the Courtland Bridge will impact the GSU campus in any number of ways. Construction traffic, pedestrian and automobile re-routing will all affect campus circulation patterns and basic use in fundamental ways for the entire duration of the project. Scheduling of demolition and reconstruction work will need to be carefully coordinated with the University.

Construction Noise

Demolition is anticipated to take 6 months, and construction will take approximately 18 more months. There will be heavy machinery noise, and noises from materials being dismantled, loaded and unloaded, and installed (i.e. noise throughout all construction phases). The following buildings contain noise-sensitive spaces which are located immediately adjacent to the bridge:

- Sparks Hall: Classrooms
- Library North and South: Quiet Library Spaces Meeting Rooms, Study Rooms
- Courtland North: Tutoring, Classrooms
- Student Center West: Cinefest Movie Theater, Meeting Rooms, Studios and other Gathering Spaces

The nature of the work may allow for some off-hours scheduling of major demolition or construction events. This will need to be closely coordinated between the Georgia DOT, the project general contractor and the University. According to the latest plans, foundations for new bridge support columns will be drilled and piles (and noisy pile-driving machines) will not be used. This should help with noise issues. Disruptions due to noise however will be unavoidable at times and GSU should prepare students, faculty and staff accordingly.

Pedestrian Circulation

Two of the main campus circulation paths that cross from the west to east at Courtland and Collins Streets, primarily connecting the Library to Student Center, will be closed for the duration of the project. The Bookstore is mainly

accessed from either Courtland or Collins Streets at the north end of the building. Bookstore management cited loss of revenue due to inaccessibility as a major potential impact.

Every effort should be made to keep Decatur Street open to pedestrian and automotive traffic for most of the project duration. Demolition and construction, when taking place overhead, will be limited to off-hours (late-night) or weekends. Closure of Decatur Street, even for a brief period, will have a significant impact on the campus and will need to be carefully coordinated. Constant and clear communication between the Georgia DOT, the project general contractor and GSU will be critical to the success of the project and to alleviating as much impact to the campus as possible.

Automobile Circulation

As mentioned above, Decatur Street is the automotive and pedestrian heart of the campus. Current planning calls for it to remain open with the exception of brief period during demolition and construction. Timing of these closings will be coordinated with GSU to fall at off-hours or on weekends.

Collins Street, a ground-level, main thoroughfare for deliveries, loading, and cross-campus circulation, will not be available for general circulation for the duration of the project.

Courtland Street from Gilmer Street to MLK, Jr. Drive will be entirely inaccessible during construction.

The main campus bus route (Blue) circles around Courtland Street. The central bus stop is located on Gilmer Street at the intersection of Courtland Street.

General Recommendations

1. Traffic southbound on Courtland Street will be diverted at Edgewood or Gilmer to Jessie Hill to Gilmer Street. A blinking 2-way stop signal should be located at the the intersection of Gilmer and Courtland Streets. (See traffic routing)
2. Blue bus route will need to be re-routed to avoid the construction areas.
3. Green bus route timing will need to be adjusted.
4. Install a pedestrian crosswalk with Hawk Eye sensor just east of the intersection of Decatur and Collins Streets. Another crosswalk at the west side of Collins Street is also an option.
5. A pedestrian "scramble" (All way auto stop for pedestrian crossing) was strongly recommended by Disability Services. This type of traffic control for pedestrians may be accommodated by the new crosswalks listed under item #4. This may also be a permanent solution for campus pedestrian crossings.
6. Provide signage in multiple locations throughout the campus to indicate detours, new campus routes, new exits, as well as new accessible paths and entrances.
7. Consider expanding Panther Ambassador hours, since routes around campus may take longer than usual.
8. Make special accommodations for student transit, specifically longer class to class times, as it may take longer to navigate the campus.
9. Provide a new temporary loading area on Decatur Street between Peachtree Center Ave. and Piedmont Ave. This loading area would utilize the south curbside lane of Decatur Street to provide temporary access for the loading and unloading of trucks and other vehicles that would otherwise be blocked by the Courtland Bridge reconstruction project. Additional GSU personnel may be required to accomodate Loading and unloading from this area.

Costs

The following costs are associated with this phase of the work:

1. Provide two new Pedestrian Cross Walks at Decatur Street (HAWK Beam)

2. Provide Wayfinding, ID and Life Safety Signs for General Campus Paths.

*TOTAL COST: $350,658.00**

* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4.***

C2.1 Sparks Hall (E and L Parking Lots)

Building Construction Type
Business Occupancy, Non-Sprinklered.

Building Use/ Occupancy
General Offices and Classrooms, including Registrar's Office, Undergraduate Admissions, and Business Manager. Classroom functions also include laboratory spaces. The building courtyard entrance is scheduled for construction during the Courtland Bridge reconstruction project.

Circulation/ Exiting
There are four exits at the Gilmer and Courtland Street level with the two exits located on Courtland Street to be directly affected by construction, along with the four exits at the Collins Street level. General egress will still comply with life safety codes if the two other Gilmer Courtland Streets level exits remain. See "Recommendations" below for changes necessary to accomplish complete compliance.

ADA Access
The Current ADA accessible entrance on Courtland Street is at the south end of the building, and will be blocked by the bridge removal. There is also a ramp at the south end of the building under the plaza on Collins Street that will be inaccessible during construction.

Emergency Services (Fire/ Ambulance) Access
Fire trucks and ambulance access can be provided from Gilmer Street. The largest accessible elevator is currently in the southeast corner of the building, which will not be accessible from the plaza by an oversize vehicle. The Fire Department Connection is at the corner of Courtland and Gilmer Streets and will be unaffected.

Service (Delivery/ Loading/ Trash)
Delivery, loading, and trash is currently located at the north end of Collins Street, under the bridge approach. This location will be inaccessible during the Courtland Bridge reconstruction project.

Other
- At some point during the bridge project, the courtyards at Collins Street may be in-filled with new construction.
- The upper level classrooms will be directly adjacent to heavy construction noise, which will be disruptive.

Recommendations
1. Contractor should provide a covered, protected pedestrian pathway from the corner of Gilmer Street to the first entrance on Courtland Street. The Fire Department Connection, also located on this corner, should remain part of the protected path.
2. Provide a permanent ADA entrance ramp facing Gilmer St. at the Courtland St. level. The access ramp and accessible path will remain in place after the bridge is complete. Gilmer St. is the most-used entrance to this building due to its location adjacent to a campus bus route drop off. (See diagrams for ramp options.)
3. Relocate ADA parking in E Lot to other campus locations so that wheelchair users are not required to use the lower ramp, or to circumnavigate the building to get to the new Gilmer Street ramp.
4. Provide a temporary loading area in L Lot, on Central Avenue, or on Gilmer Street at the L Lot entrance, and dumpster area designated for trucks to unload large items. These items will then require manual transport from the unloading area to the building via personnel with hand trucks. Provide signage indicating the delivery area. Also consider shifting the Central Ave. Bus Stop to the north or south since the current L Lot entrance is adjacent to the existing Bus Stop.
5. Relocate trash storage from underneath Collins Street during construction to an area accessible by truck.

Costs*
The following costs are associated with this phase of the work:
*1. Protected Pedestrian Path***
2. Permanent ADA Accessible Entry Ramp
3. Relocated Bus Stop (repair current location)
4. General Signage for Relocated Delivery/ Dumpster Functions

*TOTAL COST: $208,308**

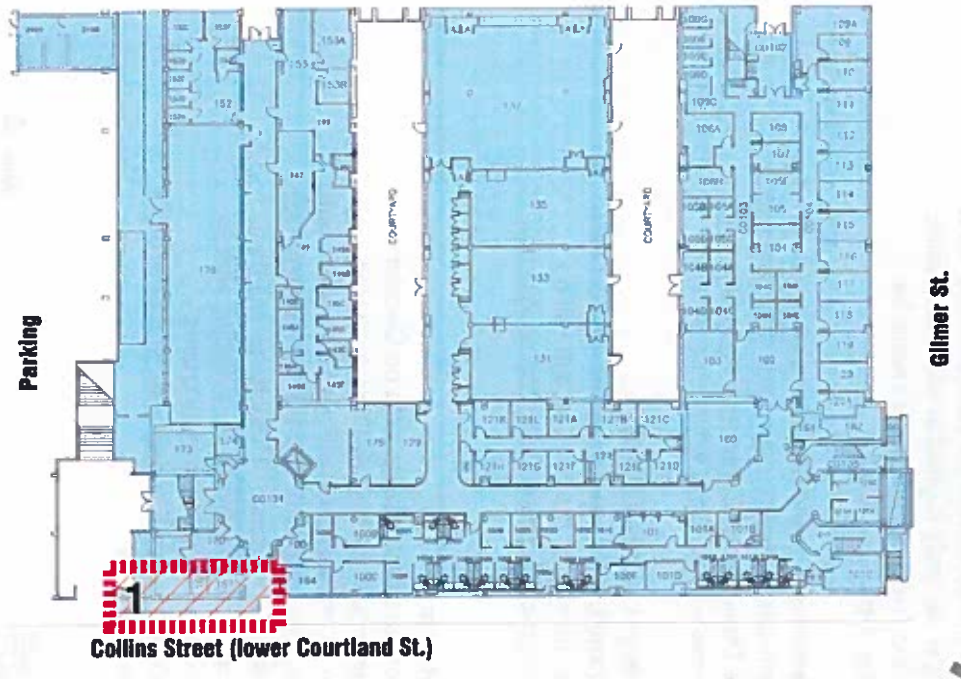
* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** Protected Pedestrian Path to be the responsibility of the GDOT Contractor. Costs are included for reference.

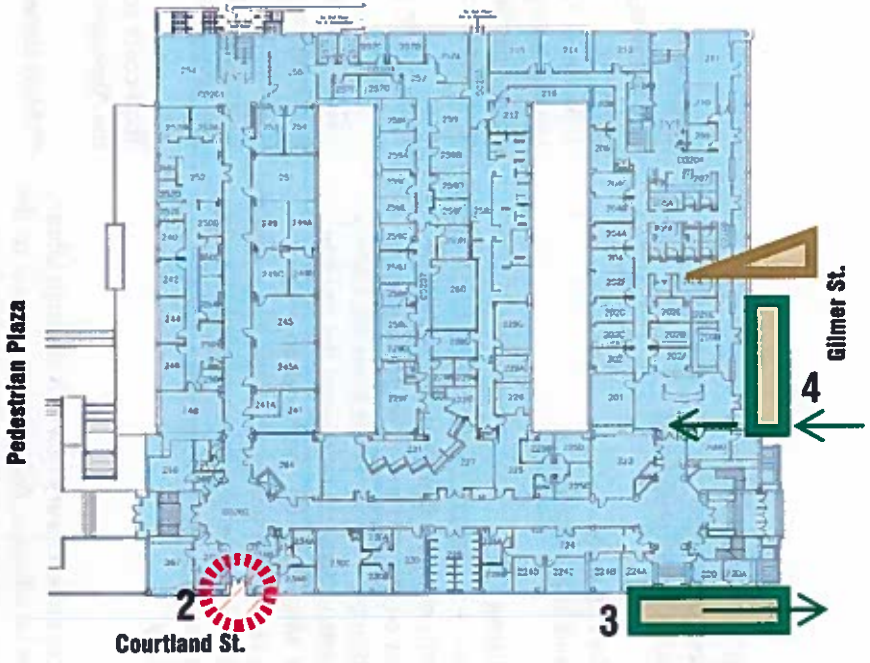
C2.1 Sparks Hall (E and L Parking)

1. Access Ramp, Trash and Delivery services inaccessible during construction.
2. ADA Entry inaccessible during construction.
3. Tunnel to exit and FDC connection by contractor- to remain open during construction.
4. New ADA ramp- accessible entry adjacent to Gilmer Street to be permanent improvement.



Level 1- Collins Street

North



Level 2- Courtland Street

C2.2 Library North

Building Construction Type
Assembly Occupancy, Fully Sprinklered.

Building Use/ Occupancy
Library, Meeting and Study Spaces.

Circulation/ Exiting
All exits from Library North are on to the existing Library Plaza (located north of the building) or on to Decatur Street, and will not be affected by the bridge removal. The main circulation path on campus is from the Library Plaza, across Courtland Street, east toward the Student Center. This path will be lost for the duration of the Courtland Bridge reconstruction project. Vehicle access to C Lot at the Collins Street level will be unavailable during construction. C Lot will be accessible from L Lot for smaller vehicles only.

ADA Access
Current ADA access into Library North is through Library South and will not be affected. ADA elevator access to the Library Plaza from parking lot below will be maintained. Parking at Lot E is mainly utilized for ADA patrons. Since this lot is no longer centrally located or easily accessible during construction, handicapped spaces should be relocated to other lots as required.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is currently from Decatur Street. The Fire Department Connection is on Decatur Street. These routes and locations will not be affected

Service (Delivery/ Loading/ Trash)
Delivery, loading and trash are accessed through G Deck parking on the south side of the building, and will be inaccessible during the Courtland Bridge reconstruction project.

Recommendations
1. Provide a loading/trash/delivery area on Decatur Street by temporarily re-striping Decatur during construction (A left turn lane will not be required onto Collins during construction). This area is designated for trucks to unload large items. These items will then require manual transport from the unloading area to the building, via personnel with hand trucks.
2. Restripe parking and Lot E and provide spaces at other campus lots as available.

Costs*
The following costs are associated with this phase of the work:
*1. Pavement Restriping and Signage at Decatur Street (New Loading Zone)***
2. Restripe Parking at E Lot and create new ADA spaces in other lots (Locations TBD).

*TOTAL COST: $14,193**

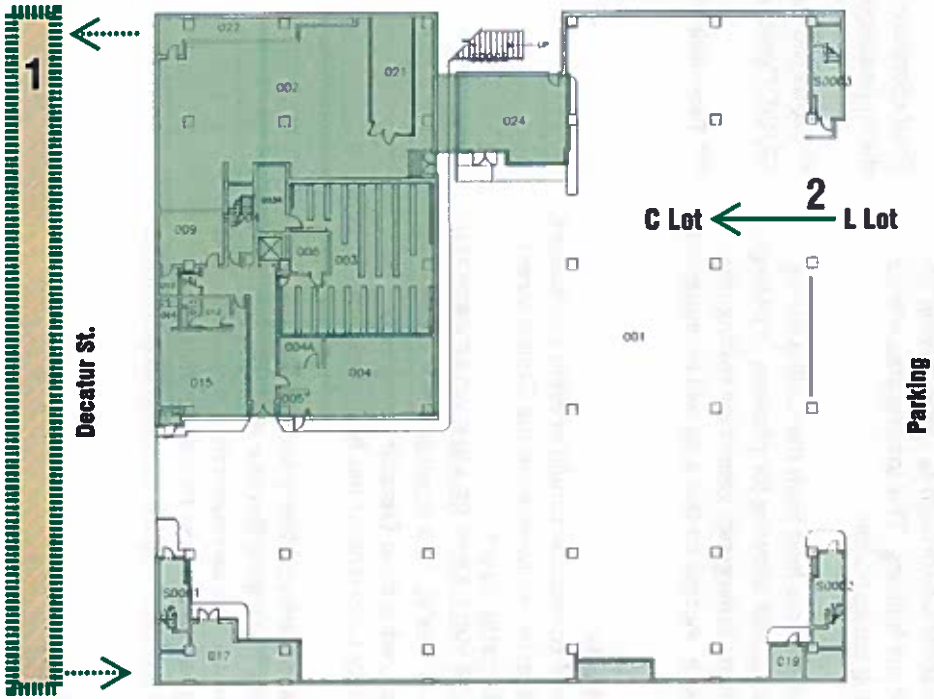
* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** New delivery area cost shared among several buildings.

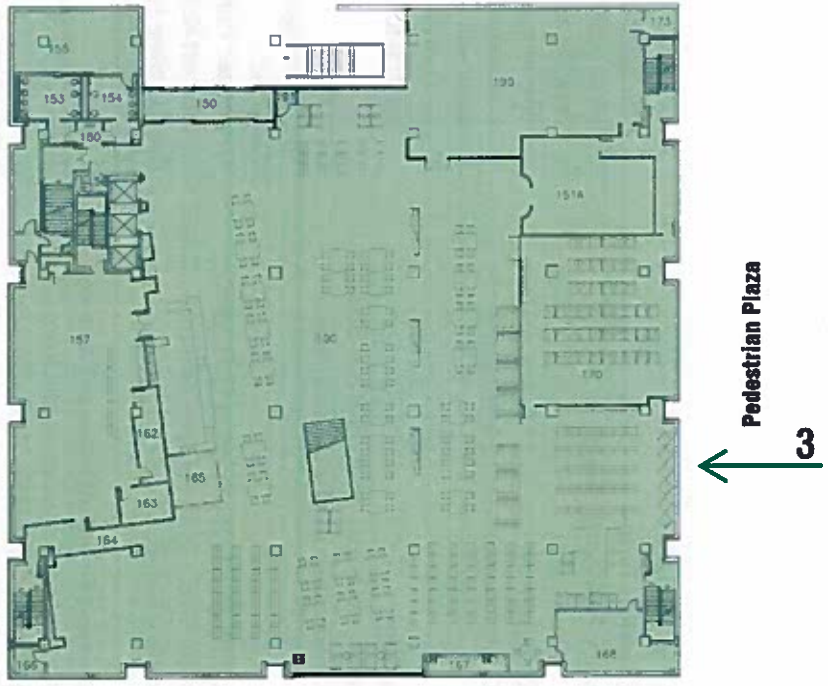
C2.2 Library North

1. Convert curb lane of Decatur Street to loading area-- transport goods by hand truck to existing loading areas of building.
2. Maintain auto access to parking. C Lot is accessible from L Lot.
3. Maintain pedestrian and ADA access to Library from Plaza.



Level 1- Collins Street

North



Level 2- Courtland Street

C2.3 Library South

Building Construction Type
Assembly Occupancy, Fully Sprinklered.

Building Use/ Occupancy
Library, IT Data Center (lower level), Meeting and Study Spaces.

Circulation/ Exiting
There are two street level exits on to Decatur Street. These exits will remain open during construction.

ADA Access
Current ADA access into Library South is through G Deck, or through the Decatur Street level entrance. These entrances will not be affected.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is currently from Decatur Street. Fire Department Connection is on the south side of the building, facing G Deck and will be inaccessible during construction.

Service (Delivery/ Loading/ Trash)
Delivery, loading, trash and the main access to the Campus Data Center are accessed through G Deck parking on the south side of the building. This loading area will be inaccessible during construction.

A ramp and double doors lead from the Collins Street level to the Data Center allowing for movement of large network equipment. Emergency generator testing takes place once a month. Access to this area will be impacted by construction.

Recommendations

1. Project general contractor should provide a protected, covered pedestrian walkway from the Collins Street exit, out to Decatur Street.
2. A FIRE TRUCK WILL NOT BE ABLE TO ACCESS THE FDC FROM G DECK. Fire truck and FDC access will need to be provided from Decatur street only. The GSU Fire Safety Coordinator has NOT listed this as an issue.
3. Provide a trash/loading/delivery area on Decatur Street by temporarily re-striping Decatur during construction (No left turn lane will be required on to Collins). This area is designated for trucks to unload large items. These items will then require manual transport from the unloading area to the building via personnel with hand trucks.
4. Provide access to G Deck from the Collins Street Entrance until the Classroom South addition is complete. Otherwise, the Library South loading dock will be inaccessible. This access will need to be coordinated with the GDOT and the project contractor as (if) required.

Costs*
The following costs are associated with this phase of the work:
*1. Protected Pedestrian Path with Pavement.***
*2. Pavement Restriping and Signage at Decatur Street (New Loading Area)****
3. General Signage for Relocated Delivery/ Dumpster Functions

*TOTAL COST: $103,528**

* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

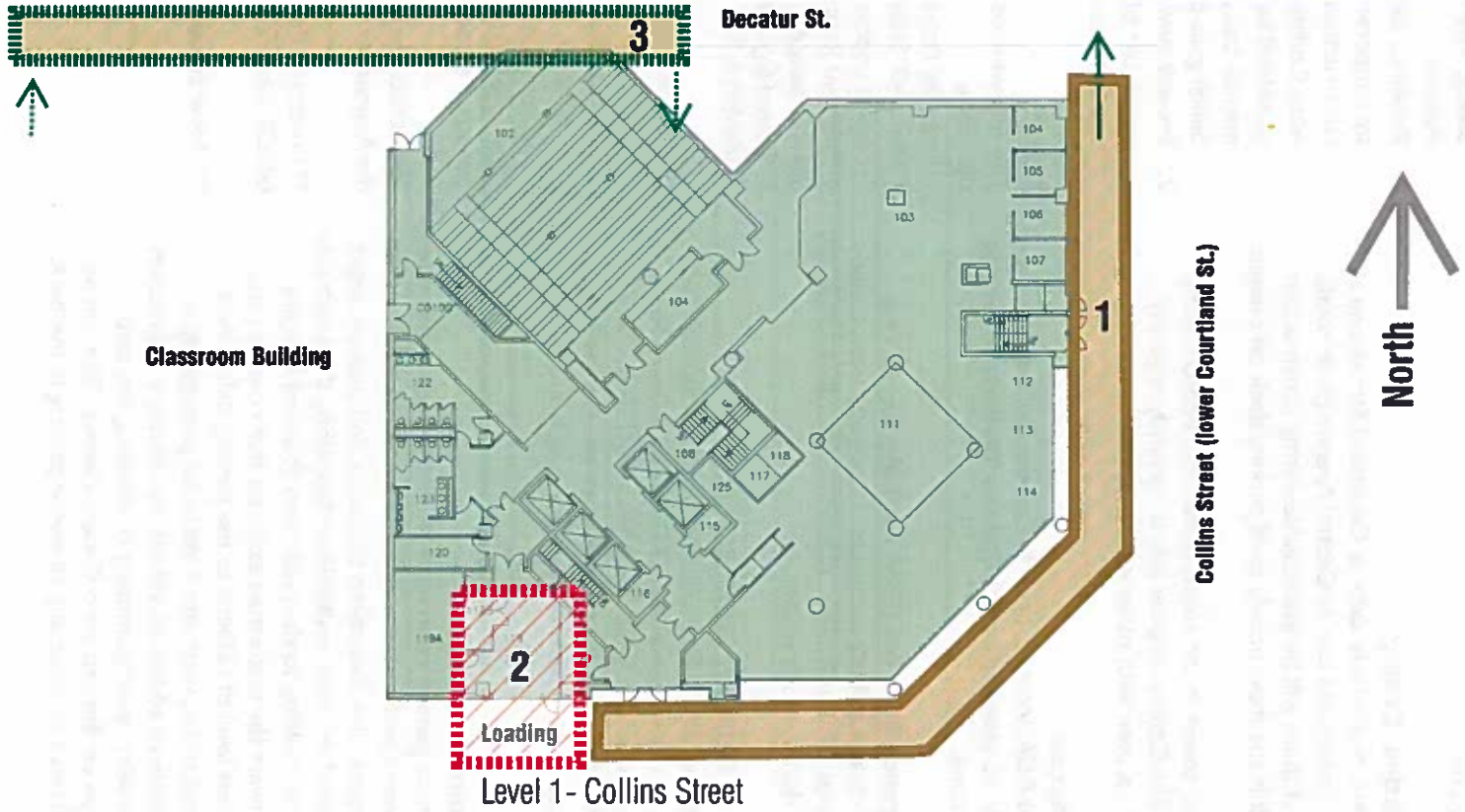
Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** Protected Pedestrian Path to be the responsibility of the GDOT Contractor. Costs are included for reference.

*** New delivery area cost shared among several buildings.

C2.3 Library South

1. Tunnel to building exit and loading dock by contractor to remain open during construction.
2. Loading Dock can remain open, but access for small vehicles only through G Deck.
3. Convert curb lane of Decatur Street to loading area-- transport goods by hand truck to building.



C2.4 G Deck Parking

Building Construction Type
Storage Occupancy (S-2 Parking), Fully Sprinklered.

Building Use/ Occupancy
Parking Lot.

Circulation/ Exiting
There are two vehicle exits at Courtland Street, one at Collins Street,, and one at Central Avenue (Four total). Three of these will be inaccessible during construction. G Deck is the most heavily used parking deck on campus.

The stair tower in the south corner exits onto Collins Street. The Central Avenue exit is currently regularly backed up, even with other exits available.

ADA Access
Current ADA access is provided on the Collins Street level. There is no elevator for the deck, so handicapped parking is restricted.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is currently from Collins Street and Central Avenue. Access from Collins Street will be lost during construction.

Service (Delivery/ Loading/ Trash)
Loading for Library South currently occurs through the Collins Street entrance into G Deck. See Library South notes. A generator, which requires access from a large repair truck, will be inaccessible once the Collins Street exit closes. No access for trash services is provided for G Deck.

Recommendations
1. Project general contractor should provide a protected, covered pedestrian walkway from the stair exit to the property line directly to the south, and then provided a paved or other walkable surface along the south side of the building to the public way (Central Avenue).
2. Convert the pedestrian exit gate that connects the lowest level of G Deck to the parking below Wall Street to the west into a vehicular passageway, to provide an additional vehicle exit during construction.
3. Consider re-programming or disabling the card swipe on the exit onto Central Avenue. This can be facilitated by removing all visitor parking in the deck.
4. Consider reducing the capacity of G Deck by moving parkers to other decks, and/or providing a shuttle from other areas.
5. Fire trucks will no longer have access from Collins Street. Fire trucks can access the deck via Central Avenue.
6. Provide a loading/delivery area on Decatur Street, by temporarily re-striping Decatur Street during construction (A left turn lane will not be required onto Collins Street). This area is designated for trucks to unload large items. These items will then require manual transport from the unloading area to the building via personnel with hand trucks.
7. Provide new Emergency Generator if existing generator fails during the Courtland Bridge reconstruction project.

Costs*
The following costs are associated with this phase of the work:
*1. Protected Pedestrian Path with Pavement.***
2. New 5'-0" Sidewalk along South Edge of Building.
3. Convert pedestrian Access to Vehicular Gates.
*4. Pavement Restriping and Signage at Decatur Street. (New Loading Area)****
5. General Signage for Delivery/ Dumpster Function.
6. Add Vehicle Exit Lane at Central Ave. Level.

*TOTAL COST: $215,028**

* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

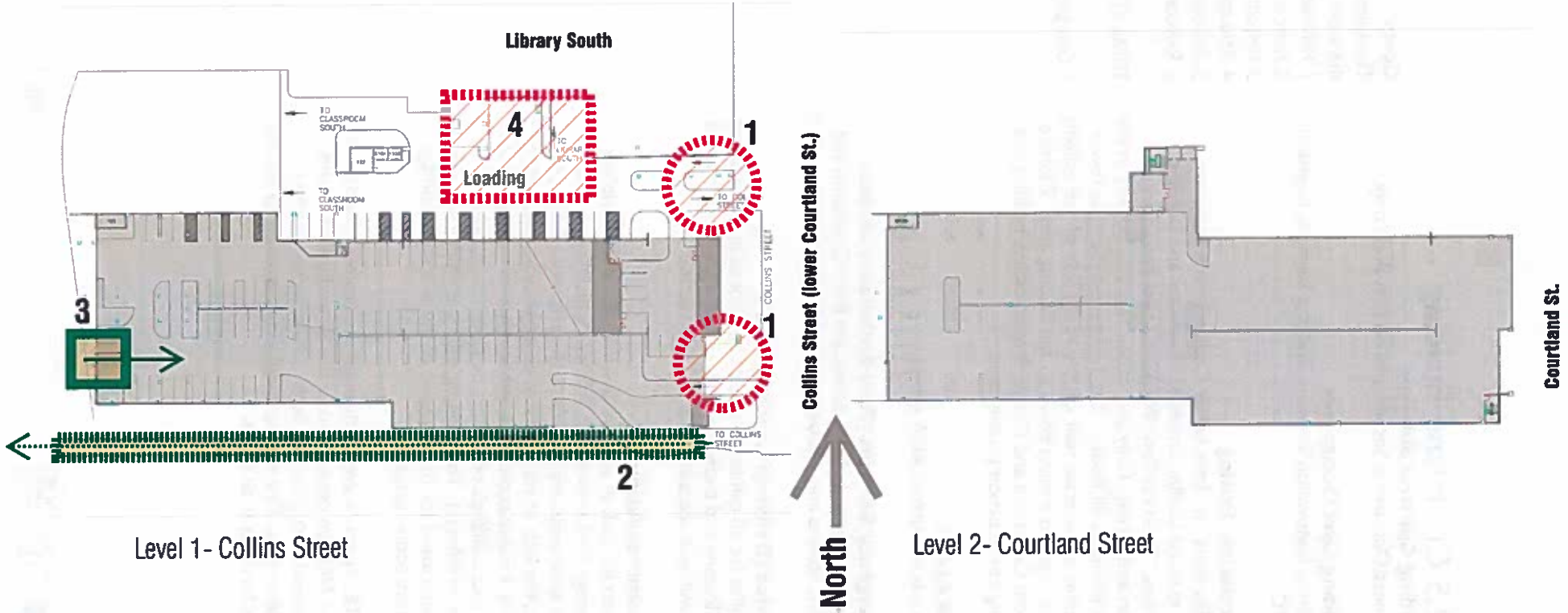
Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** Protected Pedestrian Path to be the responsibility of the GDOT Contractor. Costs are included for reference.

*** New delivery area cost shared among several buildings.

C2.4 G Deck Parking

1. Auto exits inaccessible during construction.
2. Provide paved walkway from stair exit discharge to public way at Central Ave.
3. Convert pedestrian turnstile to vehicular entrance at lower Wall St.
4. Library South Loading Dock can remain open, but access for small vehicles only through G Deck.



C2.5 Courtland Building

Building Construction Type
Business Occupancy, Sprinklered on first floor only.

Building Use/ Occupancy
Facilities, Renovation Services, Building Services, Registrar, ROTC

Circulation/ Exiting
Facility exits one level below Collins Street. There are two exits on Collins Street, for Registrar and Building Services. The first floor ROTC has two entrances on Courtland Street. Only one of the two stair towers in the back connects all floors. The southern-most stair tower accesses an exterior stair on the south side of the building, which leads to a ramp down to the loading area. Closure of both Courtland and Collins Streets makes building use during construction problematic.

ADA Access
There is no current ADA access.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access are from Courtland and Collins Streets and will be inaccessible during construction.

Service (Delivery/ Loading/ Trash)
Supplies for all campus buildings are stored in this building. The loading and trash area is accessed from Collins Street and will be inaccessible during construction.

Recommendations
Due to the lack of accessibility, the lack of full sprinkler coverage (and thus travel distances which will exceed code once exits are modified), the removal of multiple exits, the lack of availability of emergency access, and the lack of a viable access to a public way, it is recommended that this building's occupants be relocated to another or other building(s). The building will be unusable and should remain closed for the duration of the Courtland Bridge reconstruction project.

NOTE: Sporadic access through the project construction site is NOT an option due to the unpredictable nature of normal pedestrian, vehicular or emergency access requirements. Fire exiting and fire and emergency access must be open at all times.

Costs
The following costs are associated with this phase of the work:

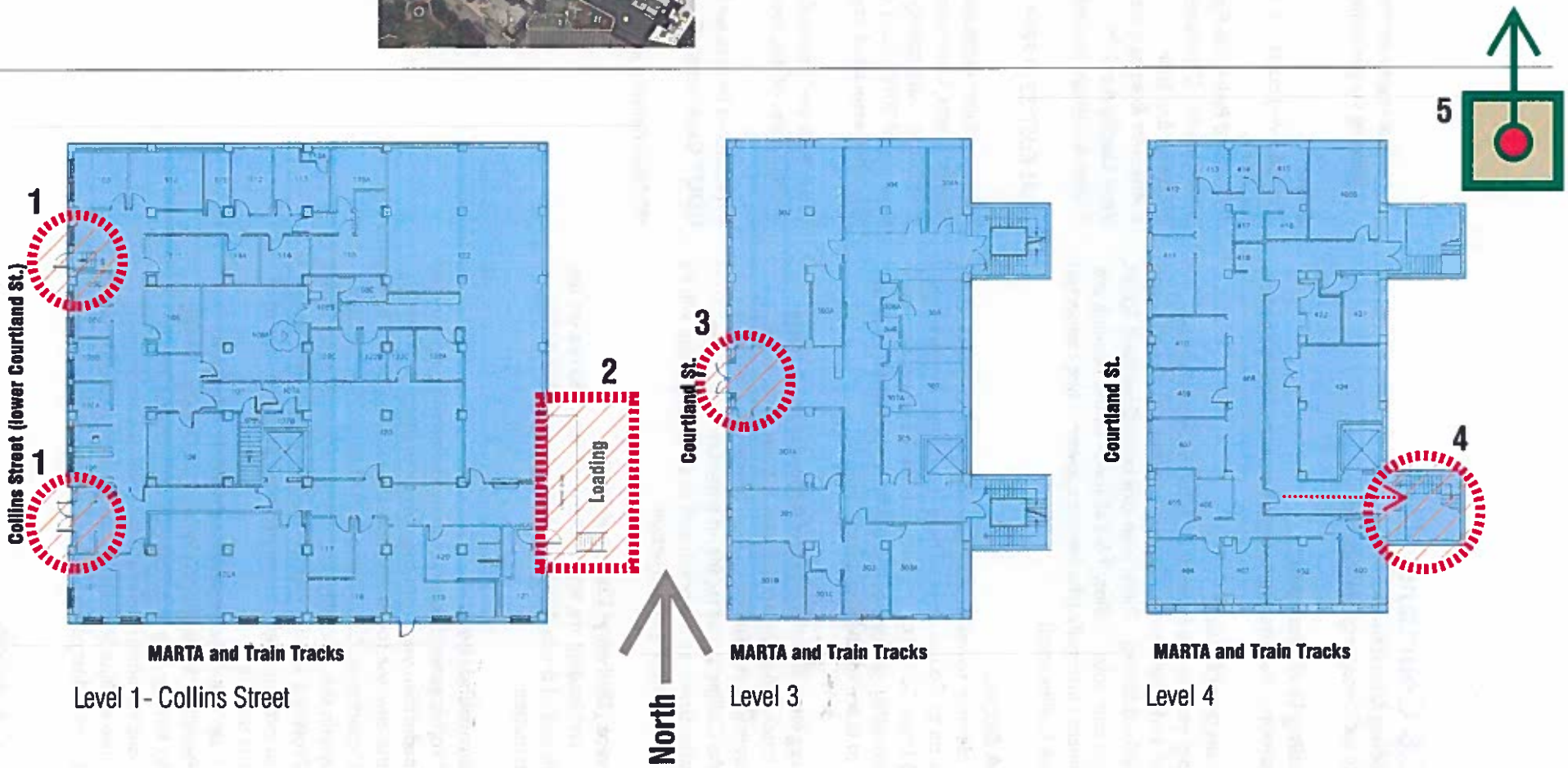
1. Relocate Renovations and Construction Services
2. Relocate Property Control and Distribution
3. Relocate Facilities Administrative Offices
4. Relocate Registrar
5. Relocate ROTC- Military Services
6. Relocate Building Services

*TOTAL COST: $1,377,618**

** Cost provided directly by Georgia State University*

C2.5 Courtland Building

1. Building egress inaccessible during construction.
2. Loading inaccessible during construction.
3. Building egress and ADA entry inaccessible during construction.
4. Allowable exit travel distance exceeded at upper floors.
5. Move all building tenants and functions to other locations on campus for the duration of construction.



C2.6 Courtland North

Building Construction Type
Business Occupancy, Sprinklered.

Building Use/ Occupancy
Classrooms, Facilities, Tutoring, Chemistry, Arts & Sciences.

Circulation/ Exiting
Facility exits at the lower level (Collins Street) at the north and south end of the building (but not directly onto Courtland Street). There is an exit onto Courtland Street, and an exit onto Collins. Not all levels of the building are connected internally (the elevator tower is not connected to the Collins level).

ADA Access
The elevator tower provides an accessible entrance, and it exits on to Collins Street. There is a change in grade (+/-3 feet) from Collins to the back side of the tower, so a door on any other portion of the tower is not feasible, due to lack of space to add an internal ramp.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is from Collins and Decatur Street. The Fire Department Connection is on the Collins Street façade, in a planter outside the elevator tower at the north end of the building and will be inaccessible during construction.

Service (Delivery/ Loading/ Trash)
Trash and loading are accessed from Collins Street, on the south end of the building and will be unavailable during construction.

Recommendations
1. Project general contractor should provide a protected pedestrian way from the corner of Decatur Street to the elevator tower entrance on Collins Street. The Fire Department Connection should be accommodated within this assembly or rotated to face Decatur Street.
2. Provide a second exit for the third and fourth floors; an exterior stair can be provided at the south end of the building.
3. Trash and delivery service should be relocated.
4. Provide a loading/delivery area on Decatur Street, by temporarily re-striping Decatur Street during construction (A left turn lane will not be required onto Collins Street). This area is designated for trucks to unload large items. These items will then require manual transport from the unloading area to the building via personnel with hand trucks.

Costs*
The following costs are associated with this phase of the work:
*1. Protected Pedestrian Path with Pavement.***
2. Relocate Fire Department Connection (FDC)
3. Exterior Exit Stair
*4. Pavement Restriping and Signage at Decatur Street. (New Loading Area)****
5. General Signage for Delivery/ Dumpster Function.

*TOTAL COST: $299,729**

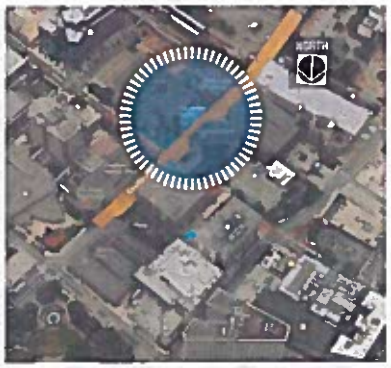
* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** Protected Pedestrian Path to be the responsibility of the GDOT Contractor. Costs are included for reference.

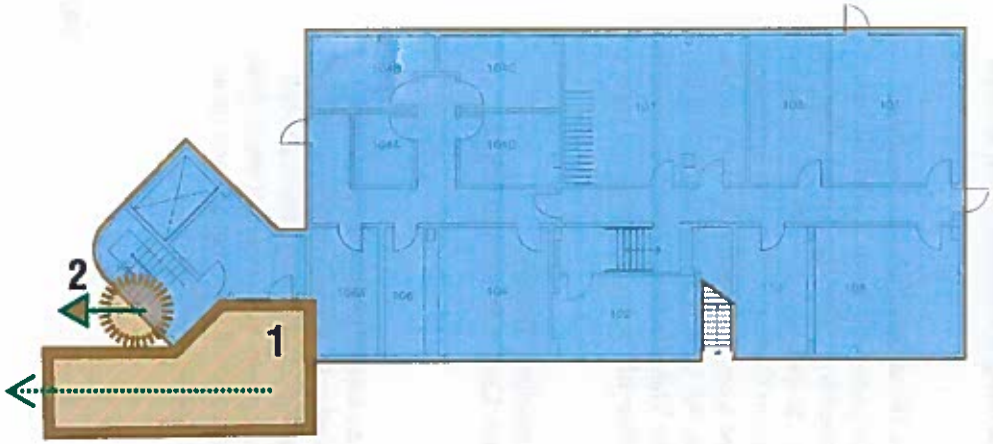
*** New delivery area cost shared among several buildings.

C2.6 Courtland North



1. Tunnel to exit discharge and ADA access by contractor to remain open during construction.
2. Temporarily relocate FDC to accessible location at Decatur Street.
3. Building egress inaccessible during construction.
4. Temporary or permanent external stair.

Sports Center



Collins Street (lower Courtland St.)

Level 1- Collins Street

Sports Center

Courtland St.

Levels 3 and 4

North

C2.7 Sports Arena Complex

Building Construction Type
Assembly, Sprinklered.

Building Use/ Occupancy
Basketball Games, Graduation, Concerts, Athletic Training.

Circulation/ Exiting
There are exit stairs in each of the four corners of the building, and a ramp which connects above the Decatur Street level over to the Urban Life Building. The stairs on the south side of the building utilize Collins Street as a public way on the west, and travel through the volleyball courts to access Piedmont as the public way on the east. All athletes load and unload at the loading dock at Collins Street. The Weight Room exterior access point (there is also access from within the building) is facing Collins Street, and is accessed from Collins Street only as there is a small retaining wall which blocks access from Decatur Street. During events, media vans park behind the building in the lot accessed from Collins Street. All Collins Street access will be lost during construction.

ADA Access
There is an elevator providing ADA access from Decatur Street.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is from Collins Street, but can also be maintained from Decatur Street. During games and other events, ambulances park in the lot behind the building, accessed from Collins St. The only stretcher-size elevator is accessed from the loading dock off of the Collins Street entrance. All Collins Street access will be lost during construction. The Fire Department Connection is on the southeast corner of the building and will remain accessible.

Service (Delivery/ Loading/ Trash)
Loading is currently from Collins Street and will be inaccessible.

Recommendations
1. Collins Street can no longer be used as a public way, so the southwest stair tower and the southeast stair tower must be directed through the Volleyball Courts and the passageway at the east of the building. The gates in both places will need signage and panic hardware. See also "Volleyball Courts".
2. Provide a ramp from the plaza in front of the Weight Room, down to the plaza at Decatur Street (requires modification of planters). This could be incorporated as a permanent feature, if desired.
3. Designate a pathway through the Weight Room to allow emergency personnel to reach the freight elevator for stretcher accessibility This pathway will need to maintained as clear space for the duration of the construction project.
4. Provide a loading/delivery area on Decatur Street, by temporarily re-striping Decatur Street during construction (A left turn lane will not be required onto Collins Street). This area is designated for trucks to unload large items. These items will then require manual transport from the unloading area to the building via personnel with hand trucks.
5. This area can also be used for athlete loading and unloading. Athletes may use the alternate Weight Room path to get to locker rooms, located at the south side of the building.
6. Designate parking or provide a shuttle for media and other related visitors outside of G Deck, since access from G Deck is no longer provided across Collins Street,

Costs*
The following costs are associated with this phase of the work:
1. Panic Hardware and Signage Associated with South Stair Exits
2. Retrofit Existing Steps with New Railing.
3. Permanent Entry Ramp at Plaza.
*4. Pavement Restriping and Signage at Decatur Street. (New Loading Area)***
5. General Signage for relocated Delivery/ Dumpster Functions.
6 Provide New Path Through Weight Room to Stretcher Elevator

*TOTAL COST: $197,871**

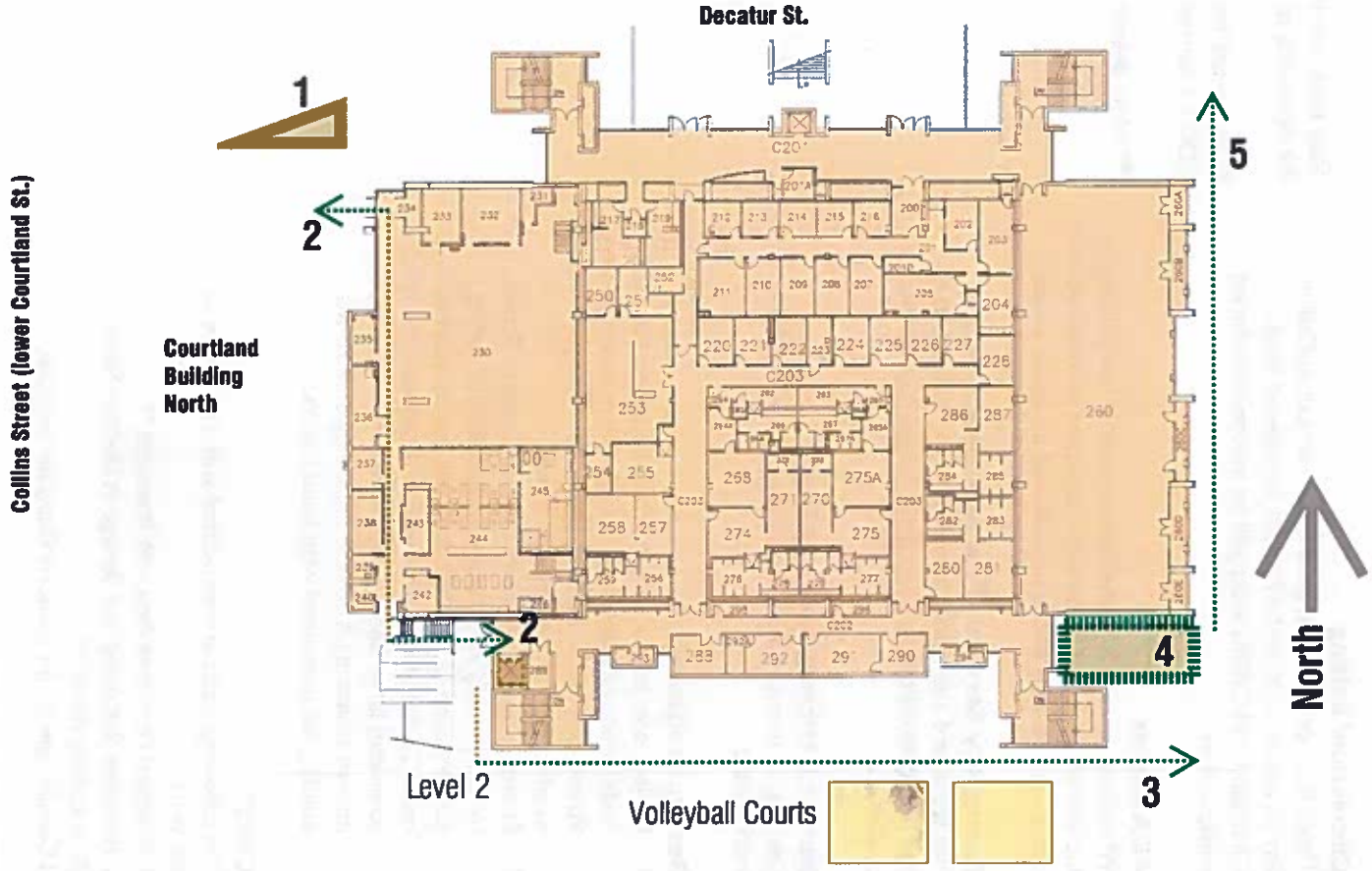
* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** New delivery area cost shared among several buildings.

C2.7 Sports Arena Complex

1. Temporary or permanent ramp from Weight Room level to Decatur Street Plaza.
2. Designated stretcher route through Weight Room to elevator.
3. New route to public way through Volleyball Courts from Arena SW Stair.
4. Retrofit existing steps with new railings.
5. New emergency exit from Volleyball Courts, retrofit gate.



C2.8 Bookstore

Building Construction Type
Assembly, Mercantile, Sprinklered.

Building Use/ Occupancy
Bookstore, Student Services, Food Court.

Circulation/ Exiting
There is an exit at Courtland Street, an exit at Collins Street, and an exit to the Plaza at the lowest level. Courtland and Collins exits will be inaccessible during construction.

ADA Access
Wheelchair access is at the eastern end of the building at the lowest level, and by elevator accessed at the northeast side of the building and is not affected by construction.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is from Gilmer Street and not affected by the Courtland Bridge reconstruction project.

Service (Delivery/ Loading/ Trash)
Loading is currently from Collins Street and will be inaccessible.

Recommendations
1. Project contractor should provide a protected covered pedestrian walkway from the northern-most Collins Street exit, to the Plaza to the north. This path will need to be maintained at all times.
2. Provide a loading/delivery area on Decatur Street, by temporarily re-striping Decatur Street during construction (A left turn lane will not be required onto Collins Street). This area is designated for trucks to unload large items. These items will then require manual transport from the unloading area to the building via personnel with hand trucks.

Costs*
The following costs are associated with this phase of the work:
*1. Protected Pedestrian Path with Pavement.***
*2. Pavement Restriping and Signage at Decatur Street. (New Loading Area)****
3 General Signage for Delivery/ Dumpster Function.

*TOTAL COST: $91,004**

* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

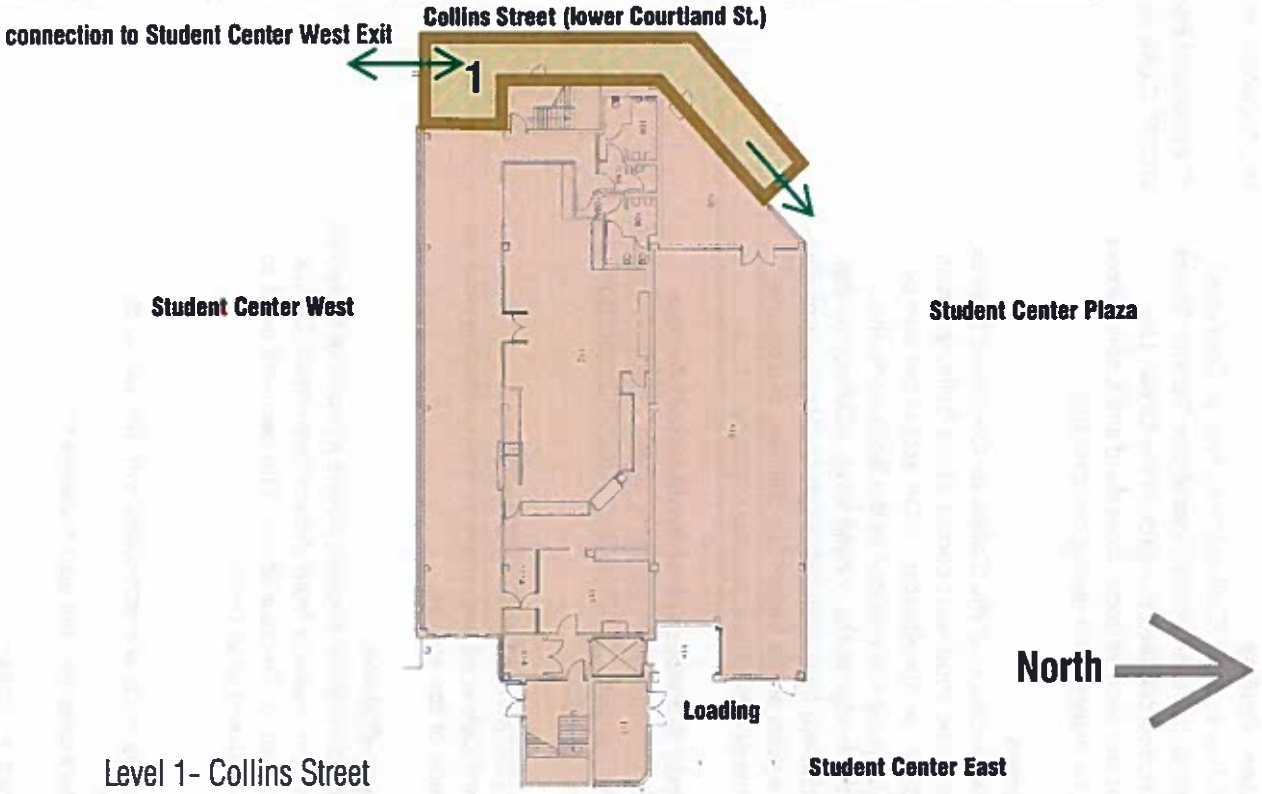
Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** Protected Pedestrian Path to be the responsibility of the GDOT Contractor. Costs are included for reference.

*** New delivery area cost shared among several buildings.

C2.8 Bookstore

1. Tunnel to exit discharge and ADA access by contractor to remain open during construction.



Level 1- Collins Street

C2.9 Student Center West

Building Construction Type
Assembly, Business, Sprinklered.

Building Use/ Occupancy
Cinefest Film Theater, Dining Hall, Classrooms, Offices, Meeting Spaces.

Circulation/ Exiting
There are two exits at Collins Street, two at Courtland Street, one at the level of the Plaza above Decatur Street to the east, and one into the back of the Urban Life Building at the second floor. Courtland and Collins Street exits will be inaccessible during construction.

ADA Access
Wheelchair access is at the Collins or Courtland Streets entrances in the southwest corner of the building, which is the location of the elevator. ADA access can also be achieved by using the elevator in the Bookstore, then crossing the bridge at the second level. ADA access can also be achieved by traveling through Student Center East, across the plaza at the Urban Life Building, and up the ramp to the second floor eastern entrance.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is from Courtland, Collins, or Decatur Streets. The Fire Department Connection is on Decatur Street.

Service (Delivery/ Loading/ Trash)
Loading and deliveries are currently from a loading dock at the east side of the building.

Recommendations
1. Project contractor should provide a protected covered pedestrian walkway from the southern-most Collins Street exit, to Decatur Street. This path will need to be maintained at all times.

Costs*
The following costs are associated with this phase of the work:
*1. Protected Pedestrian Path with Pavement.***

*TOTAL COST: $20,038**

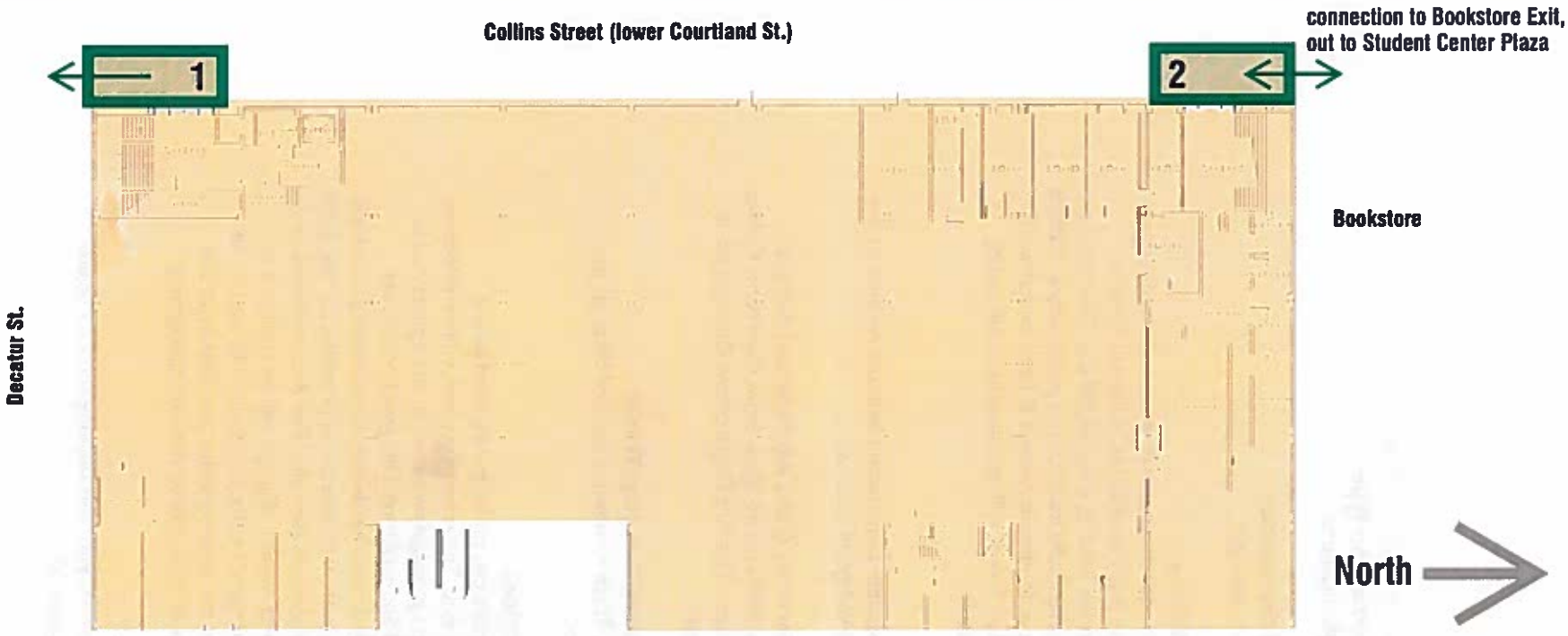
* Cost includes estimated General Conditions and Requirements, Contractor Fee, Design and Market Conditions Contingency and Cost Escalation to the 2nd Quarter of 2018. Cost does NOT include Design Fees or any other associated expenses incurred by the University.

Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

** Protected Pedestrian Path to be the responsibility of the GDOT Contractor. Costs are included for reference.

C2.9 Student Center West

1. Tunnel to exit discharge to Decatur Street by contractor to remain open during construction.
2. Tunnel to exit discharge to adjacent Bookstore by contractor to remain open during construction.



Level 1- Collins Street

C2.10 Volleyball Courts

Building Construction Type
Outdoor Volleyball Courts.

Building Use/ Occupancy
Assembly (sports viewing).

Circulation/ Exiting
There is an exit onto Piedmont Avenue, and emergency exits at the west (top) level of the Volleyball Courts, which exits into the loading area behind the Courtland Building, which eventually leads to the public way at Collins Street. The gate at Piedmont Avenue is kept locked with a padlock. Collins Street will be unavailable for exiting during construction.

ADA Access
There is an accessible ramp from Piedmont Avenue to the first level of the Volleyball Courts.

Emergency Services (Fire/ Ambulance) Access
Fire truck and ambulance access is from Courtland, Collins, or Decatur Streets. The Fire Department Connection is on Decatur Street.

Service (Delivery/ Loading/ Trash)
Not applicable. Trash removal is handled through the Sports Complex.

Recommendations
1. The back gates can no longer be used as the emergency exit. The emergency exit will be relocated to the access passageway between the Sports Arena and the old Sports Arena. This gate is currently operated by a panic hardware which releases the lock. Similar hardware will have to be provided for the gates at Piedmont Avenue (see also Exit Recommendations for the Sports Arena). Signage will be replaced to indicate emergency exits. Handrails will need to be provided on the existing stairs that lead from the middle level of volleyball to the exit passageway.

Costs
Foe costs associated with this building see *C2.7 Sports Arena Complex*, page 20.

C2.10 Volleyball Courts

1. **Provide new panic hardware, remove padlock at Piedmont Ave. gate.**

Volleyball Courts

C2.11 Site Utilities

Existing Conditions

Visual inspection of the bridge and viaduct construction area reveals an accumulation of various cables, wires and conduit running under Courtland Street and above Collins street. In addition, major campus data lines run underground through the right-of-way in at least one instance, and a fiber hub, which originates in the lower level of Library North, crosses the Courtland-Collins corridor at the underside of the viaduct structure. Building power lines and supply lines for lighting run in this area as well. Major storm, waste and water lines are assumed to run in the Decatur Street corridor following patterns found elsewhere in the city.

Recommendations

The accumulation of these utilities over the years since the viaduct's original construction may be difficult to completely document. As a part of their services for the City of Atlanta the Planning and Design Group has surveyed all existing utilities in the proposed construction area.

We would strongly recommend that the GSU Facilities Department verify all of the information presented on this survey and document any additional undocumented utilities in the area. In addition, a survey of all fiber and other data lines, likely not covered by the Planning and Design Group, should be undertaken by GSU or by a consultant hired by the University as soon as possible. The University should also identify power sources to the Data Center, so problems can be quickly evaluated and addressed during construction should an emergency situation arise.

All active utilities will need to be accounted for and relocated before the Courtland Bridge reconstruction project begins. Potential disruptions to GSU campus facilities need to be considered as relocation, and replacement of these utilities takes place.

Costs*

The following costs are associated with this phase of the work:

1. IT Infrastructure Survey and Verification Study
2. IT Infrastructure Relocation

*TOTAL COST: $49,500**

* Cost includes IT Infrastructure Survey and Verification Study only. IT Infrastructure relocation costs to be determined by Georgia State University after Survey. Survey results are expected to be available in February of 2017.

Total costs are broken down for each phase of the work in the Appendix of this report- ***Section D4***.

D Appendix

D1 Project Responsibility Chart
D2 Cost Estimates, Detail
D3 Sparks Hall ADA Access Ramp Diagram
D4 Meeting Minutes/ Notes
D5 Campus Bus Schedule

D1 Project Responsibility Chart

PROJECT and ACTION LIST	Georgia State University	City of Atlanta	Georgia DOT Contractor	On Project Cost List
C1 General Campus Impact				
City Streets				
Re-sign and re-stripe Gilmer Street to one way east		■		No
Change Gilmer/Courtland to blinking 3 way stop		■		No
Re-stripe Decatur Street to provide loading lane on south side of street	■	■		Yes*
Consider Pedestrian Scramble for Pedestrian Crossings at key locations	■	■		No
Campus				
Campus-wide wayfinding signage	■			Yes
Install Pedestrian Crosswalk (HAWK EYE Sensor)	■	■		Yes
Re-route Campus Routes (Blue and Green)	■			No
Make Special Schedule Accomodations for student transit (Class times)	■			No
Consider expanding Panther Ambassador hours	■			No
C2 Building/ Facility Impacts				
C2.1 Sports Hall				
Provide Protected Walkway- Courtland to Gilmer			■	Yes
Provide Permanent ADA Entry Ramp and Bus Stop Relocation	■			Yes
Relocate ADA Parking in E Lot to Other Locations	■			No
Provide Temporary Loading Area (Items will require manual transport)	■			No
Provide Area for Relocated Delivery/ Dumpster Location(s) and Signage	■			Yes**
C2.2 Library North				
Re-stripe Decatur Street to provide loading lane on south side of street	■	■		see above*
Restripe ADA Parking at E Lot and create other spaces in other lots	■			Yes
C2.3 Library South				
Provide Protected Walkway- Loading Dock to Decatur Street			■	Yes
Re-stripe Decatur Street to provide loading lane on south side of street	■			see above*
Provide Access from G Deck to Loading Dock during Classroom South Construction	■	■		No
General Signage for Relocated Delivery and Dumpster Locations	■			Yes
C2.4 G Parking Deck				
Provide Protected Walkway and 5'-0" Paved Sidewalk - Exit to Central Ave.	■			Yes
Convert Pedestrain Access to Vehicular Access at Lower Level of Deck	■			Yes
Consider Re-programming Card Swipe to remove Visitor Access to Deck	■			No
Consider reducing capacity of G Deck due to reduced ability to enter/ exit	■			No
Provide Fire Truck access via Central Ave.	■	■		No
Re-stripe Decatur Street to provide loading lane on south side of street	■	■		see above*
Consider adding an Emergency Generator in an accessible location should existing generator fail during bridge construction.	■			No
General Signage for Relocated Delivery and Dumpster Locations	■			Yes
C2.5 Courtland Building				
Relocate Building Functions and Tenants to Other Campus Locations	■			No***
C2.6 Courtland North				
Provide Protected Walkway- Exit to Decatur Street			■	Yes
Relocate Fire Department Connection (FDC) as required.	■			Yes
Provide Exit Stair	■			Yes
General Signage for Relocated Delivery and Dumpster Locations	■			Yes
Re-stripe Decatur Street to provide loading lane on south side of street	■	■		see above*
C2.7 Sports Arena Complex				
Redirect exits through Volleyball Court Area, provide Panic Hardware and Signage	■			Yes
Provide Ramp from Weight Room Plaza to Decatur St., Modify Planter	■			Yes
Designate Path Through Weight Room for Stretcher Access	■			Yes
Re-stripe Decatur Street to provide loading lane on south side of street May also be used for athlete loading and other access.	■	■		see above*
Retrofit existing steps at exit with new railings	■			Yes
General Signage for Relocated Delivery and Dumpster Locations	■			Yes
Designate Shuttle for media and visitors if they are relocated out of G Deck	■			No
C2.8 Bookstore				
Provide Protected Walkway- Exit to Student Center Plaza/ Gilmer St.			■	Yes
Re-stripe Decatur Street to provide loading lane on south side of street	■	■		see above*
General Signage for Relocated Delivery and Dumpster Locations	■			Yes
C2.9 Student Center West				
Provide Protected Walkway- Exit to Decatur Street			■	Yes
C2.10 Volleyball Courts				
Relocate Emergency Exit (Costs included in C2.7)	■			Yes
C2.11 Site Utilities				
Relocate utilities at bridge/viaduct (incl. utility locate)	■		■	Yes
Relocate utilities in right-of-way (incl utility locate)	■		■	Yes

** New Decatur Street delivery area cost shared among several buildings.*

*** General signage for relocated Delivery/ Dumpster Locations*

**** Courtland Building Relocation expenses to be determined by GSU*

Final Report [rev. 1.6.17]