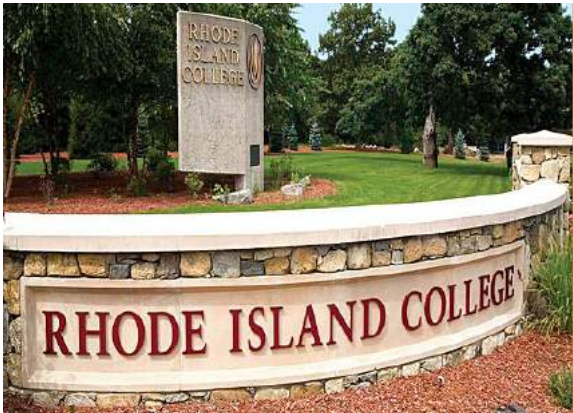


Rhode Island College 2017 Master Plan



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MASTER PLAN UPDATE

Rhode Island College

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Executive Summary

Project Overview

Rhode Island College has completed or is in the process of completing the short-term projects identified in the 2010 Facilities Master Plan. The college intended to review progress toward meeting the 2010 goals and to project and refine the next series of projects. Saratoga Associates of Saratoga Springs, New York developed the 2010 Master Plan for the College and was retained to assist with the update.

Approach

The project began in the early spring of 2017 with a project kick-off meeting with senior administrators to clarify project goals, establish the schedule with milestones, and set lines of communication. The project scope consists of two phases: Assessment - where needs are identified, and Concept - consisting of solutions to meet the priority needs.

Assessment Phase

The Assessment Phase included a series of interviews with senior administrators conducted during the month of April 2017. The interviews provided responses to three major questions: what are RIC's most important assets; what are RICs most important challenges; and what are the campus-wide facility needs. There is consensus that staff, faculty, and students are the most important assets, followed by academic programs and new and renovated facilities. RIC's most important challenges are enrollment, keeping information technologies current, developing additional housing, and maintaining an aging infrastructure. Campus-wide facility needs are residence halls, student study space, and a student success center.

During the Assessment Phase, the Planning Team reviewed the priority projects established in the 2010 Master Plan and the progress made by the Campus implementing the projects. All of the highest priority projects slated for completion during the short term (2011-2016) have been implemented or are in progress. Four of the mid-term (2017-2020) projects are completed and two of the long-term projects are in progress.

A study of current parking was included in the Assessment Phase. The recommendations from the 2010 Facilities Master Plan, the 2014 Parking Assessment, and the 2015 Parking Inventory were reviewed. Current conditions were assessed through visual inspection.

Meetings with the Master Planning Committee identified potential changes in academic priorities driven by the Strategic and Academic Plan and translated those to broad space needs. The Planning Team was asked to identify the program areas currently existing on campus that could be consolidated to form Student Success Centers. Student Support Services such as Records (Registrar), Bursar, Student Loan Office, Grant Accounting Office, and Financial Aid would be brought together in a physical relationship such that a student with a particular need could be directed to a solution by a cross-trained staff member. The College also saw a similar need for academic support programs to be consolidated and managed to better serve students. These programs include the Preparatory Enrollment Program (PEP), Learning for Life (L4L),

Office of Academic Support and Information Services (OASIS), First Year Programs, and the Career Development Center.

Concept Phase

The planning team presented and refined several concept recommendations with the College. The concepts were developed from needs identified during several meetings with the President's Executive Committee and the interviews conducted during the Assessment Phase. The concepts include both site and facility recommendations.

Academic Expansion Zones. Two future academic building zones were identified that provide for long-term expansion. The primary area is a linear east-west site located between the John Clarke Science Building and Parking Lot B. This site is currently occupied by the tennis courts and a large rectangular lawn area and could accommodate significant expansion. Also proposed in this area are the relocation of the tennis courts and a segment of Library Road, which are discussed in the outdoor athletics and vehicular circulation concept sections. The second academic development zone is located further to the east, primarily utilizing the northern portion of Parking Lot B. This site provides a strong spatial connection to the East Campus, which is presently isolated from the main campus to the west.

Student Housing Zones. A number of sites were identified and discussed with the RIC senior administration. The result of these discussions was the identification of two areas where future student housing could be located. The first site option is located on a portion of Parking Lot L, just to the south of the existing student housing village precinct. The second area is located to the east of the Recreation Center occupying the area of Parking Lot E6 and the adjacent area. The two areas are described as follows.

The first site is located near the existing student housing precinct which contains six residence halls. Additional new parking can be expanded to the area south of Lot L. The area to the south of Parking Lot L is a forested area that does not have any known environmental constraints. Parking Lot L has some limited capacity for additional student parking, but the parking requirement for new residential housing needs to be determined based on bed count and RIC policy. The site also provides adjacent proximity to the potential new track and field that would be utilized for RIC athletic events, intramurals, and recreation.

The second site for student housing is on the east side of the campus near the Recreation Center. The site is located on Parking Lot E6 and land on the east side of this lot. The area is forested with moderate to steep slopes and has nearby wetlands that require accurate mapping to determine how they may affect site development. The site also fulfills the objective of providing a distinct student living environment for upper division students or married students. Apartment style housing with kitchens may be appropriate for this age group and would not add pressure on existing dining services.

Outdoor Athletics. Key goals for the development of future athletic facilities were to provide a new area for track and field events and a soccer field that would meet NCAA standards. As such, a new facility for track and field is proposed on the south side of the campus adjacent to the golf course. The throw area for field events is currently located adjacent to this site. Venue seating, equipment storage, restrooms and parking would be needed for this facility.

A new soccer field that meets NCAA standards is proposed where the current track and field area is located on the north side of the campus. This area could accommodate a field that is 225' x 360'. A wooded buffer can be maintained between the field and the neighborhood to the north.

Student Services. A primary goal of the Master Plan Update was to identify locations for a "Student Success Center," commonly referred to as a one-stop location, and a "Student Academic Success Center." The program requirements of each are identified in the Assessment section.

An important location factor for the "Student Success Center" is proximity to a well-traveled student path with high visibility. The preferred location for this center is west of the Donovan Dining Center and Horace Mann Hall.

The proposed location for the "Student Academic Success Center" is within the Adams Library. Components of the "Student Academic Success Center" currently exist in the Library and will serve as the core for relocating related programs.

Vehicular Circulation and Parking. The current configuration of Library Road starts on the east side of Whipple Hall and traverses around parking Lot C, Alger Hall, and the Clarke Science Building. It is recommended that this corridor be restricted to service and emergency access vehicles and ADA parking and be further developed for pedestrian circulation. Library Road could then be extended directly to the east from the Science Building to Parking Lot B. It is recommended that parking from Lot C be relocated, with the exception of ADA parking as required. Reconfiguration of the road system on the south side of the campus needs to be coordinated with future student housing and the track and field site.

There are limited opportunities for new surface parking facilities on campus. Parking lots E2 and E3 can be reconfigured to provide an improved layout and additional parking. The campus is currently planning additional parking on the north side of the Recreation Center. While parking is considered a problem in regard to the number of available spaces, it is recommended that the College engage a parking consultant to accurately identify parking needs based on demand. In the long-term, the incorporation of parking structures is recommended to accommodate future growth. Prime sites are located on Lots A and J. It is recognized that parking structures can be cost prohibitive, but other options are not readily feasible without off-site campus parking with shuttle service or the acquisition of additional property.

Parking for the Henry Barnard School was also identified as an issue during the morning drop-off and afternoon pick-up times. The planning team reviewed program needs and concepts with RIC and Henry Barnard School administrators and developed an alternative to provide parking on the east side of the building.

Open Space and Pedestrian Greenways. The campus has a well-defined open space system with the “mall” being the signature space for the campus. It is recommended that the mall undergo a significant renovation to enhance the pedestrian experience and visual quality of the campus. The mall is overly developed with hardscape and lacks a desirable landscape of canopy deciduous trees, site furniture, and lighting. The design of this space should recognize sight lines to Craig Lee Hall, the potential location of the “Student Success Center,” pedestrian movement, and underground utilities. Additional open space opportunities exist with the redevelopment of Parking Lot C and the north section of parking Lot L that could be reconfigured with greenspace. The primary east-west pedestrian greenway between the Library and the Recreation Center could be enhanced in conjunction with future academic building infill.

Traffic Demand Management

Traffic demand management is the application of strategies and policies to reduce travel demand, or to redistribute this demand in space or in time. The College is currently studying several methods for reducing vehicles on campus and the number of vehicle trips across campus. One method currently under study by the College is linking the College to the City and Town bike path system.

The College has made it a priority to improve pedestrian circulation across campus. The Master Plan Update identifies greening sidewalks with trees, improving pedestrian linkages from east-to-west and locating essential student services on the main pedestrian spine. Needed improvements have been identified such as improving crosswalks across campus and adding walkways throughout the east side of campus.

RIC is discussing with the Rhode Island Public Transit Authority (RIPTA) potential implementation of “U-PASS” reduced fares. Funded by participating colleges and universities, the University Pass Program (U-PASS), allows students at participating schools to get reduced fare transit. Students can ride using their student ID or purchase reduced fare products on campus.

Storm Water Management

The College has enthusiastically adopted Low Impact Development (LID) strategies for its environmental benefits. LID has also been adopted by the Rhode Island Department of Environmental Management (RIDEM) and Rhode Island Coastal Resources Management Council (CRMC) stormwater regulations enacted in 2011. LID techniques are thoroughly incorporated into the Rhode Island Stormwater Design and Installation Standards. Any new development or redevelopment projects are expected to utilize LID techniques to manage storm water. LID techniques include permeable pavement- method of paving

that allows storm water to seep into the ground through openings within the paving material and rain gardens and bio retention areas that collect and filter storm water through layers of mulch, soil and plants.

Implementation

Following input from the Community the College Administration organized the projects into priorities. The Implementation Plan identifies specific project budgets and schedules based on project scope and priorities developed in Section 3 – Concept Development. The Implementation Plan divides individual projects into related “Groups” and then schedules them in a sequential manner based on priorities, funding and dependency on previous projects. The Implementation Plan is divided into three phases: Short Term (2018-2023), Mid Term (2025-2028) and Long Term (2029+).

Level of Work	'Hard Cost' \$/GSF	Cont.	'Soft Cost' \$/GSF	FF&E \$/GSF	Project Budget \$/GSF
New Construction	\$350	\$88	\$53	\$35	\$525
High Intensity Renovation	\$250	\$63	\$38	\$25	\$375
Medium Intensity Renovation	\$215	\$54	\$32	\$22	\$323
Low Intensity Renovation	\$180	\$45	\$27	\$18	\$270

The projects in order of priorities are as follows:

Short Term

1. Craig Lee Hall Renovations
2. Enhance Campus Mall Phase 1
3. Student Union Renovations
4. Henry Barnard School Pickup/Drop-off Safety Improvements
5. Develop Campus Greens Phase 1
6. Horace Mann Hall Renovations
7. Clarke Science Building Renovations
8. Whipple Hall Renovations

Mid-Term

1. New Student Success Center Building
2. Adams Library Renovations (Academic Success Center)
3. Relocate Pre-School to Henry Barnard School
4. Realignment of Library Road & Conversion to 2-Way Traffic
5. Expand Student Housing
6. Enhance Campus Mall Phase 2
7. Develop Campus Greens Phase 2

Long-Term

1. Outdoor Athletics
2. Relocate Admissions to New Facility
3. Develop Parking Structures
4. Academic Facility Expansion

Community Outreach

The College and Master Planners conducted a series of nine charrettes/community meetings to present the Concepts. All Rhode Island College faculty, staff, students and surrounding neighborhoods were invited to attend and give input. Notices were placed in the local newspapers. Additionally notices were mailed to all neighbors living within 200 feet of the College perimeter.

A presentation of the draft plan was made by the planning consultant and College staff. Attendees were welcomed to comment or ask questions at any point during the presentation. Large copies of the proposed plans were displayed and the attendees were given the opportunity write down comments on Post-Its and append them to the drawings. The comments were assembled, transcribed and sent to the planning team for review.

Section 1 –Introduction

1.1 Areas of Focus

Rhode Island College has completed or is in the process of completing the short-term projects identified in the 2010 Facilities Master Plan. The college desires to refine and update for the next 10 years of planning, as well as identify longer term opportunities. The following objectives have been identified for the update:

- > Review mid and long-term projects identified in the 2010 Master Plan
- > Locate student housing for upper division undergrad students and potential grad students
- > Program and locate a “Student Success Center” and “Student Academic Center”
- > Strengthen pedestrian connections between the East and West campus
- > Identify locations for additional athletic and recreational fields
- > Identify locations for additional academic and support facilities
- > Improve vehicular circulation and indentify parking opportunities

1.2 Planning Process and Scope

Phase 1 – Orientation/Kick-off Meeting

Engage in an initial meeting to discuss and refine mutual expectations and responsibilities. This meeting is important to set goals and schedule the master plan update.

- > Conduct a “Workshop” meeting with senior administrators and relevant campus personnel.
- > Collect and review “new” documents and information that has accumulated since the previous plan. This will include planning studies and base maps reflecting recent site changes, recently constructed building plans, and updated program distribution.
- > Establish project schedules identifying milestones such as meetings and submittals.
- > Establish lines of communication between the planning team and the College.

Phase 2 – Support and Academic Programming Phase

Meet with senior administrators to identify potential changes in academic priorities driven by the Strategic and Academic Plan and translate those to broad space needs. This involves the following:

- > Participate in Introductory Meetings: During this task, the planning team participated in introductory meetings; these were held with key administrators who have oversight of planning responsibilities. The intent of these meetings was to broach relevant strategic planning questions, delineate pertinent cultural and political issues, understand current space functionality, and discuss perceived space inadequacies or concerns.

- > Review Current Space Distribution: As part of this particular task, conducted an overview of current space to understand existing space functionality issues. Reviewed current program locations and identified areas where functions are fragmented, inappropriately sized, or inadequately situated. In addition, potential opportunities for achieving collocation and for promoting synergies between and among occupants were explored.
- > Determine Future Space Needs and Adjacencies: At this juncture, future space needs were identified based upon the information collected and summarized in the prior phases. Both current needs and future needs will be considered. An outline space program was developed for the Student Success Center (one-stop-shop) and Academic Success Center. A comprehensive study of academic space requirements is not a part of this study as there have been no major changes to enrollment. Desired adjacencies are identified, as are opportunities for achieving them.

Phase 3 – Campus Site Facilities Base Mapping

Update existing mapping at RIC with changes subsequent to the 2010 Master Plan, including:

- > Environmental mapping
- > Boundary surveys
- > Utility mapping

Parking: Identify the current campus parking conditions and use (i.e., student/faculty, reserved, ADA, visitor, loading zones, etc.). Parking inventories will be identified from aerial photos, campus records and field observations. Parking utilization will be determined based on interviews with Physical Plant and Campus Security personnel.

Site Analysis and Opportunities. Assess campus open space, edges, entryways and future opportunities for building infill.

Phase 4 – Concept Development

Utilizing all the information and data available, develop alternative concepts for the master plan. Work with RIC to develop the concepts in light of the master plan goals and prepared a “preferred” master plan, concept narratives, and graphics for review and input by RIC.

- > Basic Concept Developmental Plan Elements
 - Update Campus land use patterns/precinct plan/open space plans.
 - Update Campus edges, entrances, gateways & arrival plan.
 - Update Vehicular circulation & parking system plan.
 - Update Pedestrian circulation systems plan.
 - Update Primary infrastructure improvement plan.

- > Develop Alternative Concepts: Based on the input from senior administrators, conceive emerging facility programs, identify prospective land use and facilities projects, and compile into concept alternatives for the campus master plan.

Phase 5– Preferred Master Plan Update & Design Concepts

Meet with the Master Planning Committee to discuss the alternative concepts. Elements of each will be consolidated into a single preferred concept.

- > Document Campus Master Plan Alternatives: Refine the Preliminary Campus Master Plan Update. Present to key campus constituents and other stakeholders. Solicit feedback and refine the Master Plan accordingly.
- > Communicate the Campus Master Plan Concept Alternatives: Prepare the concepts for posting on the RIC’s website. If direct feedback is desired, the College is assumed to have the lead in soliciting, collecting, evaluating, and responding to such, providing summary direction to the Planning Team.
- > Document the Preferred Master Plan: Prepare graphic and written communication to support the final facility master plan concepts.

The College has closely followed the recommendations identified in the 2010 Campus Master Plan. A number of projects identified in the Master Plan have been completed or are underway. The projects that have been completed or are underway are listed below in red.

Major Building Renovation

- > Craig Lee Hall – IN PROGRESS
- > Gaige Hall
- > Fogarty Life Science Nursing Addition and Renovations
- > Adams Library Renovations
- > Rhode Island College Welcome Center Renovations (Former College Park Apartments) – IN PROGRESS
- > Athletic / Academic Support Center
- > Yellow Cottage
- > Art Center

Site Projects

- > Relocate bus stop to 3rd Avenue
- > Convert College Road to two-way and relocate on-street parking. Incorporate traffic calming and realign College Road to the south of the Henry Barnard School turn around.
- > Develop additional turning lane at the intersection of College Road and Fruit Hill Avenue.
- > Define Cole Road within Lot “B” and develop pedestrian walkways.
- > Develop defined north-south road in Lot “B”
- > Improve College Road pedestrian crossing zone to the north of Thorp Residence Hall.
- > Remove through traffic connecting Lot “Y” to Library Road.

- > Develop a pedestrian spine to connect Lots “A” and “B” to the campus core.
- > Implement exterior signage and way-finding. – IN PROGRESS

Future Building Construction and Renovations

- > Student Union
- > Horace Mann Hall
- > Clarke Science Building
- > Whipple Hall
- > Sweet Residence Hall
- > Browne Residence Hall
- > Thorp Residence Hall
- > Willard Residence Hall
- > Weber Residence Hall
- > Penfield Residence Hall

Future Site Projects

- > Convert all of Library Road to two-way traffic.
- > Enhance campus mall.
- > Convert section of Library Road from Fogarty Life Science Building to Alger Hall to emergency/service traffic only.
- > Enhance open space in the residential precinct.
- > Enhance the open space between Clarke Science Building and Adams Library.

Section 2 –Assessment and Programming

Introduction

Members of the planning team met with senior personnel representing academics, administration and support. Each was given a Questionnaire prior to the meeting. The Questionnaire helped focus the information gathered and enabled each respondent to more thoroughly understand the nature and level of information being sought by the Planners.

The interviewees were:

- Frank Sanchez, President
- Teresa Brown, Director of Residential Life and Housing
- Pam Christman, Assistant VP for Information Services
- Kevin Fitta, Director of Capital Projects
- Frederick Ghio, Chief of Campus Police
- David Gingerella, VP for Administration and Finance
- Clark Green, Executive Director for Strategic Initiatives
- Tamecka C. Hardmon, Director of Records
- Jay Jerue, Director of Facilities and Operations
- Jeff Martin, Assistant Vice President for Administration
- Jason Meriwether, VP for Student Success
- Stephen J. Nedder, Controller
- Ed Pacheco, VP for College Advancement and External Relations
- Roberta S. Pearlmutter, Dean of Social Work
- Ron Pitt, VP of Academic Affairs
- Leslie Schuster, Interim Dean of Graduate Studies
- Holly Shadoian, Assistant VP for Academic Affairs
- Earl L. Simson, Dean of Arts and Sciences
- Don Tencher, Director of Athletics
- David Toms, Director of User Support Services
- Jane Williams, Dean of Nursing School

2.1 Interview Summary

The questionnaires are used to identify both broad campus-wide issues and more focused departmental needs; needs were summarized to identify areas of perceived importance. The issues that received more than one mention are listed in descending order of frequency.

Rhode Island College’s Most Important Assets (Ranked According to Responses)

1. Staff and faculty
2. Students
3. Location, alumni, athletic programs, building renovations, value, increase in diverse population, Nursing, Art, Theater and Management programs, and new.
4. Additional comments are:
 - > Delivery of education
 - > Athletic programs
 - > Mall
 - > Access to city
 - > Beautiful campus
 - > College Town
 - > Management and Accounting programs
 - > Bricks and mortar
 - > Parking
 - > Athletic Center
 - > Uniqueness in Rhode Island
 - > History

Rhode Island College’s Most Important Challenges

1. Enrollment (recruitment and retention)
2. Keeping IT current
3. Need an additional residence hall
4. Aging infrastructure
5. Funding (public and private)
6. Space shortage due to renovations
7. Staying competitive
8. Additional comments are:
 - > Lacking a Student Union
 - > Commuter students have not been recognized
 - > Increase enrollment to 3,000 students
 - > Increasing and nurturing partnerships (Providence VA hospital)
 - > Discounting tuition
 - > Traffic
 - > One-way traffic on west side of campus
 - > Changing culture of the student body
 - > Faculty recruitment
 - > Differentiating RIC from other state schools
 - > Increase staffing
 - > Student Success Center
 - > Not enough student spaces
 - > Recruit more out-of-state students
 - > Keeping up with deferred maintenance
 - > On-line programming and what it means to physical space
 - > Financial stability
 - > Parking
 - > Move parking to perimeter of campus
 - > What % of enrollment should be residential
 - > Faculty office and research space
 - > Aging infrastructure
 - > Raising college’s reputation
 - > Student engagement

Campus Wide Facility Needs

1. Residence halls
2. Student study space
3. Student success center
4. Condition of classrooms are inconsistent
5. Maintenance
6. Additional comments are:
 - > Locate Admissions to west side of campus
 - > Develop more simulation labs (IT)
 - > Provide apartment style residences for UD and grad students
 - > Improve utilization of classrooms (very few Friday classes)
 - > Develop Welcome Center
 - > Need Alumni House
 - > Buildings 1 through 6
 - > Continue renovations
 - > Facilities should foster engagement
 - > Traffic congestion at College Rd. and 6th Ave.
 - > Provide hockey arena at northwest corner of campus
 - > Need more classrooms
 - > Demolish Willard Hall
 - > Last Master Plan didn't pay enough attention to pedestrian issues
 - > Improve vehicular and pedestrian circulation
 - > Provide a coffee shop near residences
 - > Acquire golf course
 - > Need better campus signage
 - > Envisioning needs of different programs
 - > Convert part of library to learning center
 - > Constricted site due to wetlands

2.2 Programming

Student success is a priority focus of the College, manifested in programs and facilities. Many student support programs have been dispersed throughout different facilities on campus. The scattered programs present the student with having to ascertain which program serves his or her needs and where it may be located. If the wrong program is selected, precious time has been wasted in a day of scheduled classes and the student may be discouraged from searching further for a resolution. The College has asked that the Campus Master Plan Update consider consolidating the student interface components of the programs into a single location to promote easy access and assistance.

The “Success Center” is a consolidation of programs at one location to enable easy access by students. Two centers were discussed during the Master Plan Update. The first of the Centers, the Student Success Center (one-stop-shop), brings together those services required by students throughout the academic year to manage their schedule, records and tuition financing. The point of contact can be set up as a triage where a student can bring an issue or request to a centrally located, cross-trained staff person. That person would be capable of steering the student to the correct services office.

The “Academic Success Center” can operate much in the same manner. Academic support services are brought together in a visible and easily accessible facility. As with the Success Center, a cross-trained staff member would direct a student to the service(s) they require.

2.3 Student Success Center Program (One-Stop-Shop)

Records

- > Director
- > Associate Director
- > 3 Information Services Technicians
- > 2 Senior Recorder/Advisors
- > 2 Eligibility Technicians

Bursar

- > Bursar
- > 2 Assistant Bursars
- > 2 Senior Enrollment Services Representatives

Student Loan Office

- > Assistant Bursar
- > Accountant
- > Senior Enrollment Services Representative

Grant Accounting Office

- > Director
- > Grant Accountant

Financial Aid

- > Director
- > Assistant Director
- > Associate Director
- > 2 Financial Aid Officers
- > Enrollment Services Representative
- > Information Aid

2.4 Student Academic Success Center Program

Preparatory Enrollment Program (PEP)

- > Program Coordinator
- > Professional Advisor

Learning For Life (L4L)

- > Director
- > Assistant Director
- > Data Management Specialist
- > 3 Educational Support Facilitators

Upward Bound

- > Interim Director

Office of Academic Support and Information Services (Oasis)

- > Director
- > 2 Assistant Directors
- > 4 Coordinators
- > Clerk/Typist

First Year Programs

- > Director

Career Development Center

- > Director
- > 2 Personnel Aides

2.5 Parking Assessment

REVIEW OF PRIOR STUDIES

As part of this current Rhode Island College Master Plan update, prior parking studies were revisited. The following prior studies were reviewed:

- > 2010 Rhode Island College Facilities Master Plan, prepared by Saratoga Associates.
- > April 2014 Parking Assessment, prepared by VHB.
- > January 2015 Parking Inventory, prepared through RI College Office of Institutional Research and Planning.

The 2010 RI College Facilities Master Plan

This master plan addressed parking on campus as part of its assessment of campus circulation. The assessment of campus parking was prepared by Pare Corporation of Lincoln, Rhode Island. This assessment evaluated parking distribution, parking utilization and parking lot conditions.

The key findings were as follows:

- > Parking Distribution: Peak period observation on a Thursday between 11am and 1pm found 500+/- vacant spaces.
- > Parking Utilization: Underutilized lots were Lot L (south of campus housing), Lot A and Lot E7 (East Campus).
- > Parking Lot Conditions: Parking count showed 3650 +/- spaces with most student and visitor lots in good condition.

Overall findings determined that existing spaces on campus appeared sufficient to accommodate 2010 parking demands but overloading occurred in the most desirable lots.

The 2014 Parking Assessment

This report included a one-day qualitative assessment to observe percentage of parking lot occupancy, traffic congestion at parking lot entrances and walkways and also campus roadway circulation.

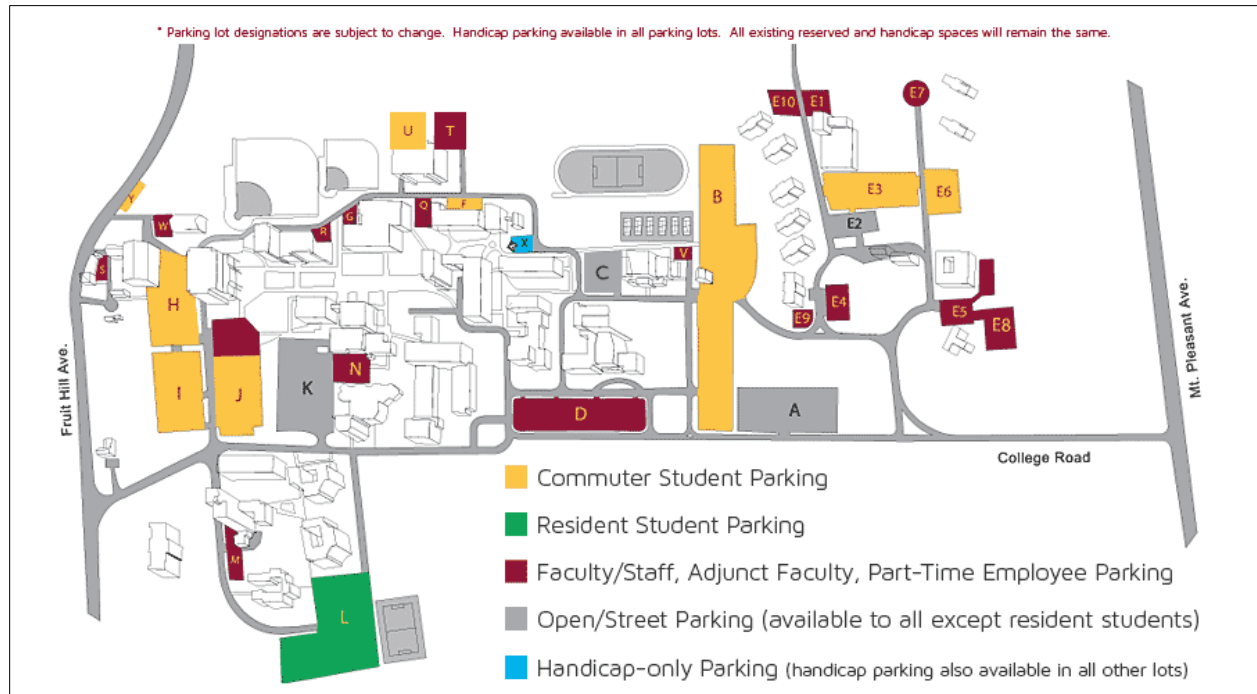


Figure 1 - RIC Campus Parking Map

Report observations showed that the most desirable lots (B, E6, H, J, K, N, and T) were the first ones to fill along with on-street parking between Building 9 and the Recreation Center. All lots were over 85% full by 10:00am. Lot A was full by 11:00am. Most lots remained full throughout the day until 2:30pm.

Overall parking observations were:

- > Need to reconfigure layouts in some lots to maximize on spaces.
- > Inadequately defined pavement markings in many lots
- > Congestion in some lots due to dead-end drive aisles
- > Consider elimination of on-street parking
- > Inefficient small lots along Library Road with poor circulation and grading and a lack of connectivity
- > Need to review pedestrian access to and from parking lots, particularly at Sherlock Center.
- > Poor delineation between parking areas and roadways, particularly near lot E4.

Related observations on circulation included:

Poor geometry on Library Road coupled with on-street parking creates traffic congestion.

- > A roadway connection behind the Recreation Center between Sherlock Center and Lot B would improve traffic circulation and accessibility to nearby parking areas.
- > If the existing athletic field located between Lot B and Lot T is relocated, this area could become a new surface parking area.
- > In order to provide additional parking along 6th Avenue near College Road, intersection improvements should be considered to alleviate congestion on the southbound approach to College Road.

C. The 2015 Parking Inventory

This report provided an inventory of all campus parking lots for legal, striped spaces only. The inventory noted issues with various parking lots in the notes column. Among the general issues were:

1. Insufficient or unofficial signage postings in some lots (E-11, ECS-1, H, J North, V)
2. Inadequate or unclear striping in some lots (F, P, R, V, W, CR-1, C-5)

The inventory noted a total of 3,858 parking spaces with 2,249 spaces designated for students and 1,360 spaces designated for faculty and staff.

2017 PARKING ANALYSIS

The analysis of campus parking in 2017 utilized the 2015 inventory and re-checked parking counts. Due to the amount of site construction on campus, not all parking spaces were accessible or “visible.” Some parking lots, such as Lots N and P, were no longer in existence due to new building construction. Lots P 34 and P36 were added as a result of the Nursing School construction.

The updated parking tables are provided in Appendix A. The tables provide updates on the number of spaces in each category. The table shows that there have been shifts in parking counts for the various categories but overall there is a net increase in the number of parking spaces available. The study evaluated the width of parking spaces to see if additional spaces could be gained by narrowing parking stall widths. As the college has already striped spaces to a minimum width of 9’-0”, this is not an option.

The 2017 parking analysis observed the following improvements that were outlined as prior concerns:

1. The college has made a number of improvements to campus parking lots since the 2014 Parking Assessment, specifically relating to resurfacing pavements and re-striping parking lots for clearer identification of parking spaces and no-parking zones. A number of re-striping and re-surfacing projects occurred during June and July 2017 visits to the campus.
2. Signage improvements have been made with respect to designation of restricted (faculty, staff, handicapped, visitor) and student parking spaces.
3. The most desirable lots in the center of campus continue to fill early and remain filled throughout the day until 2:30-3pm.
4. The new roundabout at College Road near Lot B helps to move traffic through the campus.

Current parking concerns and challenges with recommendations are as follows:

1. As noted in the 2014 Parking Assessment by VHB, the on-road parking spaces do add to traffic congestion in areas along Library Road.
 - > Recommendation: Given the high demand for parking on campus, these spaces should not be eliminated until additional parking can be supplied.
2. The smaller lots along Library Road continue to have access problems due to dead end aisles and the amount of traffic along the road.

- > Recommendation: A more detailed traffic study that includes the option of relocating Library Road around the East side of Whipple Hall north towards the Athletic complex and the turns west around the open field just west of the tennis courts.
- 3. Pedestrian access at many parking lots is still a challenge although new construction projects are addressing this issue through site improvements that include sidewalks.
 - > Recommendation: Provide pedestrian “greenways” that connect key parts of the campus. Refer to the Master Plan Concept.
- 4. Traffic congestion occurs during arrival and dismissal at Henry Barnard School.
 - > Recommendation: Provide angled parking designated for Henry Barnard School along the east side of the school. Refer to the Concept Parking Plan for Henry Barnard School.
- 5. Confusing access between Lots E3 and E2.
 - > Recommendation: The connection between these lots may benefit from better on-ground marking as well directional signage.
- 6. Confusing signage at Lots E5 and E8.
 - > Recommendation: Better location of signage designating these lots may assist users.

NOTE: The parking analysis was performed during a period when most students and faculty are not on campus. Parking utilization was not assessed during this period

Section 3 - Concepts

3.1 Academic Expansion Zones

The recent renovation of Gaige Hall and the in-progress renovation of Craig-Lee Hall will provide RIC with significant academic space to meet current needs. As RIC plans for future enrollment growth requiring additional academic space, the 2017 Master Plan Update identified building zones for this potential. A key objective to locating future academic buildings is the functional goal of proximity to the campus core area containing other academic buildings, the mall and student support services.

Two future academic building zones were identified that provide for long-term expansion. The primary area is a linear east-west site located between the John Clarke Science Building and Parking Lot B. This site is currently occupied by the tennis courts and a large rectangular lawn area on the south side of the relocation of a section of Library Road and the tennis courts which will be discussed in the athletics/recreation and vehicular circulation concept sections. This site could accommodate significant expansion. For example, two buildings similar in scale to the two-story Clark Science Building could be built providing approximately 85,000 gross square feet of space (GSF).



Figure 1 - Phase 1 Academic Expansion

The second academic development zone is located further to the east primarily utilizing the northern portion of Parking Lot B. This site provides a strong spatial connection to the East Campus which is presently isolated from the main campus to the west. The site could also involve the removal of a number of the buildings that are located between Parking Lot B and the Recreation Center that are utilized for student services and campus support. The development of this site would require the relocation of a significant number of parking spaces and the relocation of student services which is discussed in the a related concept section. This site should be considered as long-term following the academic infill provided by the primary academic development zone.

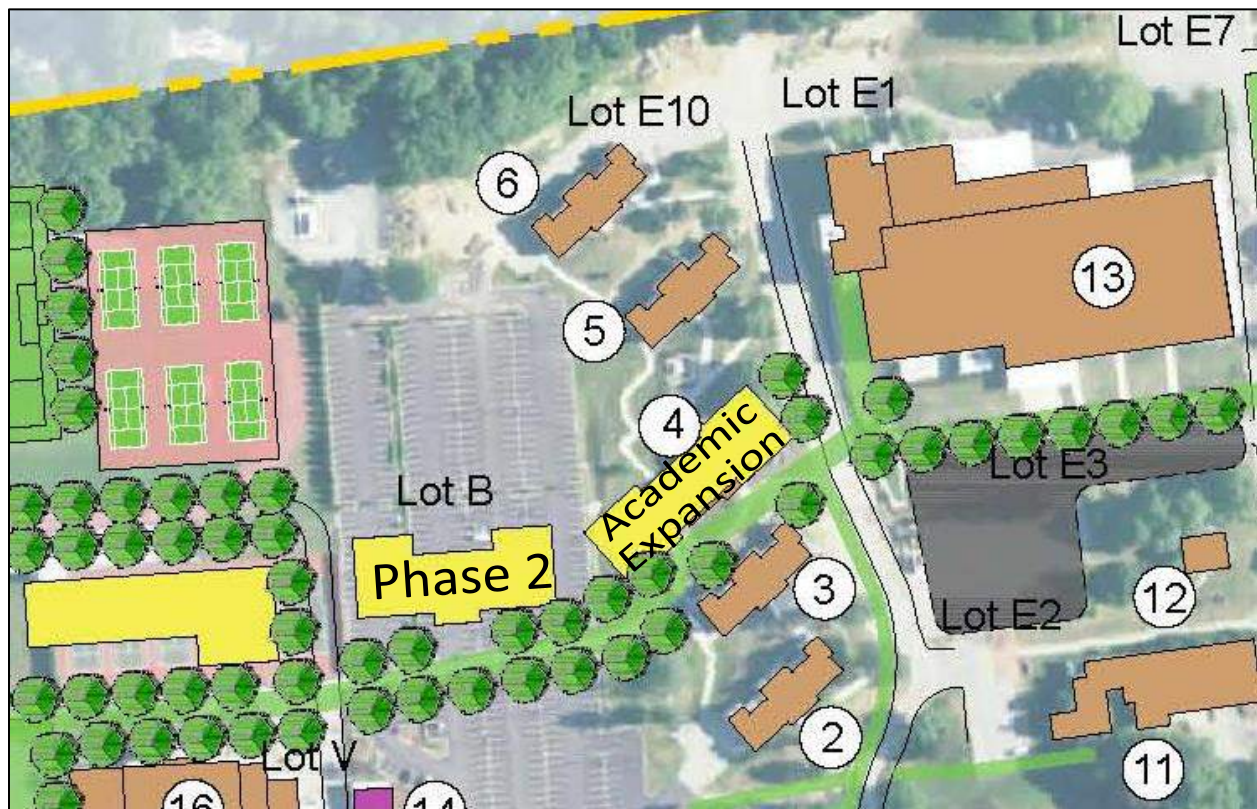


Figure 2 - Phase 2 Academic Expansion

3.2 Student Housing Zones

RIC is committed to filling all of its “beds” prior to embarking on expansion.. The College recognizes however the importance of identifying future sites for new residence halls. At this point a final program has not been developed to identify the type of housing, number of beds and specific user profiles. A number of sites were identified and discussed with the RIC senior administration. The result of these discussions led to the identification of two areas for future student housing, which are described as follows.

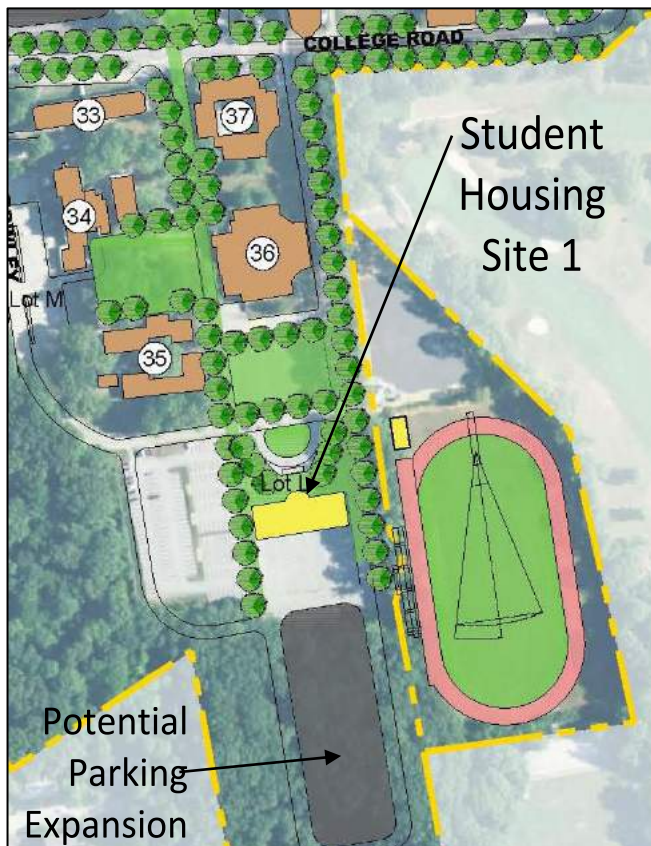


Figure 3 - Student Housing - Site 1

Site 1 is located near the existing student housing village which contains six residence halls. Additional new parking can be expanded to the area south of Lot L. The area to the south of Parking Lot L is a forested area that does not have any known environmental constraints. Parking Lot L has some limited capacity for additional student parking, but the parking requirement for new residential housing needs to be determined based on bed count and RIC policy. The site also provides adjacent proximity to the potential new track and field that would be utilized for RIC athletic events, intramurals, and recreation. Site 1 will accommodate 1st and 2nd year students and strengthen the existing residential village. The new residence hall may include expanded dining capabilities to relieve an already heavily utilized service.

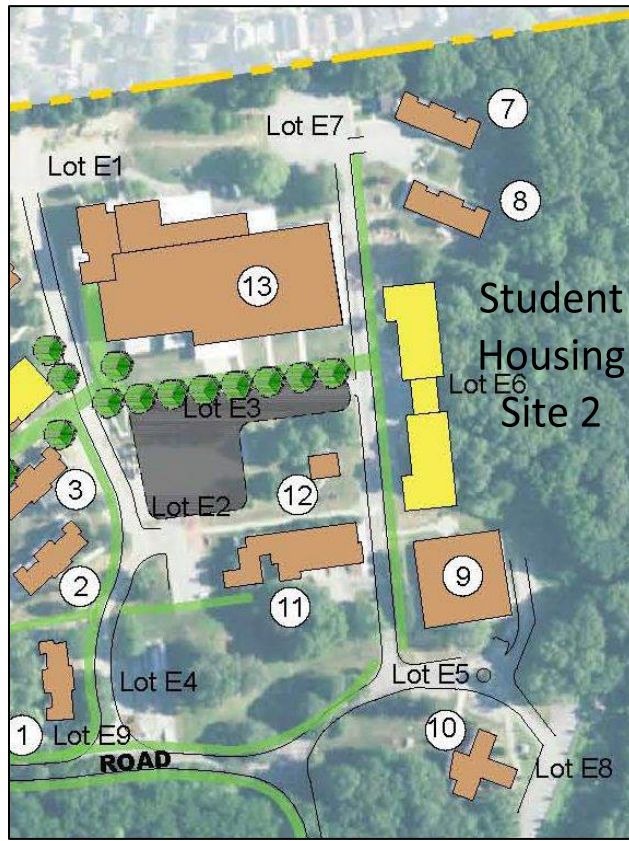


Figure 4 - Student Housing - Site 2

Site 2 for student housing is on the east side of the campus near the Recreation Center. The site is located on Parking Lot E6 and land on the east side of this lot. The area is forested with moderate to steep slopes and has nearby wetlands that require accurate mapping to determine how they may affect site development. The site also fulfills the objective of providing a distinct student living environment for upper classmen that is separated from the housing for lower division students in the existing residential precinct. An advantage to this site is the close proximity to the Recreation Center which would increase usage of this facility. Student parking for this site is very limited with Lots E2 and E3 serving the Recreation Center and other support functions. Land for additional parking is restricted by the slope, wetland, and forest conditions. Site 2 is a good location for upper division, graduate, and married student housing. Apartment style facilities with kitchens will not require the expansion of dining services on this side of campus.

3.3 Outdoor Athletics

Key goals for the development of future athletic facilities were to provide a new area for track and field events and a soccer field that would meet NCAA standards. The current track is in poor condition and requires either renovation or a new facility. The existing soccer field does not meet the size requirements for NCAA championship play. The planning team explored the concept of developing a new track and field area with a soccer field on the interior of the track, but it was considered a significant compromise for both track and soccer events due to the track configuration. As such, a new facility for track and field is proposed on the south side of the campus adjacent to the golf course. The throw area for field events is currently located adjacent

to this site. Venue seating, equipment storage, restrooms and parking would be needed for this facility.

A new soccer field meeting NCAA standards is proposed to be developed on the current site located on the north side of the campus. This area could accommodate a field that is 225' x 360'. A wooded buffer can be maintained between the field and the neighborhood to the north. A new soccer field would not be located closer to the neighboring properties north of campus.

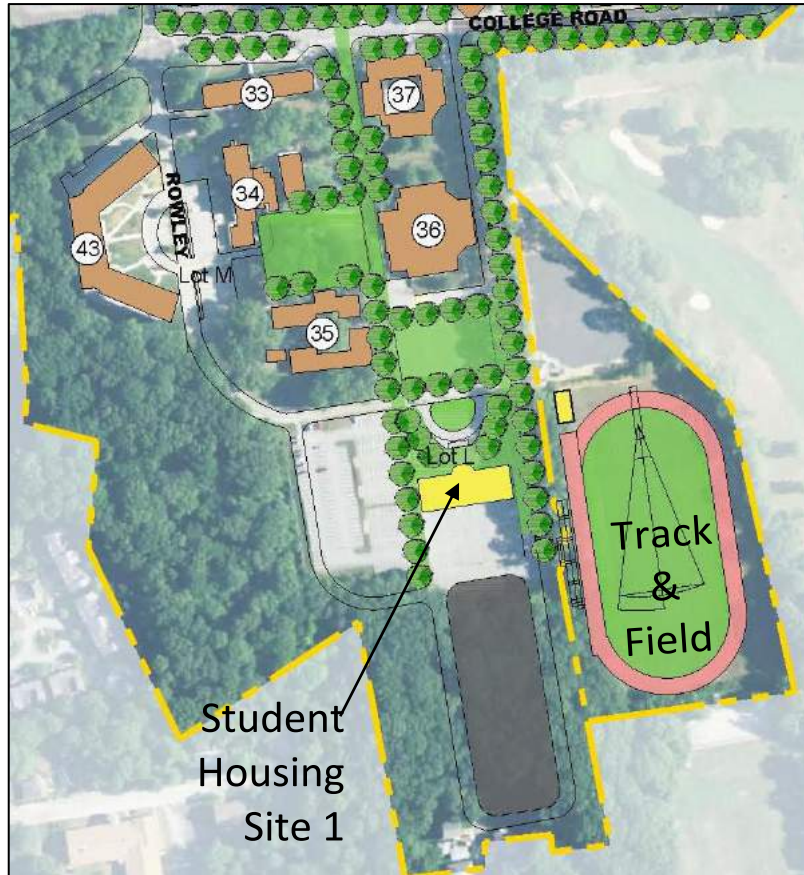


Figure 5 - New Track and Field Facilities

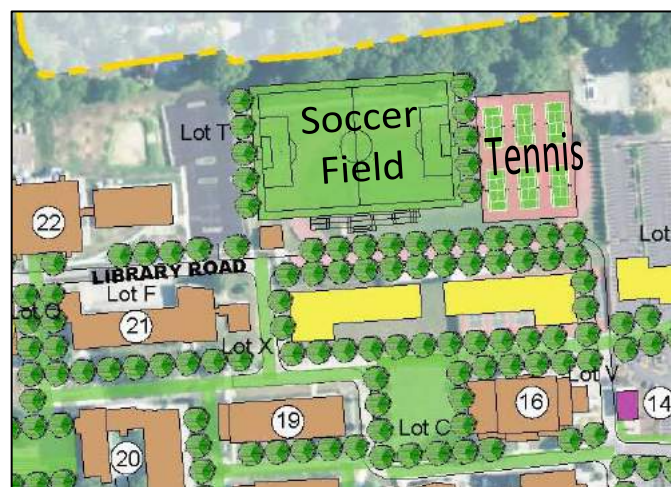


Figure 6 - New Soccer and Tennis Facilities



In order to provide for future academic expansion, it is recommended that the existing tennis courts be relocated on the east side of the proposed soccer field. The courts would have the correct north/south orientation and form part of the athletic zone contiguous with the soccer field. An alternate location for the tennis courts, and potentially an outdoor basketball court, would be at proposed Student Housing Site 2, southeast of the Recreation Center.

Figure 7 - Alternate Location for Tennis Courts

3.4 Student Services

A primary goal of the Master Plan Update was to provide for a “Student Success Center,” commonly referred to as a one-stop location, and develop a “Student Academic Success Center.” The “Student Success Center” is located on the south side of the mall, adjacent to Donovan Hall. An important location factor for the center is to be located on a well-travelled student path and be very visible. This site provides for this need.

It was determined that the location for the “Student Academic Success Center” was a functional fit to be incorporated into the Adams Library. Space is available in this building and planning could be coordinated with other library renovation projects.

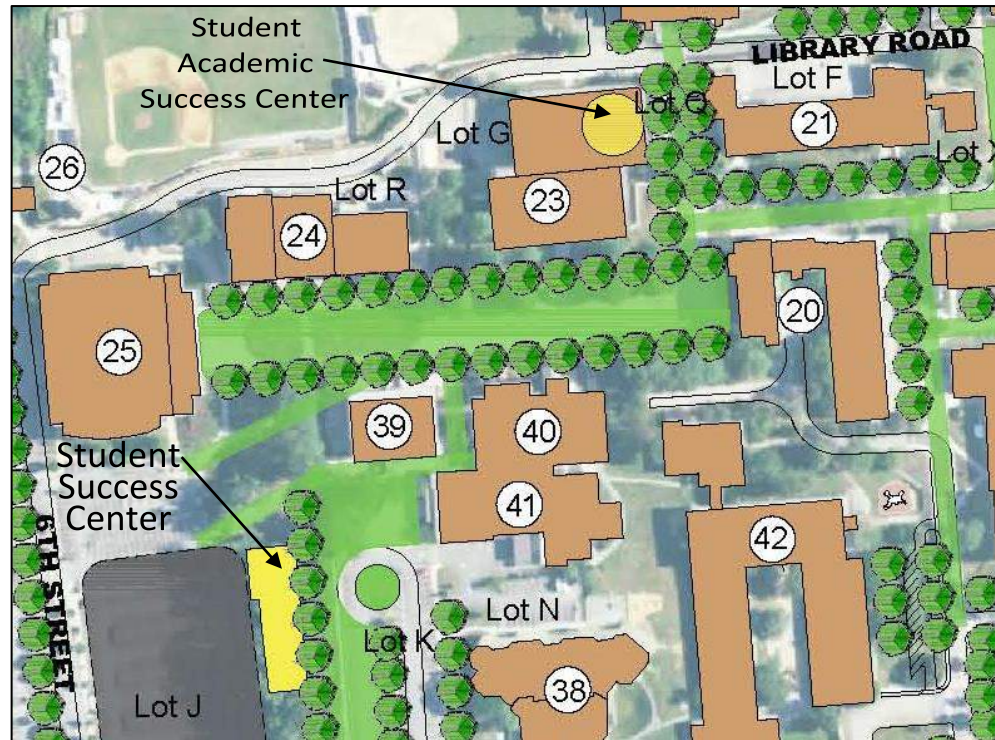


Figure 8 - Student Success Center and Student Academic Success Center

3.5 Vehicular Circulation and Parking

Analysis of the existing campus vehicular circulation system was performed with the goal of improving safety, providing for a more pedestrian friendly environment, and considering future campus expansion. The current configuration of Library Road starts on the east side of Whipple Hall and traverses around parking Lot C, Alger Hall and the Clarke Science Building. It is recommended that this corridor be restricted to service and emergency access vehicles, ADA parking and be further developed for pedestrian circulation. Library Road could then be extended directly to the east from the Science Building to Parking Lot B. It is recommended that parking from Lot C be relocated with the exception of ADA parking as required. Reconfiguration of the road system on the south side of the campus needs to be coordinated with future student housing and the track and field site.

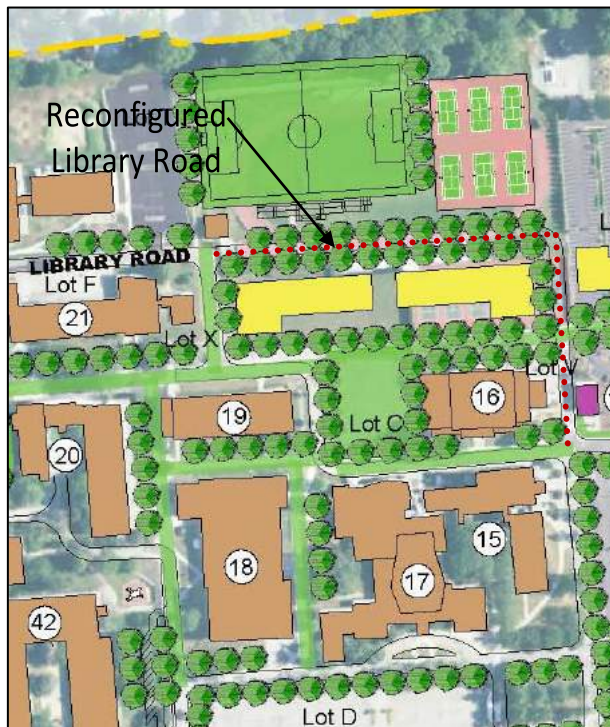


Figure 9 - Library Road Reconfiguration

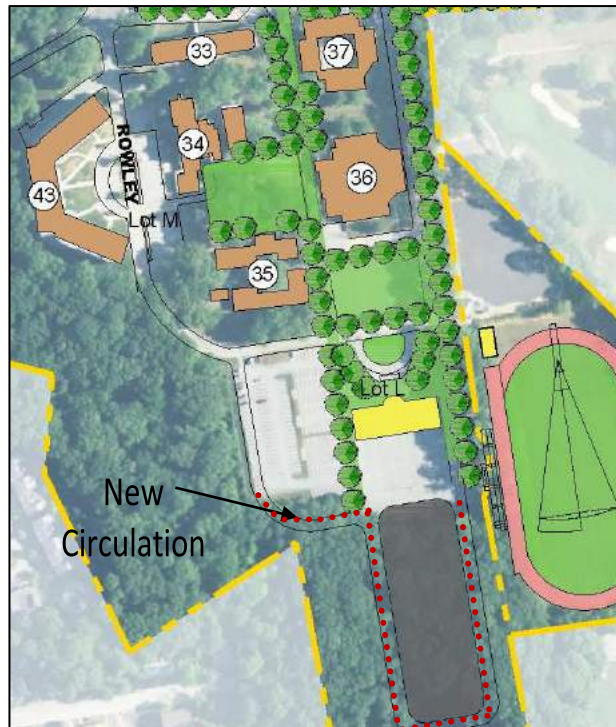


Figure 10 - Circulation for Housing and Athletics

There are limited opportunities for new surface parking facilities on campus. Parking lots E2 and E3 can be reconfigured to provide an improved layout and additional parking. While parking is considered a problem in regard to the number of available spaces, it is recommended that the College engage a parking consultant to accurately identify parking needs based on demand. In the long-term, the incorporation of parking structures is recommended to accommodate future growth. Prime sites are located on Lots A and J. It is recognized that parking structures can be cost prohibitive, but other options are not readily feasible without off-site campus parking with shuttle service or the acquisition of additional property.



Figure 11 - Lot J Parking Structure Option



Figure 12 - Lot A Parking Structure Option

Parking for the Henry Barnard School was also identified as an issue during the morning drop-off and afternoon pick-up times. The planning team reviewed program needs and concepts with RIC and Henry Barnard School administrators and developed an alternative to provide parking on the east side of the building.

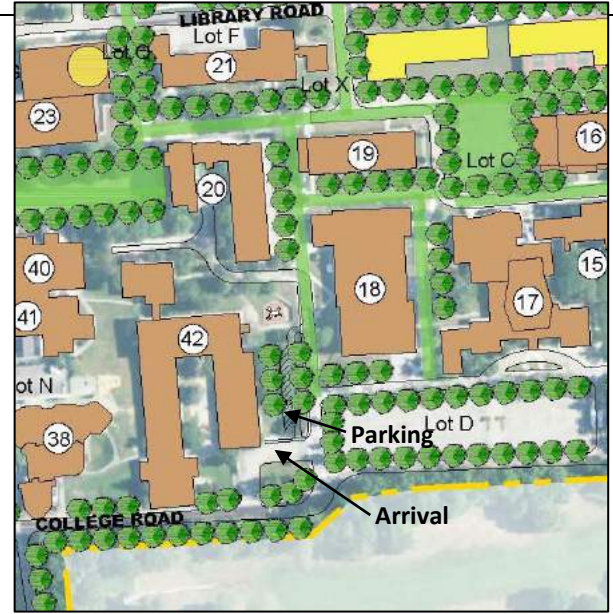


Figure 13 – Henry Barnard School Arrival and Pick-Up



3.6 Open Space and Pedestrian Greenways

The campus has a well-defined open space system with the “mall” being the signature space for the campus. It is recommended that the mall undergo a significant renovation to enhance the pedestrian experience and visual quality of the campus. The mall is overly developed with hardscape and lacks a desirable landscape of canopy deciduous trees, site furniture and lighting. The design of this space should recognize sight lines to Craig-Lee Hall, the potential location of the “Student Success Center,” pedestrian movement, and underground utilities. Additional open space opportunities exist with the redevelopment of Parking Lot C and the north section of parking Lot L that could be reconfigured with greenspace. The primary east-west pedestrian greenway between the Library and the Recreation Center could be enhanced in conjunction with future academic building infill.

3.7 Campus Greens

The development of a strong pedestrian axis or spine linking the south area of campus to the east will include the development of small campus greens. There exist many areas of wooded or open sites that border the proposed axis from the residential village to the Recreation Center and Forman Center. Small pathways, seating areas and pedestrian scale lighting will enhance the walking experience across campus.



Figure 14 - Overall Open Space – Light Green

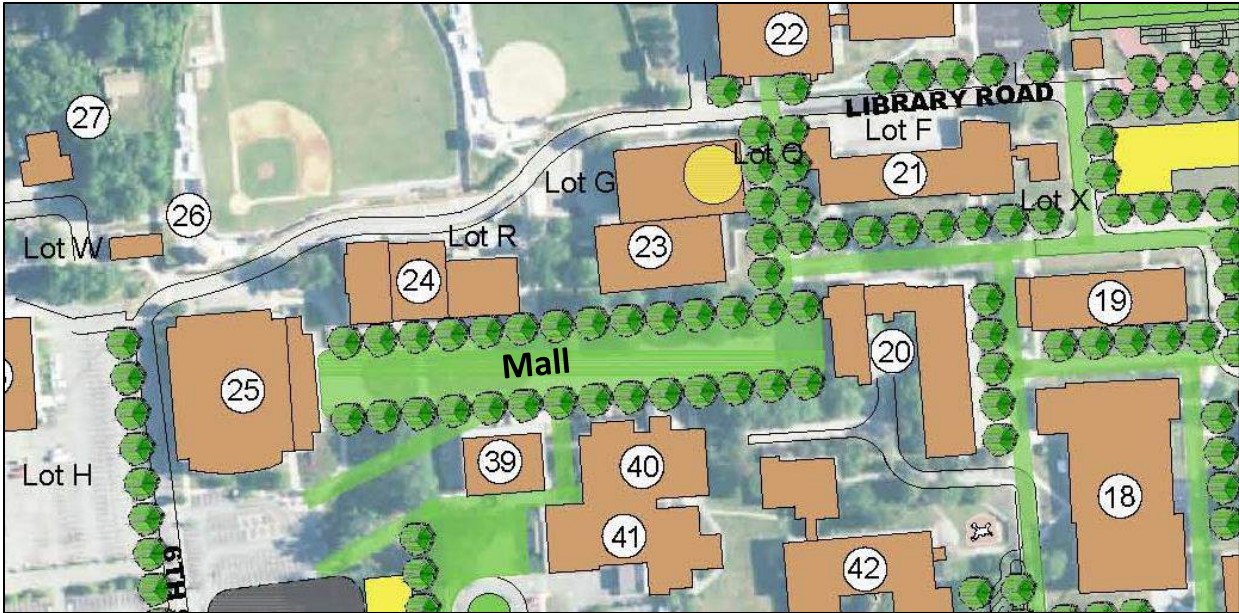


Figure 165 - Campus Mall – Location



Figure 156 - Campus Mall – Existing Conditions



Figure 17 - Campus Mall Concept 1



Figure 18 - Campus Mall Concept 2

4.1 Introduction

The Implementation Plan identifies specific project budgets and schedules based on project scope and priorities developed in Section 3 – Concept Development. The Implementation Plan divides individual projects into related “Groups” and then schedules them in a sequential manner based on priorities, funding and dependency on previous projects. The Implementation Plan is divided into three phases: Short Term (2018-2023), Mid Term (2025-2028) and Long Term (2029+).

Project Budget Basis

Project costs consist of ‘hard’ (probable construction costs) plus Contingency (Cont) at 25% of hard costs, Soft Costs (approvals, surveys, & testing) at 15%; plus Furniture Fixtures and Equipment (FF&E) at 10%. Project Budgets are estimated based on mid-year 2018 construction costs.

Figure 6.1 Project Building Budgets Per Square Foot Basis					
Level of Work	‘Hard Cost’ \$/GSF	Cont.	‘Soft Cost’ \$/GSF	FF&E \$/GSF	Project Budget \$/GSF
New Construction	\$350	\$88	\$53	\$35	\$525
High Intensity Renovation	\$250	\$63	\$38	\$25	\$375
Medium Intensity Renovation	\$215	\$54	\$32	\$22	\$323
Low Intensity Renovation	\$180	\$45	\$27	\$18	\$270

4.2 Capital Planning and Project Costs

Site project budgets were generated in a similar manner based on square foot or lump sum amounts.

Annual Inflation

Annual inflation, which has been averaging 3% a year for the last three years, is not factored in the above numbers. Please refer to the Implementation Plan tables following this summary for projected escalation costs. The per square foot cost ranges used in the Implementation Plan for various levels of work are noted in the above table.

4.3 Implementation Plan

Annual capital construction expenditures are needed to properly maintain the college’s aging facilities and to make appropriate modifications to house new and changing instructional program requirements. RIC consists of 19 projects spread over the three phases listed above.

A detailed breakdown of the individual projects and related budgets are shown on the following pages. It is anticipated that these budgets will be updated on an annual basis.

4.4 Master Plan Concepts

Short Term

1. Craig Lee Hall Renovations
2. Enhance Campus Mall Phase 1
3. Student Union Renovations
4. Henry Barnard School Pickup/Dropoff Safety Improvements
5. Develop Campus Greens Phase 1
6. Horace Mann Hall Renovations
7. Clarke Science Building Renovations
8. Whipple Hall Renovations

Mid-Term

1. New Student Success Center Building
2. Adams Library Renovations (Academic Success Center)
3. Relocate Pre-School to Henry Barnard School
4. Realignment of Library Road & Conversion to 2-Way Traffic
5. Expand Student Housing
6. Enhance Campus Mall Phase 2
7. Develop Campus Greens Phase 2

Long-Term

1. Outdoor Athletics
2. Relocate Admissions to New Facility
3. Develop Parking Structures
4. Academic Facility Expansion

Appendix A | Parking Inventory

Parking Inventory at Rhode Island College

NOTE: THIS IS AN UPDATE OF THE 2015 INVENTORY COMPLETED BY RI COLLEGE STAFF

The January 2015 study was prepared by the Office of Institutional Research & Planning and the office of Vice President for Administration & Finance.

2017 updates and notes are indicated in Red

Change amounts in Summary table indicate change in parking counts from 2015.

DEFINITIONS FOR TERMS AS USED IN THIS DOCUMENT:

driveway: a spur or loop designed for motor vehicles that provides access to a building or group of buildings but which is not a public road

parking lot: a dedicated space for the temporary parking of motor vehicles; must have internal circulation

	SUMMARY	Count	Percent
a	total designated "open except residents" (+93 change)	744	18.9%
b	total designated "commuter students" (-31 chg)	1567	40.0%
c	total designated "faculty/staff" (-2 change)	707	18.0%
d	total designated "resident students" (no change)	621	16.0%
e	total designated "handicapped" (+10 change)	131	3.3%
f	total designated "special reserved/restricted" (-7 change)	151	3.8%
	TOTAL ALL CATEGORIES (+63 change)	3921	100.0%
a + b	available to commuter students (+62 change)	2311	58.9%
a + c	available to faculty/staff (+91 change)	1451	37.0%

MAIN CAMPUS LOTS WITH OFFICIAL LETTER DESIGNATIONS

LOT DESIGNATION	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/RESTRICTED SPACES	TOTAL CAPACITY	NOTES
A	open xc residents	off College Rd. East	lot	207	0	0	207	No change from 2015
B	commuter students	btw East and Main Campuses	lot	696	18	0	714	No change from 2015. 39 spaces the northeastern portion of the lot are dedicated for faculty/staff use
C	faculty/staff	btw Whipple (#16) & Alger (#19)	lot	61	6	0	67	No change from 2015
D	faculty/staff	across College Rd. opposite Roberts (#17) & Alex & Ani Halls (#18)	lot	191	4	13	208	No change from 2015
F	commuter students	rear of Clarke Science (#24)	lot	40	0	0	40	No change from 2015 One lined space included in the total would leave the vehicle boxed-in

LOT DESIGNATION	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
G	faculty/staff	rear of Library (#23)	lot	6	3	3	12	No change from 2015
H	commuter students	btw Physical Plant Bldg. (#28) & Murray Ctr. (#25)	lot	194	7	17	218	No change from 2015 Includes 6 spaces adjacent to Physical Plant building that are not individually posted, but that are indicated by two signs bracketing all spaces along the wall of the building
I	commuter students	terrace next to Lot H and across 6 th Ave. from Lot J - south	lot	274	0	0	274	No change from 2015
J - north	faculty/staff	Murray Center (#25)Main Lot	lot	72	7	9	88	No change from 2015 Only 3 spaces have individual signs, but the row is bracketed by two "reserved-no parking" signs with directional arrows
J - south	commuter students	Murray Center (#25)Main Lot	lot	205	6	0	211	No change from 2015
K	open xc residents	Student Union (#40) Loop	street/ angle	93	10	0	103	No change from 2015
L	resident students	Residence Hall Lot – behind Weber (#36) & Willard (#35) Halls	lot	621	1	21	643	No change from 2015
M	faculty/staff	Browne Hall (#34) Lot (outside Security & Health Services)	lot	19	2	9	30	Spaces lost to new c
N	faculty/staff	btw Mann Hall (#39) & Faculty Center (#42)	lot	4	1	8	13	Spaces lost to new construction.
P	restricted	Craig-Lee (#20) "Courtyard"	lot	0	0	0	0	Lot lost to new construction.
P 34	Open xc residents	Nursing School	lot	75	4	4	83	4 restricted and 4 handicapped spaces are signed. New lot.
P 36	Open xc residents	Fogarty West Side Front and rear	Lot	56	3	2	61	Lot configuration adjusted due to new construction
Q	faculty/staff	btw Clarke Science (#21) & Library (#23)	lot	19	0	0	19	No change from 2015. Includes one unlined spot that is in regular use

LOT DESIGNATION	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
R	all restricted	rear of Gaige (#24)	lot	0	4	5	9	<i>UNABLE TO ASSESS DUE TO CONSTRUCTION. Although this lot is officially designated on the map as "faculty/staff," it is actually completely restricted. Count includes 5 restricted spaces in regular use; no lines but signs indicate that authorized parking is permitted</i>
S	faculty/staff	off Fruit Hill Ave. driveway btw Phys. Plant Bldg. (#28) & Fruit Hill Ave.	driveway/perpendicular	8	0	0	8	<i>No change from 2015. Without internal circulation, this lot does not meet the criteria of a lot as used in this inventory</i>
T	commuter students	Fogarty Hall (# 22) East Side	lot	0	0	0	0	<i>Lot lost to new construction of Nursing School Building.</i>
U	faculty/staff	Fogarty Hall (#22) West Side	lot	0	0	0	0	<i>Changed - see P36</i>
V	faculty/staff	rear of Power Plant (Whipple - #16)	lot	8	0	2	10	<i>No change from 2015. Two unlined spaces, generally occupied, with unofficial "no parking" signs affixed to barrels</i>
W (upper)	faculty/staff	next to Student/Athlete Success Center (#26) on Hennessey Ave.	lot	16	1	0	17	<i>No change from 2015</i>
W (lower)	faculty/staff	fenced-in lot adjacent to Lot W (upper)	lot	14	0	0	14	<i>No change from 2015. None of these spaces are striped</i>
X	all restricted	btw Alger (#19) & Greenhouse	lot	0	5	1	6	<i>No change from 2015</i>
Y	commuter students	Corner Hennessey & Fruit Hill Aves.	lot	40	0	0	40	<i>No change from 2015</i>
Subtotal Main Campus Parking Lots				2905	71	100	3076	2015 totals
Subtotal Main Campus Parking Lots				2919	82	94	3095	2017 totals

CAMPUS WEST SIDE – SMALL PARKING AREAS WITHOUT OFFICIAL LETTER DESIGNATIONS

LOT DESIGNATION (IF ANY)	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
FHA ¹ -1 ²	open xc residents	adjacent to Storage Bldg. (#27) on Hennessey Ave.	street/perpendicular	2	0	0	2	No change from 2015
FHA-2	all restricted	loading ramp, college receiving, Hennessey Ave. side of Physical Plant (#28)	parallel	0	0	8	8	No change from 2015
FHA-3	open xc residents	driveway off FHA entry to Office Bldgs #30 & #31	driveway	2	0	0	2	No change from 2015
FHA-4	open xc residents	Offices (#30)	driveway	1	0	0	1	No change from 2015
FHA-5	open xc residents	Offices (#31) (aka "Old Alumni House")	driveway/perpendicular	6	0	0	6	No change from 2015
FHA-6	all restricted	President's House (#32) rear	driveway	0	0	3	3	No change from 2015
FHA-7	all restricted	President's House (#32) front	driveway	0	1	13	14	No change from 2015
FHA-8	open xc residents	Fruit Hill Ave. northbound btw. College Rd. and Lyman Ave.	public street/parallel	16	0	0	16	FHA-8 and 9 use the shoulders of Fruit Hill Ave. within the area between the solid white stripe and the curb. This is not college property and cannot be used for overnight parking. While generally not convenient for students, faculty, or staff, this on-street parking has been used when large events are held at the President's House, when farmer's market activities are held along Fruit Hill Ave., for commencement, and by short-term visitors to college buildings along Fruit Hill Ave.
FHA-9	open xc residents	Fruit Hill Ave. southbound opp. FHA-9 to Lyman Ave.	public street/parallel	15	0	0	15	
RH ³ -1	all restricted	Sweet Hall (#38) circular drive	driveway	0	0	0	0	Lost to new construction

¹ "FHA" stands for "Fruit Hill Avenue"

² For purposes of this inventory only, parking areas have been assigned temporary designations to indicate their location on the map.

³ "RH" stands for "Residence Halls"

LOT DESIGNATION (IF ANY)	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
RH-2	all restricted	New Residence Hall (#33) – Housing Office	driveway/ parallel	0	0	6	6	No change from 2015
RH-3	all restricted	New Residence Hall (#33) – circular drive	driveway/ perpendicular	0	8	0	8	No change from 2015
RH-4	open xc residents	adjacent to Thorp Hall (#37), northeastern corner of bldg.	street/ perpendicular	1	0	1	2	No change from 2015
Subtotal West Side Small Parking Areas				43	10	32	85	2015 totals
Subtotal West Side Small Parking Areas				43	9	31	83	2017 totals

MAIN CAMPUS ON STREET PARKING

LOT DESIGNATION (IF ANY)	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
CR-1	open xc residents	First Ave. from College Rd. to Lot B north exit	street/parallel	14	0	0	14	<i>These spaces are not striped but they traditionally remain in active use; there is no yellow curb along this segment, as is the case for the segment just north of the Nazarian Center crosswalk to Lot B. No change from 2015</i>
CR-2	all restricted	Roberts (#17) Circular Driveway	street/parallel	0	0	10	10	<i>These spaces are open to all except resident students & they are all time-restricted (15 minutes only). No change from 2015</i>
CR-3	all restricted	HBS (#43) cafeteria loading dock area	street/parallel	0	7	0	7	No change from 2015
CR-4	all restricted	Barnard Circle	street/ perpendicular & parallel	0	1	8	9	No change from 2015

LOT DESIGNATION (IF ANY)	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
CR-5	open xc residents	College Rd. from 6 th Ave. to Fruit Hill Ave.	street/parallel	12	0	0	12	Prior to a 2003 repaving, there were striped spaces along North side of College Rd. During 2003 project, center stripe on the road was shifted north & parking stripes were eliminated along westbound lane. Parking in these spaces is not prohibited (no yellow curb). They are regularly used for parking. No change from 2015
LR-1 ⁴	open xc residents	on Library Rd. at rear of Nazarian Center (#15)	street/parallel	6	0	0	6	No change from 2015
LR-2	open xc residents	all perpendicular spaces along Library Rd. from SW corner of Lot C to a point opposite of Clarke Science (#21)	street/perpendicular	30	5	1	36	Changes due to construction
LR-3	open xc residents	all parallel spaces along north side of Library Rd. from opposite greenhouse to baseball field	street/parallel	13	0	0	13	Includes 6 parallel spaces opposite Clarke Science that are unlined but are used regularly. Changes due to construction
LR-4	open xc residents	Murray Center (#25) north side off Library Rd.	street/perpendicular	7	2	0	9	No change from 2015
Subtotal Main Campus On-Street Parking				121	15	19	155	2015 totals
Subtotal Main Campus On-Street Parking				82	15	19	116	2017 totals* affected by Construction

⁴ "LR" stands for "Library Road"

EAST CAMPUS PARKING LOTS⁵

LOT DESIGNATION (IF ANY)	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
E-9	faculty/staff	Building 1 (#1) – adjacent to building on south side	lot	8	1	1	10	No change from 2015
E-4	faculty/staff	across Cole Rd. from Building 1 (#1)	lot	45	0	0	45	No change from 2015
E-10	faculty/staff	Building 6 (#6) (Cole Rd.) – adjacent to building on east, also parallel (unlined) spots at north side of building	lot	18	1	0	19	Formerly, four lined spaces were available on the asphalt to the west of the building (a construction trailer currently blocks these spaces); also, the connector on the north side of Bldg. 6 can accommodate 6 vehicles; while unlined, these spaces are frequently in current use. The number in the total capacity column includes only the east lot and the unlined parallel parking to the north of the building. No change from 2015
E-1	faculty/staff	north side of Recreation Center (#13), (Cole Rd. access)	lot	20	0	0	20	No change from 2015
E-3	commuter students	Recreation Center (#13) Main Lot	lot	70	4	0	74	After 5:00 pm, this lot is also open to faculty/staff and resident hall students. No change from 2015
E-2	open xc residents	lot btw Recreation Center (#13) & Forman Center (#11) (near Yellow Cottage) (#12)	lot	53	0	0	53	No change from 2015
	open xc residents	west of Forman Center (#11) (used by Admissions Office)	lot	9	3	3	15	2 additional spaces.
E-11	faculty/staff	small lot adjacent to Forman Center (#11), situated at southeast corner of building	lot	4	2	0	6	Signage and one earlier campus map indicate this as E-11; however, this is not designated on current campus maps (Jan. 2015). No change from 2015

⁵ In this chart, these lots are listed sequentially beginning with Building 1 and proceeding clockwise to Building 10; current numbering protocol is unclear and consideration might be given to re-numbering the lots in a more intuitive (and user-friendly) manner

LOT DESIGNATION (IF ANY)	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/ RESTRICTED SPACES	TOTAL CAPACITY	NOTES
E-7	faculty/staff	Building 7 – in front of and west of Sherlock Center on Disabilities (#7)	lot	61	5	0	66	No change from 2015
E-6	commuter students	lot to east of Salisbury Rd.	lot	48	0	0	48	No change from 2015
E-5	faculty/staff	btw School of Social Work (#9) and Kauffman Center (#10); also includes separate area directly to rear (east) of SSW	lot	20	3	2	25	No change from 2015
E-8	faculty/staff	lot along the ridge east of (behind) Kauffman Center (#10)	lot	30	0	0	30	No change from 2015
Subtotal East Campus Parking Lots				384	19	6	409	2015 totals
Subtotal East Campus Parking Lots				386	19	6	4011	2017 totals

Note: Lots E1 and E10 are being consolidated into one parking lot and expanded. The new lot will have a total of 146 spaces, 5 of which will be accessible spaces.

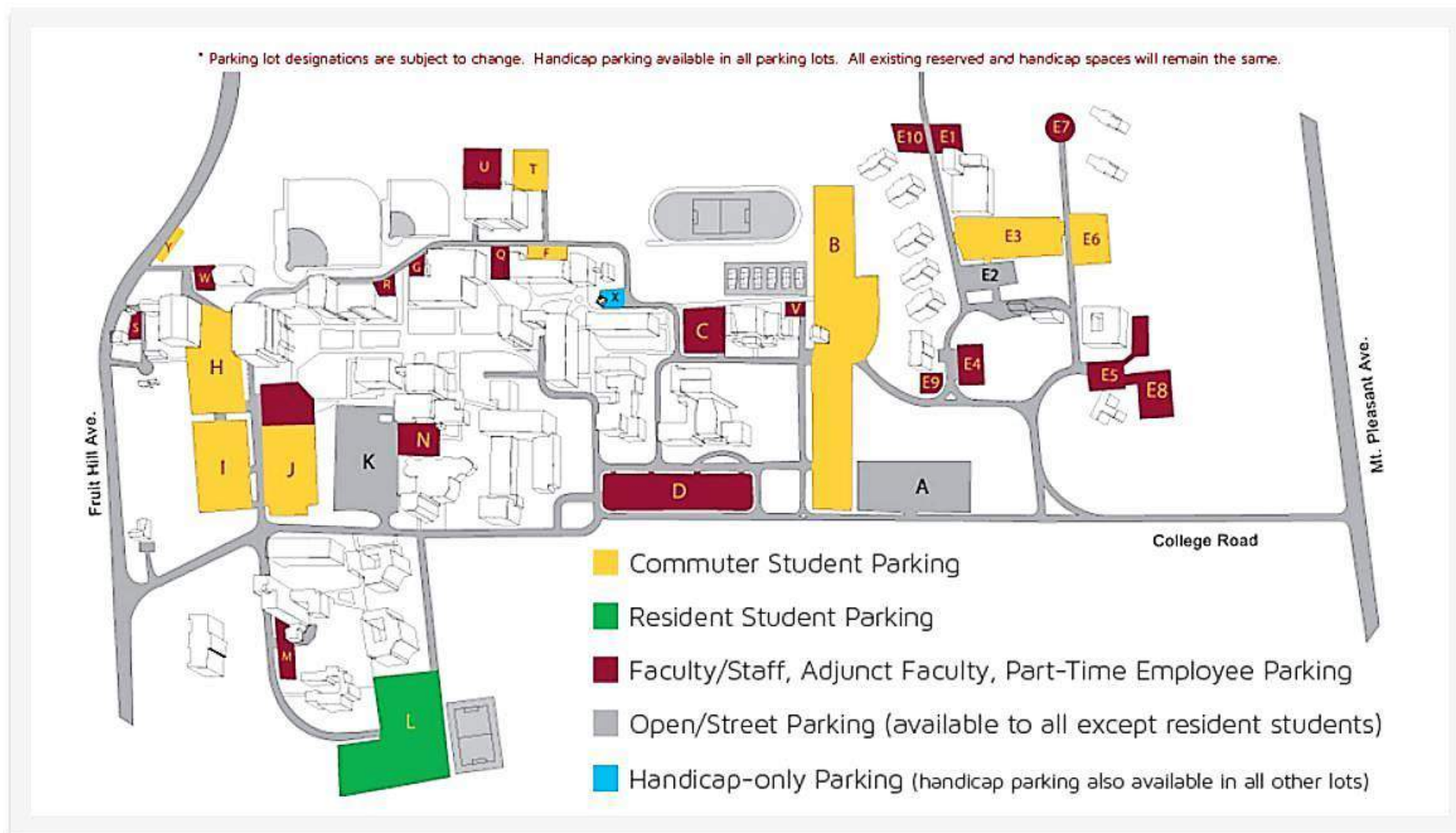
EAST CAMPUS ON-STREET PARKING

LOT DESIGNATION (IF ANY)	CURRENT RESTRICTIONS	LOCATION	TYPE OF PARKING	REGULAR SPACES	HANDI-CAPPED	SPECIAL RESERVED/RESTRICTED SPACES	TOTAL CAPACITY	NOTES
ECS ⁶ -1	open xc residents	Cole Rd., directly in front of Building 1 (#1)	street/perpendicular	3	1	1	5	<i>It is not clear if this is considered part of Lot E-9; it is physically separated from E-9 as depicted on college maps; therefore, it is listed separately here.</i> No change from 2015
ECS-2	open xc residents	Cole Rd., from Buildings 2 (#2) through 6 (#6)	street/perpendicular & parallel	67	4	0	71	No change from 2015
ECS-3	open xc residents	Salisbury Rd., westerly side of road	street/parallel	29	0	0	29	No change from 2015
ECS-4	open xc residents	Salisbury Rd., easterly side btw Lot E-6 and entrance to Sherlock Center (#7) lot	street/perpendicular	27	1	0	28	No change from 2015
Subtotal East Campus On-Street Parking				126	6	1	133	2015 totals
Subtotal East Campus On-Street Parking				126	6	1	133	2017 totals

⁶ "ECS" stands for "East Campus Street"

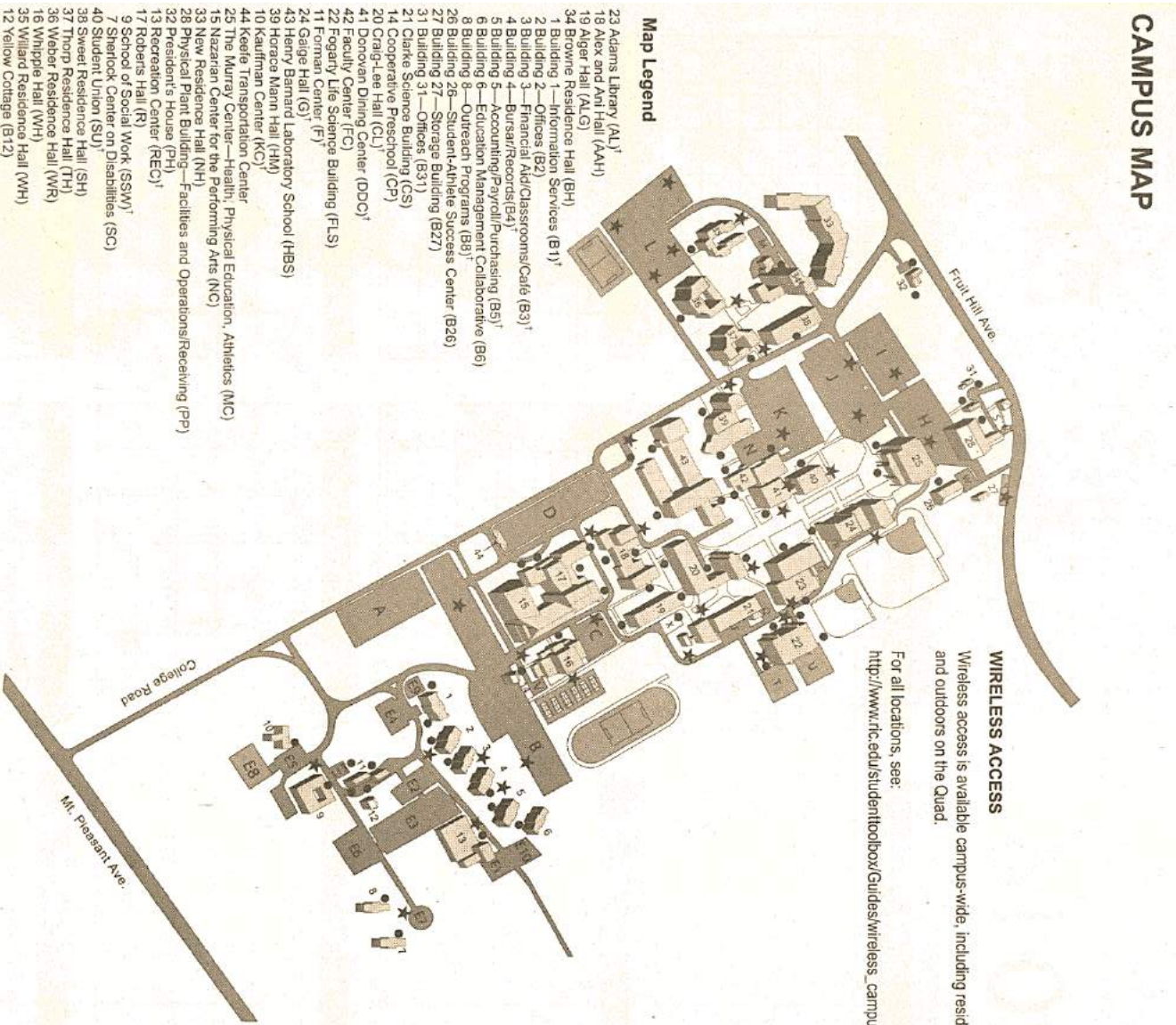
Rhode Island College Parking Lot Map

[Rev. 2014]



Rhode Island College Building Designation Map

[Rev. 2014]



CAMPUS MAP

Map Legend

- 23 Adams Library (AL)[†]
- 19 Alex and Kai Hall (AAH)
- 19 Alger Hall (ALG)
- 34 Browne Residence Hall (BH)
- 1 Building 1—Information Services (B1)[†]
- 2 Building 2—Offices (B2)
- 3 Building 3—Financial Aid/Classrooms/Cafe (B3)[†]
- 4 Building 4—Bursar/Records(B4)
- 5 Building 5—Accounting/Payroll/Purchasing (B5)[†]
- 6 Building 6—Education Management Collaborative (B6)
- 8 Building 8—Outreach Programs (B8)[†]
- 26 Building 26—Student-Athlete Success Center (B26)
- 27 Building 27—Storage Building (B27)
- 31 Building 31—Offices (B31)
- 21 Clarke Science Building (CS)
- 14 Cooperative Preschool (CP)
- 20 Craig-Lee Hall (CL)[†]
- 41 Donovan Dining Center (DDC)[†]
- 42 Faculty Center (FC)
- 11 Forman Center (F)[†]
- 24 Gauge Hall (G)[†]
- 43 Henry Barnard Laboratory School (HBS)
- 39 Horacio Mann Hall (HM)
- 10 Kaufman Center (KC)[†]
- 44 Keefe Transportation Center
- 25 The Murray Center—Health, Physical Education, Athletics (MC)
- 15 Nazarian Center Hall (NH)
- 33 New Residence Hall (NR)
- 28 Physical Plant Building—Facilities and Operations/Receiving (PP)
- 32 President's House (PH)[†]
- 13 Recreation Center (REC)[†]
- 17 Roberts Hall (R)
- 9 School of Social Work (SSW)[†]
- 7 Sherlock Center on Disabilities (SC)
- 40 Student Union (SU)
- 38 Sweet Residence Hall (SH)
- 37 Thorp Residence Hall (TH)
- 36 Weber Residence Hall (WR)
- 16 Whipple Hall (WH)
- 35 Willard Residence Hall (WH)
- 12 Yellow Cottage (B12)

WIRELESS ACCESS

Wireless access is available campus-wide, including residence halls and outdoors on the Quad.

For all locations, see:
http://www.ric.edu/studenttoolbox/Guides/wireless_campus_map.pdf

- Capital letters on map designate parking areas. Some of these may be restricted.
- Designates handicap access to building
- x Blue Light Emergency Phones
- † Gender Neutral Restrooms

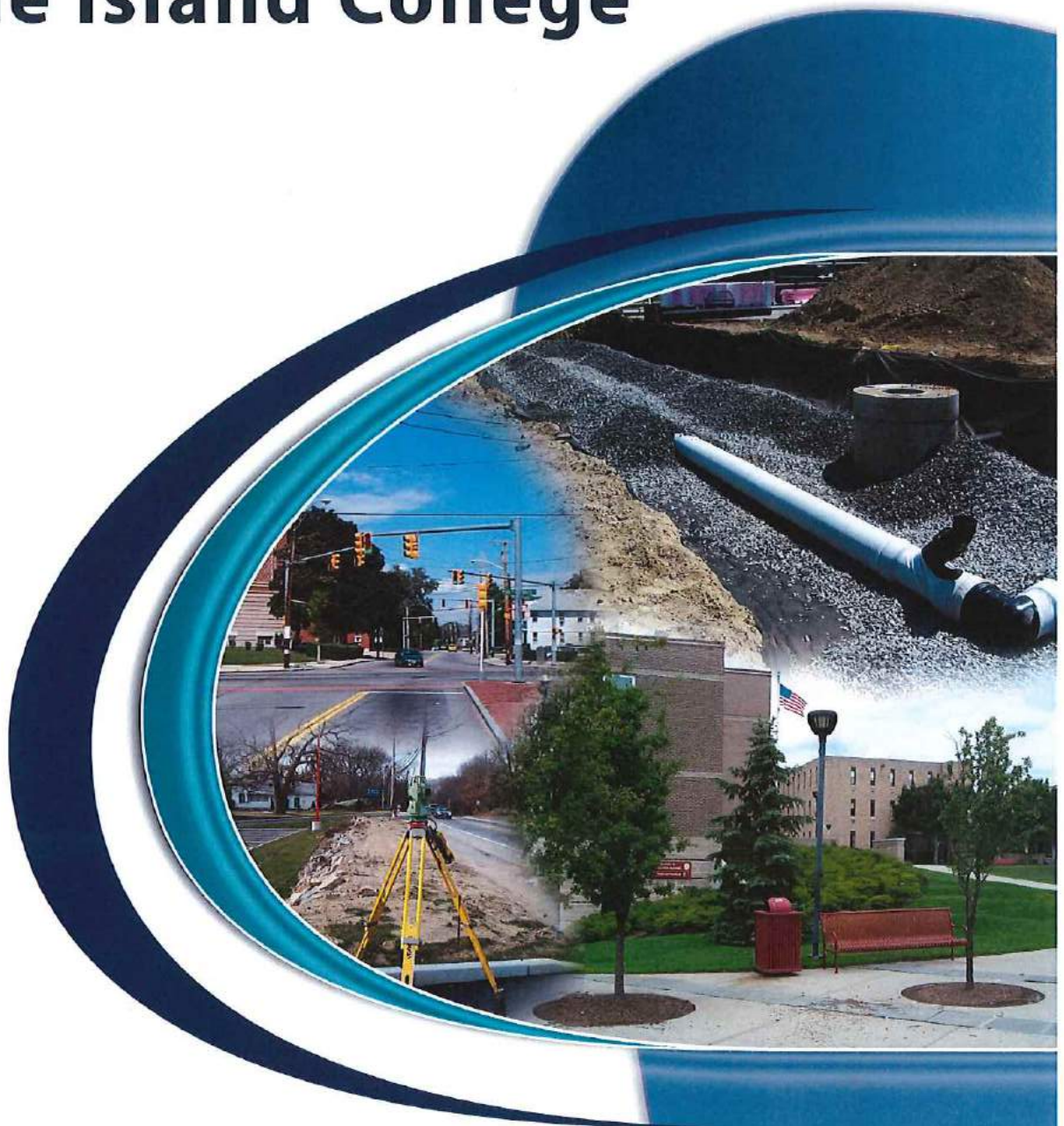


† Gender Neutral Restrooms

Single occupancy restrooms located throughout campus, heretofore assigned by gender but in practice often used irrespective of gender, have been designated as gender neutral. These converted units address concerns about gender imbalance and gender identity in the availability of restroom facilities. Each unit is ADA compliant and provides a private, family friendly facility for occasions when the gender of a parent differs from that of a child or for when a caregiver must tend to an individual in need of assistance.

Appendix B | Draft Master Plan Update Traffic Study

Rhode Island College



DRAFT Master Plan Update Traffic Study January 24, 2018



CROSSMAN ENGINEERING

151 Centerville Road
Warwick, RI 02886

103 Commonwealth Avenue
North Attleboro, MA 02763

(401) 738-5660 | (508) 695-1700 | Fax: (401) 738-8157 | cel@crossmaneng.com | www.crossmaneng.com

DRAFT

**TRIP GENERATION & TRAFFIC IMPACT STUDY
PROPOSED RHODE ISLAND COLLEGE MASTER PLAN UPDATE
600 MT PLEASANT AVENUE
PROVIDENCE, RI**

Prepared by: Crossman Engineering
Engineers & Surveyors
151 Centerville Road
Warwick, RI 02886

JANUARY 2018

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Appendix 13

 Traffic Count

 Capacity Analyses

INTRODUCTION

A Traffic Impact Study was performed to assess the potential impact of the proposed Master Plan at Rhode Island College (RIC) as described in the draft report by Saratoga Associates entitled *Rhode Island College 2017 Master Plan* dated September 26, 2017 which is an update of the 2010 Facilities Master Plan. To meet the needs of the campus identified, the following projects were recommended in that report which Crossman Engineering has determined will most affect traffic at Rhode Island College (RIC) entrance points along College Road. Those projects include:

Previous Short-Term Goals 2011-2016 – These projects have been completed

- Convert College Road to 2-way and relocate on-street parking. Incorporate traffic calming and realign College Road to the south of the Henry Barnard School turn around.
- Develop additional turning lane at the intersection of College Road and Fruit Hill Avenue.

Mid-Term 2017-2020

- Develop east campus loop road system

Long-Term 2021+

- Convert all of Library Road to 2-way traffic (time frame is 5-10 years out)

This traffic study examines existing conditions, proposed development conditions and our subsequent conclusions/recommendations. The existing conditions consist of geometric data gathered from an on-site visit and existing traffic volume data collected for AM and PM peak hours. The proposed development section examines the site design, access and circulation, site distance, projected site generated traffic, and capacity analysis of existing and proposed conditions. Our conclusions and recommendations are prepared following a comprehensive review of the capacity analysis.

EXISTING CONDITIONS

As shown on Figure 1, the project site within the campus of Rhode Island College is located within the boundaries of Fruit Hill Avenue in North Providence to the west and Mt Pleasant Avenue in Providence to the east. The campus is accessed via College Road which runs east-west along the campus from Fruit Hill Avenue to Mt. Pleasant Avenue.

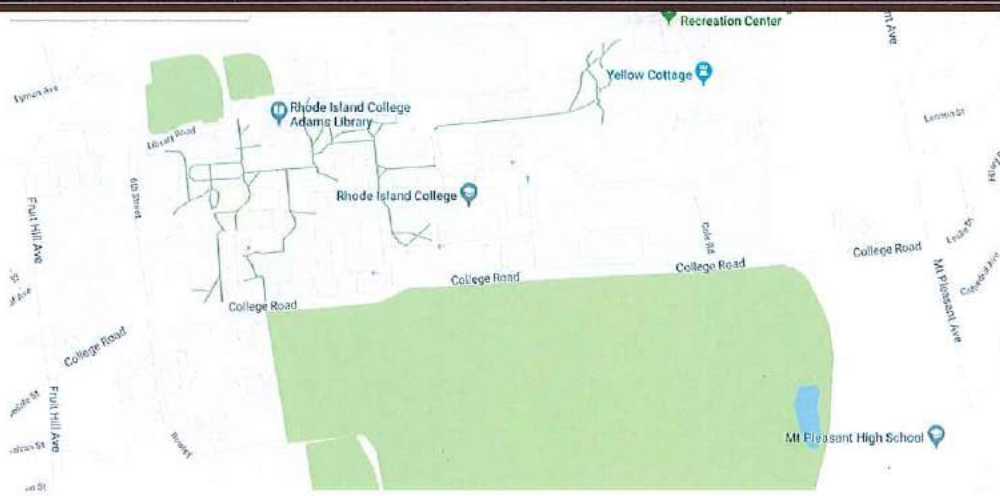


Figure 1: Aerial View of Project Area

A. Roadway Geometrics

Fruit Hill Avenue is an urban minor arterial that generally runs north-south with a lane in each direction. Fruit Hill Avenue intersects with College Road to form an unsignalized intersection with College Road and Rosedale Street stop controlled. Rosedale Street is a residential road offset 60' south of College Road and measures 29' in width. Fruit Hill Avenue measures 48' north of College Road with a 14' southbound thru lane, 12' southbound left turn lane (128' in length) and a 22' northbound lane. Just south of College Road, Fruit Hill Avenue measures 55' in width with two 15' northbound lanes (for a length of 75') and a 25' wide southbound lane. There are 6' bituminous concrete sidewalks including granite curbing. The posted speed limit is 25 mph along Fruit Hill Avenue.



Fruit Hill Ave facing north toward College Rd



Fruit Hill Ave facing east along College Rd

College Road is an urban minor collector that generally runs west-east between Fruit Hill Avenue and Mt. Pleasant Avenue. It generally measures approximately 23' in width and consists of one lane in each direction. There is a 6.5' wide concrete / bituminous sidewalk with bituminous concrete curbing on the north side of College Road. At the westbound approach to Fruit Hill Avenue, College Road has a 20' wide westbound lane, 15' wide eastbound lane and a 40' long crosswalk. Along the eastbound approach to Mt. Pleasant Avenue, College Road measures 41' wide consisting of an 11' eastbound right turn lane, a 14' eastbound thru lane and a 16' westbound lane. The posted speed limit is 20 mph.



College Rd facing east near Parking Lot D



College Rd facing west near Mt. Pleasant Ave

Mt. Pleasant Avenue is an urban minor arterial that generally runs north-south with a lane in each direction. Mt. Pleasant Avenue intersects with College Road and Leslie Drive to form a signalized intersection. Leslie Drive is a residential road that measures 24' in width. Mt. Pleasant Avenue measures 40' north of College Road with an 18' southbound thru lane and a 22' northbound lane. Just south of College Road, Mt. Pleasant Avenue measures 42' in width with two 12' northbound lanes (for a length of 85') and an 18' wide southbound lane. There are 6' sidewalks along Mt. Pleasant Avenue south of College Road. North of College Road, there is a 6' bituminous concrete sidewalk along the southbound approach and an 8' cement concrete sidewalk including curb. There is a pedestrian crossing along each approach and existing pedestrian actuated signals. The posted speed limit is 25 mph along Mt. Pleasant Avenue.



College Rd facing east toward Mt. Pleasant Ave



Mt. Pleasant Ave facing north toward College Rd

B. Existing Traffic Volumes

Manual traffic counts were conducted between 7-9 AM and 3-6 PM on Wednesday November 15, 2017 at the Fruit Hill Avenue / College Road intersection and at the signalized intersection of Mt. Pleasant Avenue / College Road. The AM peak hour occurred from 7:30 – 8:30 AM and PM peak hour occurred from 3:15-4:15 PM. The peak hour volumes are as follows:

	<u>Weekday</u> <u>AM Peak</u>	<u>Weekday</u> <u>PM Peak</u>
Fruit Hill Ave / College Rd	1,275	1,373
NB	653	493
SB	475	300
EB	3	7
WB	144	573
Mt Pleasant Ave / College Rd	1,521	1,583
NB	546	500
SB	730	450
EB	244	629
WB	1	4

The manual traffic counts can be found in the Appendix.

C. Cut-Through Traffic

Tube counts were conducted at each end of College Road to determine the daily traffic on the roadway for Monday through Thursday, which are the busiest days at the college. The average daily traffic on College Road is 10,000 vehicles.

In addition, video cameras and WIFI devices were set up at each end of College Road to determine the volume of traffic that is not college-related but uses College Road as a cut-through. The percentage of non-campus related cut-through traffic using College Road was determined and the results are tabulated in the tables below:

College Road Average Daily Cut-Thru Traffic

Time Period	EB Volume of cut- thru vehicles	WB Volume of cut- thru vehicles	Total Volume of cut- thru vehicles	% of total volume as cut-thru traffic
12 hours (7 am -7 pm)	1,250	710	1,960	19.6%

College Road Peak Hour Cut-Thru Traffic

Mt. Pleasant Ave / College Rd location

Time Period	EB Volume of cut- thru vehicles	WB Volume of cut- thru vehicles	Total Volume of cut- thru vehicles	% of total volume as cut-thru traffic
AM Peak (7:30- 8:30 AM)	250	60	310	31%
PM Peak (3:15- 4:15 PM)	130	60	190	17.5%

PROPOSED DEVELOPMENT

A. Site Design

The proposed 2017 Master Plan of Rhode Island College includes improved road access, enhanced landscaping, additional outdoor recreation areas, as well as the expansion of academic buildings, student housing and parking. Most of the campus expansion and changes are planned on the north side of

College Road. The Master Plan Concept plan created by Saratoga Associates is provided on the following page.

B. Access and Circulation

College Road is the main access road through the Rhode Island College campus and it is accessed from two entrances. Access to /from the west side of campus is at the intersection of Fruit Hill Avenue / College Road in North Providence. Access to /from the east side of campus is at the signalized intersection of Mt. Pleasant Avenue / College Road in Providence.

From College Road, RIC students, faculty, staff and visitors entering the campus will proceed to roads to the north to access most of the campus parking, academic buildings, campus offices, campus recreation center, student union, and dining hall. Residence halls are accessed on a few roadways on the south side of College Road on the west side of campus.

C. Future Traffic Volumes

To determine future traffic demands on College Road and its intersections with Mount Pleasant Avenue and Fruit Hill Avenue, the 2017 fall existing traffic volumes were projected to the future year 2027. The projections are based on both expected RIC enrollment growth and background growth in the general area of the site. The 2027 traffic volumes at each intersection are equivalent to the sum of 2027 RIC related traffic (existing RIC traffic multiplied by expected enrollment growth over 10 years) added to all other 2027 non-RIC traffic (existing non-RIC traffic multiplied by the background growth over 10 years).

RIC Enrollment Growth

To determine the 10-year growth rate of college-related traffic entering / exiting the campus in the next 10 years, we applied 0.9% annual growth to RIC traffic. This growth rate is based on information provided by Rhode Island College's Office of Institutional Research and Planning for recent and projected enrollment patterns from Fall 2015 to Spring 2020. The existing 2017 traffic counts were conducted in the fall, when student enrollment is higher, so fall projections were utilized for future enrollment. If all fall enrollment records / projections from 2015 to 2019 are included, enrollment decreases an average of 0.544% annually. The most recent projections from Fall 2017 to 2019 show an annual increase of enrollment of 0.909%. To be conservative, the 0.909% annual growth rate was used to determine the future 2027 college-related traffic.

MASTER PLAN CONCEPT

RHODE ISLAND COLLEGE
Draft Facilities Master Plan Update
October 5, 2017

BUILDING COLOR KEY

	EXISTING BUILDING
	PROPOSED BUILDING
	REPURPOSED BUILDING
	REMOVE BUILDING

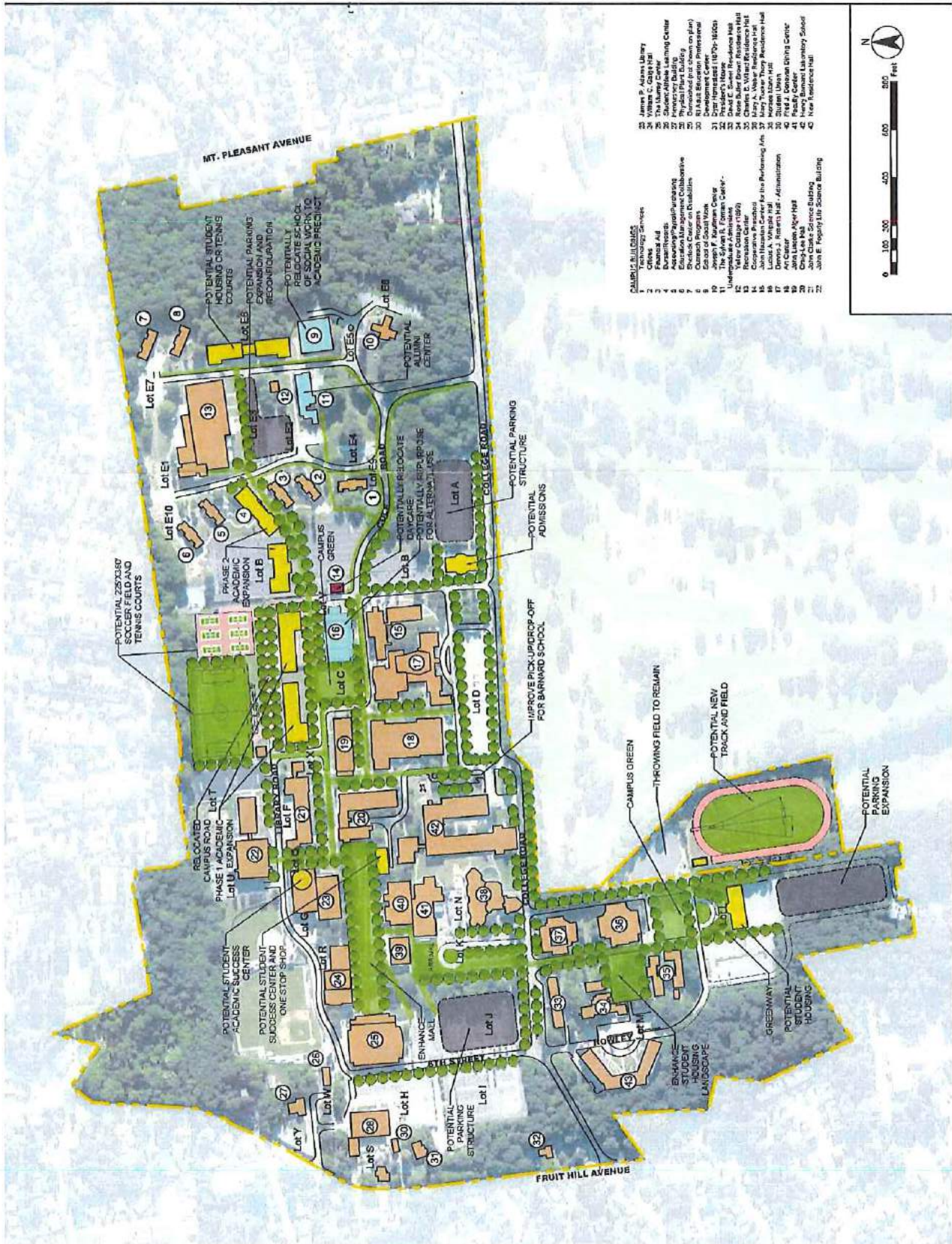
04 PROJECT # 01003.10
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SARATOGA ASSOCIATES

Landscapes Architects, Architects,
Engineers, and Planners, P.C.
New York City • Saratoga Springs • Syracuse



REACH INSPIRE CONNECT



- PLANNED BUILDINGS**
- 1 James P. Adams Library
 - 2 The Mummy Center
 - 3 The Mummy Center
 - 4 The Mummy Center
 - 5 Education Management Collaborative
 - 6 Education Management Collaborative
 - 7 Education Management Collaborative
 - 8 Education Management Collaborative
 - 9 Education Management Collaborative
 - 10 Education Management Collaborative
 - 11 The Sylvia H. Toman Center
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 - 42 The Sylvia H. Toman Center



Background Traffic Growth

For all other traffic including cut-through traffic along College Road, and non-college related traffic at the College Road intersections at Fruit Hill Avenue and Mt. Pleasant Avenue, we assumed 0.5% per year background growth rate in order to forecast increases in traffic volumes on Mount Pleasant Avenue and Fruit Hill Avenue. *The Rhode Island Population Projections Summary Tables* by Rhode Island Statewide Planning shows a 3.3% increase in population in Providence and a slight decrease in population in North Providence from 2015 through 2025. Therefore a one half percent per year increase in traffic is conservative.

Meetings were held with the City of Providence and The Town of North Providence officials to discuss proposed city traffic projects and private developments that might affect traffic circulation in the area.

In Providence there are ongoing safety improvement projects on Mount Pleasant Avenue from Smith Street to south of Chalkstone Avenue. There is also conceptual traffic calming projects in the neighborhoods east of Mount Pleasant Avenue opposite RIC. These projects shouldn't affect the entering/exiting traffic.

In North Providence there is one private development; approximately one hundred eight (108) residential units in the Lyman Mill on Woonasquatucket Avenue. This could generate approximately 55 vehicle trips during the AM peak hour (entering and exiting) and 67 vehicle trips during the pm peak hours. A few of those trips may cut through the neighborhood to utilize College Road but this volume should already be accounted for in the background traffic growth. The Town of North Providence would also like to connect the bikeway on the west side of the Woonasquatucket River to the College at sometime in the future. This could be done using the dam near the Lyman Mill, crossing the Lyman Mill property and then using the neighborhood roadways.

Using the enrollment and background growth rates to 2027, the following tables summarize the overall volume increase at each study intersection and specifically entering / exiting College Road.

Location 1 – Fruit Hill Ave / College Rd

Time Period	College Rd EB			College Rd WB			Entering Intersection		
	Total 2017 Volume	Total 2027 Volume	% growth over 10 yrs	Total 2017 Volume	Total 2027 Volume	% growth over 10 yrs	Total 2017 Volume	Total 2027 Volume	% growth over 10 yrs
AM Peak	661	710	7%	144	154	7%	1,275	1,356	6 %
PM Peak	323	347	7%	573	623	9%	1,373	1,464	7 %

Location 2 – Mt. Pleasant Ave / College Rd

Time Period	College Rd EB			College Rd WB			Entering Intersection		
	Total 2017 Volume	Total 2027 Volume	% growth over 10 yrs	Total 2017 Volume	Total 2027 Volume	% growth over 10 yrs	Total 2017 Volume	Total 2027 Volume	% growth over 10 yrs
AM Peak	244	256	5%	757	823	9%	1,521	1,625	7%
PM Peak	629	681	8%	460	499	9%	1,583	1,698	7%

D. Capacity Analysis

Capacity analyses were performed at the College Road entrances to RIC for the signalized intersection of College Road / Mt. Pleasant Avenue in Providence on the east end of campus and at the unsignalized intersection of College Road / Fruit Hill Avenue in North Providence on the west end of campus. Analyses were performed for 2017 existing and 2027 Master Plan Build conditions using 2017 traffic counts.

The analyses result in a Level of Service being assigned to the intersection. Level of Service is defined as a qualitative measure describing operational conditions based on vehicular delay. There are six levels of service ranging from Level A to Level F with Level D being considered acceptable for peak hour conditions at signalized intersections.

1. Signalized Intersections

The levels of service at signalized intersections are determined by a procedure described in the 2010 Highway Capacity Manual and as shown in Table 1.

TABLE 1

Level of Service Criteria for Signalized Intersections

<u>Level of Service</u>	<u>Control Delay per Vehicle (SEC)</u>
A	<10
B	>10.0 to 20.0
C	>20.0 to 35.0
D	>35.0 to 55.0
E	>55.0 to 80.0
F	>80.0

2. Un-Signalized Intersections

The levels of service at un-signalized intersections are determined by a procedure described in the 2010 Highway Capacity Manual. The level of service criteria for un-signalized intersections is described in Table 2.

TABLE 2

Level of Service Criteria for Un-Signalized Intersections

<u>Level of Service</u>	<u>Control Delay per Vehicle (SEC)</u>
A	<10.
B	>10.0 to 15.0
C	>15.0 to 25.0
D	>25.0 to 35.0
E	>35.0 to 50.0
F	>50.0

The capacity analyses indicated the following overall levels of service:

	<u>AM Peak</u> <u>LOS (Secs.)</u>	<u>PM Peak</u> <u>LOS (Secs.)</u>
<u>College Rd / Fruit Hill Ave</u>		
Existing 2017 Conditions		
WB left College Rd approach	F (233.8)	F (582.8)
WB right College Rd approach	B (10.3)	B (12.7)
SB left Fruit Hill Ave approach	B (13.1)	A (9.9)
EB Rosedale St approach	C (17.5)	C (21.3)
NB left South Main St approach	A (0.3)	A (0.5)
Proposed 2027 Conditions		
WB left College Rd approach	F (401.4)	F (787.2)
WB right College Rd approach	B (10.4)	B (13.3)
SB left Fruit Hill Ave approach	B (14.4)	B (10.2)
EB Rosedale St approach	C (18.4)	C (23.1)
NB left Fruit Hill Ave approach	A (0.3)	A (0.5)
<u>College Rd / Mt. Pleasant Ave Signal</u>		
Existing 2017 Conditions (overall)		
EB left College Rd approach	D (45.2)	C (33.0)
EB right College Rd approach	C (30.6)	C (20.3)
WB Leslie Dr approach	C (29.6)	B (18.1)
NB left Mt. Pleasant Ave approach	E (78.4)	C (24.4)
NB thru/right Mt. Pleasant Ave approach	A (3.5)	A (5.7)
SB Mt. Pleasant Ave approach	E (70.8)	C (29.6)
Proposed 2027 Conditions (overall)		
EB left College Rd approach	F (84.1)	C (28.4)
EB right College Rd approach	D (45.8)	D (43.1)
EB right College Rd approach	C (30.4)	C (24.3)
WB Leslie Dr approach	C (29.3)	B (19.7)
NB left Mt. Pleasant Ave approach	F (110.6)	C (34.2)
NB thru/right Mt. Pleasant Ave approach	A (3.7)	A (5.8)
SB Mt. Pleasant Ave approach	F (105.1)	C (31.0)

<u>College Rd / Mt. Pleasant Ave Signal</u> <u>(continued)</u>	<u>AM Peak</u> <u>LOS (Secs.)</u>	<u>PM Peak</u> <u>LOS (Secs.)</u>
Mitigated Proposed 2027 (overall)	B (16.7)	B (17.2)
EB left College Rd approach	C (25.5)	C (22.4)
EB right College Rd approach	B (19.7)	B (15.2)
WB Leslie Dr approach	B (18.8)	B (13.1)
NB left Mt. Pleasant Ave approach	B (13.9)	C (23.4)
NB thru/right Mt. Pleasant Ave approach	A (4.3)	A (6.7)
SB thru/left Mt. Pleasant Ave approach	B (19.3)	B (18.9)
SB right Mt. Pleasant Ave approach	B (18.0)	B (14.8)

College Road / Fruit Hill Avenue location

The analysis shows that the College Road / Fruit Hill Avenue intersection generally maintains the same levels of service for each approach from 2017 existing conditions to 2027 future conditions.

The College Road westbound left turn approach currently functions at LOS F during both AM and PM peak hours and the long delays westbound will increase with the small increase in traffic during 2027 peak hours. Providing signalization at the College Road / Fruit Hill Avenue intersection at some point in the future would improve delays on College Road. Our sample of volumes collected shows that some of the signal warrants are met but a complete signal warrant analysis should be performed if signalizing is being considered.

College Road / Mt. Pleasant Avenue location

The signalized intersection of College Road / Mt. Pleasant Avenue is currently running at an overall LOS E during the AM Peak and LOS C during the PM Peak. For future 2017 conditions, levels of service are expected to deteriorate to LOS F during the AM Peak, while LOS C is expected to be maintained during the PM Peak. The proposed mitigation of restriping the southbound approach to add a right turn lane will significantly improve delays already experienced at this intersection.

CONCLUSION

After reviewing the data in this study, we conclude that the projected RIC enrollment by 2027 will not have a significant impact on the College Road intersections. As discussed, if mitigation of current and

future delays is being considered at a later date, we suggest further analysis of the following possible improvements:

- Signalize the College Road / Fruit Hill Avenue intersection
- Add a right turn lane on the southbound approach at the College Road / Mt. Pleasant Avenue intersection. This will improve the overall level of service from LOS E to LOS B for the AM Peak, and from LOS C to LOS B for the PM Peak when comparing proposed 2027 mitigated conditions to existing conditions.