

GWU Mount Vernon Campus Masterplan

FACILITIES AND TRANSPORTATION GROUP MEETING

JUNE 9, 2021

**PERKINS —
EASTMAN**

Human by Design



Agenda

- Introductions
- Schedule
- Campus Plan Objectives
- Campus Design
- Lighting
- Sustainability
- Storm Water
- Circulation & Mobility
- Q & A



THE TEAM

- **Perkins Eastman DC**
 - Campus Design
 - Masterplanner
- **Wells**
 - Circulation and Mobility
- **MCLA**
 - Lighting
- **Steven Winter Associates**
 - Sustainability
- **Wiles Mensch**
 - Civil Engineering / Storm Water
- **Mitchell Kuff**
 - Signage



SCHEDULE

Working Group Schedule

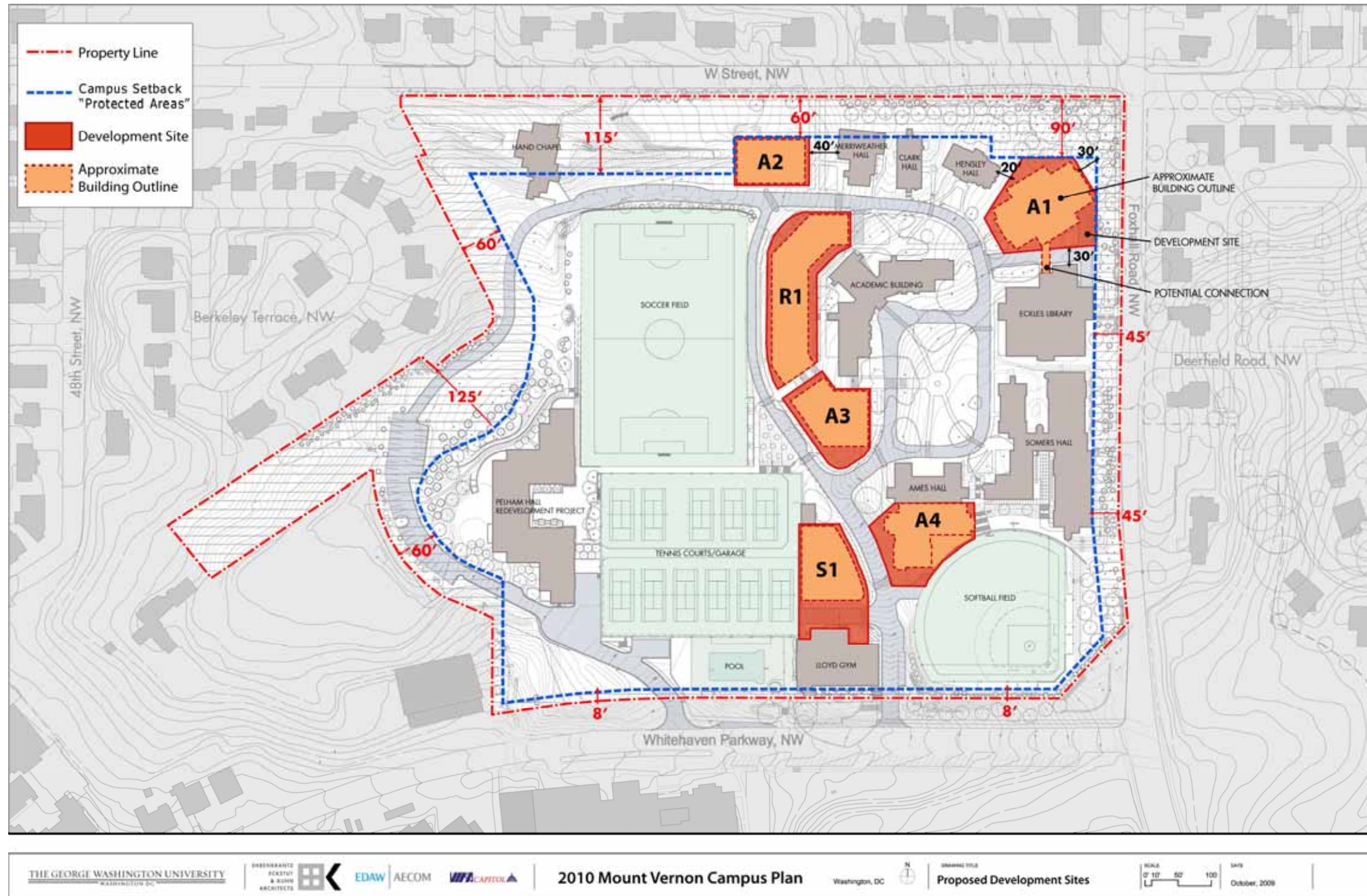
	Facilities & Transportation Planning Working Group	Safety & Community Life Working Group
April	4/14/2021	4/28/2021
May	5/12/2021	5/26/2021
June	6/9/2021	6/23/2021
July	7/14/2021	7/28/2021
August	8/11/2021	8/25/2021
September	9/8/2021	9/22/2021
All meeting will be virtual and start at 4:00 pm. Additional meetings will be scheduled if needed.		

Campus Plan Objectives

- **COMMUNITY ENGAGEMENT**
- **CAMPUS DESIGN**
 - Further development of 2020 masterplan
 - Universal access
 - Confirm future program
 - Housing
 - Academic
 - Athletics
- **LIGHTING**
 - Future athletics improvements and facilities schedule
- **SUSTAINABILITY**
 - Align with University sustainability goals
 - Align with District sustainability goals
- **STORM WATER**
 - Align with new District storm water requirements
- **CIRCULATION & MOBILITY**
 - Traffic loads per university programming
 - Drop offs, service, and access



2010 FACILITIES MASTER PLAN



GWU MOUNT VERNON 2021 FACILITIES MASTER PLAN

SCFMP - BIG IDEAS

- AN URBAN RETREAT
- A STUDENT RECREATION + WELLNESS HUB
- CONNECTED CAMPUS LANDSCAPES



2021 FACILITIES MASTER PLAN





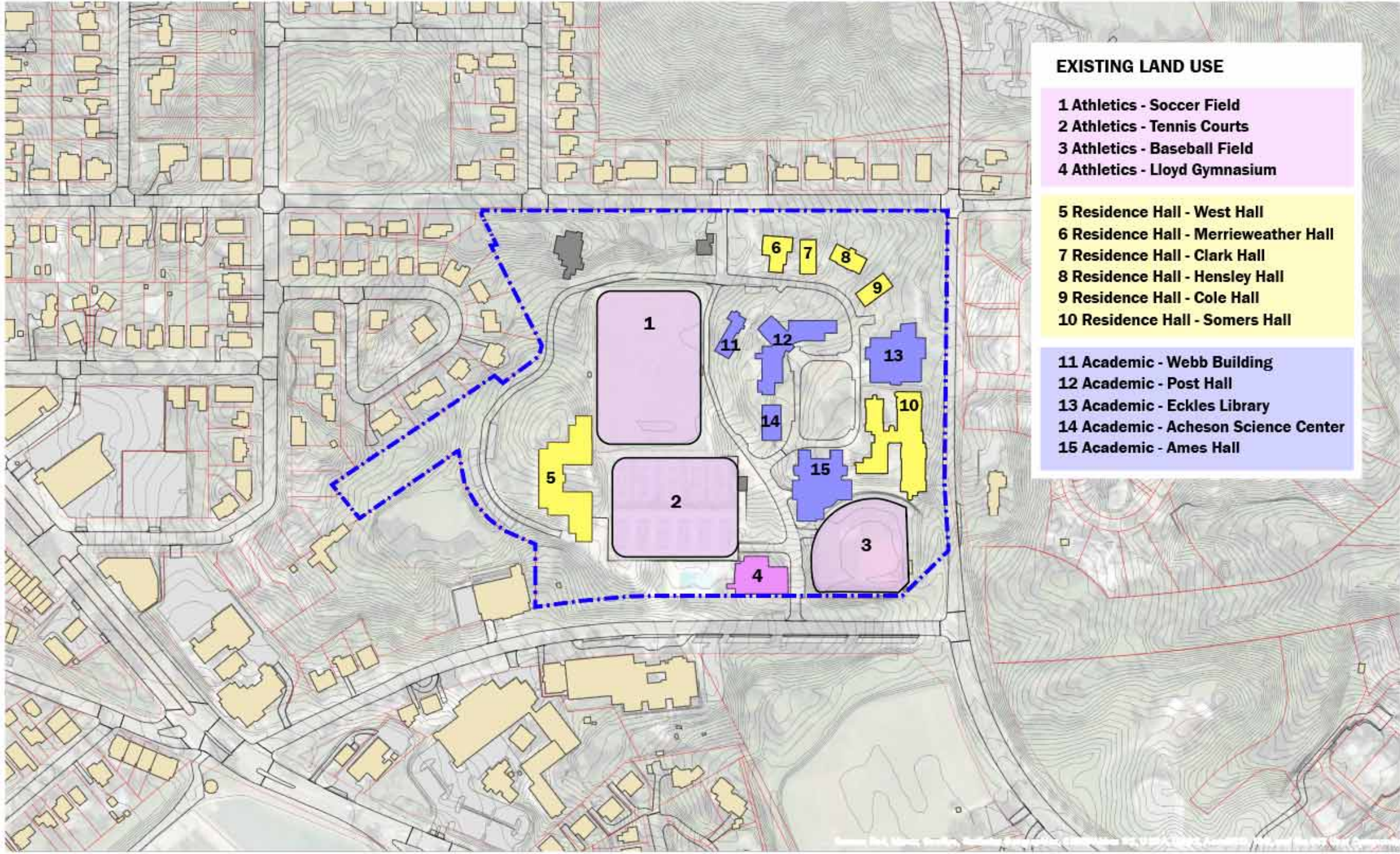
CAMPUS DESIGN

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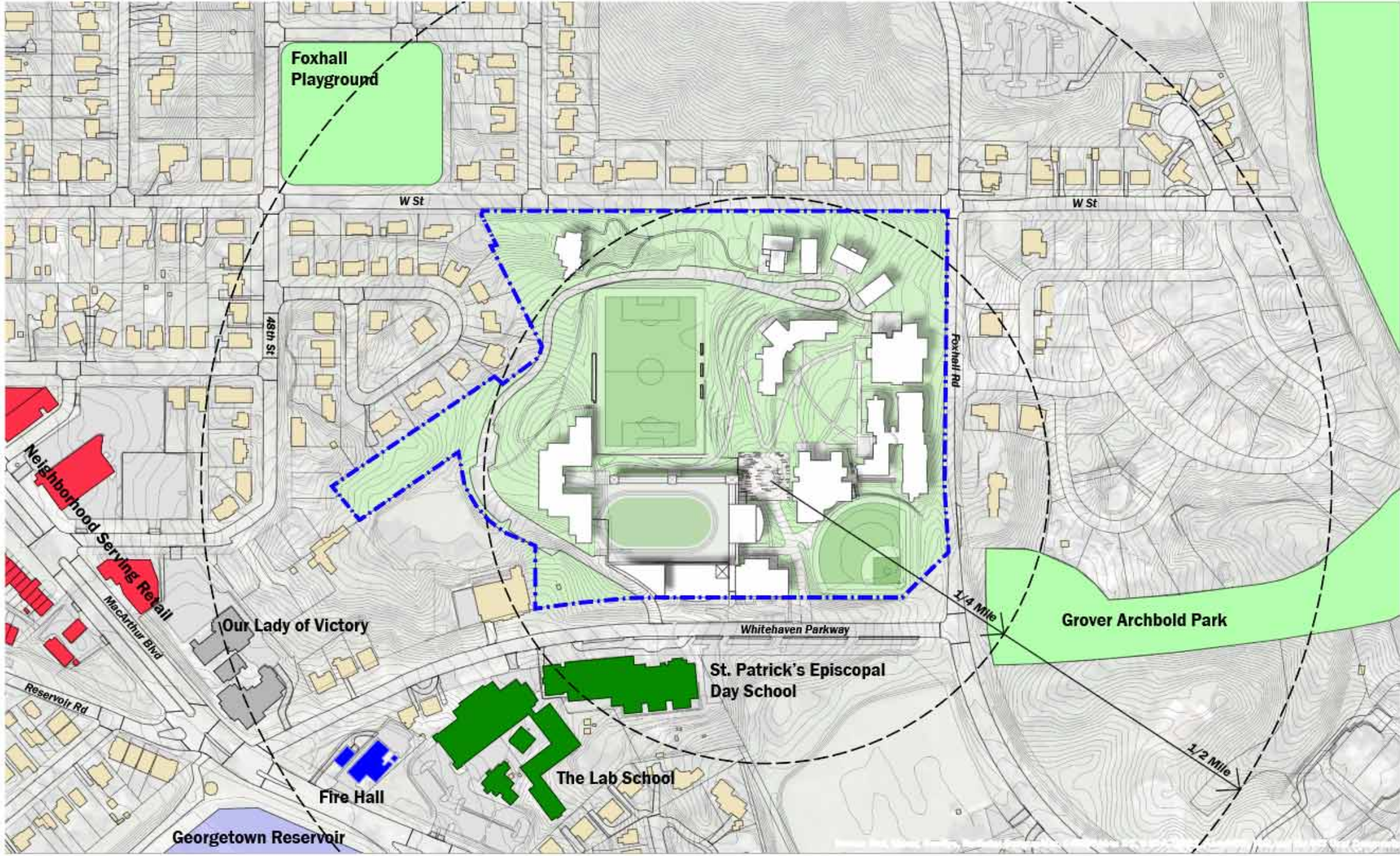
CAMPUS DESIGN



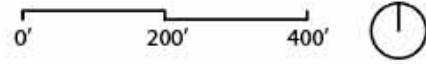
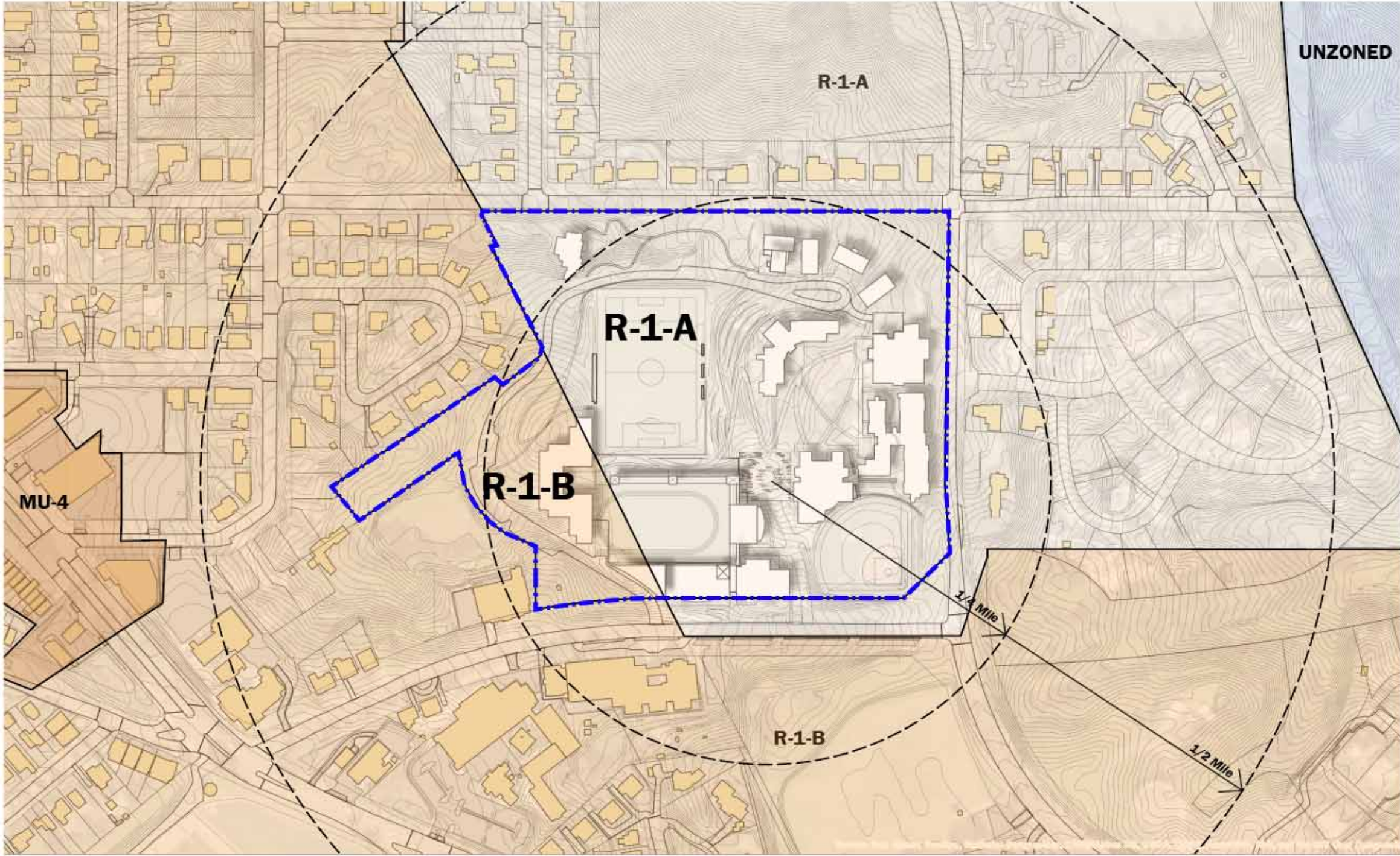
Existing Campus Uses



Neighborhood Context



Zoning



Zoning – R1 **A**

Development Standards								
	Height (ft.) ¹ / Stories	Minimum Lot Width (ft.)/ Area (sq. ft.)	Lot Occupancy	Front Setback	Rear Yard (ft.)	Side Yard (ft.)	Pervious Surface (min.)	Zoning Regulation Reference
R-1-A	40	75	40%	A front setback shall be provided within the range of existing front setbacks of all structures within an R-1-A zone on the same side of the street in the block where the building is proposed.	25	8	50%	Subtitle D, Chapter 3
	3	7,500						

Use Permissions	Parking	Inclusionary Zoning
Subtitle U, Chapter 2	Subtitle C, Chapter 7	Subtitle C, Chapter 10
R- Use Group A		

¹ Institutional buildings or structures may be erected to a height not exceeding 90 ft., not including the penthouse, provided that the building or structure shall be removed from all lot lines of its lot a distance of not less than 1 ft. for each foot of height in excess of that authorized in the zone in which it is located.

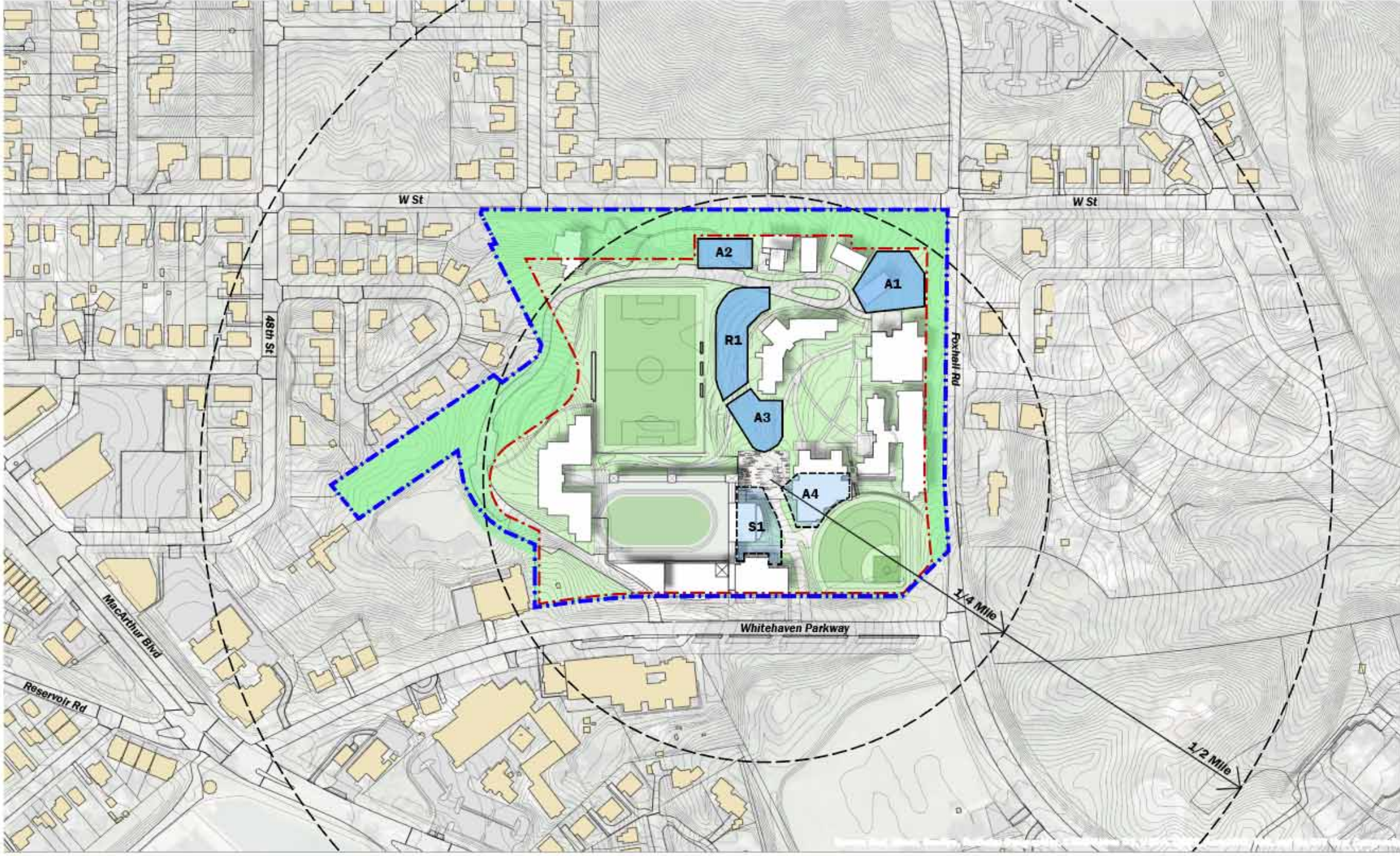
Zoning – R1 B

Development Standards								
	Height (ft.) ¹ / Stories	Minimum Lot Width (ft.) / Area (sq. ft.)	Lot Occupancy	Front Setback	Read Yard (ft.)	Side Yard (ft.)	Pervious Surface (minimum)	Zoning Regulation Reference
R-1-B	40	50	40%	A front setback shall be provided within the range of existing front setbacks of all structures within an R-1-B zone on the same side of the street in the block where the building is proposed.	25	8	50%	Subtitle D, Chapter 3
	3	5,000						

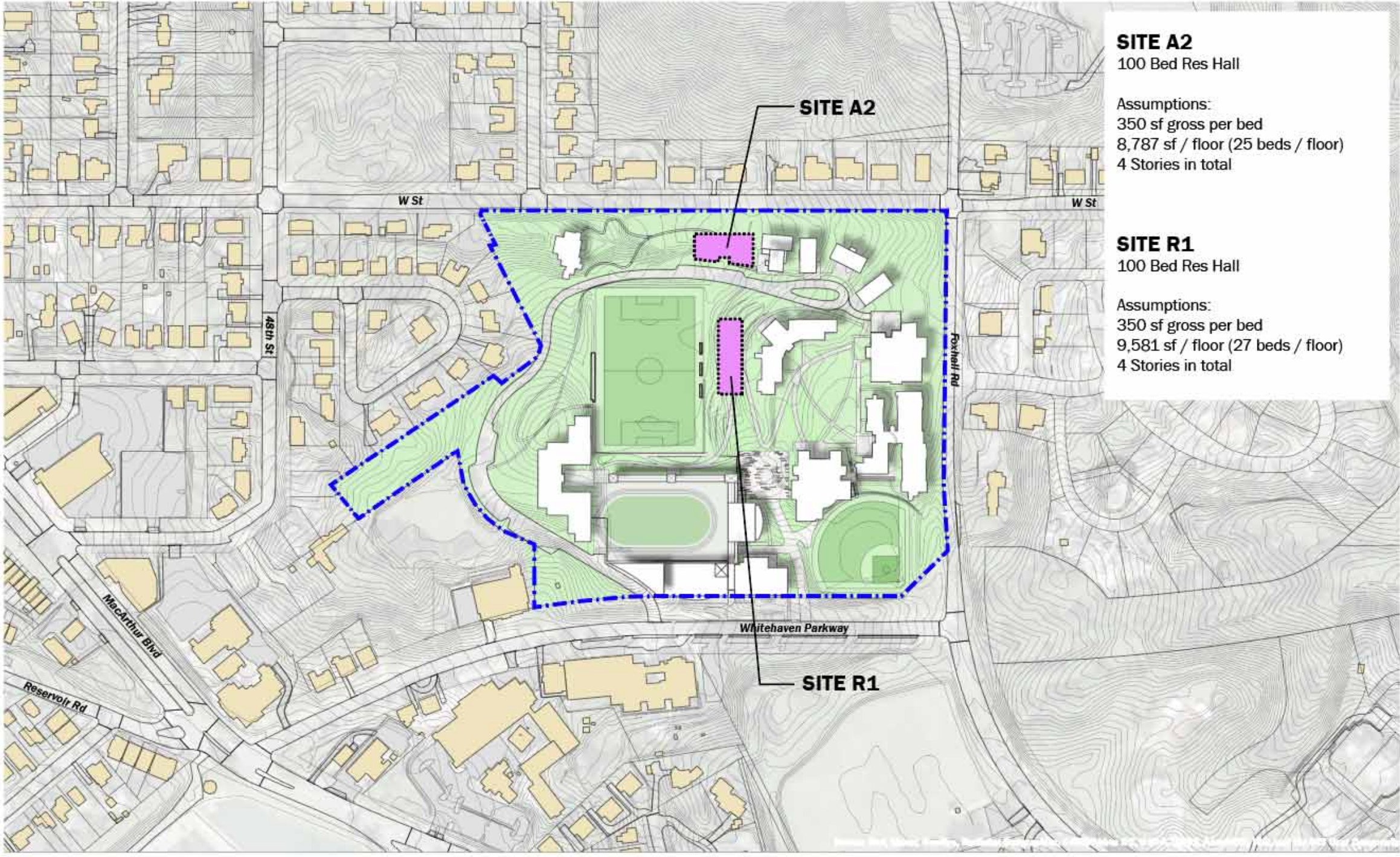
Use Permissions	Parking	Inclusionary Zoning
Subtitle U, Chapter 2	Subtitle C, Chapter 7	Subtitle C, Chapter 10
R- Use Group A		

¹ Institutional buildings or structures may be erected to a height not exceeding 90 ft., not including the penthouse, provided that the building or structure shall be removed from all lot lines of its lot a distance of not less than 1 ft. for each foot of height in excess of that authorized in the zone in which it is located.

2021 Facilities Master Plan showing remaining 2010 sites



Potential sites for new 100 bed residence hall



SITE A2
100 Bed Res Hall

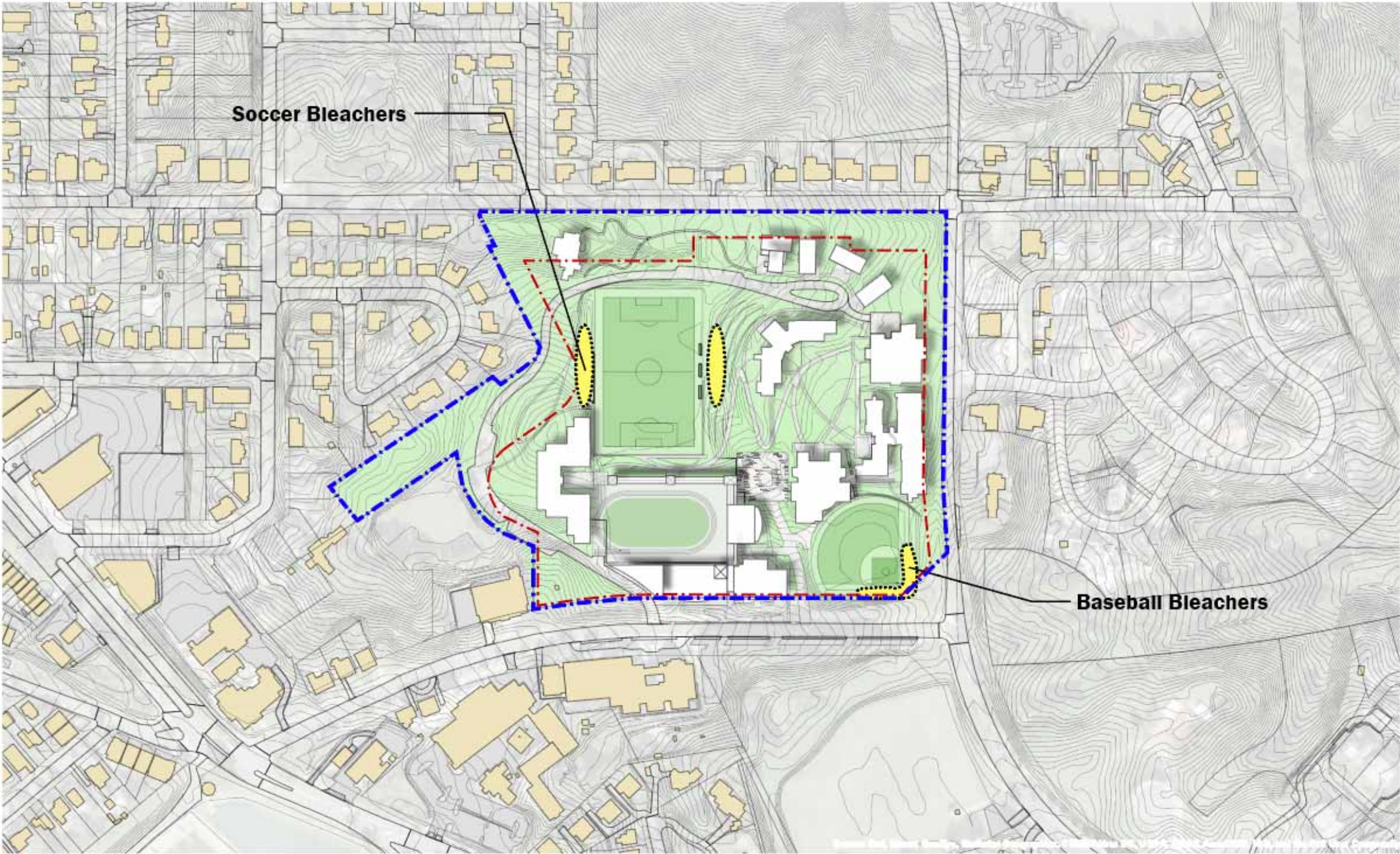
Assumptions:
350 sf gross per bed
8,787 sf / floor (25 beds / floor)
4 Stories in total

SITE R1
100 Bed Res Hall

Assumptions:
350 sf gross per bed
9,581 sf / floor (27 beds / floor)
4 Stories in total



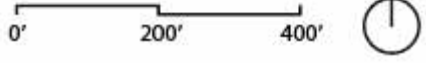
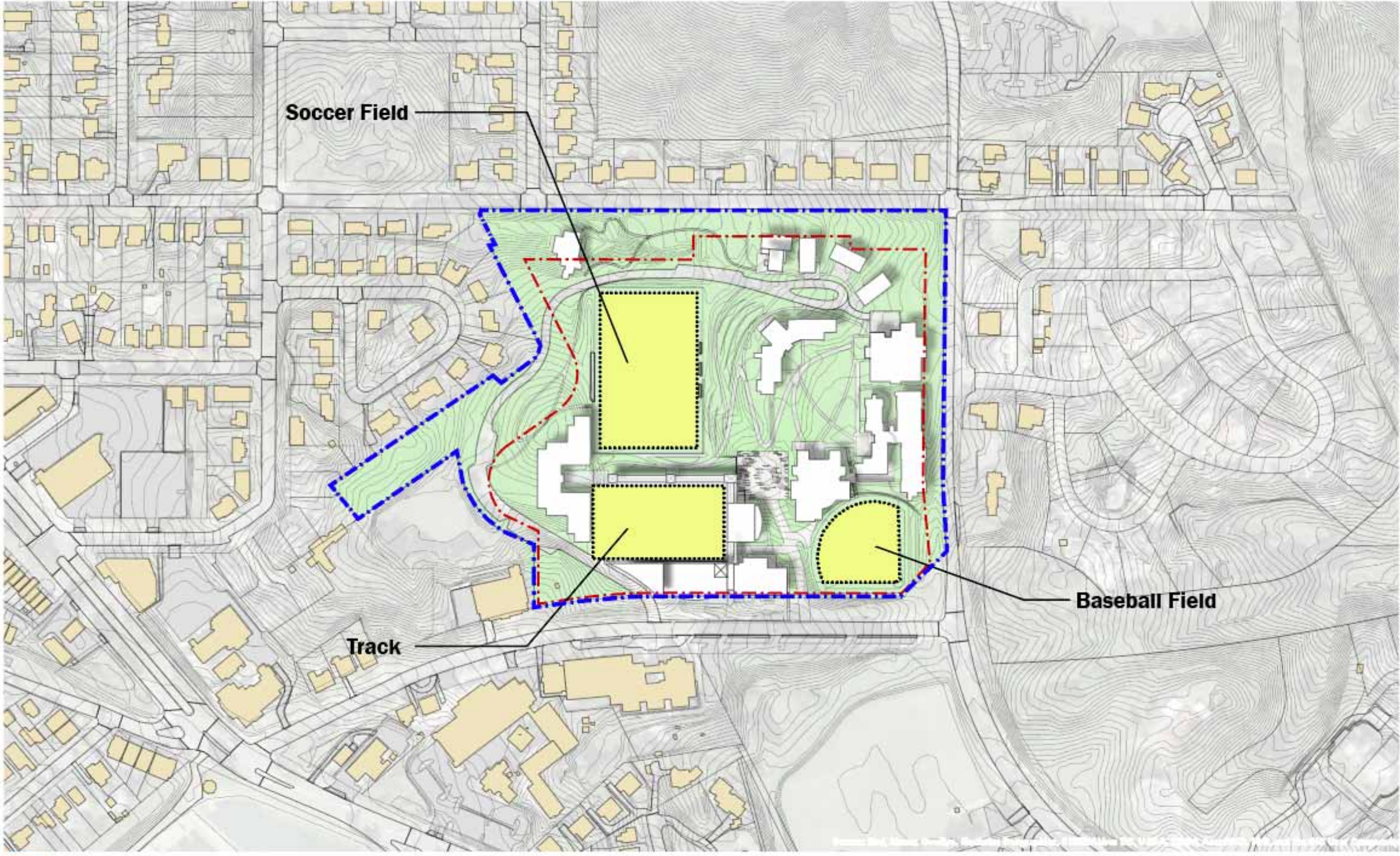
Future Needs



LIGHTING

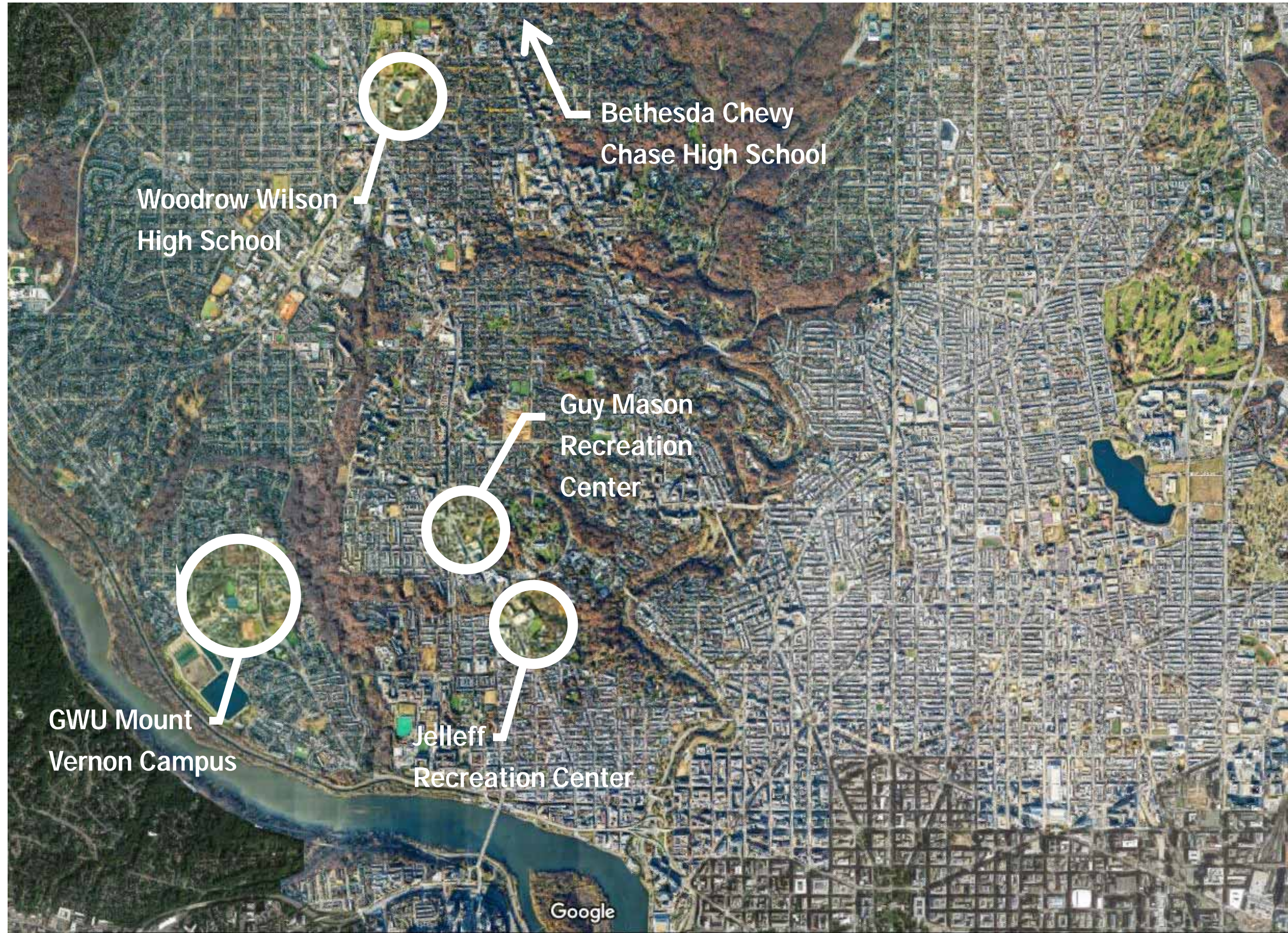
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Athletics seating and lighting needs



Lighting

LOCATIONS of
ATHLETIC LIGHTING
EXAMPLES



Lighting

Local projects with sports lighting in residential settings

Jelleff Boys and Girls Club



Guy Mason Park



BCC High School



Wilson High School



SCALE OVERLAY – Wilson High School



SCALE OVERLAY – Jelleff Recreation Center



SCALE OVERLAY – Guy Mason Rec Center



Lighting

MOUNT VERNON | LIGHTING

Lighting recommendations for sports lighting

Spill Light and Glare

Any light that falls outside of the intended active area is considered spill light

Higher mounting heights will allow for better angles down onto the field, less light spill

Provide shields to help avoid seeing into the fixture from adjacent properties

Shields should prevent light above the horizontal plane.

Vertical measurements at perimeter of property can determine extended light spill

Controls

Fixture should be on timers to provide automatic shut off after games

Light Levels as recommended by IES by classification of play

Under 5,000 spectators, high school soccer

50 FC horizontally on field, uniformity of 2.5:1

SUSTAINABILITY

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Sustainability

Since 1972, Steven Winter Associates, Inc. has been providing research, consulting, and advisory services to improve the built environment for private and public sector clients.

Our services include:

- Energy Conservation and Management
- Decarbonization
- Sustainability Consulting
- Green Building Certification
- Accessibility Consulting

We have over 100 staff across four office locations:
New York, NY | Washington, DC | Norwalk, CT | Boston, MA

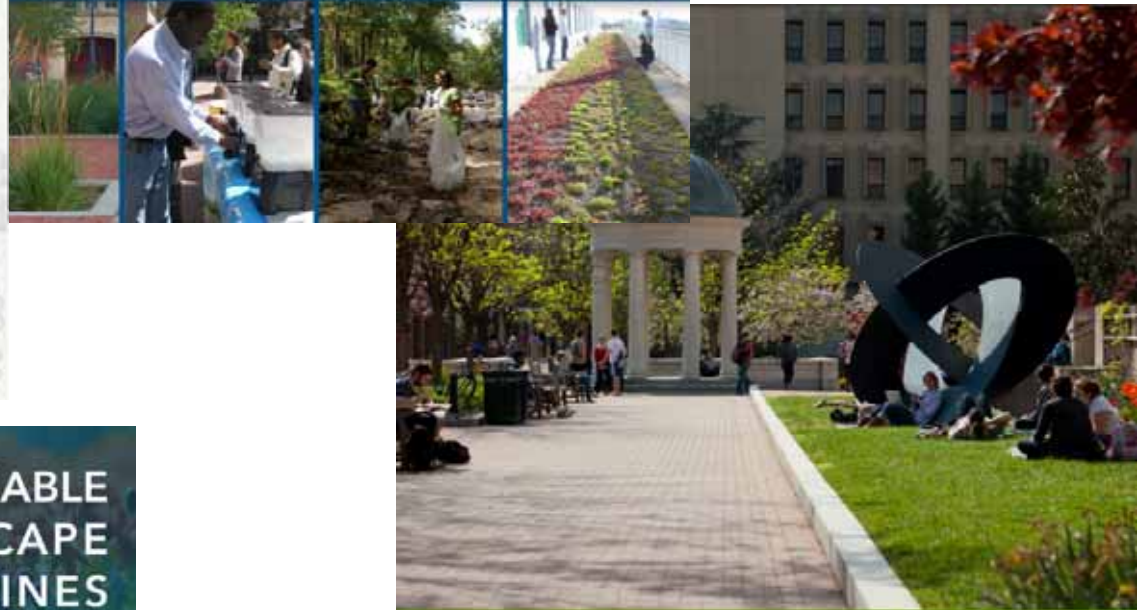
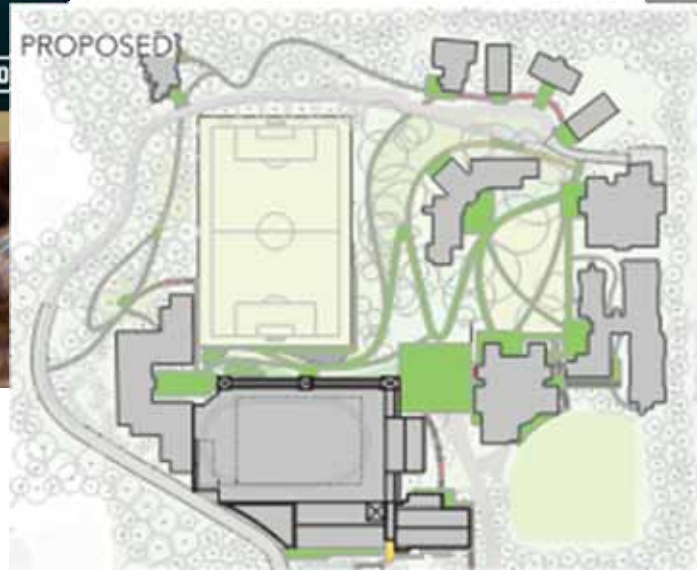
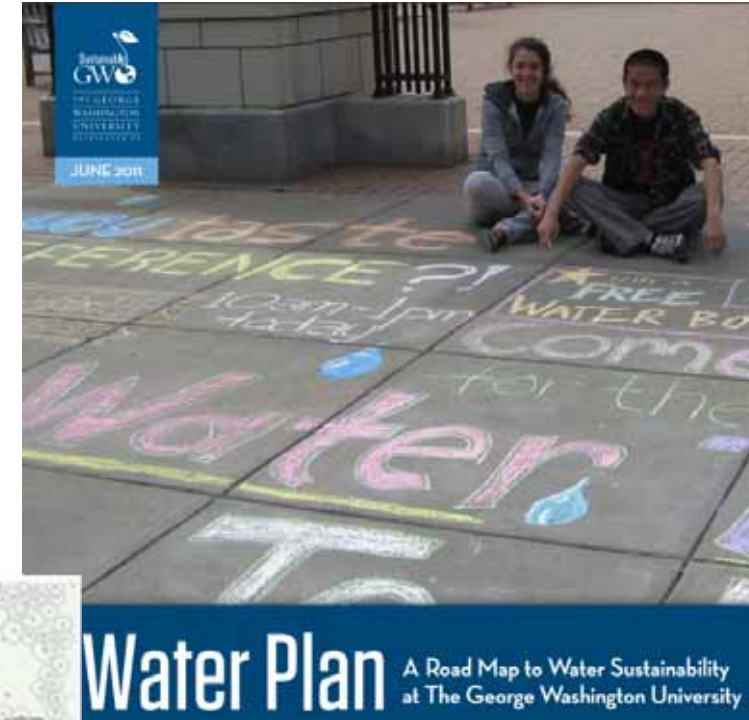
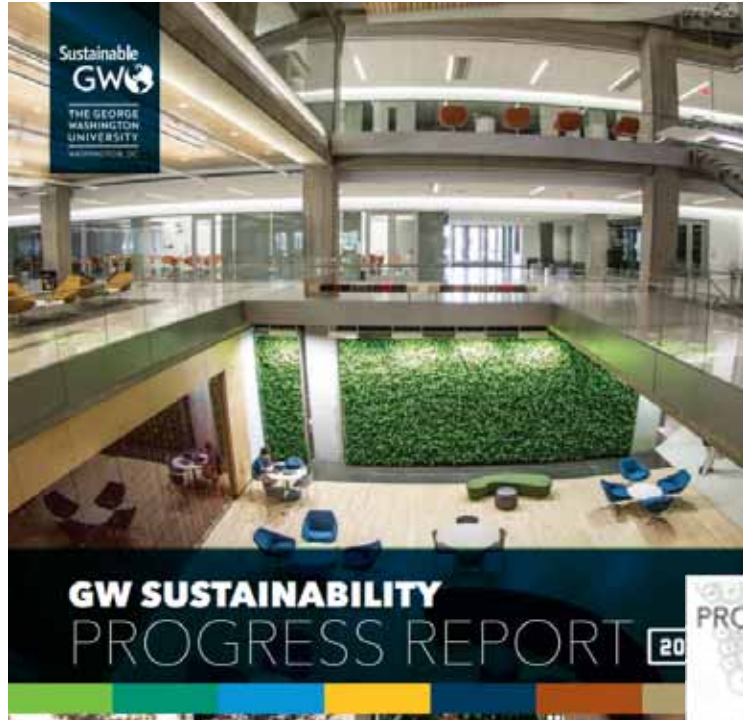
For more information, visit
www.swinter.com



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STORM WATER

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Storm Water – Existing Conditions

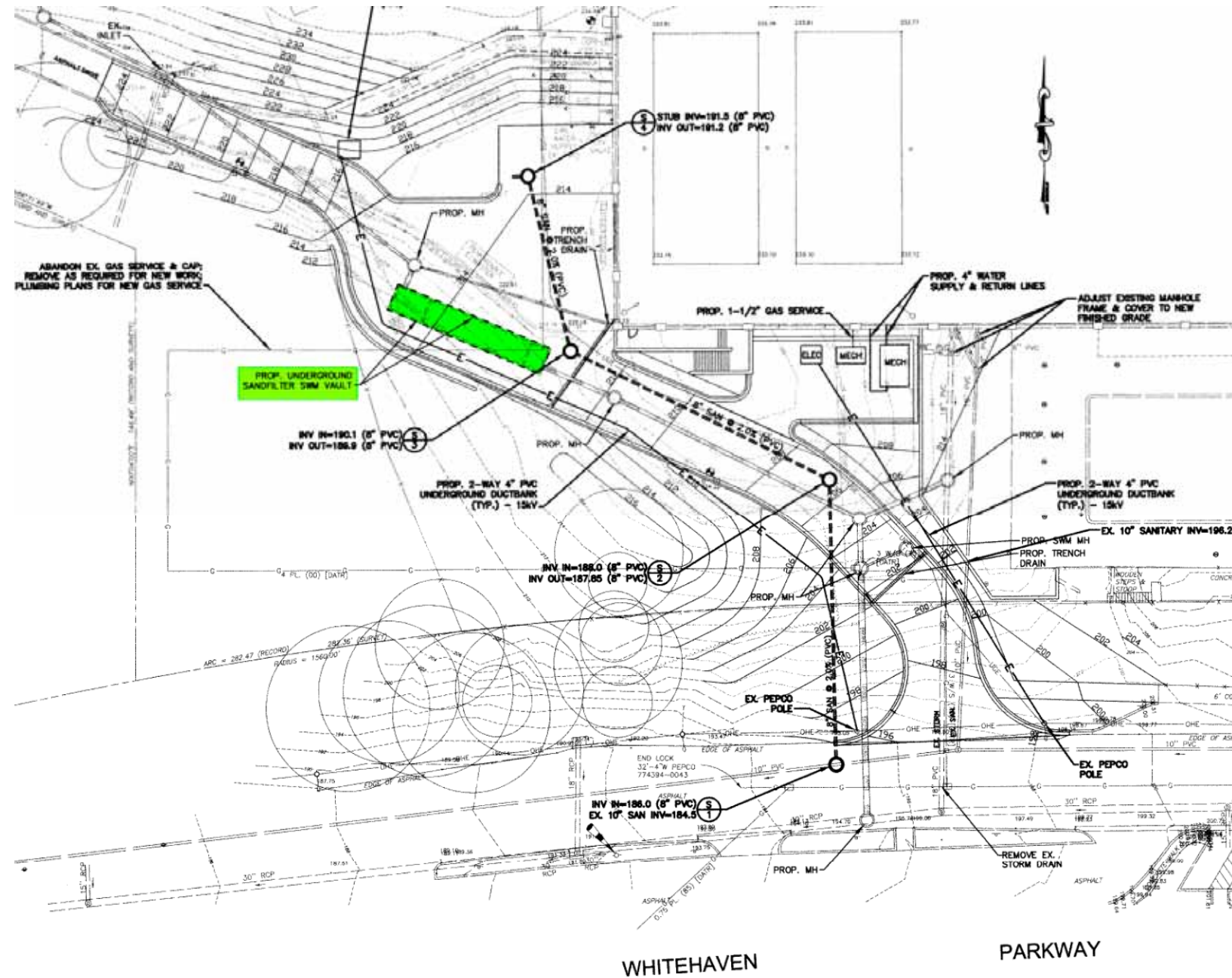


Figure 1. – Existing Three Chamber Sandfilter

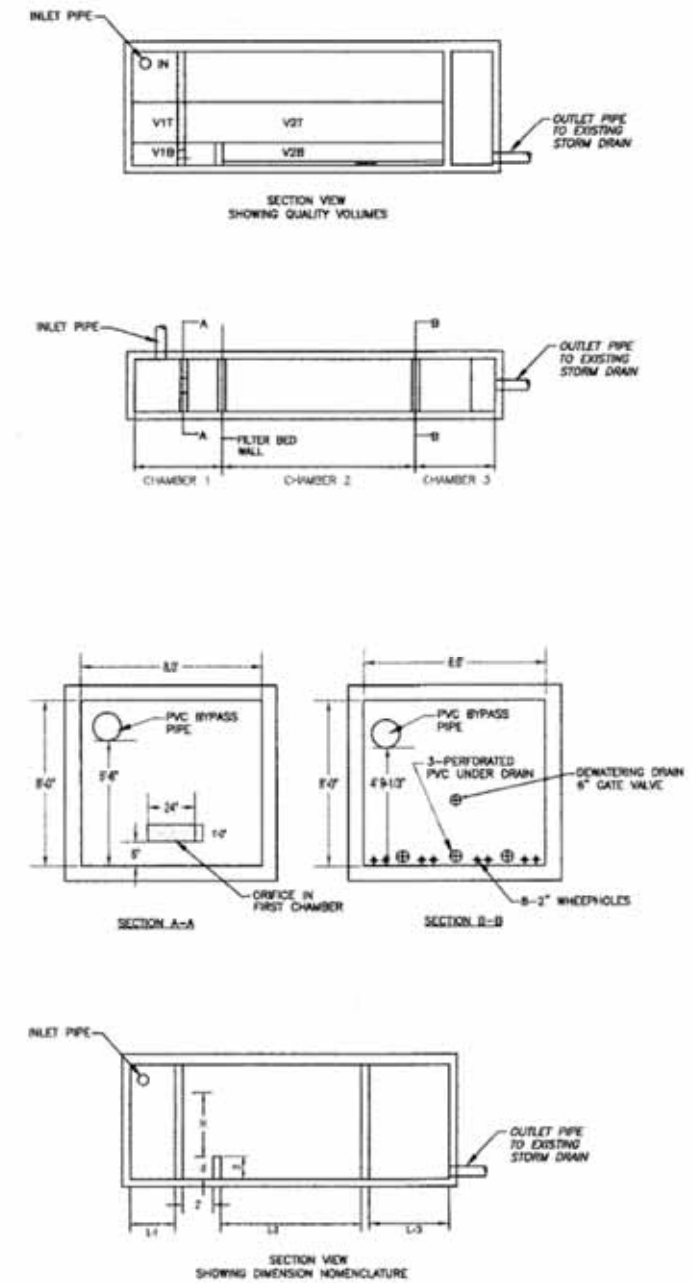


Figure 2. – Plan and Section Detail of the Existing Three Chamber Sandfilter

Storm Water

Old DOEE SWM Regulations:

- SWM requirements is triggered if the project site disturbed more than 5,000 square feet.
- Treat the first 0.5" of rainfall runoff for Water Quality Requirements.
- Detain the storm event using the 15-year design storm frequency for Water Quality Volume requirements.

Current DOEE SWM Regulations:

There are two types of scenarios where DOEE stormwater management rules and regulations apply.

Major Land Disturbing Activity (MLD)

- DOEE defines MLD as any activity that disturbs, or is part of a common plan of development that disturbs, 5,000 square feet or greater of land area, and either or both:
- Any portion of the pre-project land cover is natural; and/or 2,500 square feet or greater of the post-project land cover is impervious or BMP area.
- Retention Requirement: Site is required to retain the first 1.2" of rainfall on site
- Detention Requirement
 - 2 Year Storm: Control peak discharge to pre-development conditions
 - 15 Year Storm: Control peak discharge to pre-project conditions

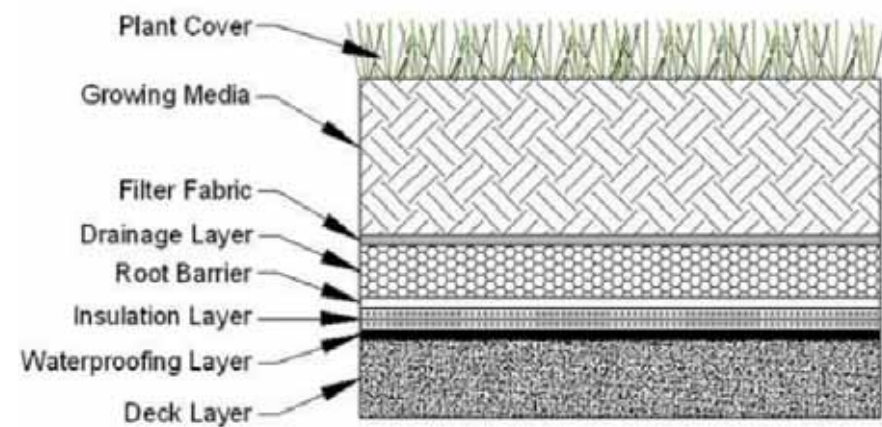
Major Substantial Improvement Activity (MSI)

- DOEE defines MSI as any activity where construction costs for building renovation/addition are greater than or equal to 50% of the pre-project assessed value of the structure AND combined foot print of the structure(s) exceed the cost threshold and any land disturbance are greater than or equal to 5,000 square feet, and either or both
 - Any portion of the pre-project land cover is natural;
 - 2,500 square feet or greater of the post-project land cover is impervious or BMP area
- Retention Requirement: Site is required to retain the first 0.8" of rainfall on site
- No detention requirement required

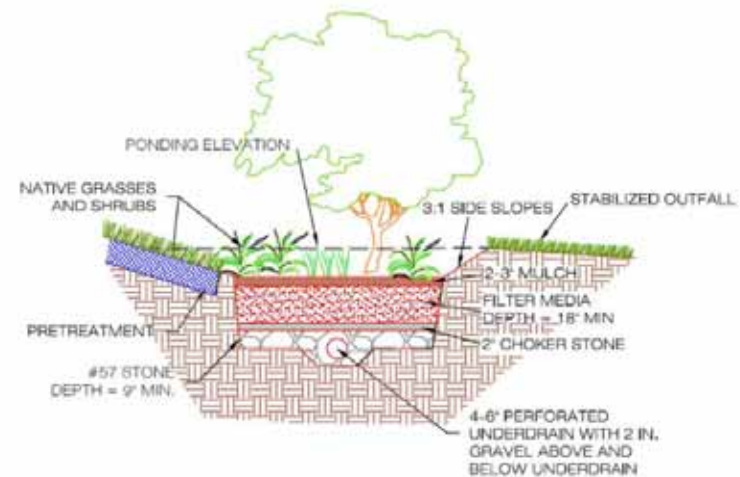
Storm Water

Best Management Practices (BMP)

GREEN ROOF



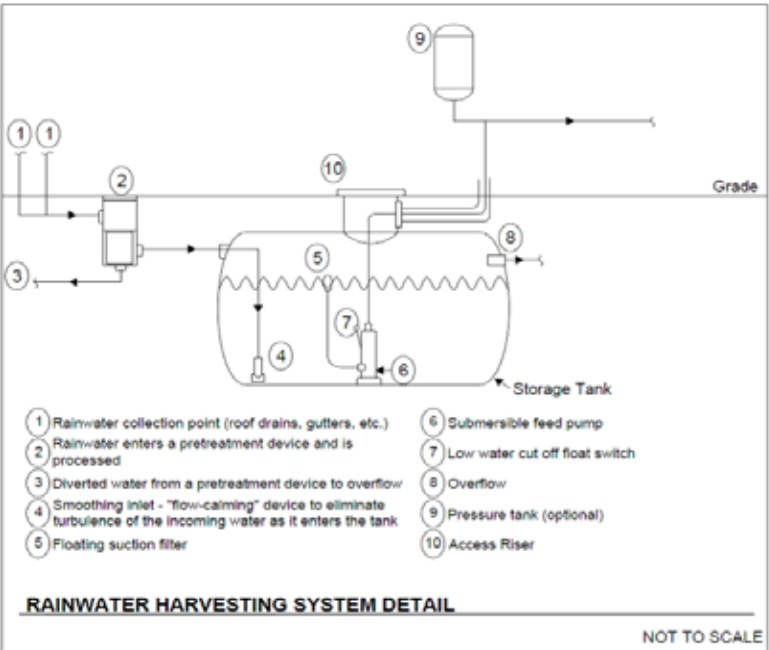
BIO RETENTION



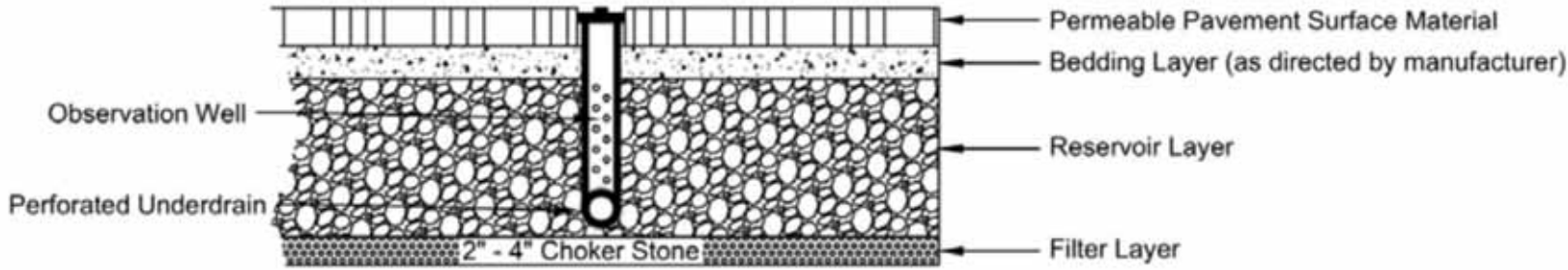
Storm Water

Best Management Practices (BMP)

RAINWATER HERVESTING



Permeable Paving



CIRCULATION & MOBILITY

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Wells + Associates

Transportation Consultant

- Began working with GW in 2005 with the Foggy Bottom Campus Plan
- Worked on the previous Mount Vernon Campus Plan in 2009
- Other GW Work:
 - School without Walls
 - 2100 Pennsylvania Avenue
 - Science and Engineering Hall
 - School of Public Health and Health Services
 - GW Museum
 - District House Residence Hall
- Other University work in the District:
 - Georgetown University
 - Trinity Washington University

Wells + Associates

Scope of Work

Summer

- Work with Planning Team to evaluate on-campus circulation
- Identify improvements to make campus more pedestrian-friendly
- Understand and quantify traffic associated with proposed program
- Scope Traffic Study with DDOT

Wells + Associates

Scope of Work

Fall

- Conduct traffic counts when in-person learning returns
- Begin work on Traffic Study
 - Identify any impacts on surrounding roadway network
 - Recommend improvements to mitigate impacts
 - Study will be conducted in accordance with DDOT guidelines

Late Fall/Early Winter

- DDOT conducts thorough review of traffic study
- DDOT issues preliminary feedback on traffic study
- DDOT issues final report approximately two weeks prior to Zoning Commission Hearing

Q & A



Human by Design