

# Designing the Catherine and Isiah Leggett Math and Science Building

Takoma Park / Silver Spring Campus

June 28, 2018

Design Charrette Kickoff



# Welcome Remarks

Dr. Stephen Cain, Chief of Staff, Montgomery College

# Commitments and Vision

Dr. DeRionne Pollard, President, Montgomery College

# Where we have been

- Convened three ***Community Conversations***, cosponsored with City of Takoma Park, in 2017: March 21, May 9, June 6. Over 200 participants from multiple stakeholder groups.
- Conducted an online comment forum
- Hired architect to analyze feedback and offer alternatives
- Issued September 29, 2017, letter that included:
  - Reaffirmed Facilities Master Plan
  - Design directives
  - Construction directives
  - Hire architect with right experience
  - Commitment to community engagement: design charrette

# Directives from September 29 letter

- **Design**

Address height, setback, lighting impacts, greenspace, the park, location of air units, and the architect's experience and knowledge

- **Construction**

Address impact mitigation on homes and the park, access to construction team, location of construction vehicles and access to site, noise and construction traffic plan

# What we have *heard* since... to be considered going forward

- Building height
- Location of laboratory facilities in relation to streets
- Location of venting and air handlers
- Building's operational noise
- Setback of new building from Takoma Avenue and lower Fenton Street

# What we have *heard* since... to be considered going forward

- Preservation of trees on Takoma Avenue and lower Fenton Street
- Building utilization for various functions
- Location of building entrances
- Construction impact, construction entrances and staging
- Streets stay open

# Going forward—next steps

## Keep commitments:

- Hired an architect experienced with designing facilities in historic districts and residential neighborhoods to ensure the building's exterior respects the campus location.
  - Provided all feedback from Community Conversations, the September letter, as well subsequent correspondence.
- Begin design charrette process.
  - Conducted stakeholder audits.
  - Held ice cream social to meet the design team.
  - Kickoff meeting.
- Hire the construction team early.



# Project Website

montgomerycollege.edu/tpss-design



## Designing the Catherine and Isiah Leggett Math and Science Building

Learn about the modernization of the math and science classrooms and laboratories on the Takoma Park/Silver Spring Campus.

READ OUR LATEST NEWS

# The Team

Integrated Design Firm + Community Engagement



Robert Bull, Architect, SmithGroupJJR



Michael Akin, President, LINK Strategic Partners

# Our final commitment:

A process that helps the College balance the needs of students, our neighbors, and fiscal prudence.

*Thank you!*

# Community Engagement / Design Charrette Process Overview

Robert Bull, Architect, SmithGroupJJR

Michael Akin, President, LINK Strategic Partners



# National Expertise: Higher Education, Science and Math Buildings



**8-TIME WINNER**  
LAB OF THE YEAR



**25**  
SCIENCE EDUCATION  
BUILDINGS



**25+ MILLION**  
SQUARE FEET OF  
LABORATORIES



**15 MILLION SQUARE FEET**  
OF ACADEMIC FACILITIES

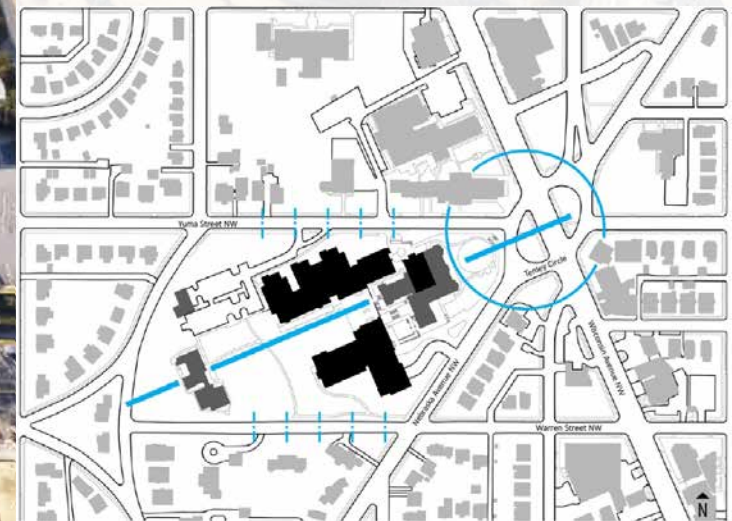






## Sensitivity to Context

- Historic District
- Residential Neighborhood
- Community Engagement
- Traffic and Site Access
- Storm Water Management
- Tree Preservation
- Minimize Public Fenestration
- Limit Light Trespass





# Design Charrette Process

# Major Considerations

## Process

Transparent  
Meaningful  
Engagement  
Iterative Process

## Design

Form  
Height  
Green Space  
Setbacks  
Sustainability  
Color  
Facade Design  
Materials

## Impact

Noise  
HVAC  
Exhaust  
Chemicals  
Light Pollution

## Cost

Meets Budget

## Traffic

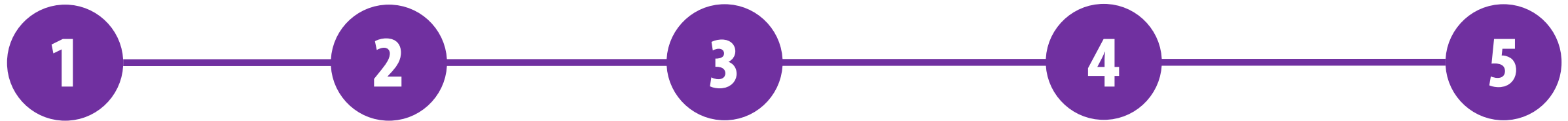
Patterns/Flow  
Egress / Access  
Loading

## Construction

Noise  
Cleanliness  
Working Hours  
Neighborhood  
Impact



# Community Charrette Process: 5 Steps



Design Parameters and  
Site Strategies

Massing,  
Configuration,  
Orientation and  
Site Concepts

Architectural Concepts  
Systems Concepts

Architectural Development  
Systems Development

Design Refinement  
Construction Issues



## Process Overview, Site Overview

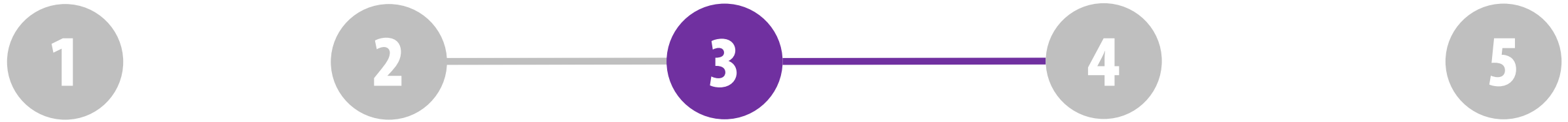
<b>Process</b>	<b>Design</b>	<b>Impact</b>	<b>Cost</b>	<b>Traffic</b>	<b>Construction</b>
Transparent	Form	Noise	Meets Budget	Patterns / Flow	Noise
Meaningful	Height	HVAC		Egress / Access	Cleanliness
Engagement	Green Space	Exhaust		Loading	Working Hours
Iterative Process	Setbacks	Chemicals			Neighborhood Impact
	Sustainability	Light Pollution			
	Color				
	Facade Design				
	Materials				



# Massing

Develop building form based on site and program requirements

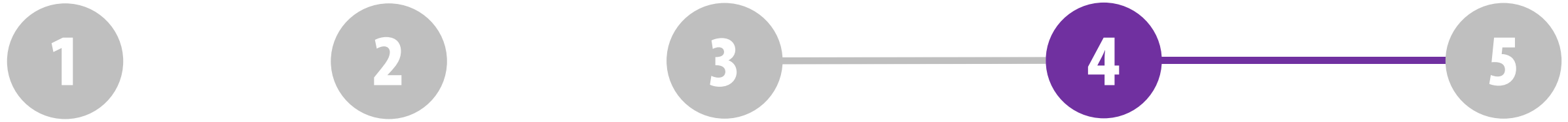
Process	Design	Impact	Cost	Traffic	Construction
Transparent	Form	Noise	Meets Budget	Patterns / Flow	Noise
Meaningful	Height	HVAC		Egress / Access	Cleanliness
Engagement	Green Space	Exhaust		Loading	Working Hours
Iterative Process	Setbacks	Chemicals			Neighborhood Impact
	Sustainability	Light Pollution			
	Color				
	Facade Design				
	Materials				



## Architecture Concepts, Systems Concepts

Continue to develop building massing into architectural design, begin to design building systems

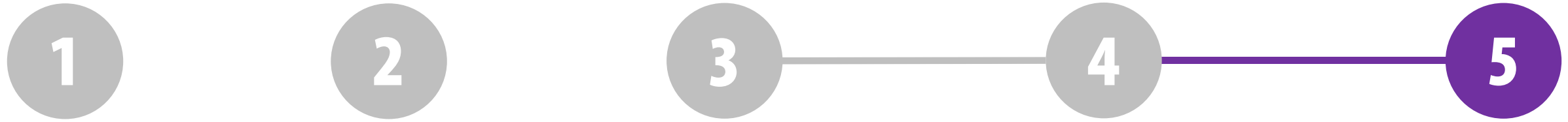
Process	Design	Impact	Cost	Traffic	Construction
Transparent	Form	Noise	Meets Budget	Patterns / Flow	Noise
Meaningful	Height	HVAC		Egress / Access	Cleanliness
Engagement	Green Space	Exhaust		Loading	Working Hours
Iterative Process	Setbacks	Chemicals			Neighborhood Impact
	Sustainability	Light Pollution			
	Color				
	Facade Design				
	Materials				



## Architecture Development, Systems Development

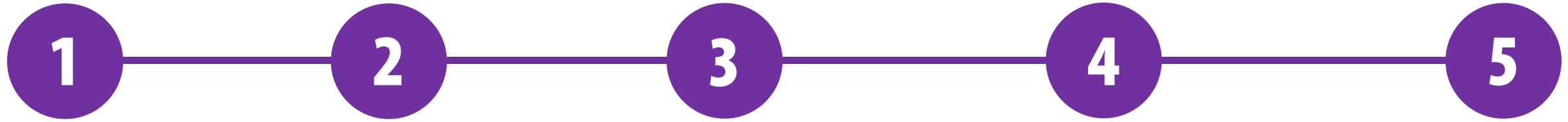
Articulate facade, window patterns, roof, materials, HVAC design

Process	Design	Impact	Cost	Traffic	Construction
Transparent	Form	Noise	Meets Budget	Patterns / Flow	Noise
Meaningful	Height	HVAC		Egress / Access	Cleanliness
Engagement	Green Space	Exhaust		Loading	Working Hours
Iterative Process	Setbacks	Chemicals			Neighborhood Impact
	Sustainability	Light Pollution			
	Color				
	Facade Design				
	Materials				



## Design Refinement, Construction Issues

<b>Process</b>	<b>Design</b>	<b>Impact</b>	<b>Cost</b>	<b>Traffic</b>	<b>Construction</b>
Transparent	Form	Noise	Meets Budget	Patterns / Flow	Noise
Meaningful	Height	HVAC		Egress / Access	Cleanliness
Engagement	Green Space	Exhaust		Loading	Working Hours
Iterative Process	Setbacks	Chemicals			Neighborhood Impact
	Sustainability	Light Pollution			
	Color				
	Facade Design				
	Materials				



## **Process**

Transparent  
Meaningful  
Engagement  
Iterative Process

## **Design**

Form  
Height  
Green Space  
Setbacks  
Sustainability  
Color  
Facade Design  
Materials

## **Impact**

Noise  
HVAC  
Exhaust  
Chemicals  
Light Pollution

## **Cost**

Meets Budget

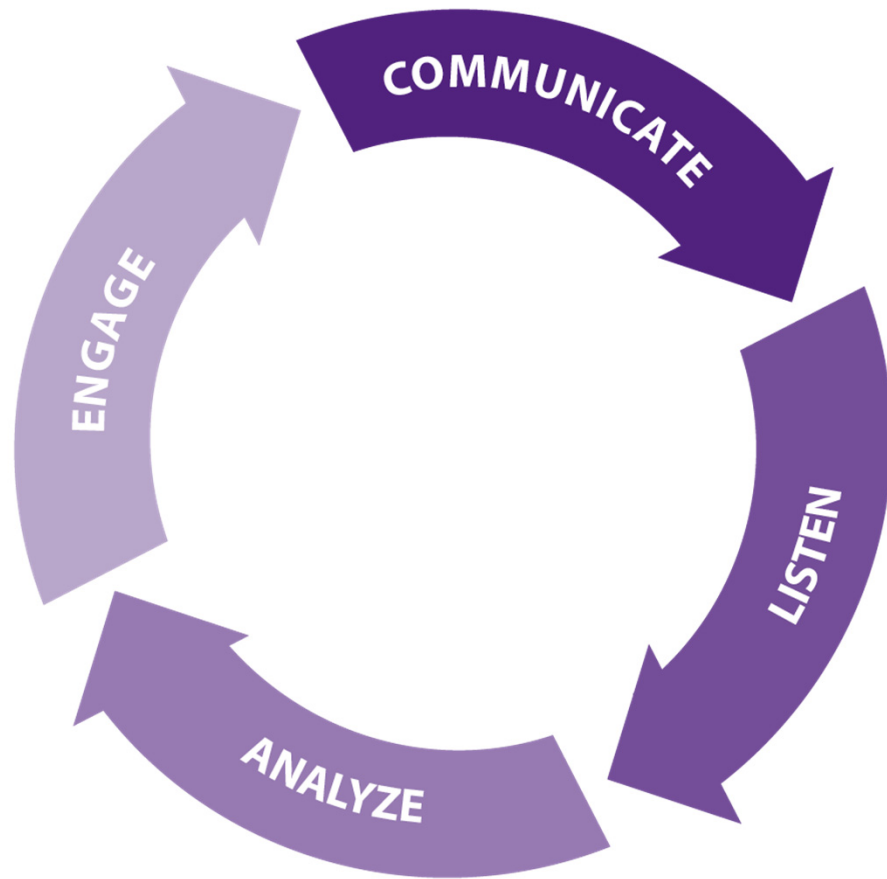
## **Traffic**

Patterns / Flow  
Egress / Access  
Loading

## **Construction**

Noise  
Cleanliness  
Working Hours  
Neighborhood  
Impact

# Our Engagement Approach



- Reaching people where they are
- Providing avenues for interactive feedback opportunities
- Closing the feedback loop



# General Timeline For Engagement

- Design Kickoff Community Meeting- June 28
- Design Community Meeting- July 12
- Summer Engagement
- Design Community Meeting- September 11
- Design Community Meeting
- Design Community Meeting
- Application for Mandatory Referral Review
- Design Community Meeting
- Design Community Meeting

# Meeting Format

- Kickoff Meeting
  - Design and Engagement Overview
  - Site Analysis
  - Q&A
  - Engagement Stations
  
- Design Charrette Meetings
  - Large Group Review of Feedback and Design
  - Small Group Discussions
  - Large Group Share Out

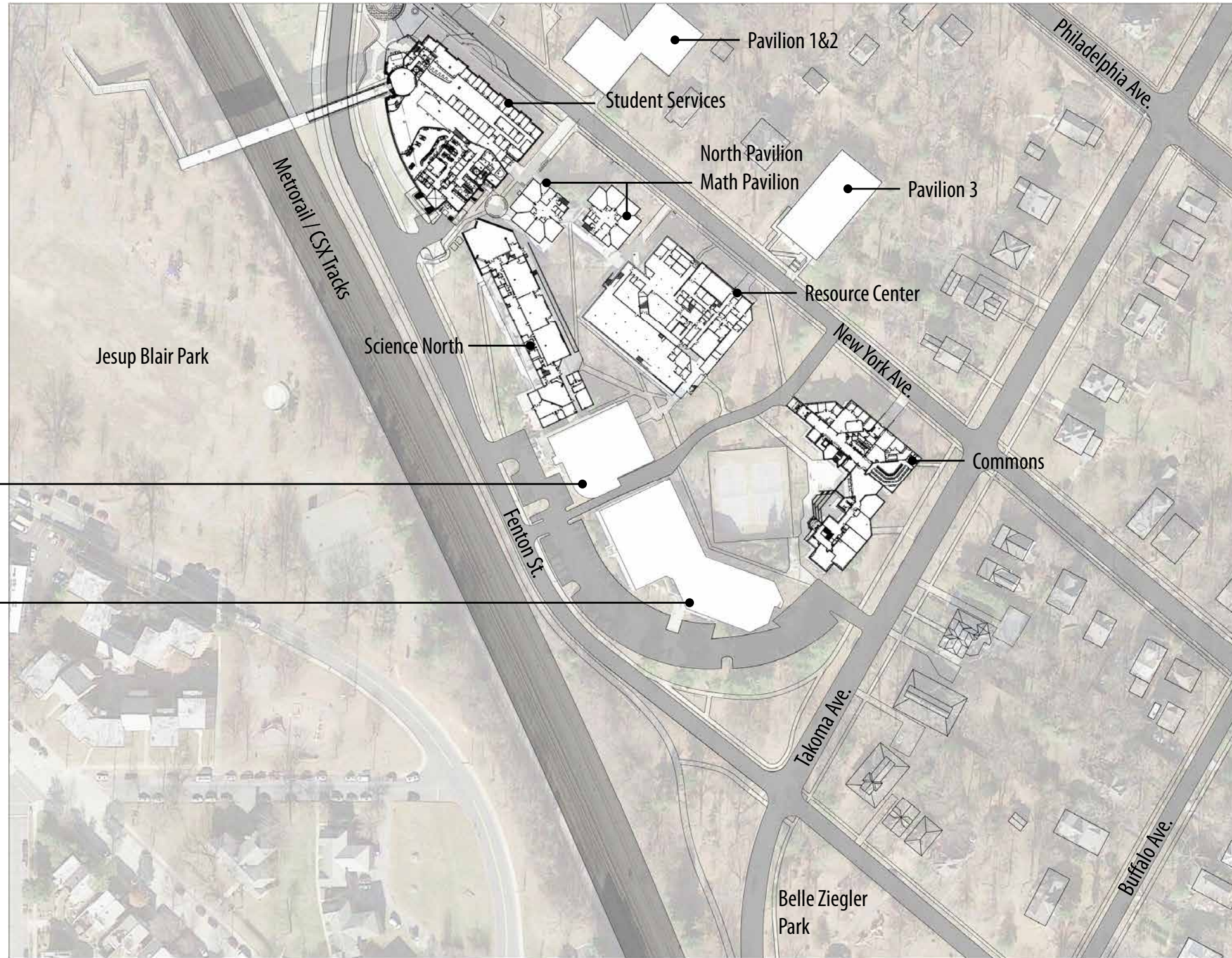
# Summer Engagement Opportunities

- Office Hours
- Small Group and One-On-One Meetings
- Exterior Tour

# Site Analysis



# Site Overview



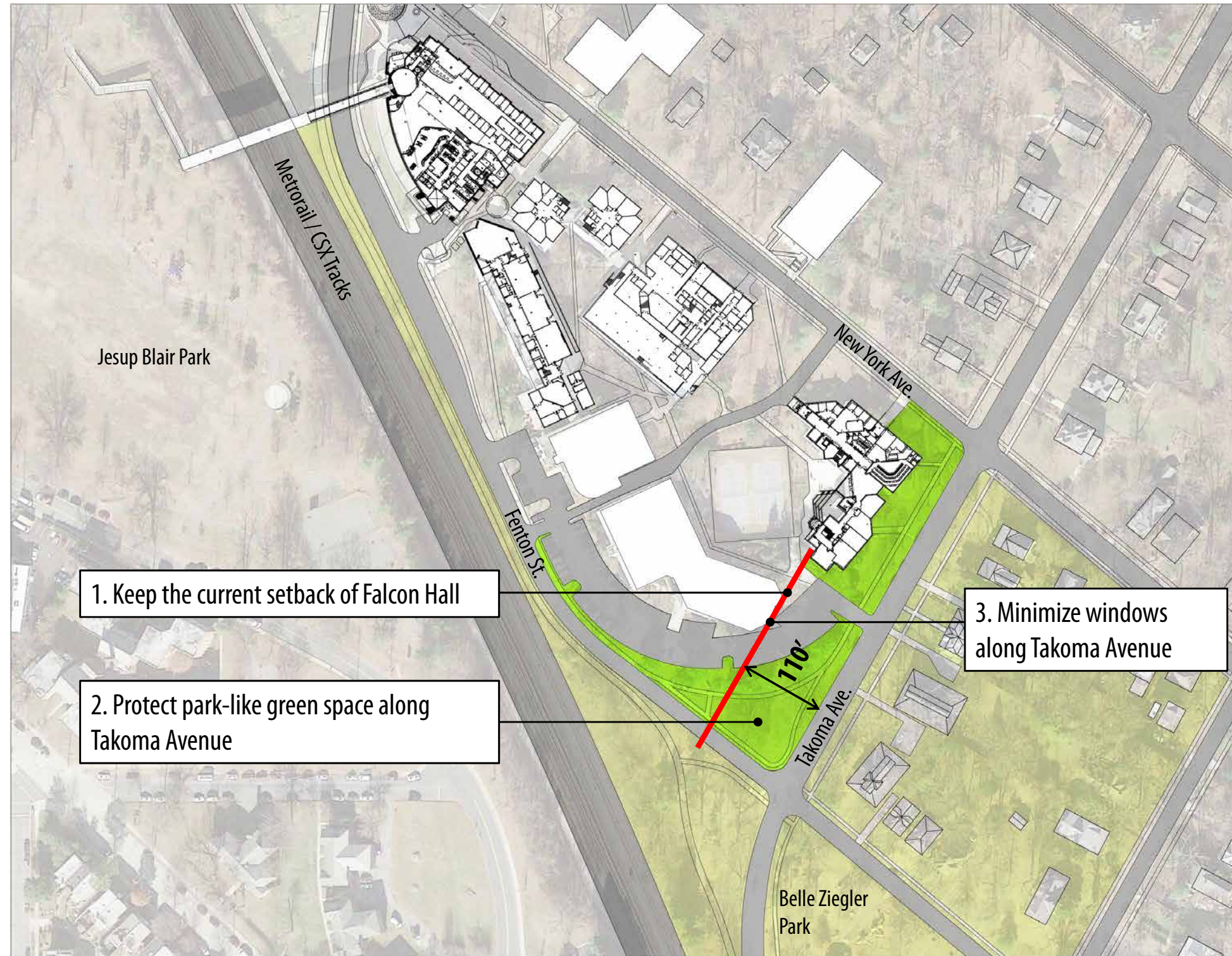
# President's Design Directives

1. Keep the current setback of Falcon Hall
2. Ensure height is no more than two stories along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Protect park-like green space along Takoma Avenue
5. Locate height and rooftop units away from Takoma Avenue
6. Maximize building width to lower height
7. Take advantage of topography to minimize perceived height
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods



# Design Directives

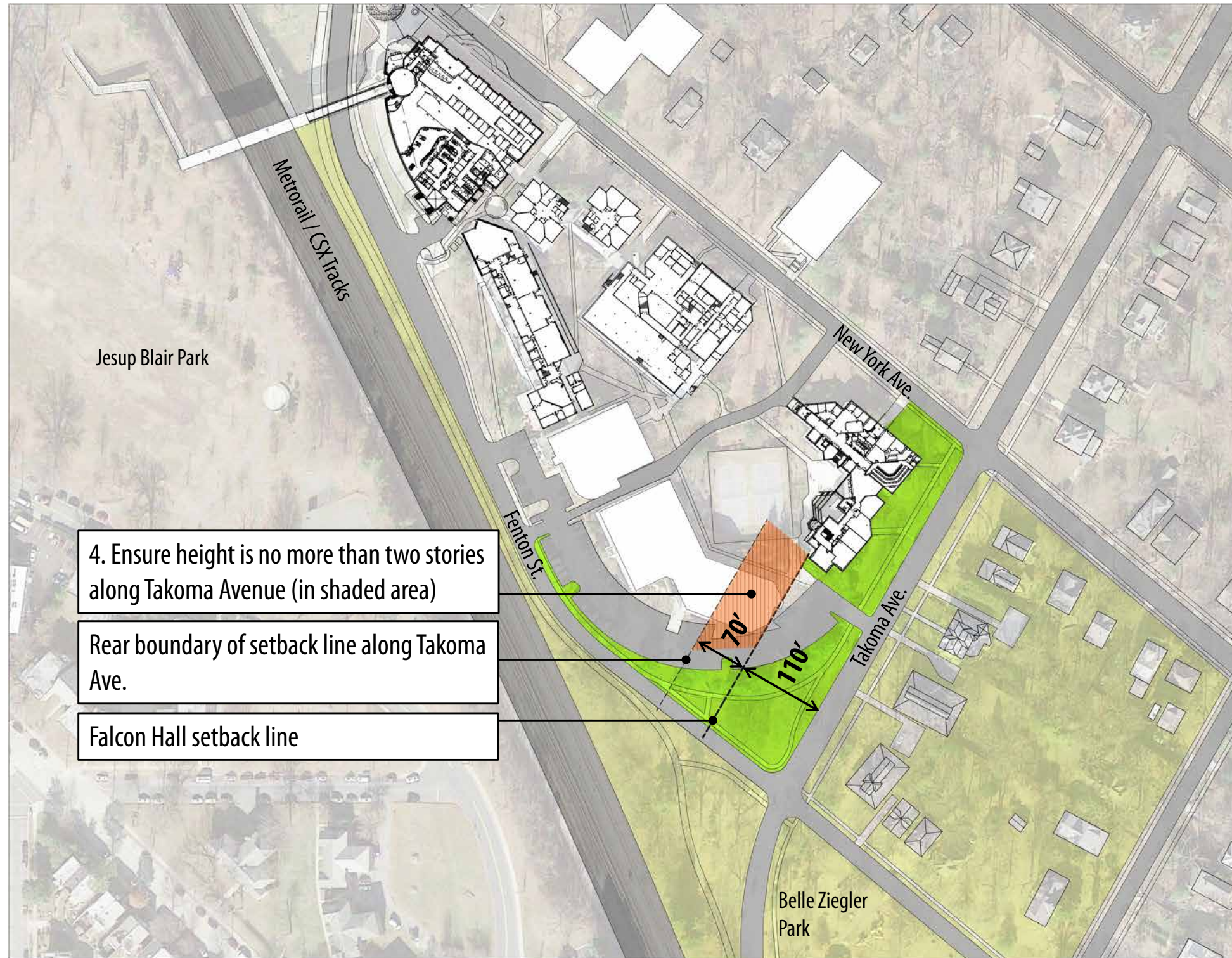
1. Keep the current setback of Falcon Hall
2. Protect park-like green space along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Ensure height is no more than two stories along Takoma Avenue
5. Take advantage of topography to minimize perceived height
6. Locate height and rooftop units away from Takoma Avenue
7. Maximize building width to lower height
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods





# Design Directives

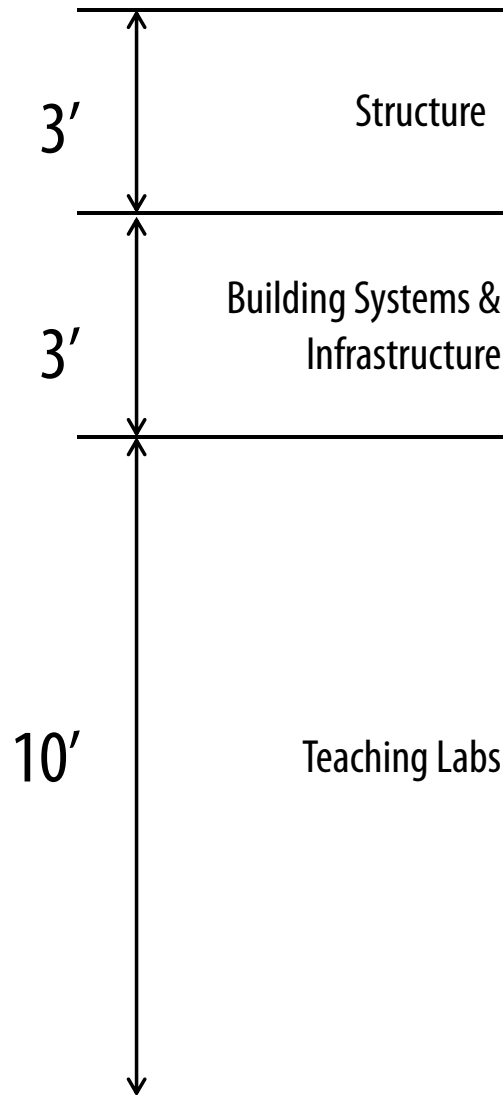
1. Keep the current setback of Falcon Hall
2. Protect park-like green space along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Ensure height is no more than two stories along Takoma Avenue
5. Take advantage of topography to minimize perceived height
6. Locate height and rooftop units away from Takoma Avenue
7. Maximize building width to lower height
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods





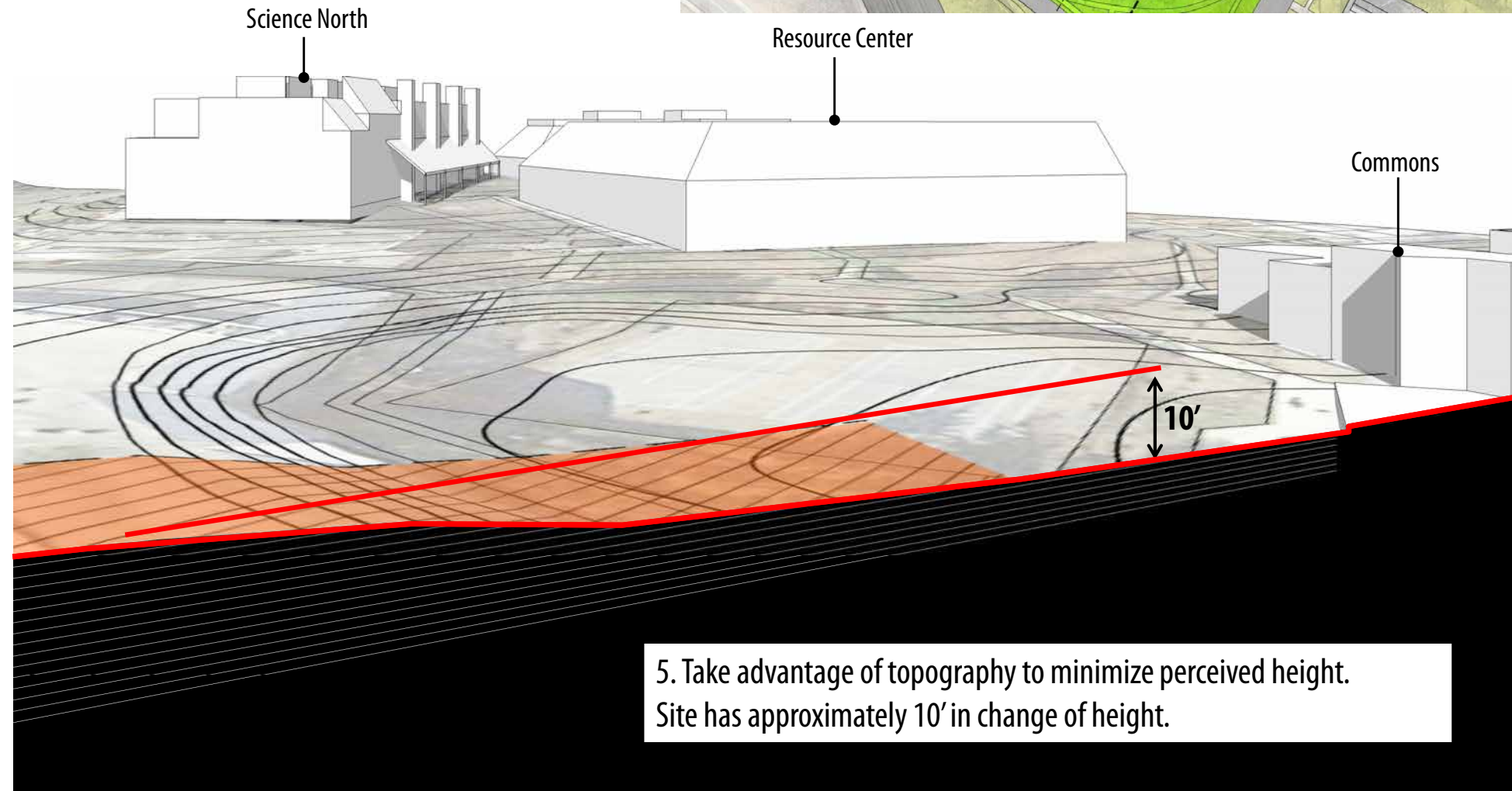
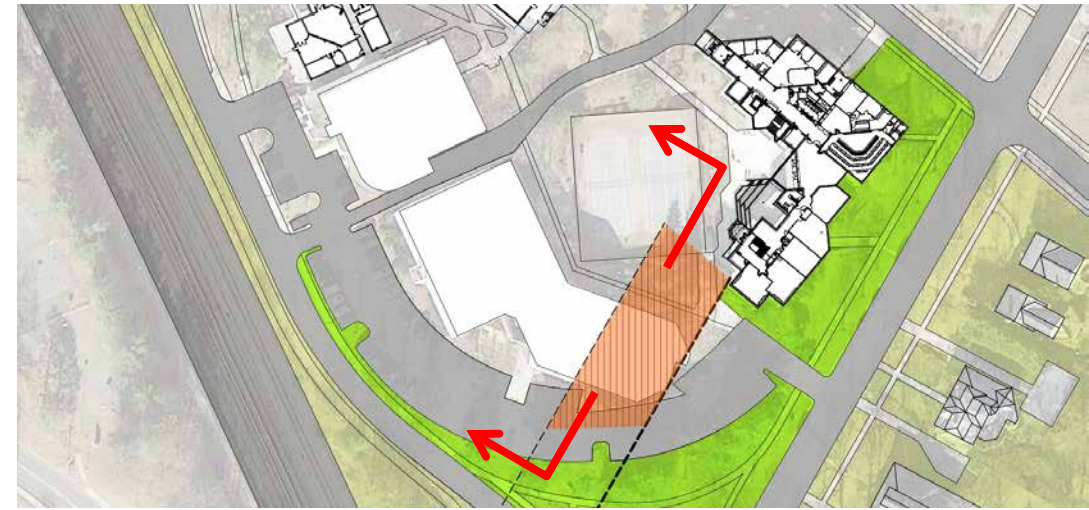
**Q: What is One Story?**

**A: 16'**



# Design Directives

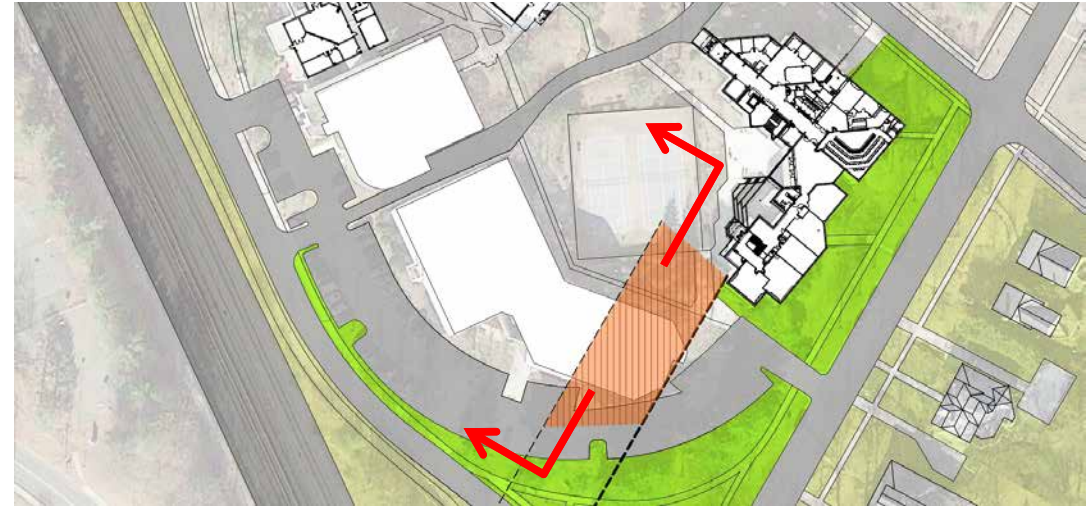
1. Keep the current setback of Falcon Hall
2. Protect park-like green space along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Ensure height is no more than two stories along Takoma Avenue
5. Take advantage of topography to minimize perceived height
6. Locate height and rooftop units away from Takoma Avenue
7. Maximize building width to lower height
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods



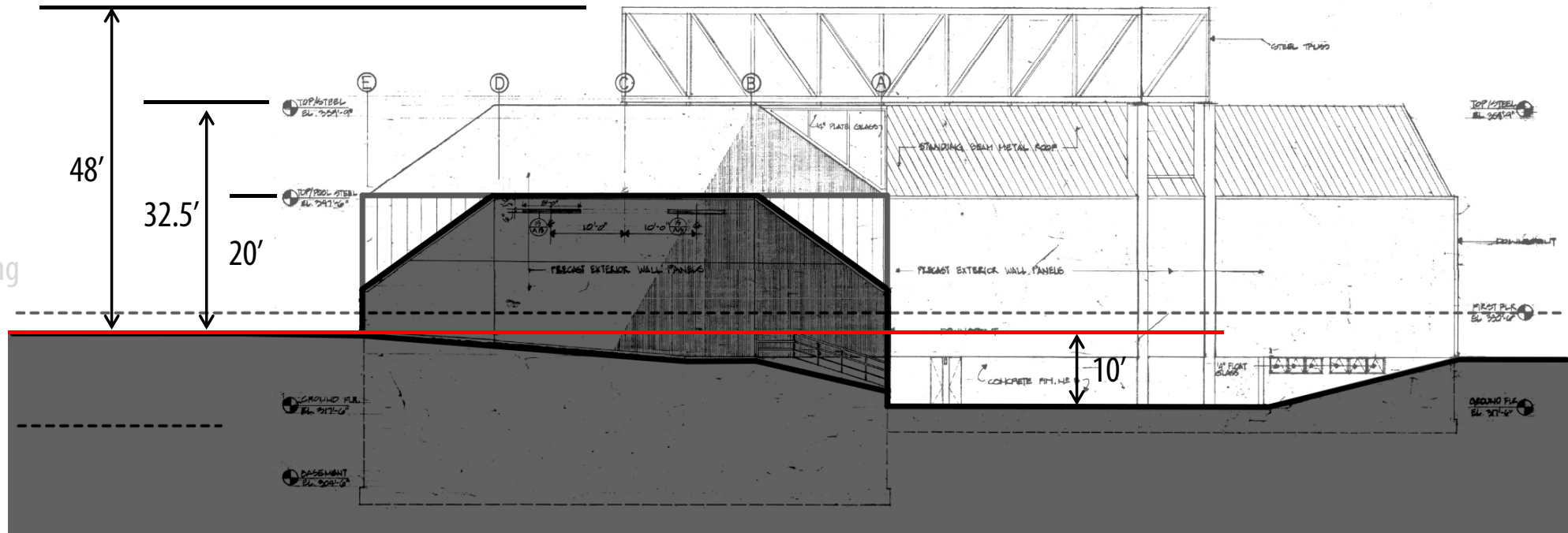


# Design Directives

1. Keep the current setback of Falcon Hall
2. Protect park-like green space along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Ensure height is no more than two stories along Takoma Avenue
5. Take advantage of topography to minimize perceived height
6. Locate height and rooftop units away from Takoma Avenue
7. Maximize building width to lower height
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods



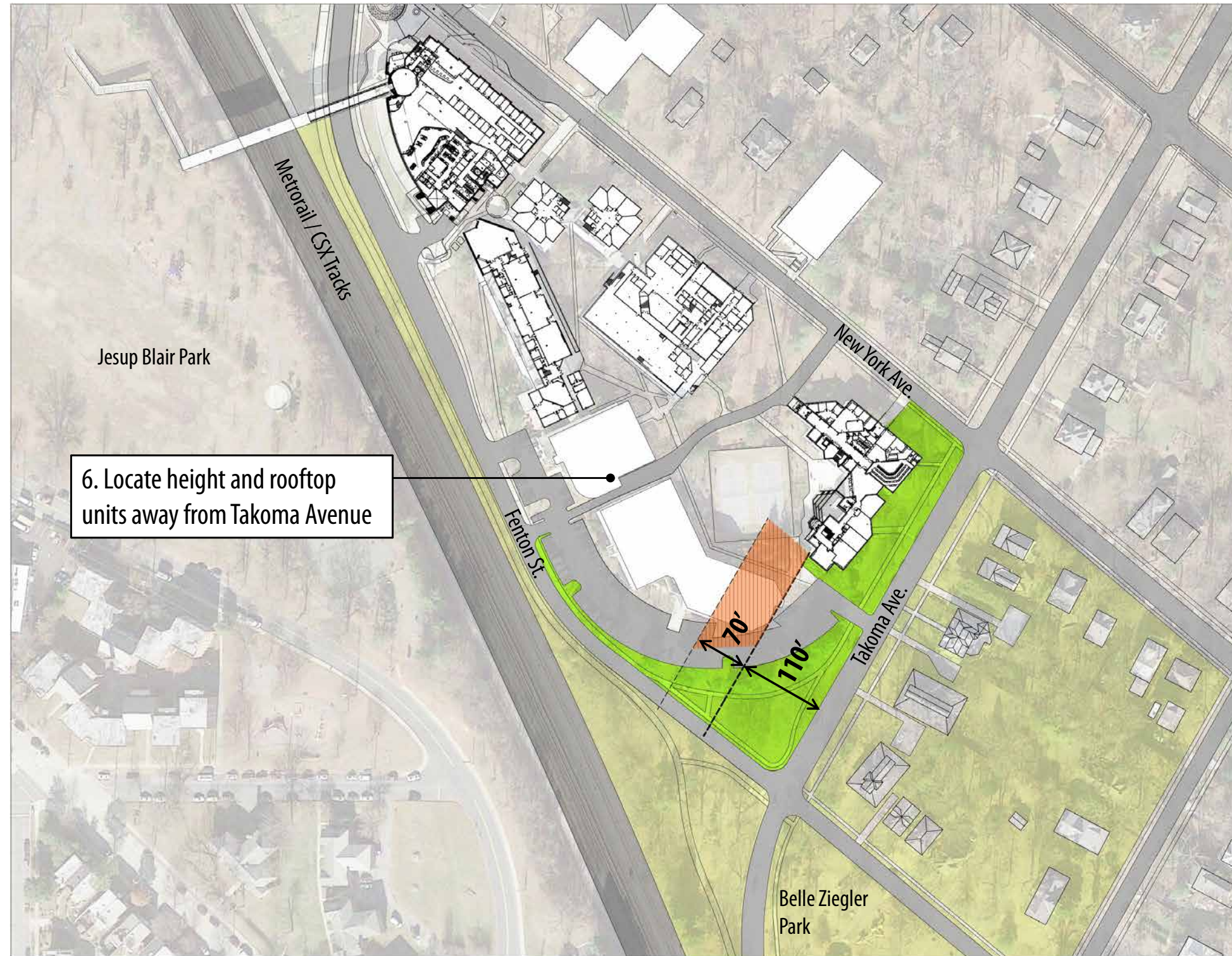
5. Take advantage of topography to minimize perceived height. Site has approximately 10' in change of height.





# Design Directives

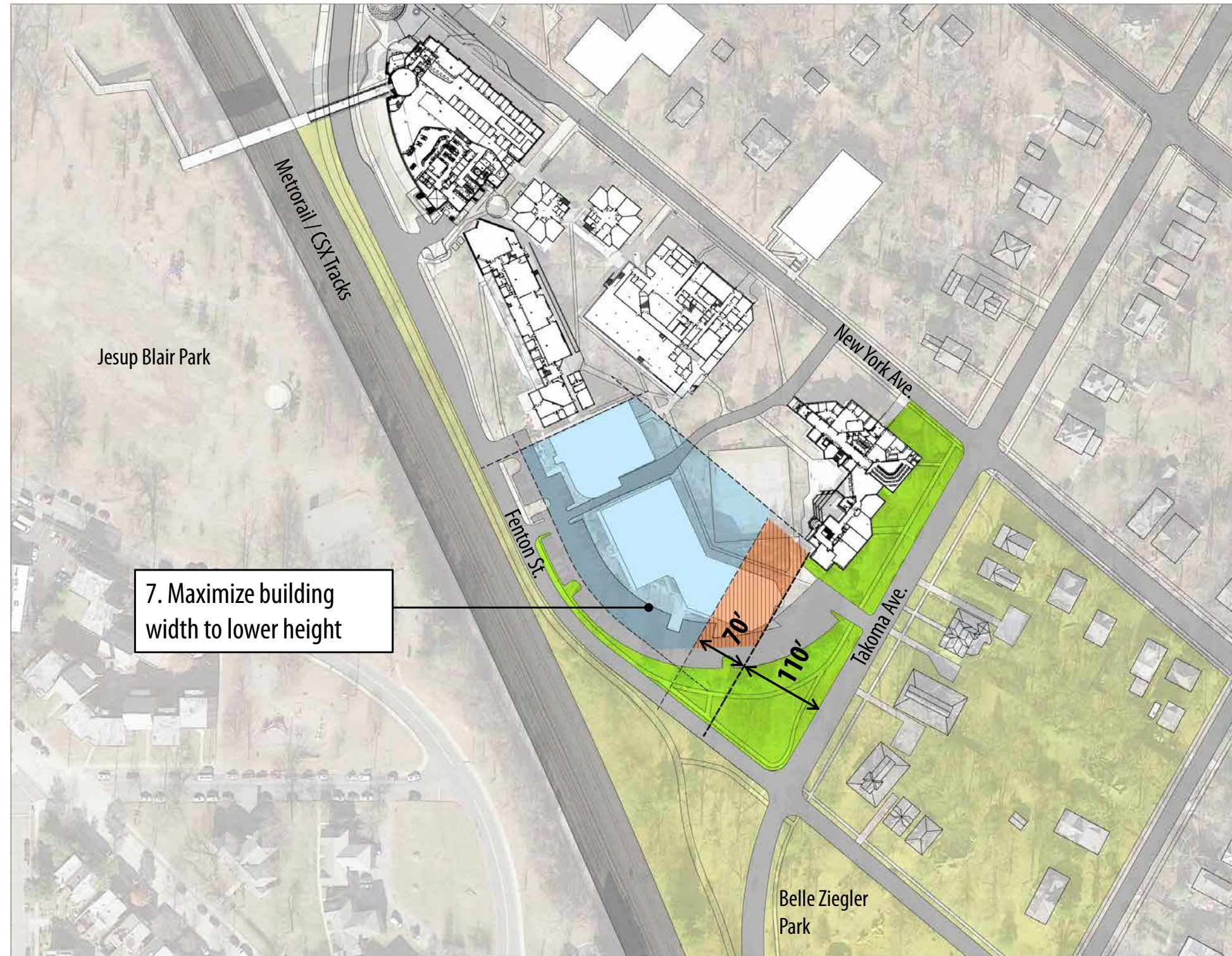
1. Keep the current setback of Falcon Hall
2. Protect park-like green space along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Ensure height is no more than two stories along Takoma Avenue
5. Take advantage of topography to minimize perceived height
- 6. Locate height and rooftop units away from Takoma Avenue**
7. Maximize building width to lower height
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods





# Design Directives

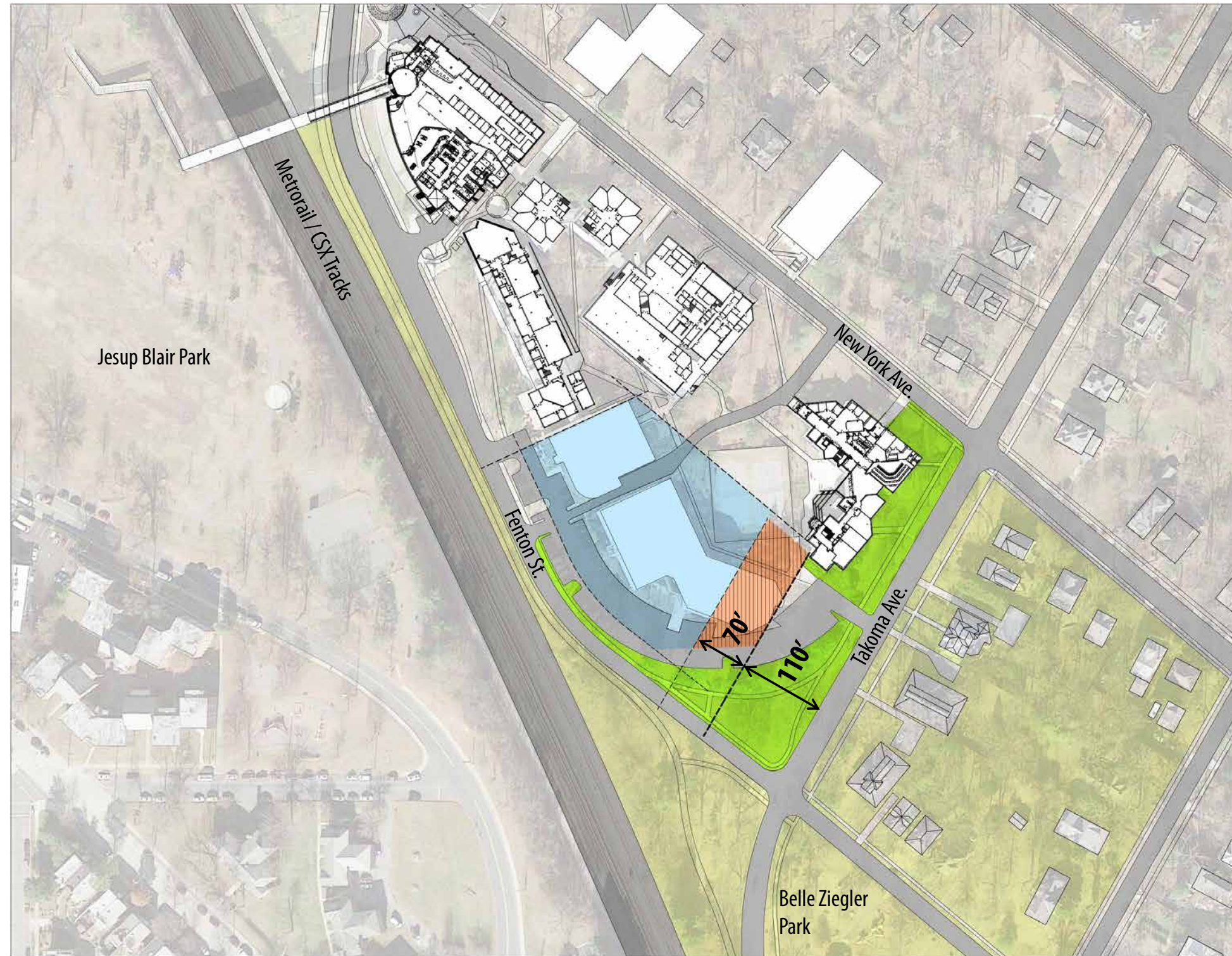
1. Keep the current setback of Falcon Hall
2. Protect park-like green space along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Ensure height is no more than two stories along Takoma Avenue
5. Take advantage of topography to minimize perceived height
6. Locate height and rooftop units away from Takoma Avenue
- 7. Maximize building width to lower height**
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods





# Design Directives

1. Keep the current setback of Falcon Hall
2. Protect park-like green space along Takoma Avenue
3. Minimize windows along Takoma Avenue
4. Ensure height is no more than two stories along Takoma Avenue
5. Take advantage of topography to minimize perceived height
6. Locate height and rooftop units away from Takoma Avenue
7. Maximize building width to lower height
8. Hire an architect experienced with designing facilities in historic and residential neighborhoods



# Gallery Walk Engagement Stations

- Major Considerations
- Site Analysis
- Math and Science at Montgomery College
- Community Engagement Process

**Next Meeting!**  
**Thursday, July 12 at 7:00 pm**  
**Cultural Arts Center**



[montgomerycollege.edu/tpss-design](http://montgomerycollege.edu/tpss-design)