

# EDUCATION CENTER REUSE

David M. Brown Planetarium  
1426 North Quincy Street

**ARLINGTON PUBLIC SCHOOLS**

1426 N QUINCY ST



STUDIOTWENTYSEVENARCHITECTURE







Supports sustained  
enrollment  
growth



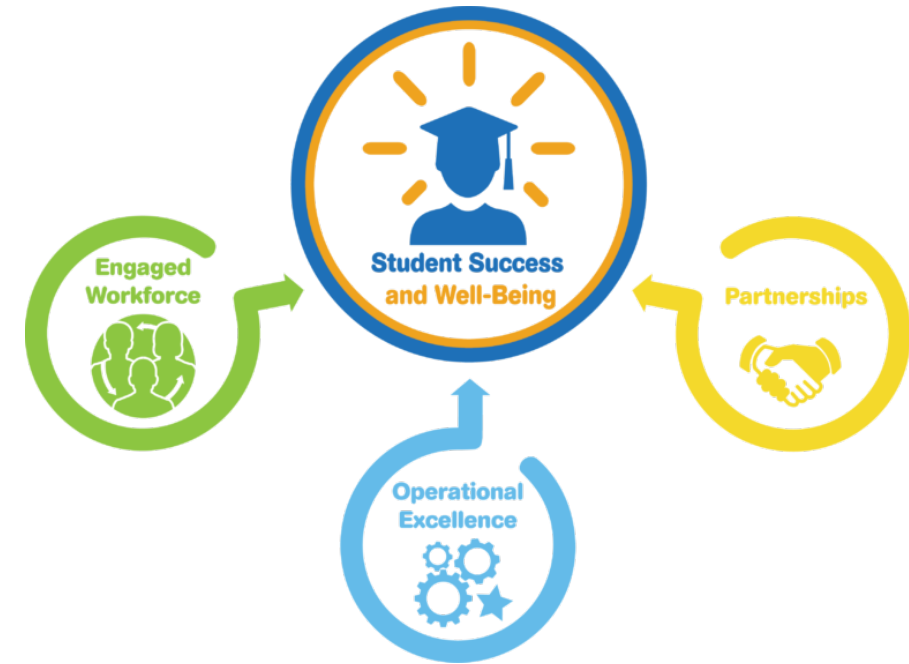
Environmentally  
and fiscally  
responsible



Creates  
exceptional  
learning environments

# Project Parameters

- Project included in the FY2019-28 Capital Improvement Plan (CIP)
- Renovate the Education Center to both increase the capacity of Washington-Lee initially, and later to adapt to possible future instructional and grade level changes
- Support APS Strategic Plan Goals, specifically for Healthy, Safe, and Supported Students
- Address capacity by providing 500-600 high school seats
- Open by start of school 2021
- Spend a maximum project cost of \$37 million, using every effort to spend less



APS 2018-24 Strategic Plan

APS project website:

<https://www.apsva.us/education-center-reuse/>

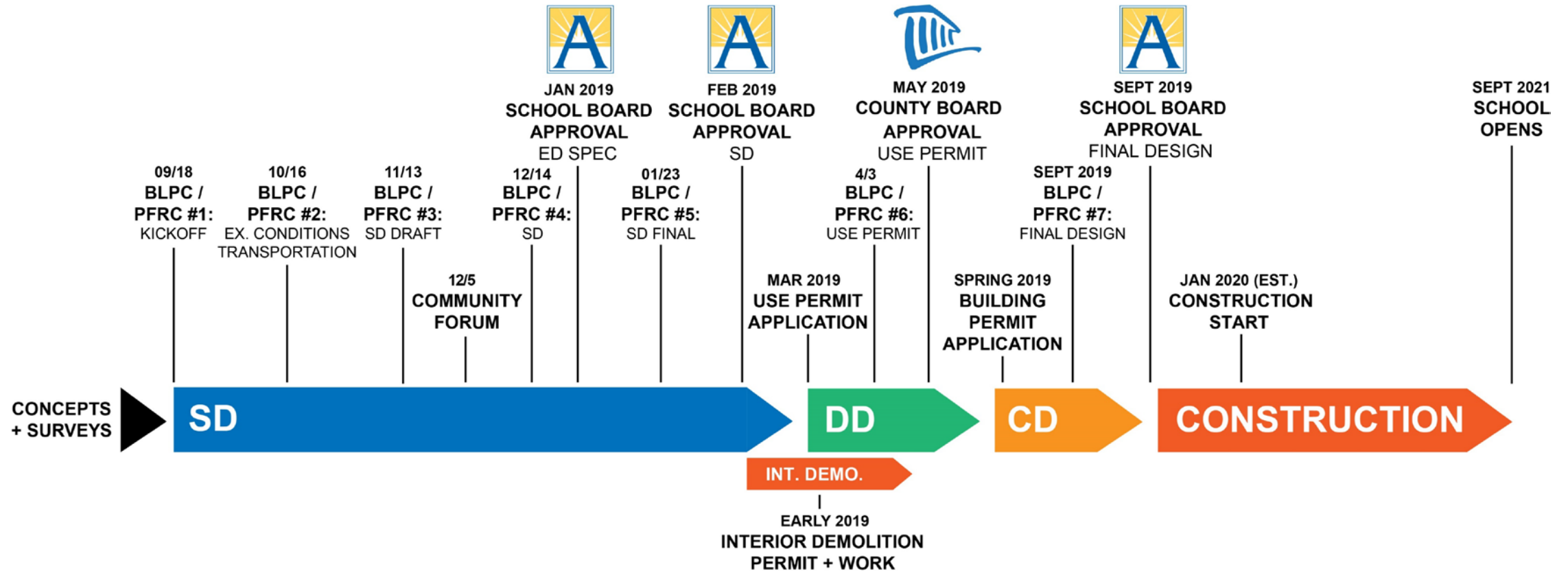
# Summary of Public Engagement

- 6 Joint BLPC/PFRC meetings
- 1 site tour
- 1 community meeting
- 4 County Commission meetings
- 4 School Board meetings to review/approve Educational Specifications and schematic design
- Additional discussions with:
  - Adjacent neighbors
  - Friends of the Planetarium
  - Aquatics users





# Project Timeline



# Arlington County Principles of Civic Design

- Intended to inform the design of civic facilities
- Ensure facilities meet community goals and are attractive, durable, & functional
- Supplement existing County planning documents & policies
- Each project reviewed individually- certain principles may be stressed over others

## Civic Values

- Context
- Bold Architecture
- Sustainable Design
- Universal Design
- Adaptive Reuse
- Open Space
- Mixed Use

## Siting & Orientation

- Building Entrances
- Emphasize Pedestrians, Bicycles, Mass Transit
- Circulation
- Outdoor Spaces

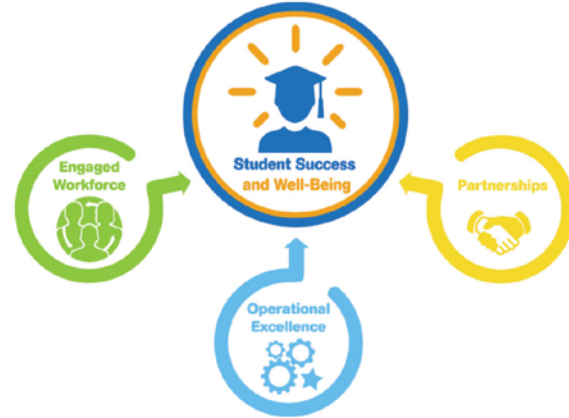
## Building Form

- Massing
- Scale
- Hierarchy

## Building Details & Materials

- Pedestrian Scale
- Public art & Architecture
- Durable Materials
- Consistency
- Sense of Place

# APS Strategic Plan - Design Principles



## APS STRATEGIC PLAN 2018-2024 GOALS

**Student Success:** Multiple Pathways To Student Success

**Student Well-Being:** Healthy, Safe, And Supported Students

**Engaged Workforce**

**Operational Excellence**

**Partnerships:** Strong And Mutually Supportive Partnerships

## DESIGN PRINCIPLES

### Safety + Security

Maintain safe, secure spaces while creating environments which enrich learning and emphasize transparency and community

### Short-Term Agility + Long-Term Adaptability

Create spaces which are agile in their day to day use, while being adaptable to future changes in program and learning methods

### High-Performance Learning Environments

Spaces are to perform at the highest levels for the following:

- Thermal comfort
- Indoor air quality
- Acoustics
- Daylight + views
- Transparency
- Technology
- Community use
- Active schools

### Universal Design

Spaces should be designed and composed so they are accessible, understood and useful for all

### Adherence To Budget

Building elements should be assessed for meeting the required design function through economical means

### Sustainability

To the greatest extent possible the final design should minimize the impact on the environment through thoughtful site design, carefully managed water use, innovative energy and exterior envelope solutions, selective material use and a holistic approach to the interior design.

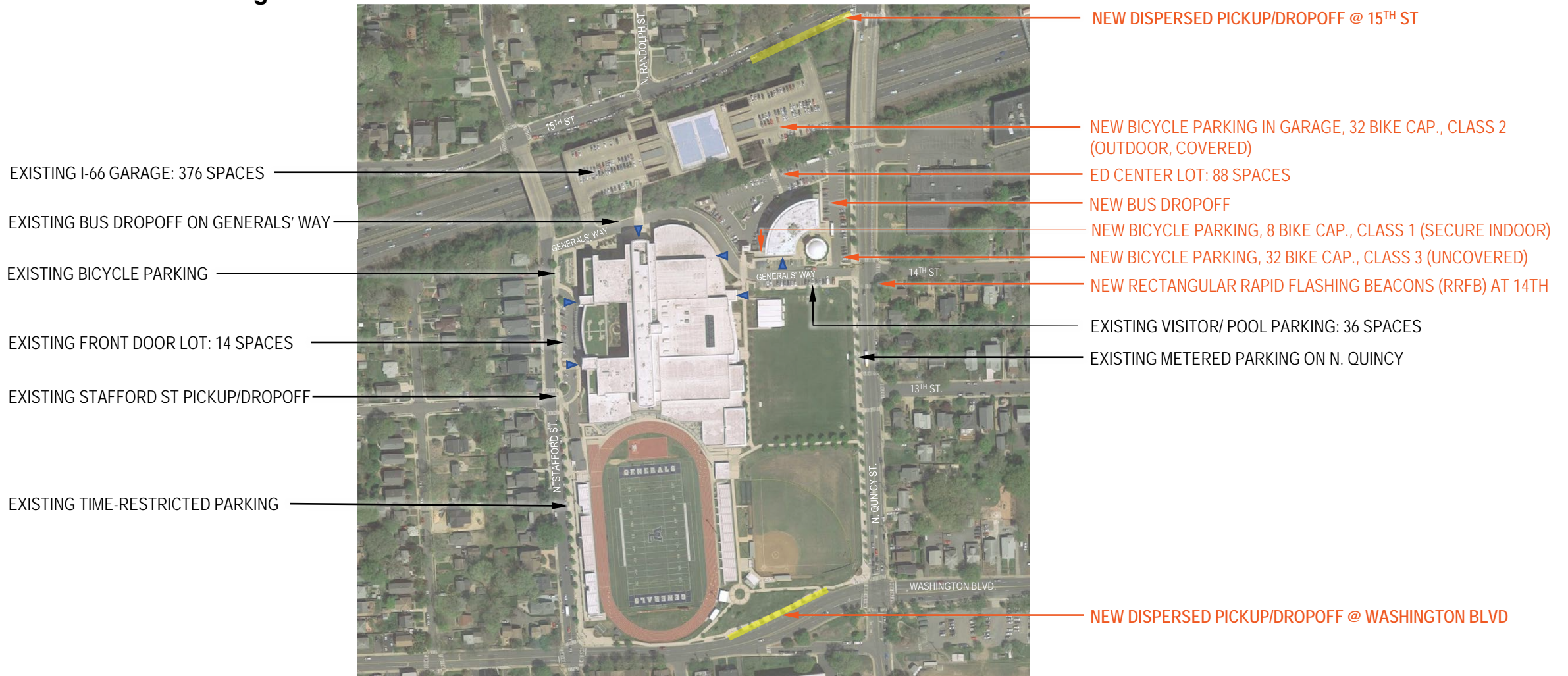
# Campus Overview





# Site Design - Campus

Based on the findings and recommendations from the MMTA



# Site Design – Ed Center Area

Based on the findings and recommendations from the MMTA

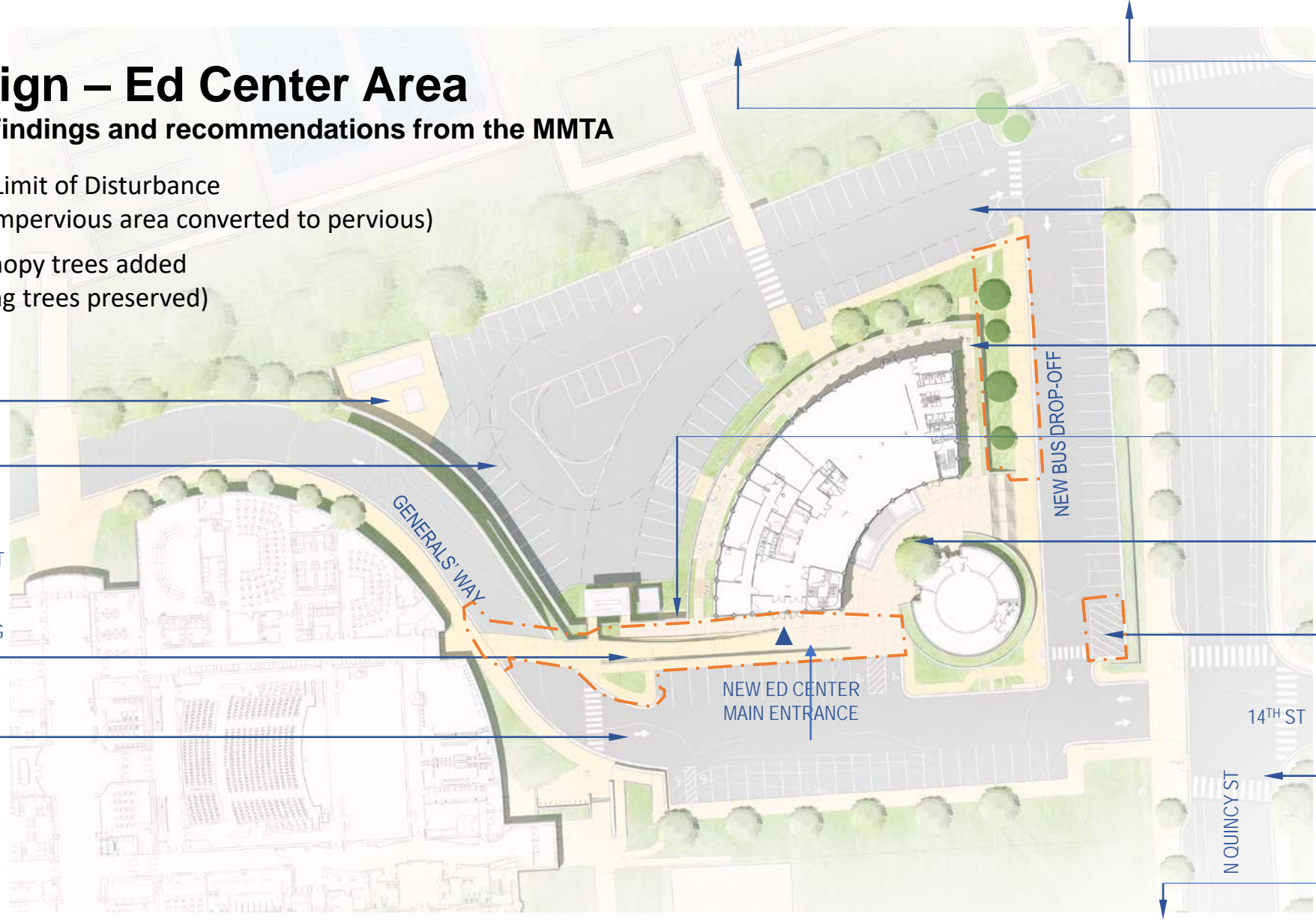
- 10,000sf Limit of Disturbance (1,300sf impervious area converted to pervious)
- 4 new canopy trees added (all existing trees preserved)

EXISTING GENERATOR, DUMPSTERS AND NEW COOLING TOWER

DASHED LINE = FIRE TRUCK ACCESS

NEW GROUND CONNECTION RAMP (SLOPE 1:12) AND FLUSH PAVING AT GENERALS' WAY. GRADE DROPS 6.5' BETWEEN ROAD CROSSING AND MAIN ENTRANCE

NEW "DO NOT ENTER" SIGNS



NEW 15<sup>TH</sup> ST. PU/DO

NEW BICYCLE PARKING IN GARAGE, 32 BIKE CAP., CLASS 2 (OUTDOOR, COVERED)

88 PARKING SPACES (18 MORE THAN ORIGINALLY PLANNED, TO OFFSET THE SPACES RESTRICTED ON 15<sup>TH</sup> ST.)

NEW TERRACE IMPROVEMENTS

NEW BICYCLE PARKING IN GARAGE, 8 BIKE CAP., CLASS 1 (INDOOR, SECURE)

NEW PLAZA IMPROVEMENTS

NEW BICYCLE PARKING, 32 BIKE CAP., CLASS 3 (OUTDOOR, UNCOVERED)

14<sup>TH</sup> ST

NEW RECT. RAPID FLASHING BEACONS (RRFB) AT 14<sup>TH</sup>

N QUINCY ST

NEW WASH. BLVD. PU/DO



# Major Transformation of the Existing Building

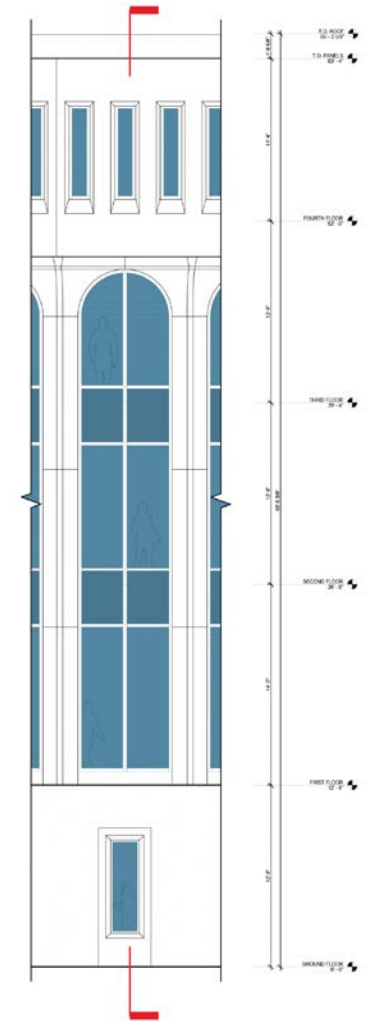
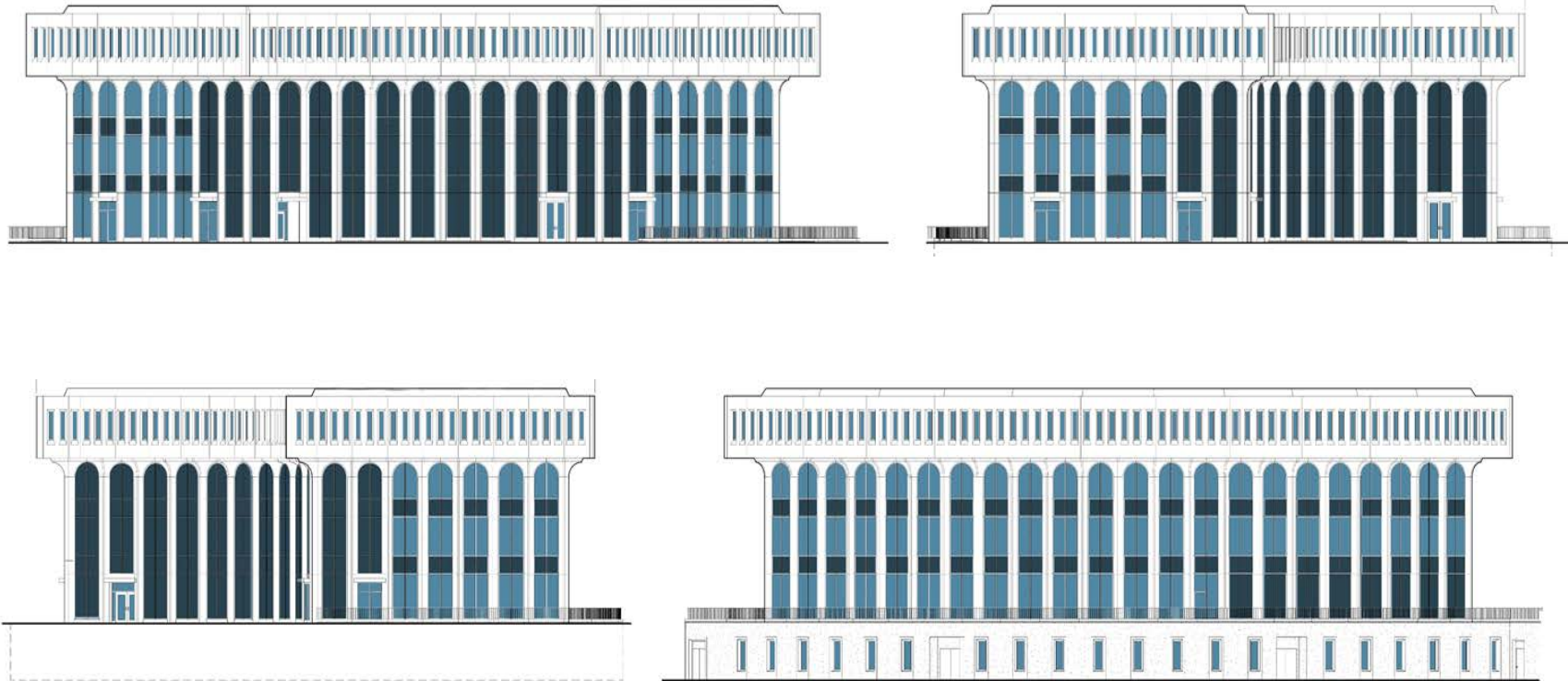
- Adaptable and agile high performance learning environments
- Large commons space on the first floor available for community use outside school hours
- Extensive building envelope improvements
- Modifications respect the building's architectural integrity and historic value
- Replace existing HVAC with water-source distributed two-stage/variable heat pumps
- Estimated Energy Use Intensity (EUI) between 30-40, when occupied the existing building EUI exceeded 200
- Projected LEED v4 BD+C: Schools Silver Level certification





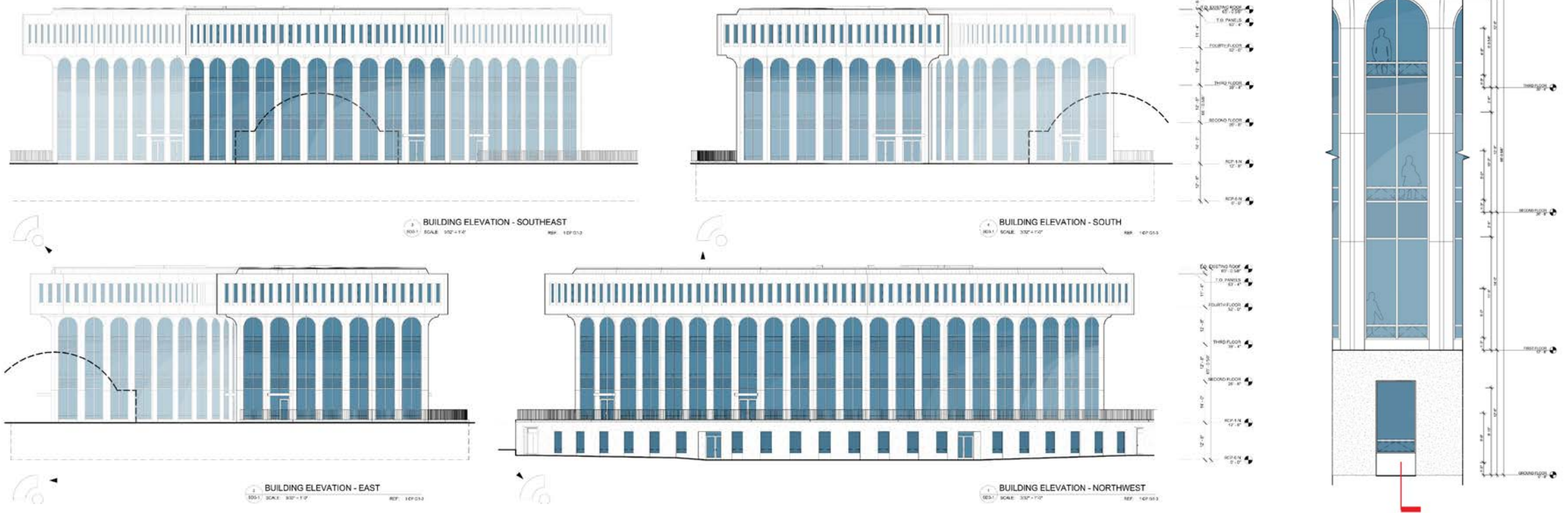
# Elevations - Existing

- Some of the original single-pane glazing has black paint covering the interior glass surface;
- Example locations are first floor restrooms and the stairs.
- The black paint acts as a heat sink, radiating heat to the interior.

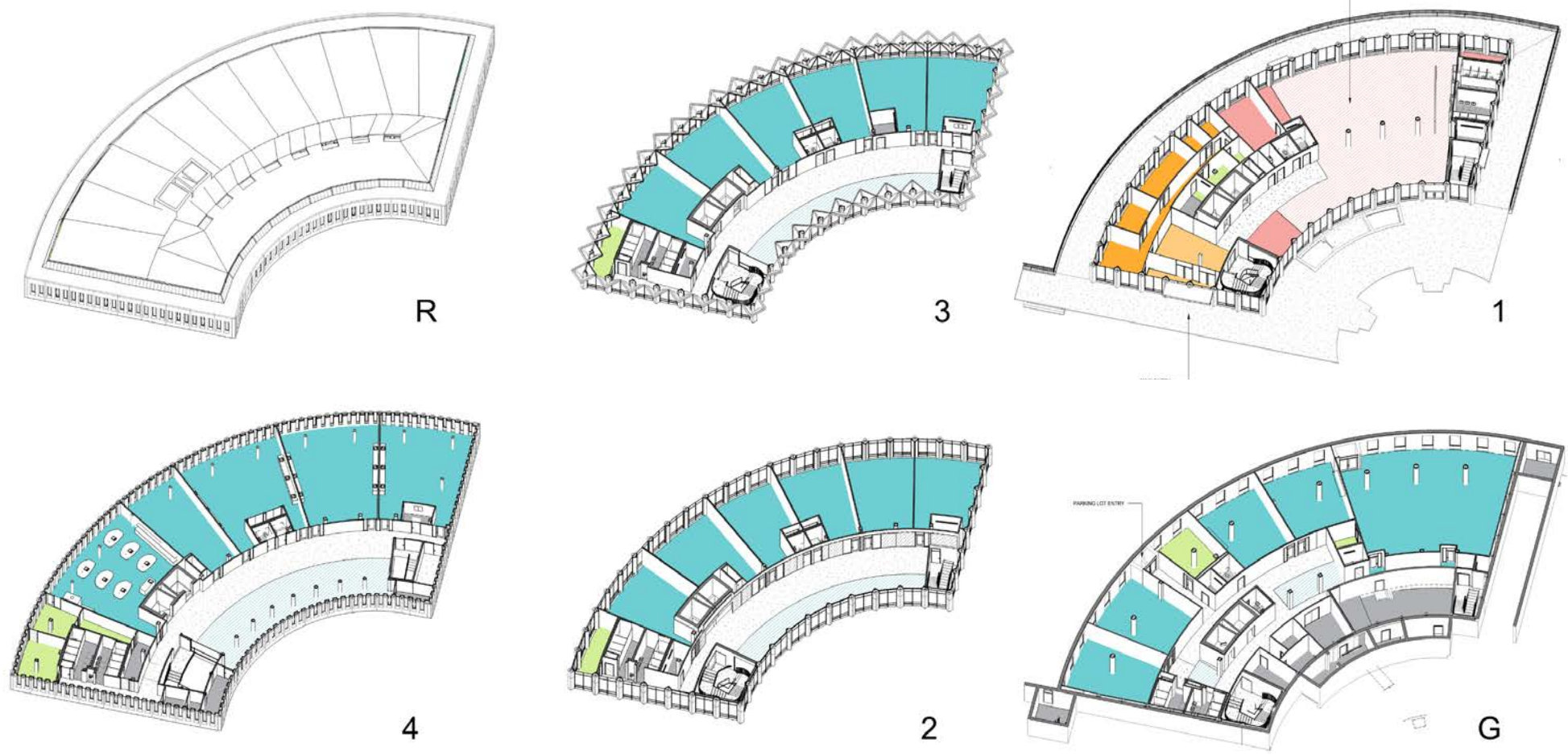


# Proposed Elevations

- Respects character and aesthetic of the existing windows.
- Enlarges the ground floor windows and adds operable windows on all floors to improve the educational environment.
- Uses a glazing frit that responds to annual sun exposure and solar orientation.



# Floor Plans



- Classrooms / Collaboration
- Commons / Support
- Instructional Support
- Administration
- Building Support



# First Floor



Classrooms / Collaboration   Commons / Support   Instructional Support   Administration   Building Support



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CARS WORLD  
NO  
PARKING  
FIRE  
LANE  
EXC.  
8/15/10 02ND MAJ















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enrollment  
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and fiscally  
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