

Taking Housing Renovations to New Heights – Part II

Bryan Mall High- Rises Renovation

CLEMSON
UNIVERSITY

BOUDREAU

LITTLE
DIVERSIFIED ARCHITECTURAL CONSULTING

JUNEAU
CONSTRUCTION COMPANY



Presentation Team



Amber Dees
Director of
Residential Living



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Architect



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Vice President | Architect



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Project Director

CLEMSON[®] *home*

Clemson University
Clemson, SC



Founded 1889
Land Grant Mission

22,877
Undergraduate
Students



5,900
Graduate
Students

27 Residence Halls
On Campus



4 Apartment
Communities

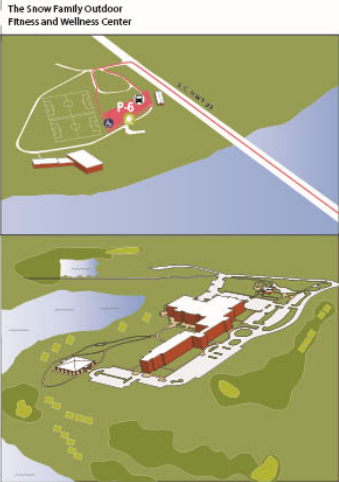
3 Dining
Halls



24 Retail
Locations

7,883
Beds





Madren Center



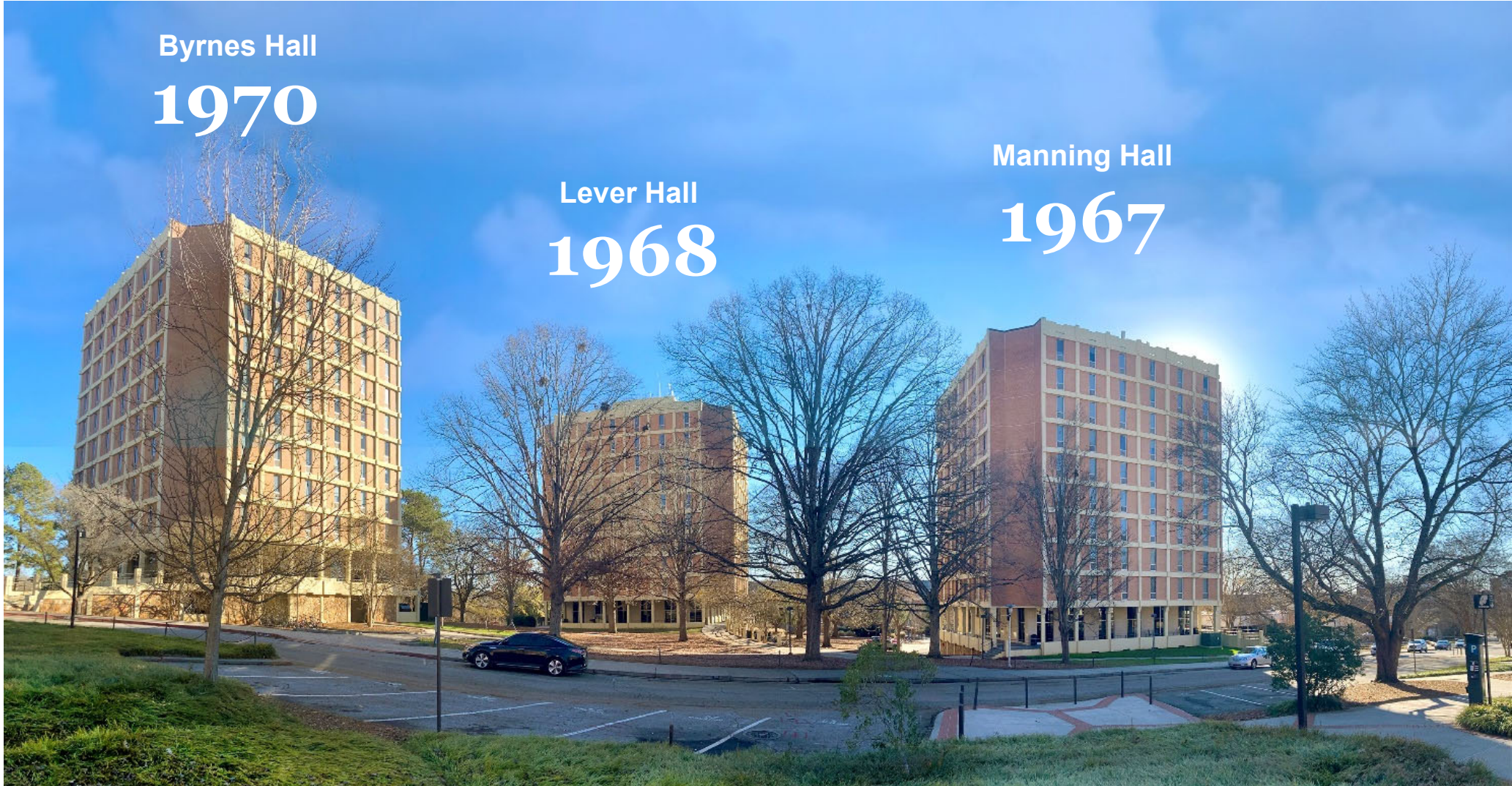
Clemson University – Bryan Mall High-Rise Renovations

CLEMSON  home + BOUDREAUX + LITTLE DIVERSIFIED ARCHITECTURAL CONSULTING +  JUNEAU CONSTRUCTION COMPANY

Byrnes Hall
1970

Lever Hall
1968

Manning Hall
1967



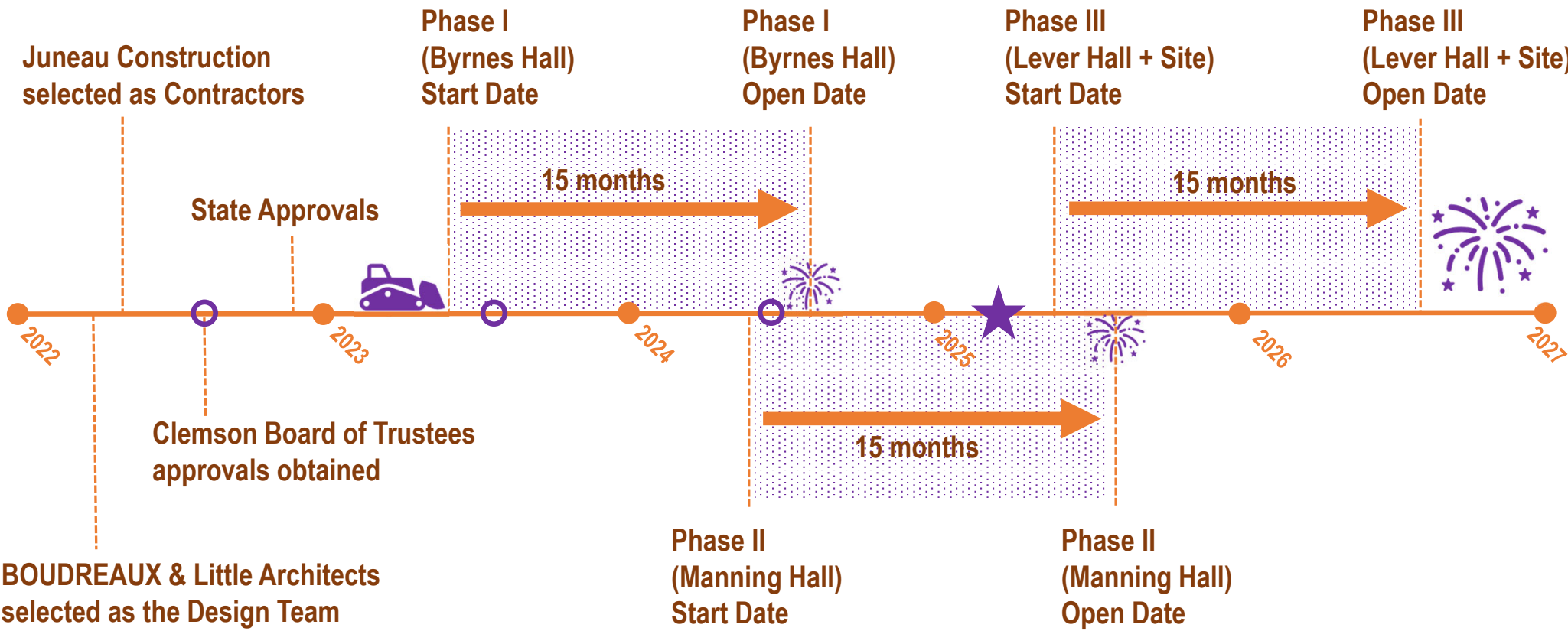


Clemson University – Bryan Mall High-Rise Renovations



Project Schedule

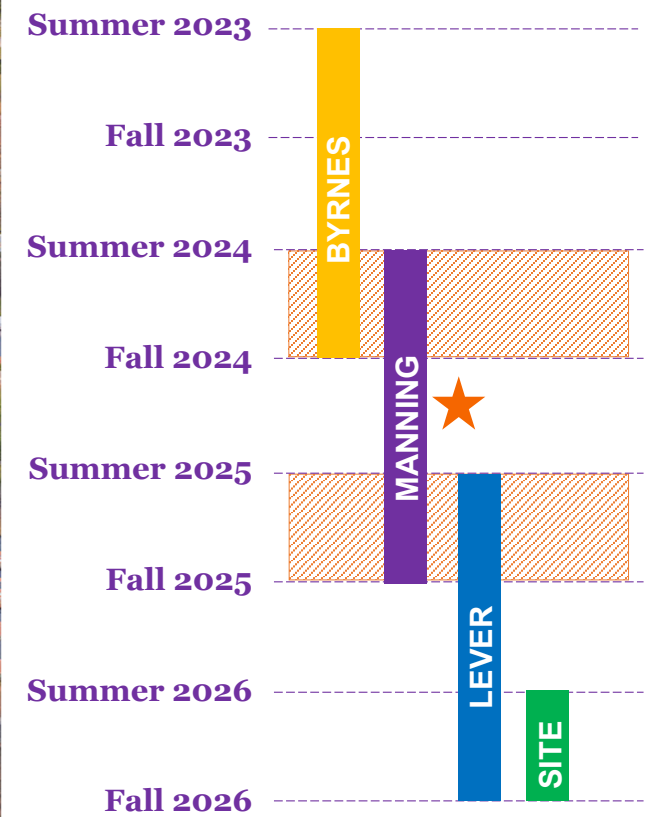
★ We are here!



Project Phasing

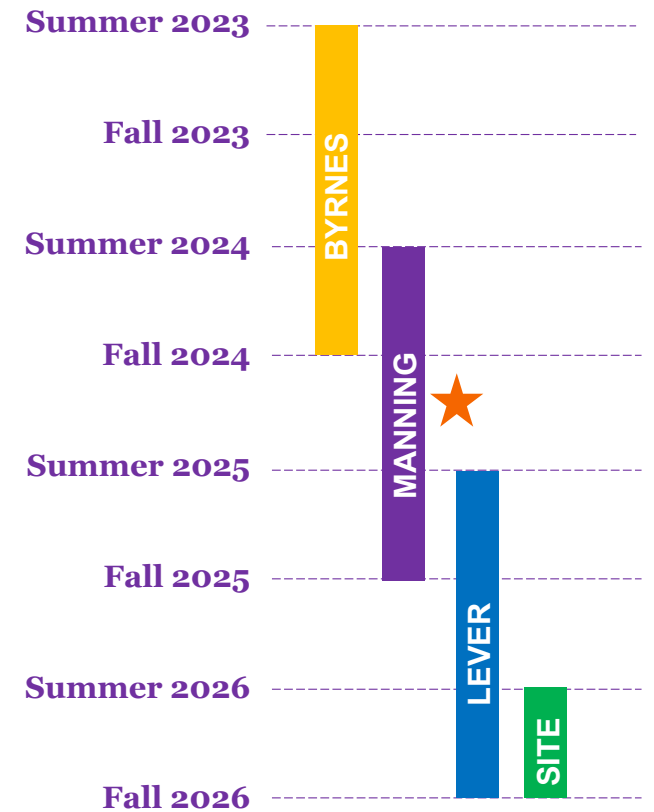
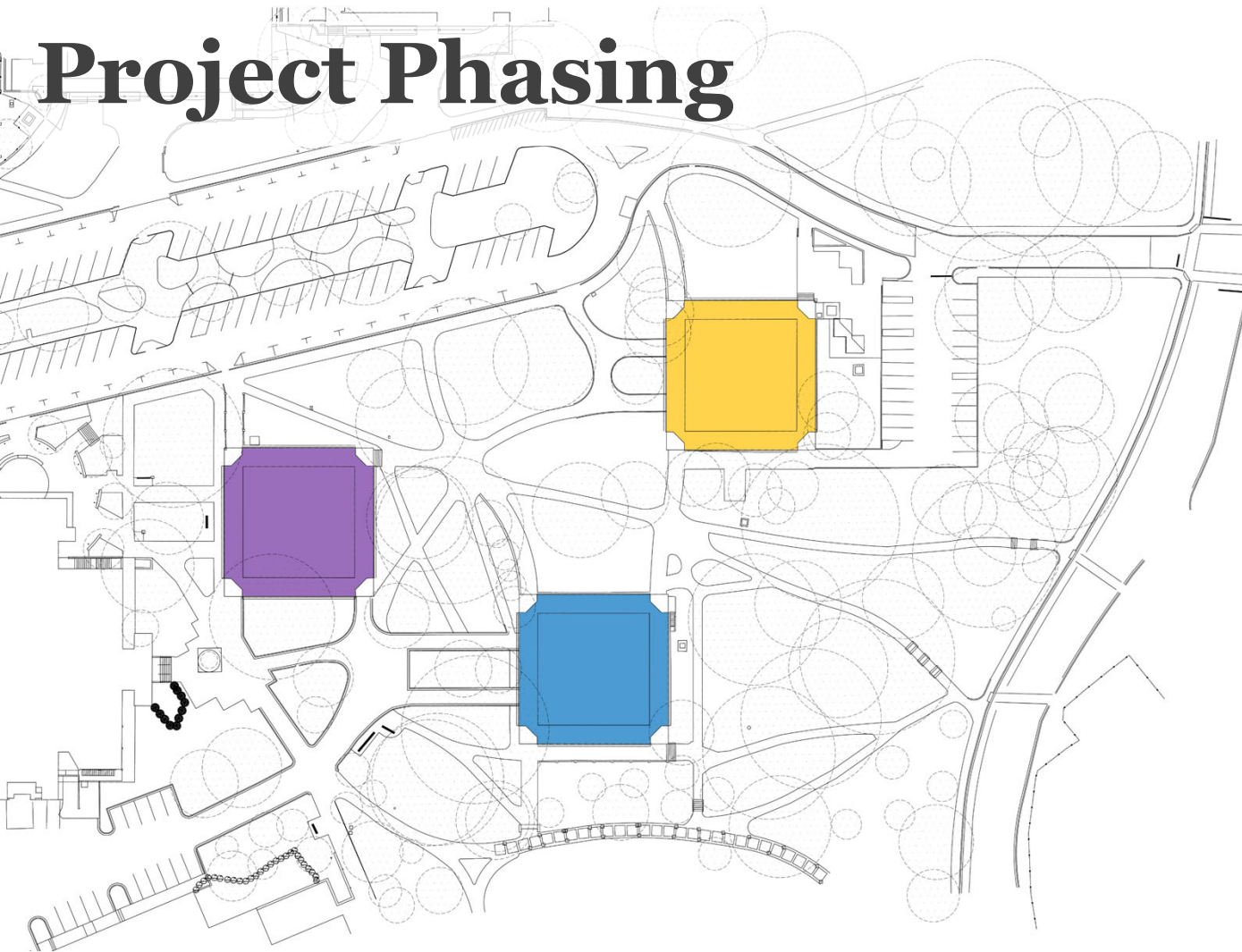


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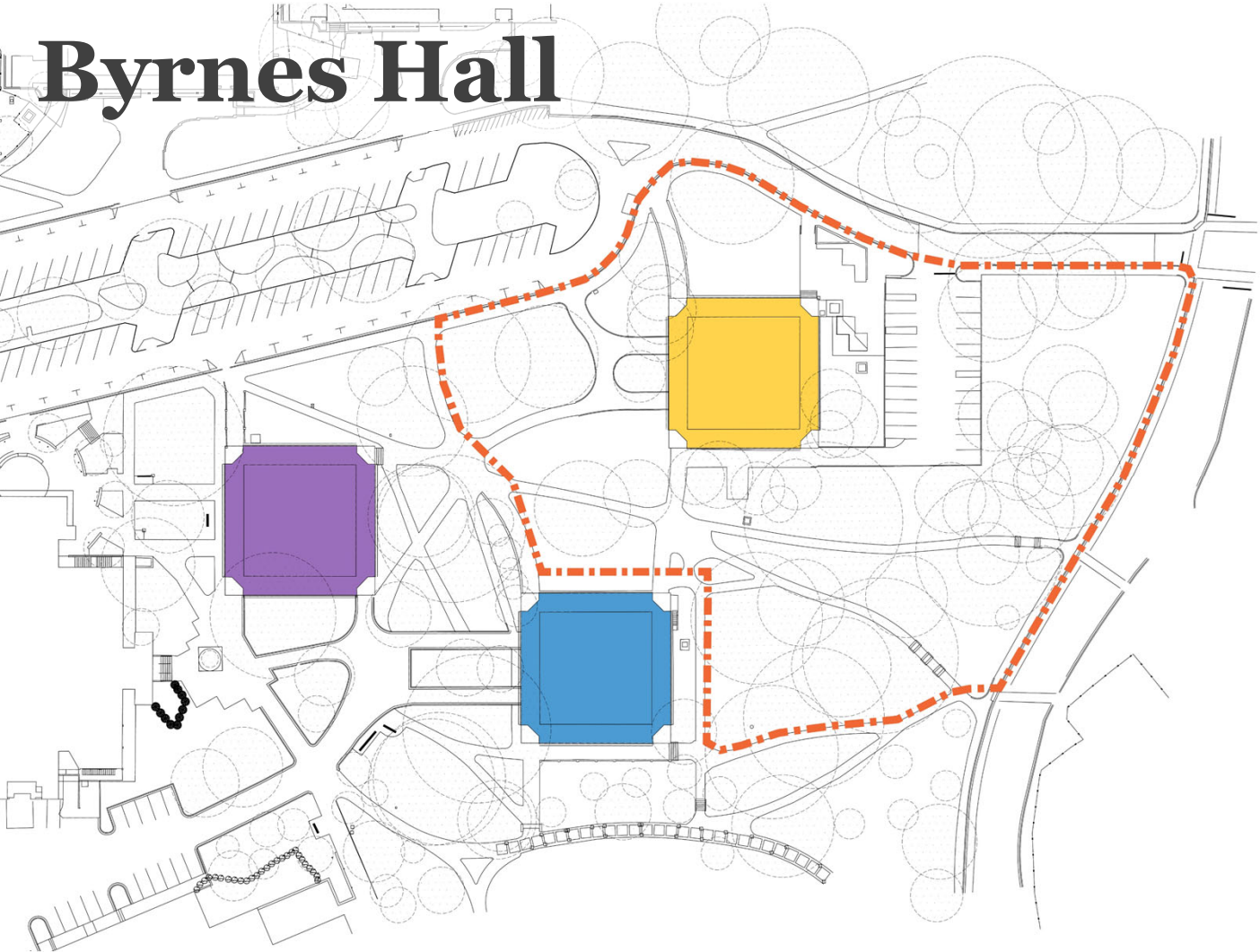


Project Phasing

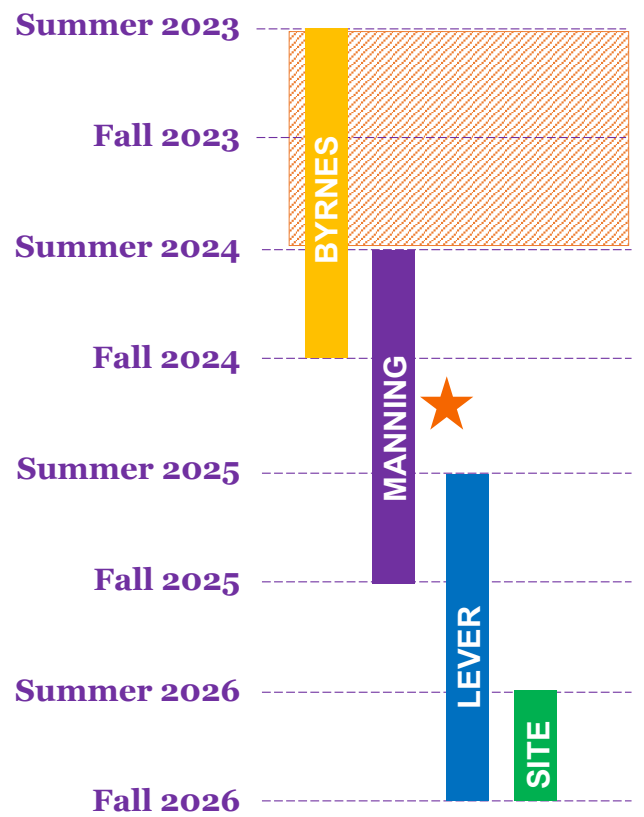
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Byrnes Hall

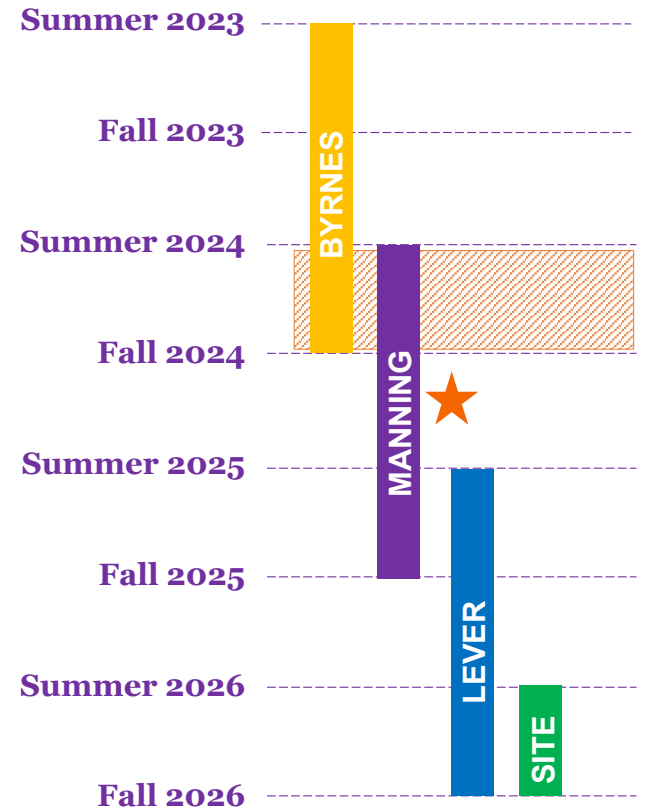
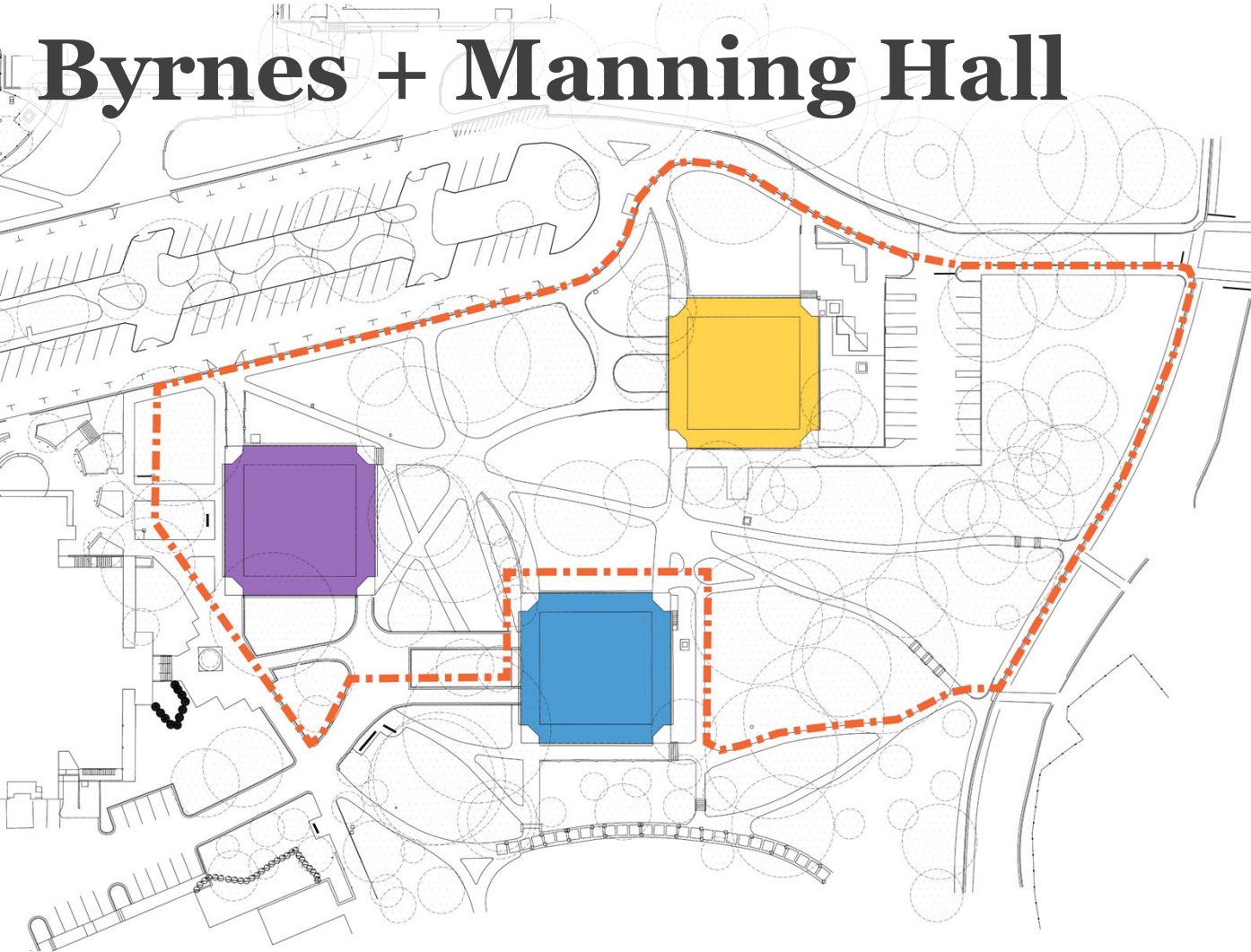


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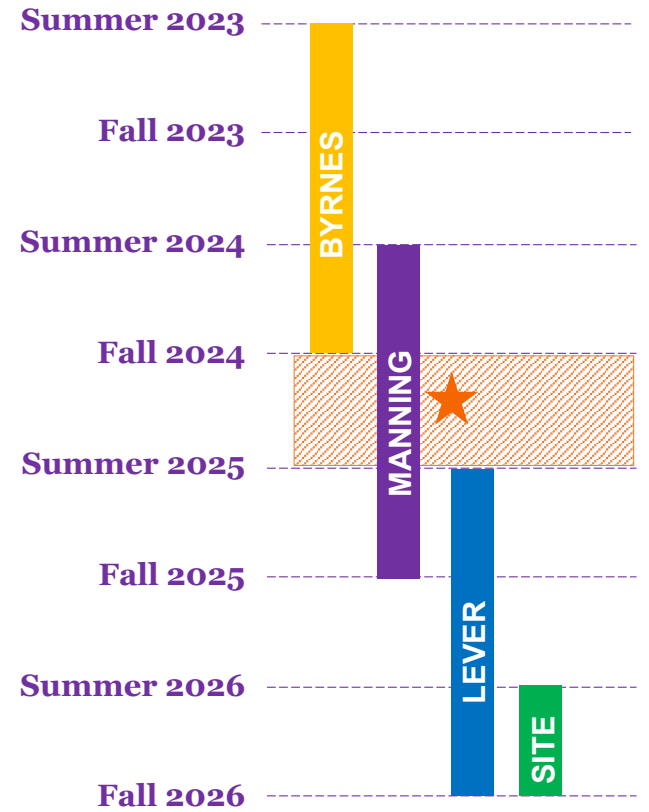
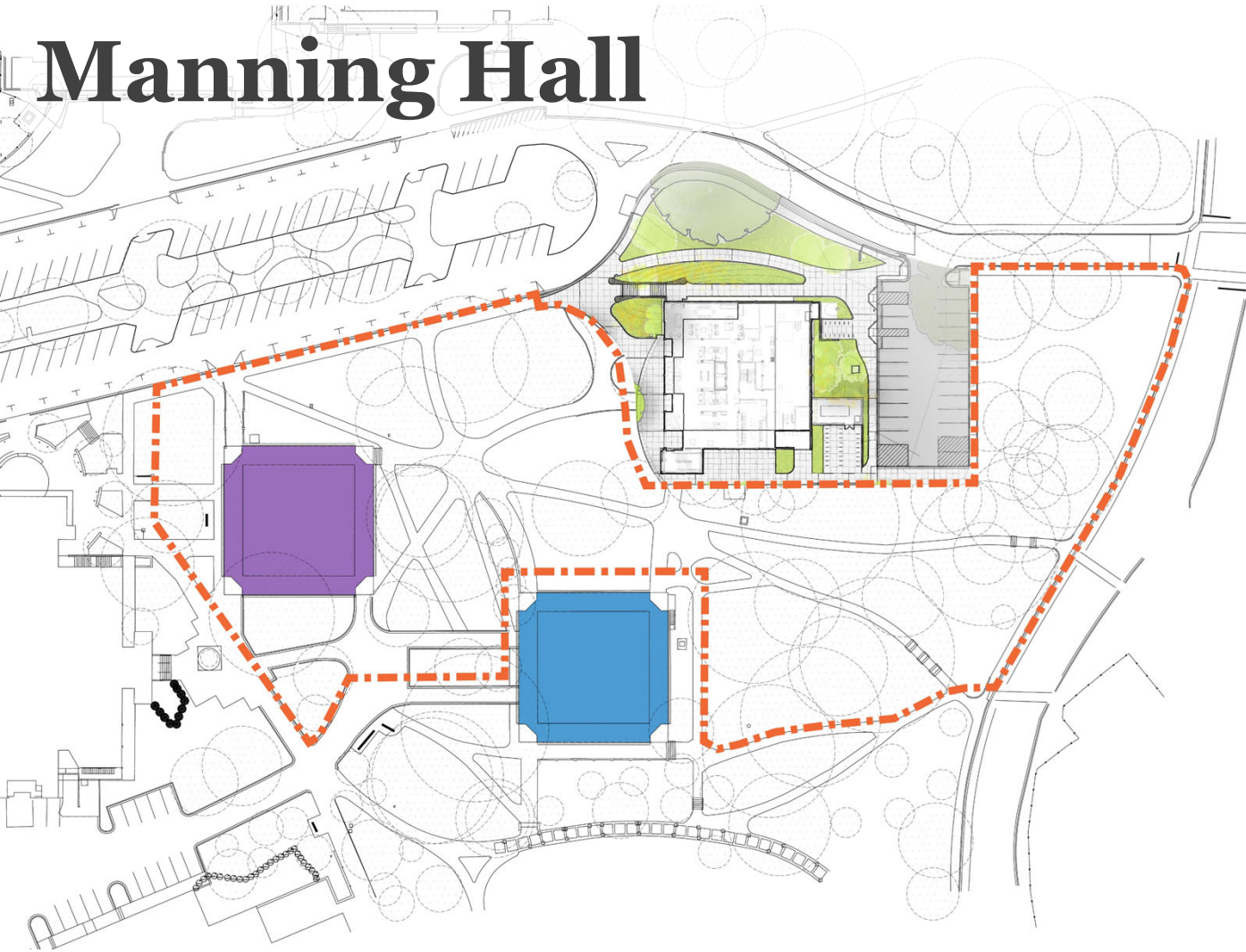
Byrnes + Manning Hall

★ We are here!



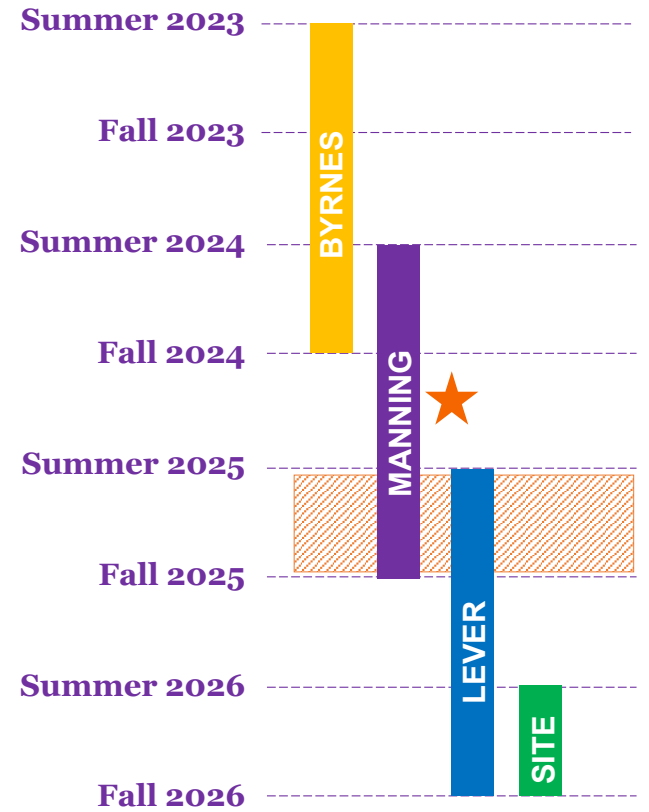
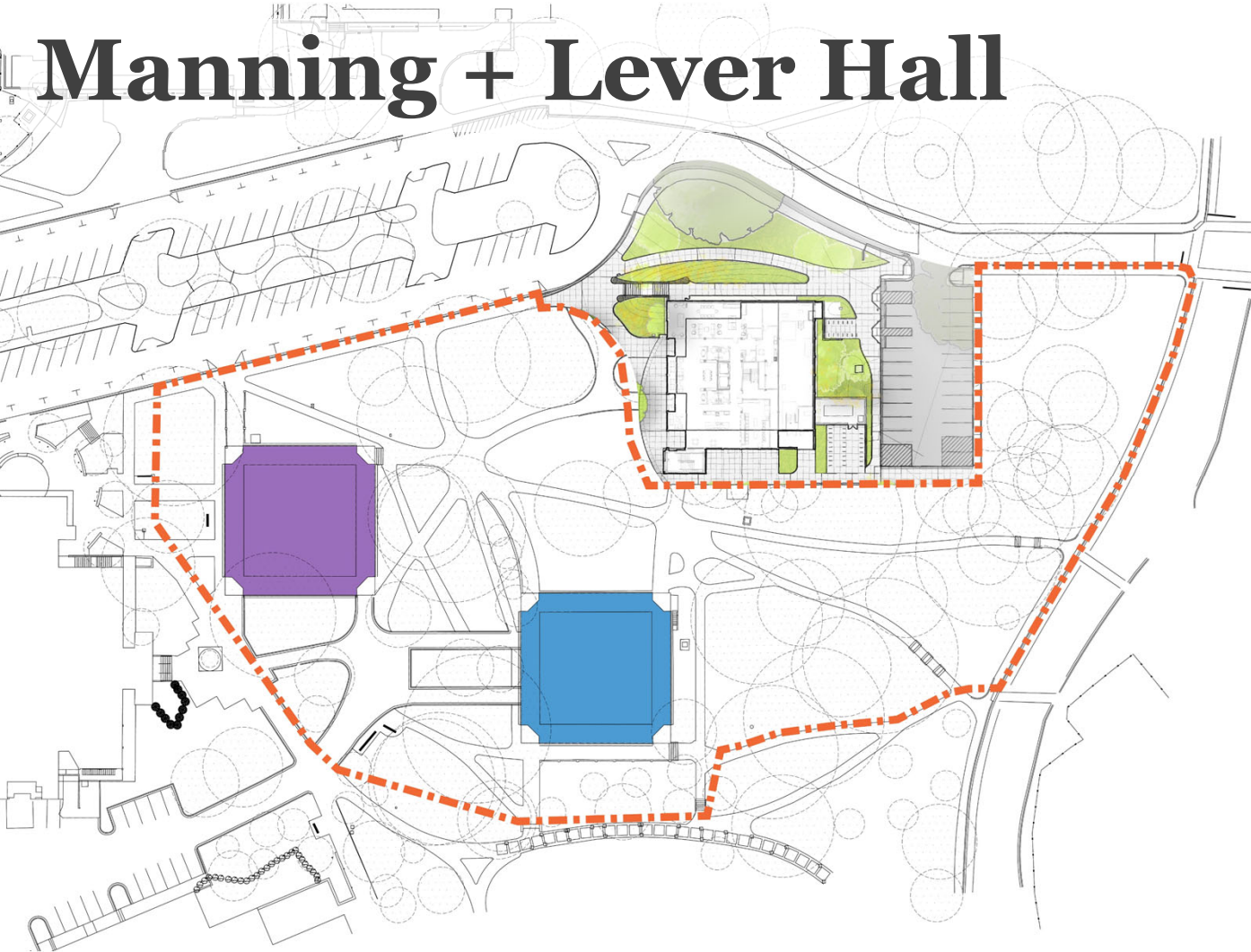
Manning Hall

★ We are here!



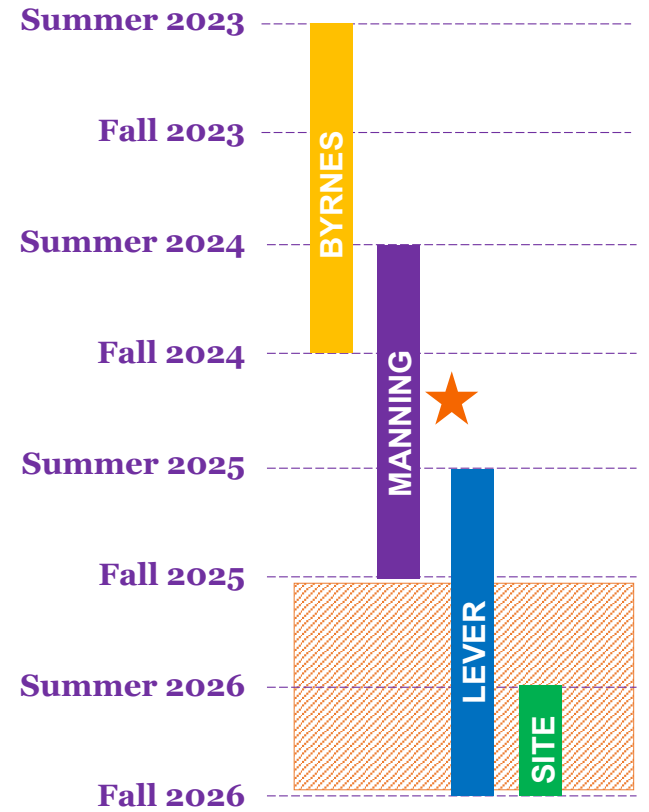
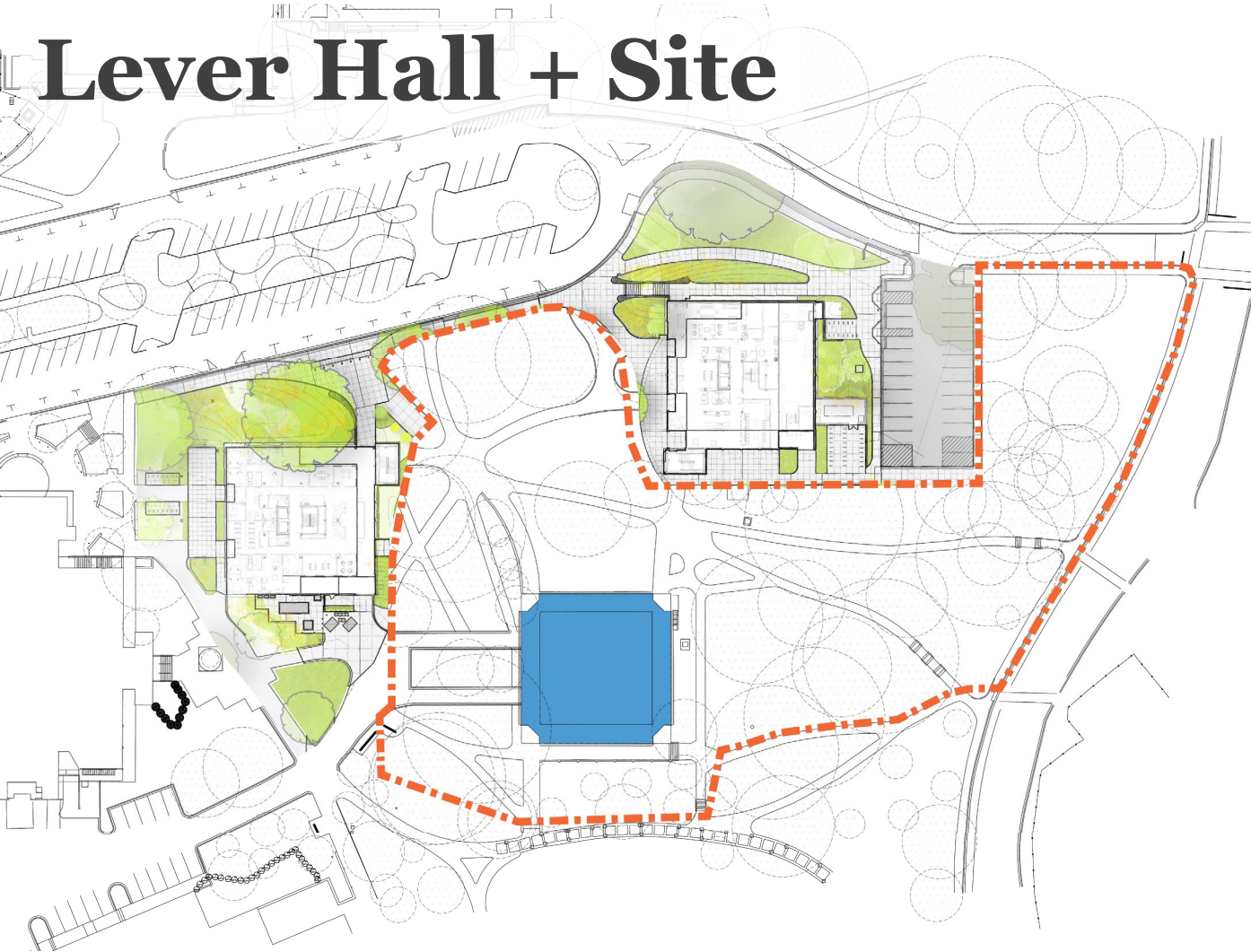
Manning + Lever Hall

★ We are here!



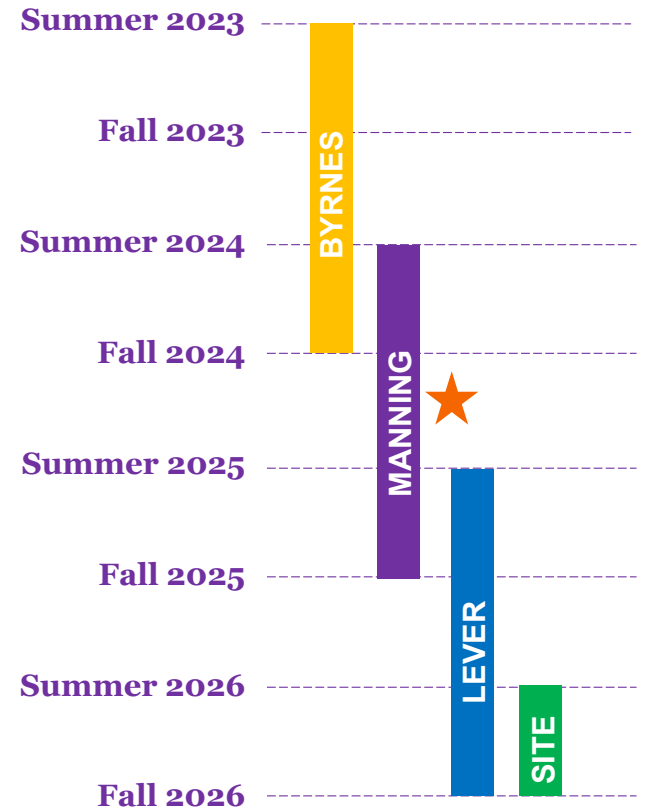
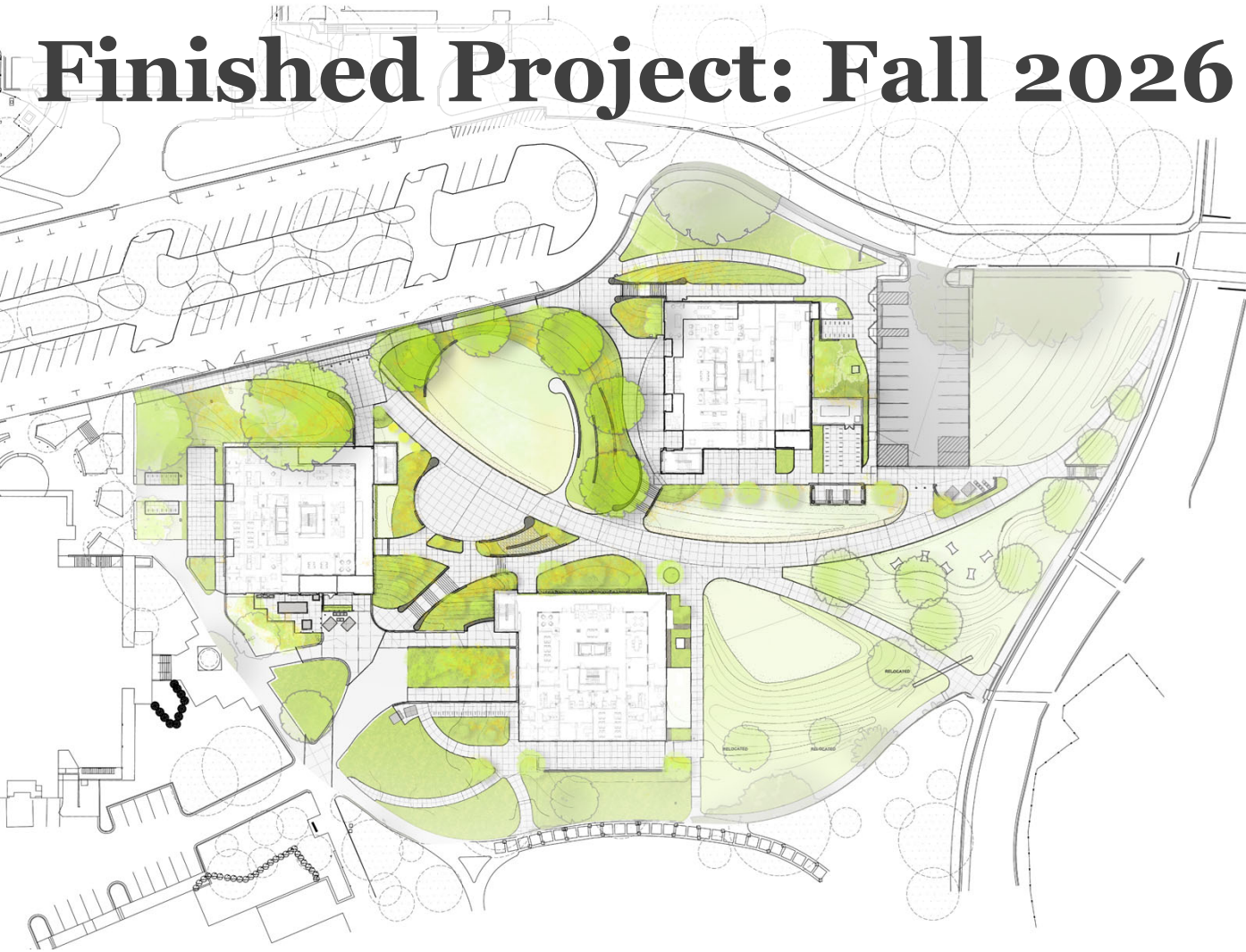
Lever Hall + Site

★ We are here!



Finished Project: Fall 2026

★ We are here!



High-rise Decision

RENOVATION

\$96 million

(Cost Estimate Pre-Covid)



DEMO & NEW CONSTRUCTION

\$7.1 million

(Demo Only)

\$225 million

(New Construction)

Financing



Pieces of the Financial Pie

- Bonding capacity
- Cash reserves
- Housing Improvement Fund (HIF)

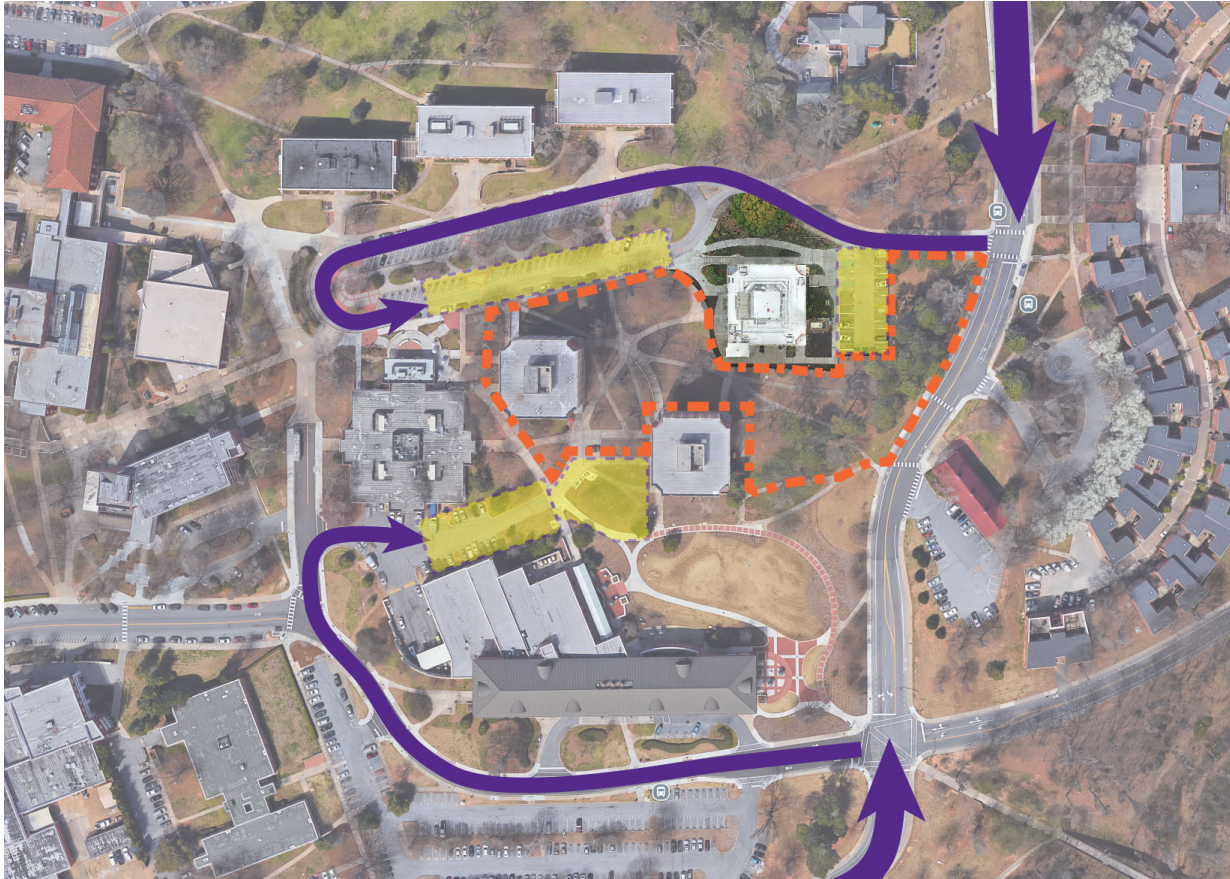
Communications

Best Practices

- Work with contractor to understand how construction schedule overlays with academic schedule and other campus events (football)
- Building/ Room assignment portals (StarRez) convey that construction is ongoing. No surprises when students arrive!
- Provide notice to residents before loud or overhead work.



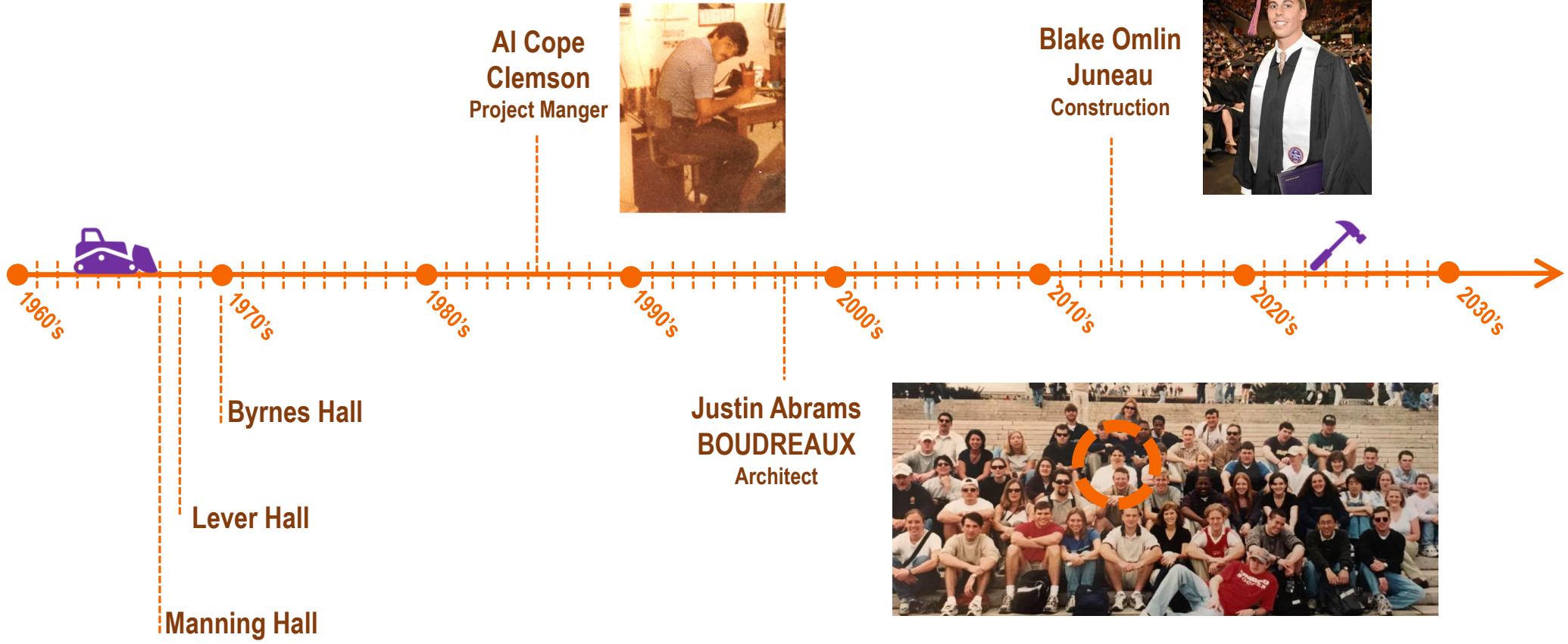
Operations



Move-in/ Move-Out

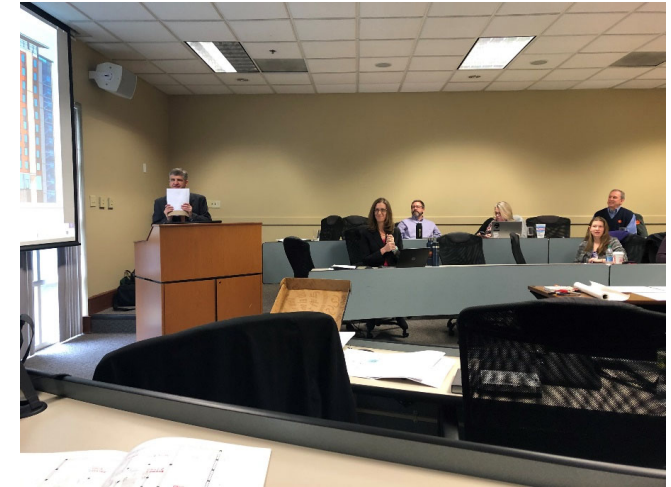
- Scheduled time slots for each resident to limit overcrowding
- Communication with construction team for adjustment to construction activities and schedule during that week.
- Lots of signage, wayfinding and volunteers

You CAN go home again ... a Project Team of former residents



A Project's Vision comes from Listening

- Weekly meetings with entire Design Team and Construction Manager, Clemson Housing Staff, Facilities, and Planning, Design and Construction Staff
 - Able to make decisions quickly
 - Leveraged virtual meetings
 - Use of online pin-up board to share design images
- Constant and productive communication



Community & Place



Central Quad Entries



Study Spaces



Connection to Outdoors



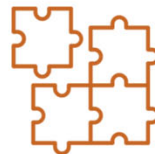
Flexibility



A New Fresh Look



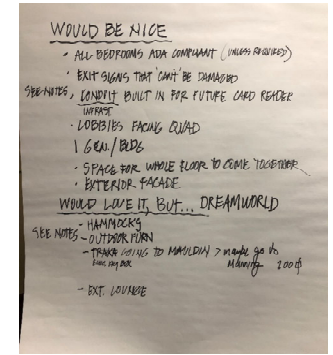
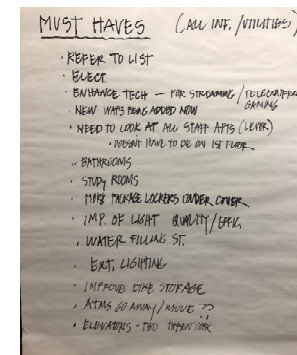
Professional Apartments



Campus Consistency



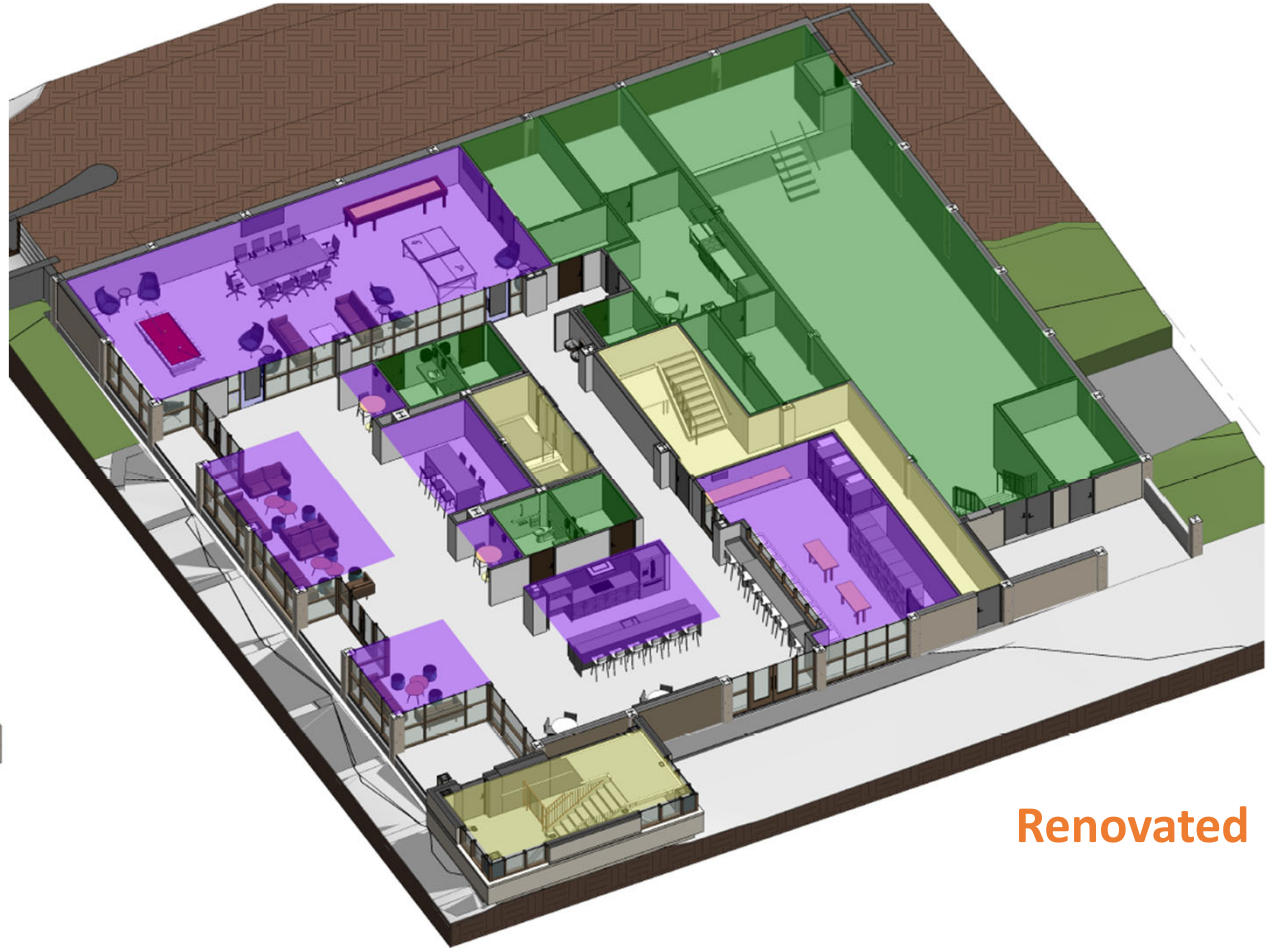
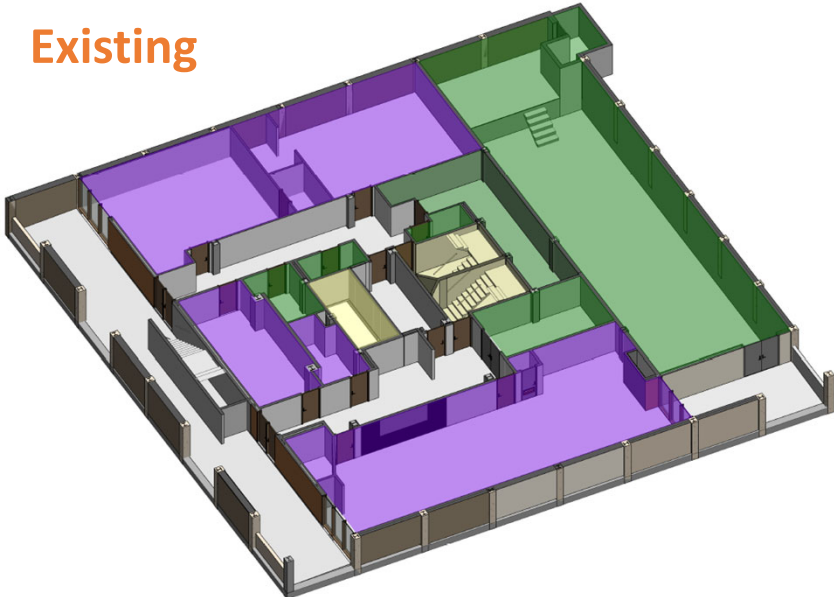
Green Globes



Ground Level

■ - Social Space ■ - Systems & Core ■ - Vertical Circulation


Existing



Renovated

Level 1

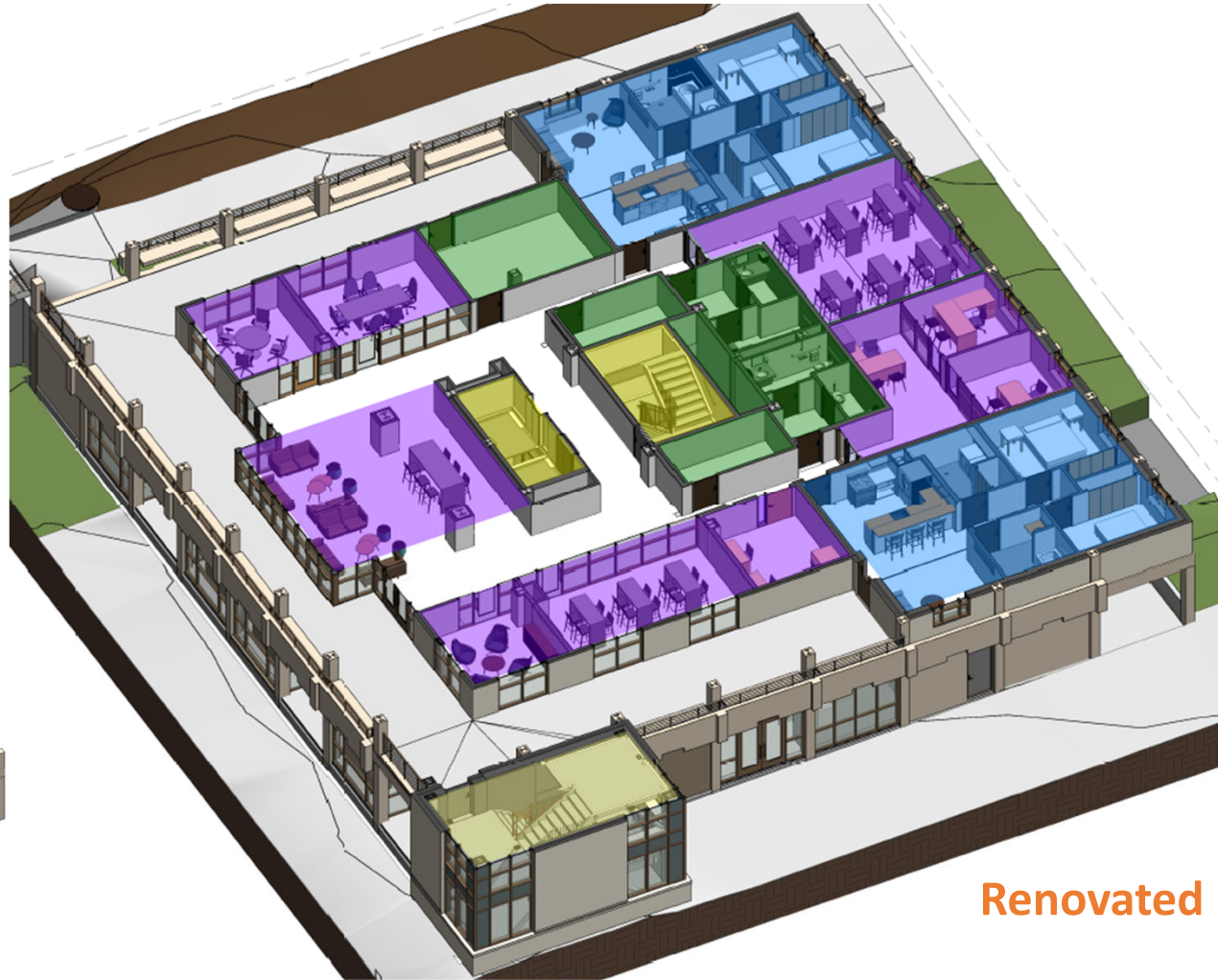
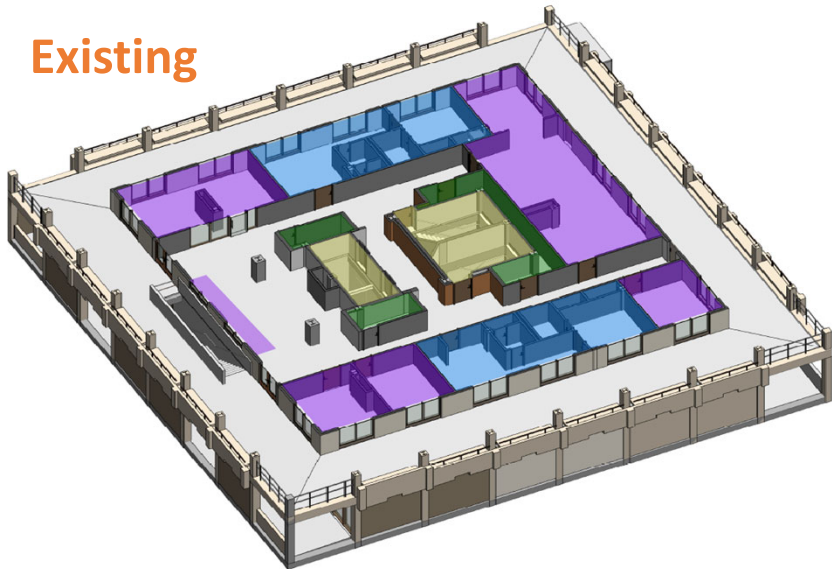
 - Social Space

 - Systems & Core

 - Vertical Circulation

 - Staff Apartments

Existing

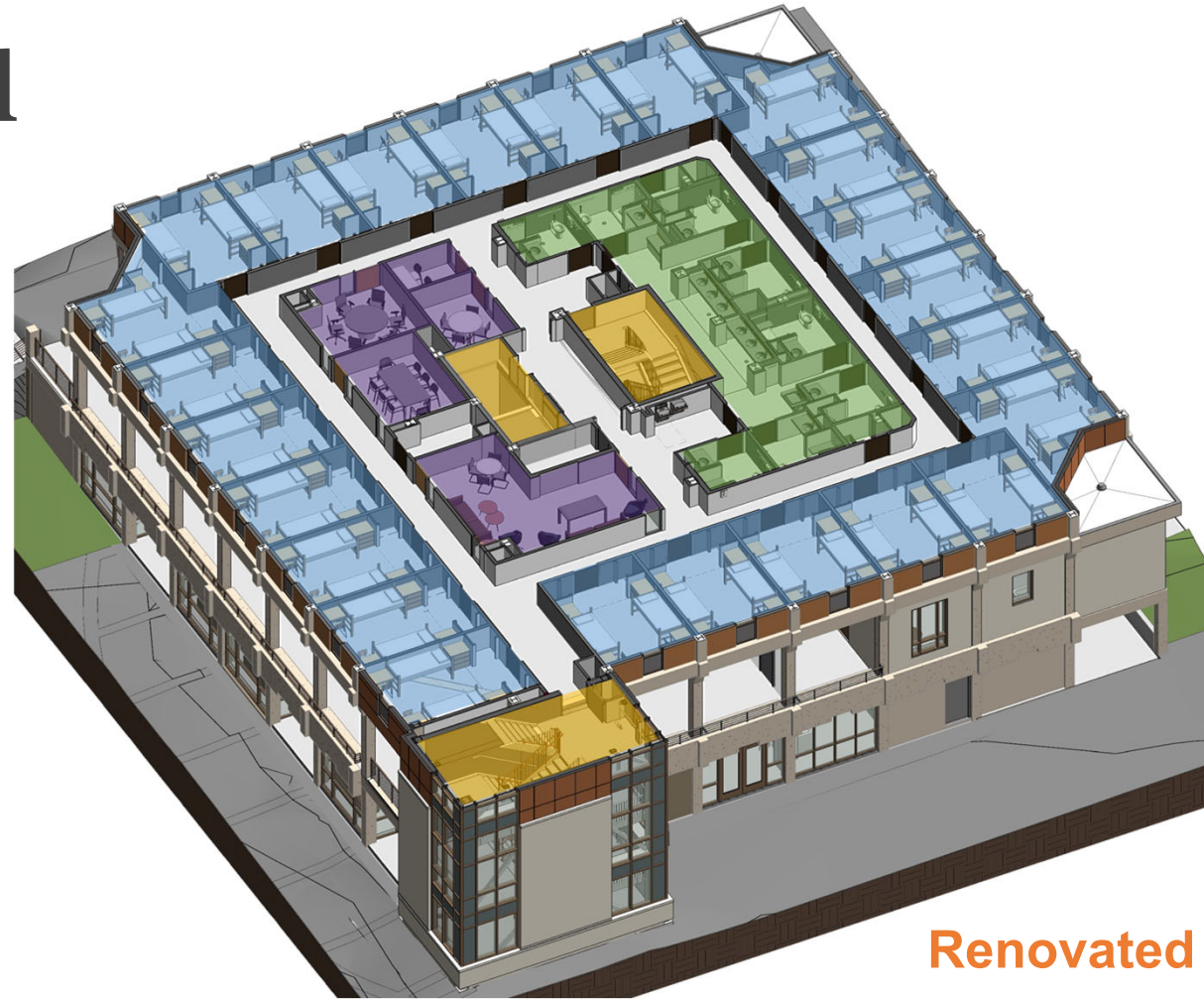
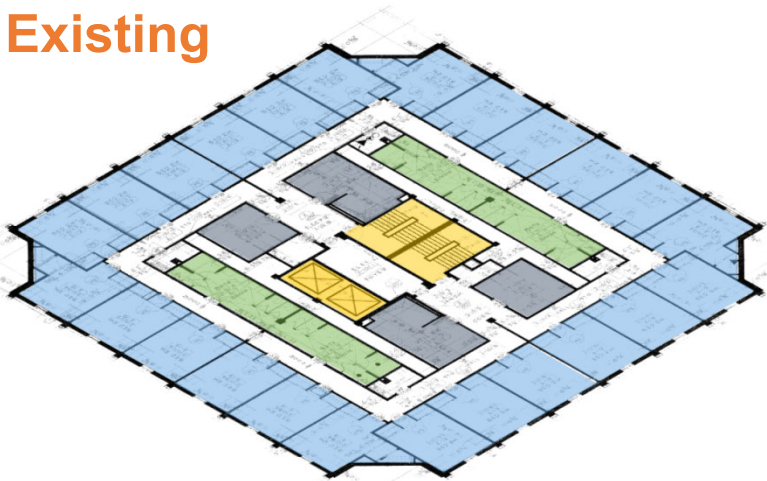


Renovated

Typical Residential Level

- Study Space
- Wet Core (Bathrooms)
- Core
- Residential Rooms

Existing

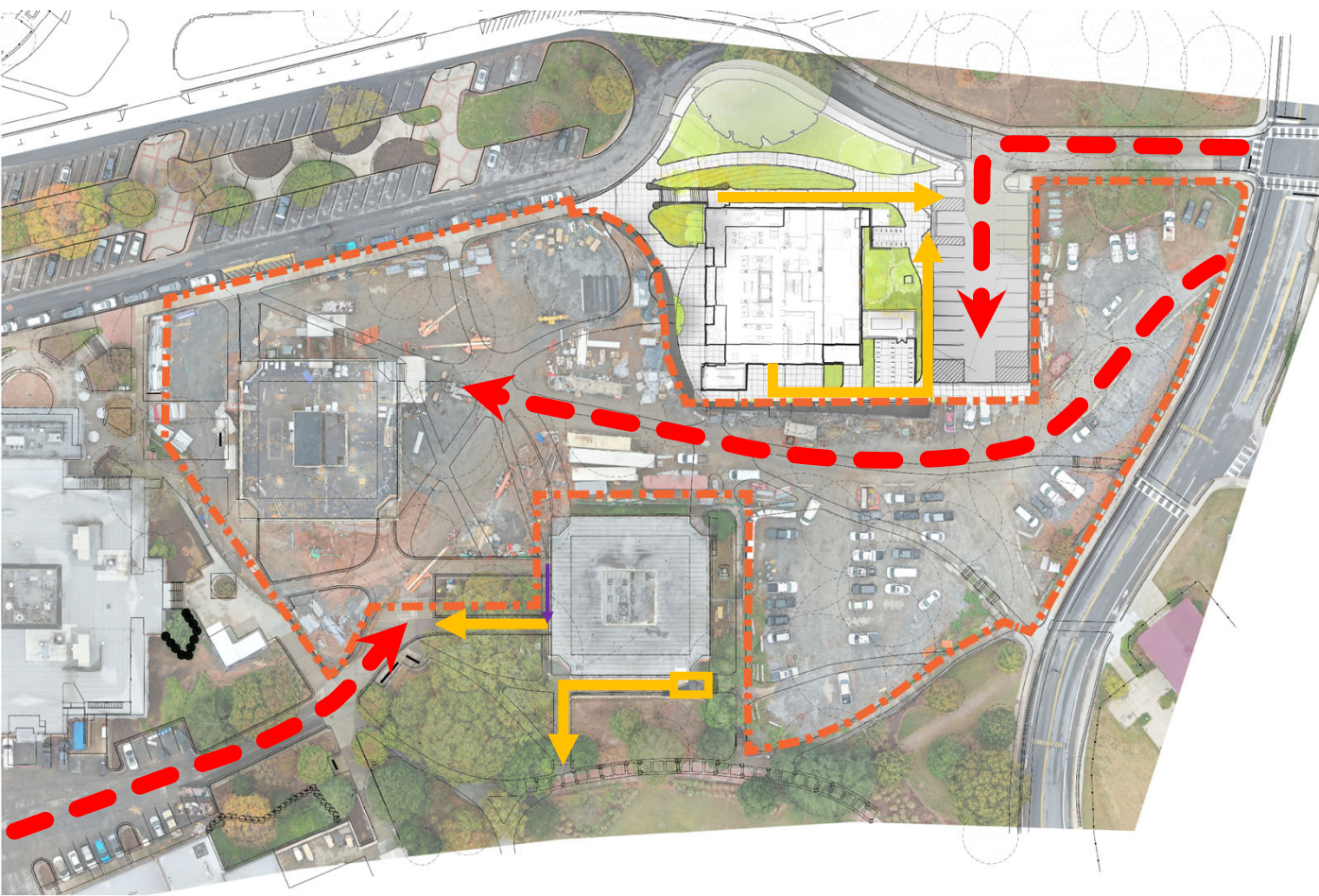


Renovated

Life Safety During Construction

Considerations

- Fire Access to open residences and to structure under construction
- Plan for alternate emergency exits from buildings that are surrounded by construction activity



Lessons Learned



Preconstruction/
Exploration



Site Logistics



Construction



Life After Move-in

Preconstruction

Lessons
Learned

“Demo” Mock-up

- Housing blocked off 4 rooms in Byrnes the year before construction for exploration

The Mission

- Intentionally find the “unforeseen”
- Problem solve renovation scope
- Test how to build back



Site Logistics

*Lessons
Learned*

Factors to Consider

- Material & Manpower Movement
- Pedestrian Traffic Patterns, and behaviors interrupted
- Safety & Security



Site Logistics

Construction Fence

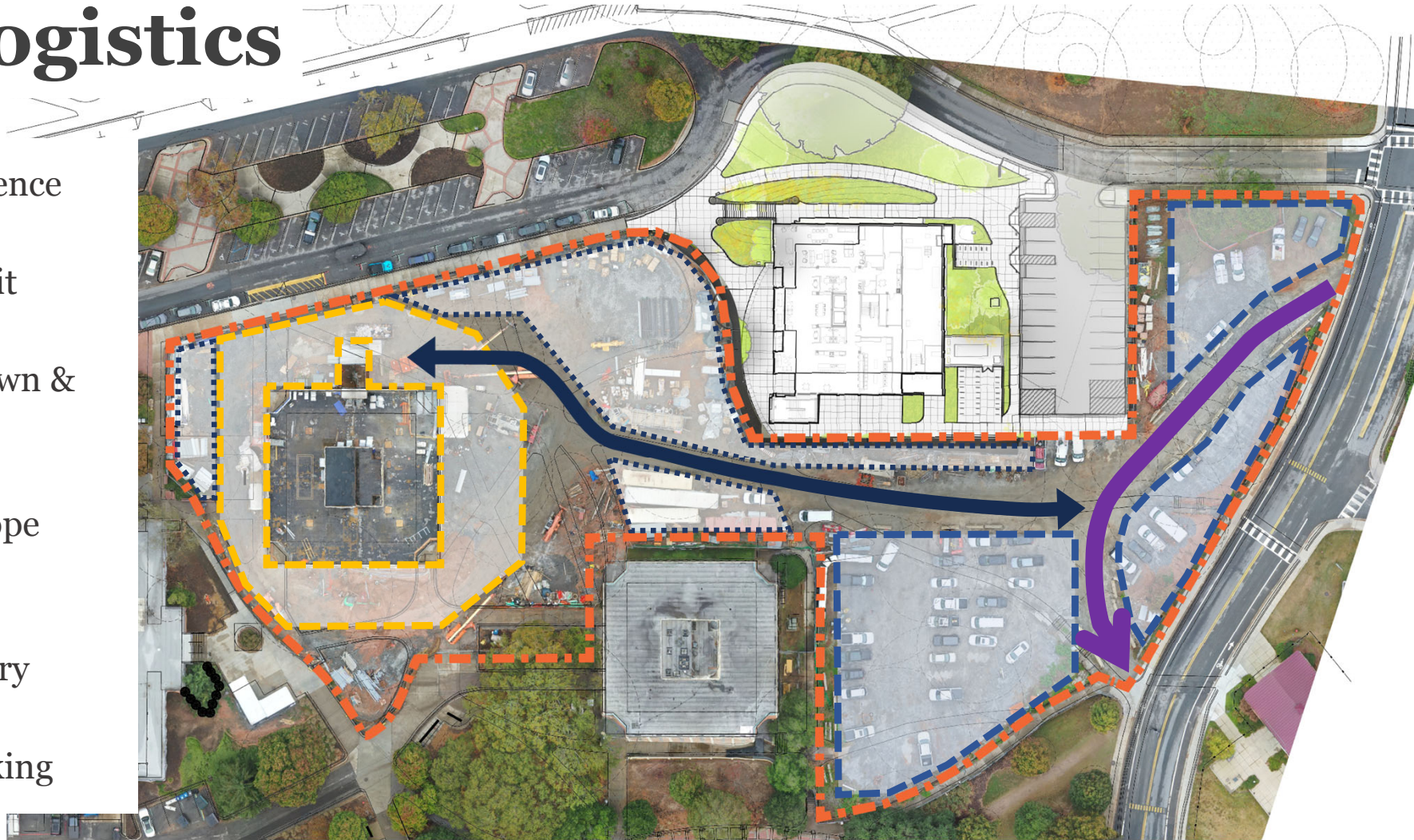
Site Entry + Exit

Material Laydown & Storage

Exterior Envelope access

Material Delivery

Workforce Parking



Site Logistics

Pedestrian Access

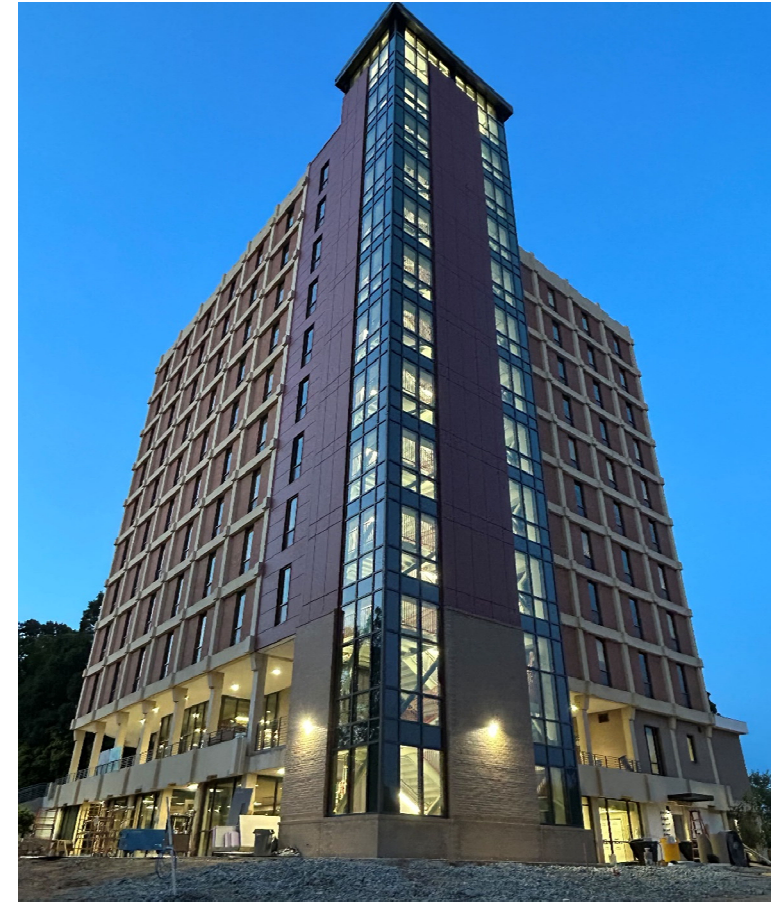


Site Logistics

*Lessons
Learned*

Best Practices

- Anticipate the unexpected and mischievous
- Ensuring students feel safe adjacent to jobsite
- “Predict” the unintended consequences of interrupting natural traffic patterns
- Learn your neighbors & user groups, distributions
- Impacts to adjacent structures, you may need modifications to buildings you aren’t working on
- Set up fence for any activity outside jobsite

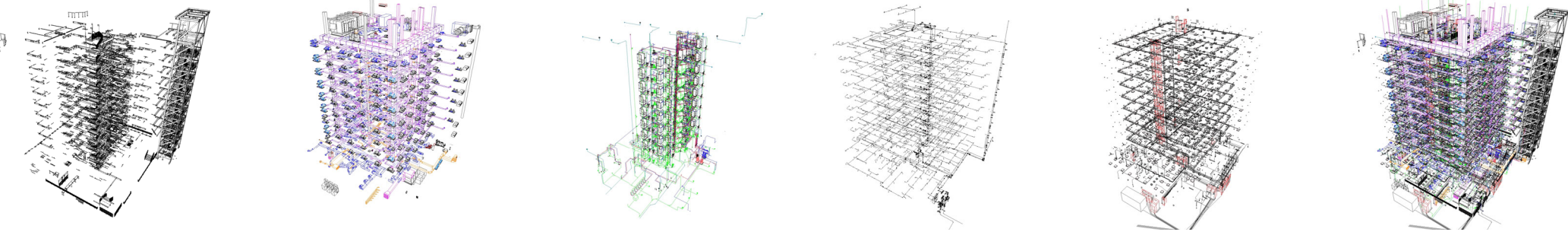
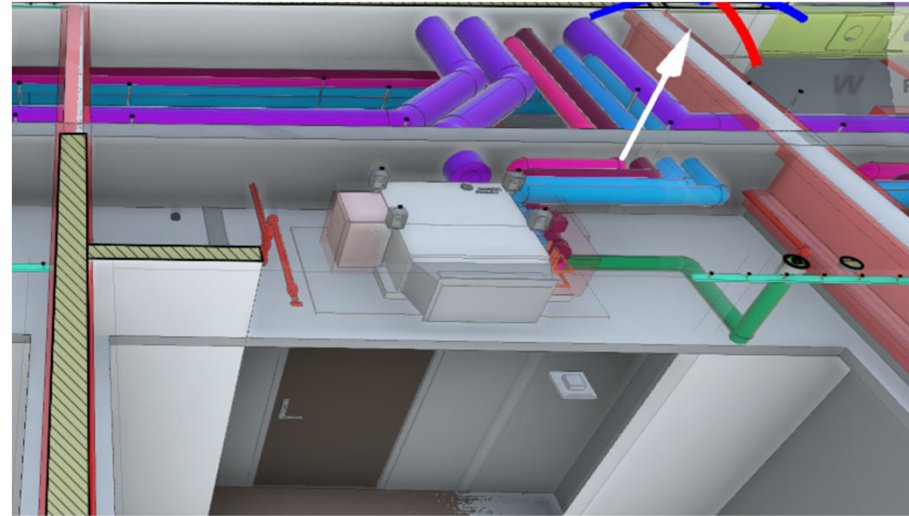


Construction

Lessons
Learned

Using Virtual Design and Construction

- Complex renovations require a lot of coordination.
- A/E teams coordinate systems during design, but schedule and sequence often change assumptions
- Trades should model as much as they can during VDC



Construction

*Lessons
Learned*

Review, Oversight, Inspections Best Practices

- Be intentional about milestone walks with University Facilities
 - Review Construction schedule, identify the impact points in the schedule
 - Identify early mockups, build time for facilities tours, feedback and processing of decisions
- Custodial, RCM, other stakeholder reviews and walks



Life after move in...

Learn from your buildings

- **ADA Showers**
 - Stringent ADA requirements with minimal curb/ threshold allowed and shower seats that push curtain out.
 - Inconsistent shower curtain sizes
 - Existing floors don't slope the way you want or expect
- **Key Takeaways**
 - Understand water is going to get out
 - Spend the money on “thickset” tile to allow sloping to drains in renovation



Life after move in...

Learn from your buildings

- **Bedroom Circuits**
 - VE was accepted during design to do one dedicated circuit for receptacles at window and share circuits between 2 bedrooms for receptacles next to closet.
 - Believed heavier use would be from Computers, TV's, and Microfridges located near windows.
 - Student appliances such as coffee makers, hair styling devices causing nuisance trips
- Decided the effort to deal with nuisance wasn't worth the money saved and have changed for next phases.



Life after move in...

Best Practices

- Be intentional about transition
- Give staff time to learn the building
- Phased project meant Juneau is still on site to help deal with emergency situations, warranty issues, and help dial-in the building.





BEFORE



BYRNES HALL - AFTER



BEFORE



BYRNES HALL - AFTER



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Thank You!

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