



Lexington High School

School Building Committee
Meeting

05.13.2024



dw
DORE + WHITTIER

SMMA

AGENDA

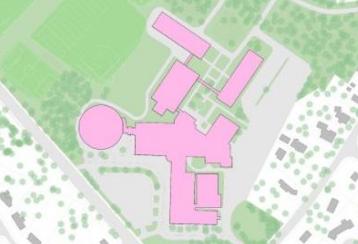
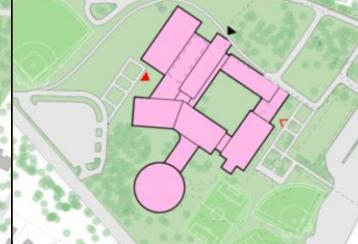
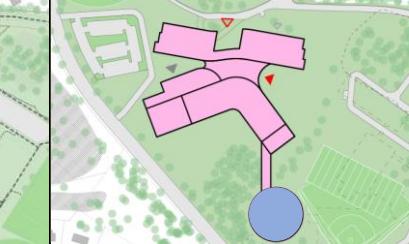
1. 12:00 - 12:15 p.m. Overview
2. 12:15 - 1:00 p.m. Small Group Work
 - Take the first 5 minutes to review the evaluation matrix on your own. Then, working together as a team for the next 40 minutes, review SMMA's completed matrix and record disagreements on the blank evaluation matrix. Extra-large poster-size sheets (one blank and one with SMMA's matrix) have been printed for each team.
3. 1:00 - 1:20 p.m. Small Group Share Out
 - The designated reporter for each of the four teams will have 5 minutes to share out their group's key takeaways, highlighting any of their team's ratings that differ from SMMA's, along with their rationale.
 - Individual participants are encouraged to be active listeners and jot down points raised that shift their thinking or teach them something new. Note paper will be provided.
4. 1:20 - 1:45 p.m. Whole Group Discussion
 - Once each small group has shared out, we will process together in the whole group, identifying points of agreement and any issues that may need further discussion and clarification.
5. 1:45 - 2:00 p.m. Group Vote
 - After the whole group discussion to clarify issues and process what we have learned, it will be time to vote. A path forward may be clear after this process, or questions may still linger. Either way, a vote is encouraged.
 - A member of the SBC should make a motion to approve moving forward at least two renovation/addition and two new construction massing concepts (at least a total of four massing concepts). Next, the SBC will be asked to vote on the massing concepts using a roll-call vote.
6. 2:00 - 2:15 p.m. Public Input
7. 2:15 - 2:30 p.m. Reflections/Clarifications/Action Steps

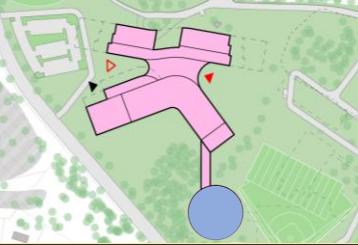
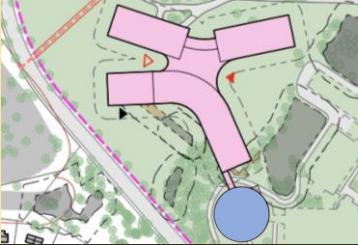
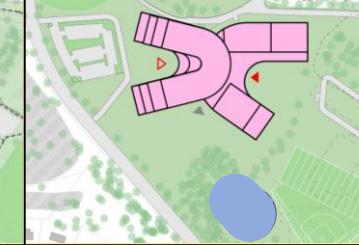
Working Summary of Construction Alternatives

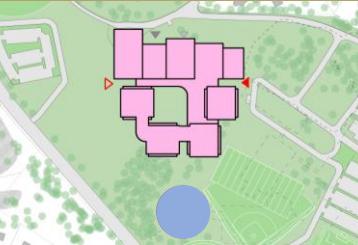
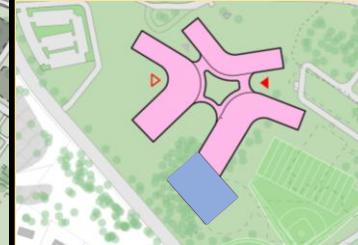
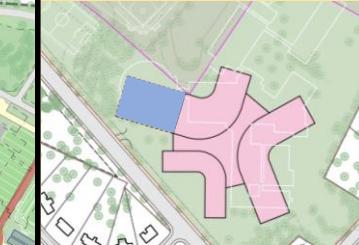
❤️ SMMA recommendations to advance, not necessarily the opinion of the SBC

	A. Code Upgrade	B. Renovation & Addition			C. New Construction						
Alternative	A.1	B.1	❤️	B.2	B.3	❤️	C.1a	C.1b	C.1c	C.1d	❤️
Description	No Changes to Architecture	2-4 Floors Phased-in-Place Retain Building G & J Structure	2-4 Floors Addition on Athletic Fields Retain Building G & J Structure	4 Floors Phased-in-Place Retain Building C & D	3 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase	5 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase Reduced wetland impact			

	C. New Construction										D. New - Multi Phase	
Alternative	C.2a	C.2b	C.3a	C.4a	C.4b	C.4c	C.5a	C.5b	❤️	C.6	❤️	D.1
Description	3 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase	3 Floors On Fields 1 Phase	3 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase Reduced wetland impact	4 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase Reduced wetland impact	4 Floors On existing footprint Multiple Phases Reduced wetland impact Reduced Art 97 impact	4 Floors On Fields Multiple phases		

	A. Code Upgrade	B. Renovation & Addition			C. New Construction	
Alternative	A.1 (inc. Reno FH)	B.1 	B.2	B.3 (inc. Parking) 	C.1a	C.1b
Project Cost	\$300,000,000	\$635,000,000	\$595,000,000	\$665,000,000	\$610,000,000	\$600,000,000
Costs are school building only U.O.N.						

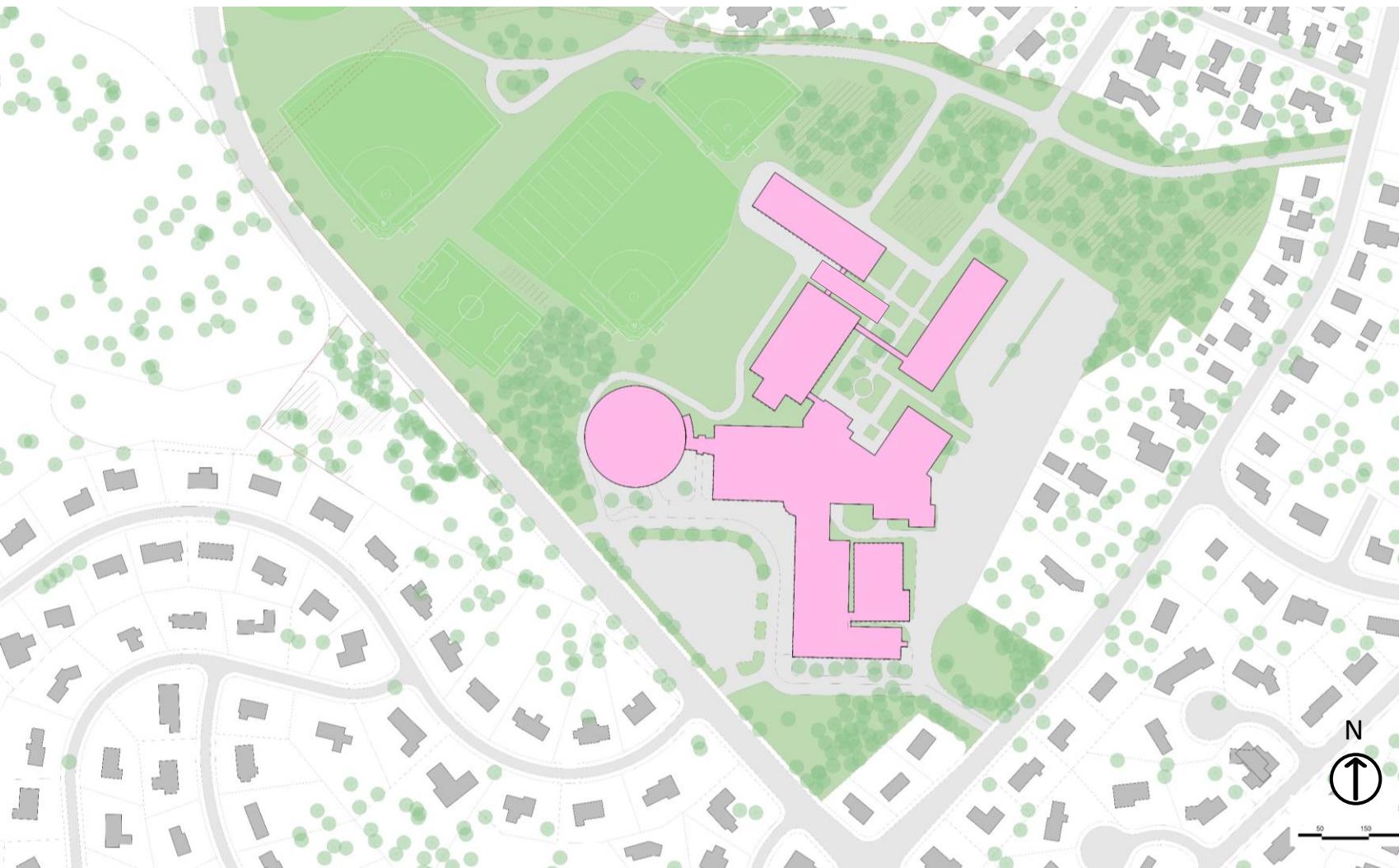
	C. New Construction					
Alternative	C.1c	C.1d (inc. Parking) 	C.2a	C.2b	C.3a	C.4a
Project Cost	\$600,000,000	\$625,000,000	\$610,000,000	\$600,000,000	\$605,000,000	\$615,000,000
Costs are school building only U.O.N.						

	C. New Construction					D. New - Multi Phase
Alternative	C.4b	C.4c (inc. Parking)	C.5a	C.5b (inc. Parking) 	C.6 	D.1
Project Cost	\$605,000,000	\$630,000,000	\$600,000,000	\$620,000,000	\$615,000,000	\$610,000,000
Costs are school building only U.O.N.						



SCALE: 1'' = 100'

A.1 Code Upgrade



Site Plan

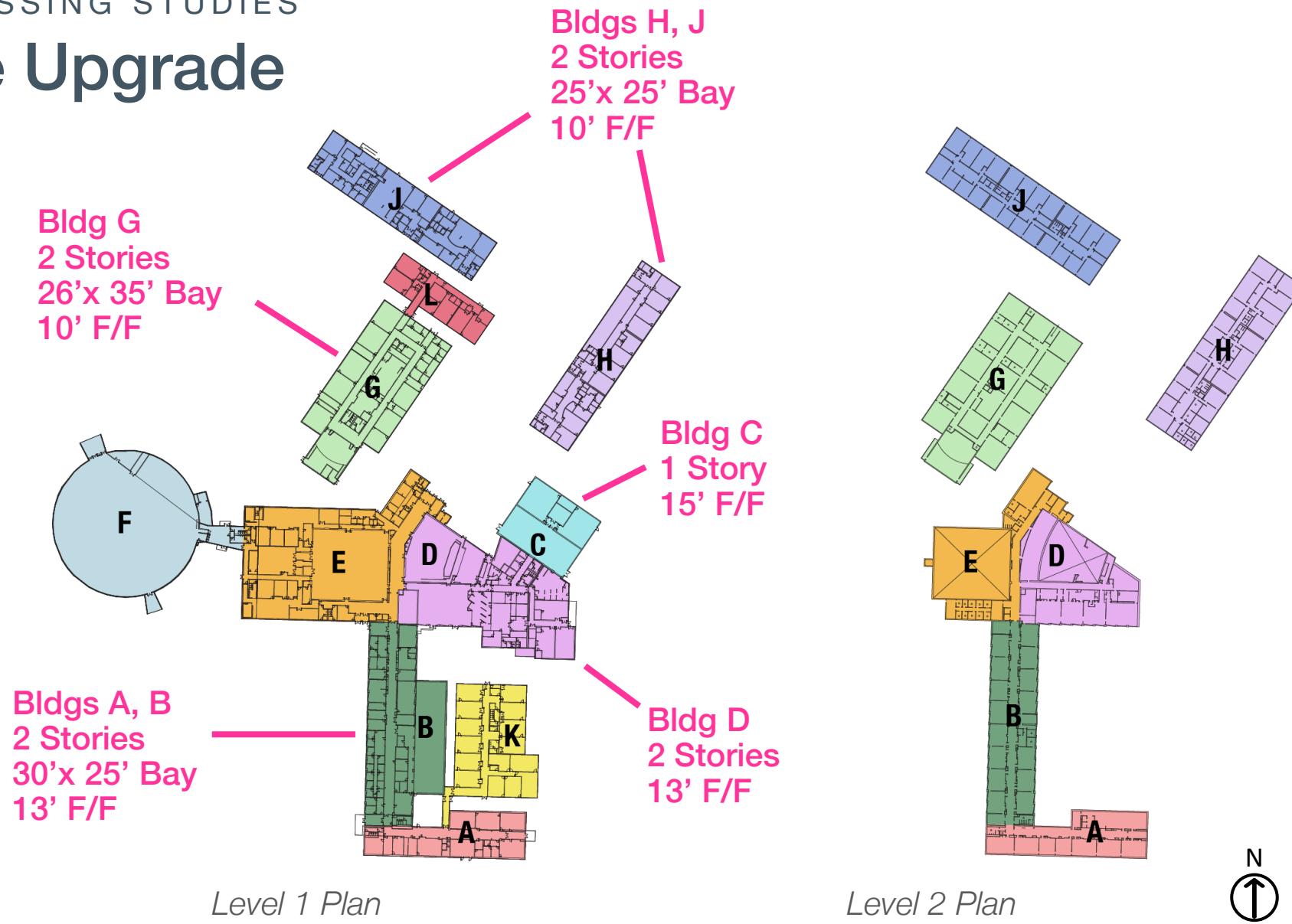
Current Facility

Building Footprint: 235,000 sf

Floors: 2

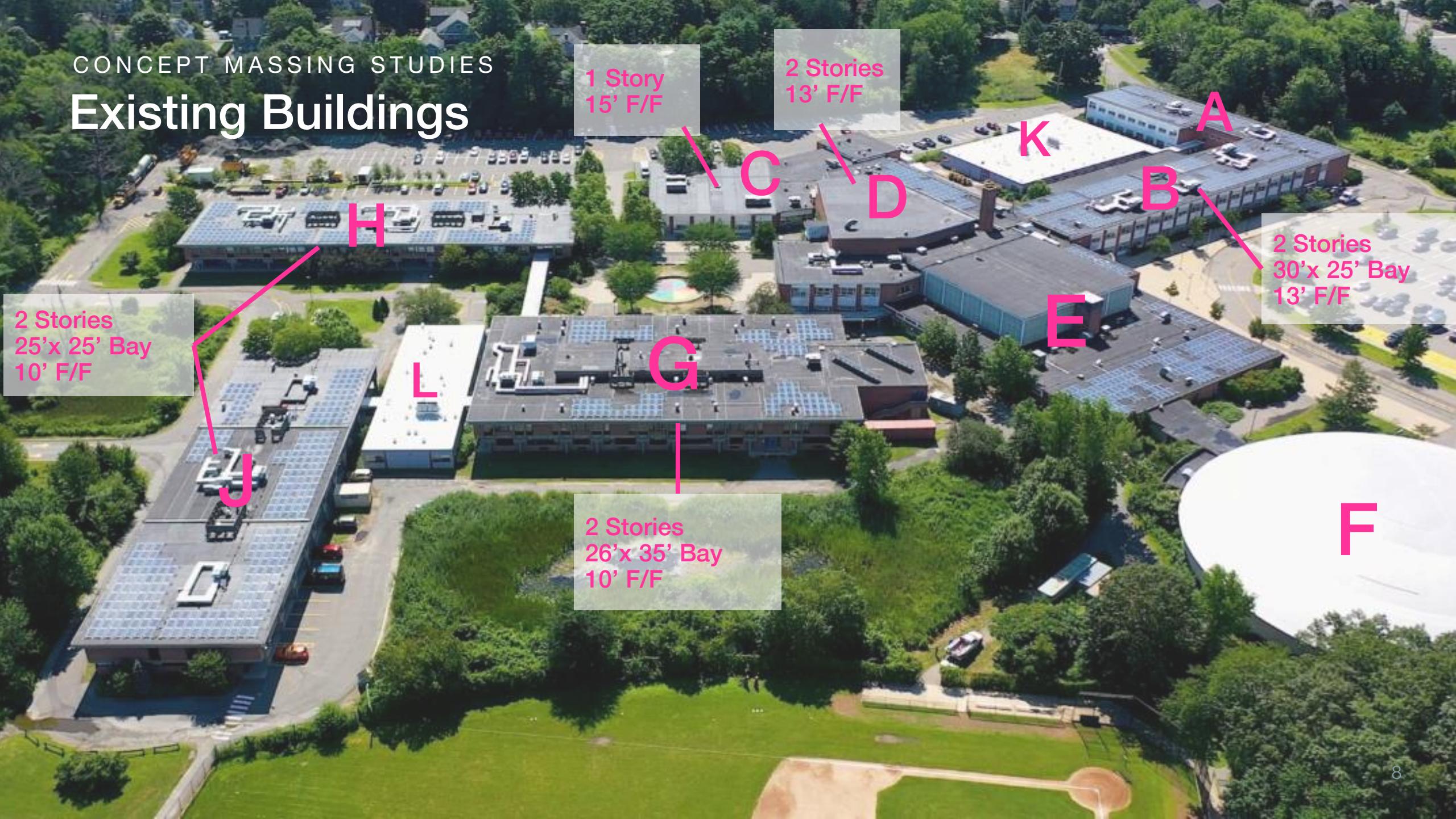
- Includes only repair and alterations to achieve Code compliance
- Does not alter any space configurations toward meeting Educational Program
- Does not relocate one wall
- Extensive Need for Modular Classrooms During Construction

A.1 Code Upgrade



CONCEPT MASSING STUDIES

Existing Buildings



B.1 Renovation and Addition – Phased in Place



Base Educational Program

Building Footprint: 197,130 sf

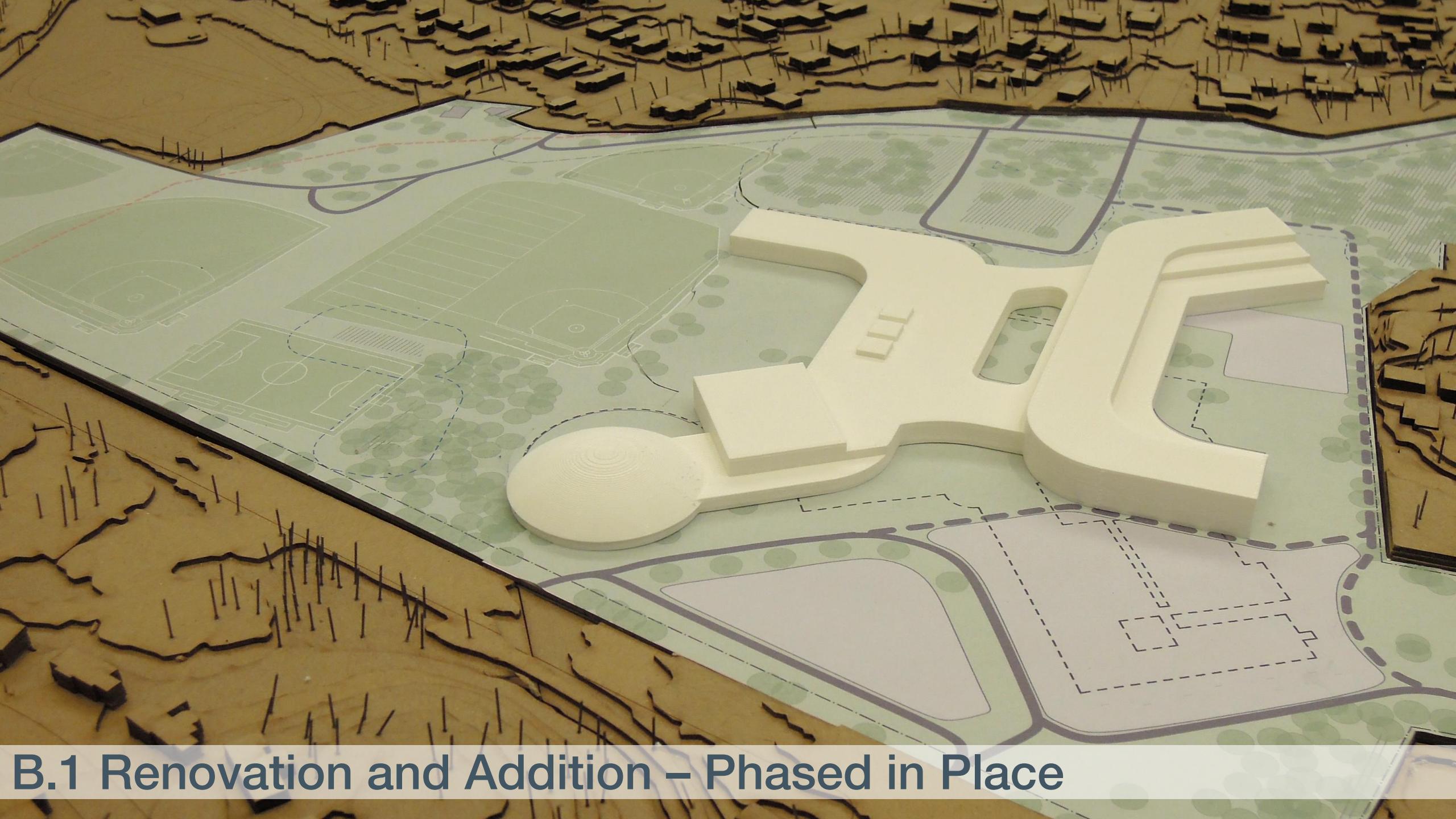
Floors: 2-4

Pros:

- Existing fields remain in place
- Preserves Existing Building G and J Concrete Structures
- Access to Outdoors
- Recreates Quad and Maintains Muzzey St. Connection

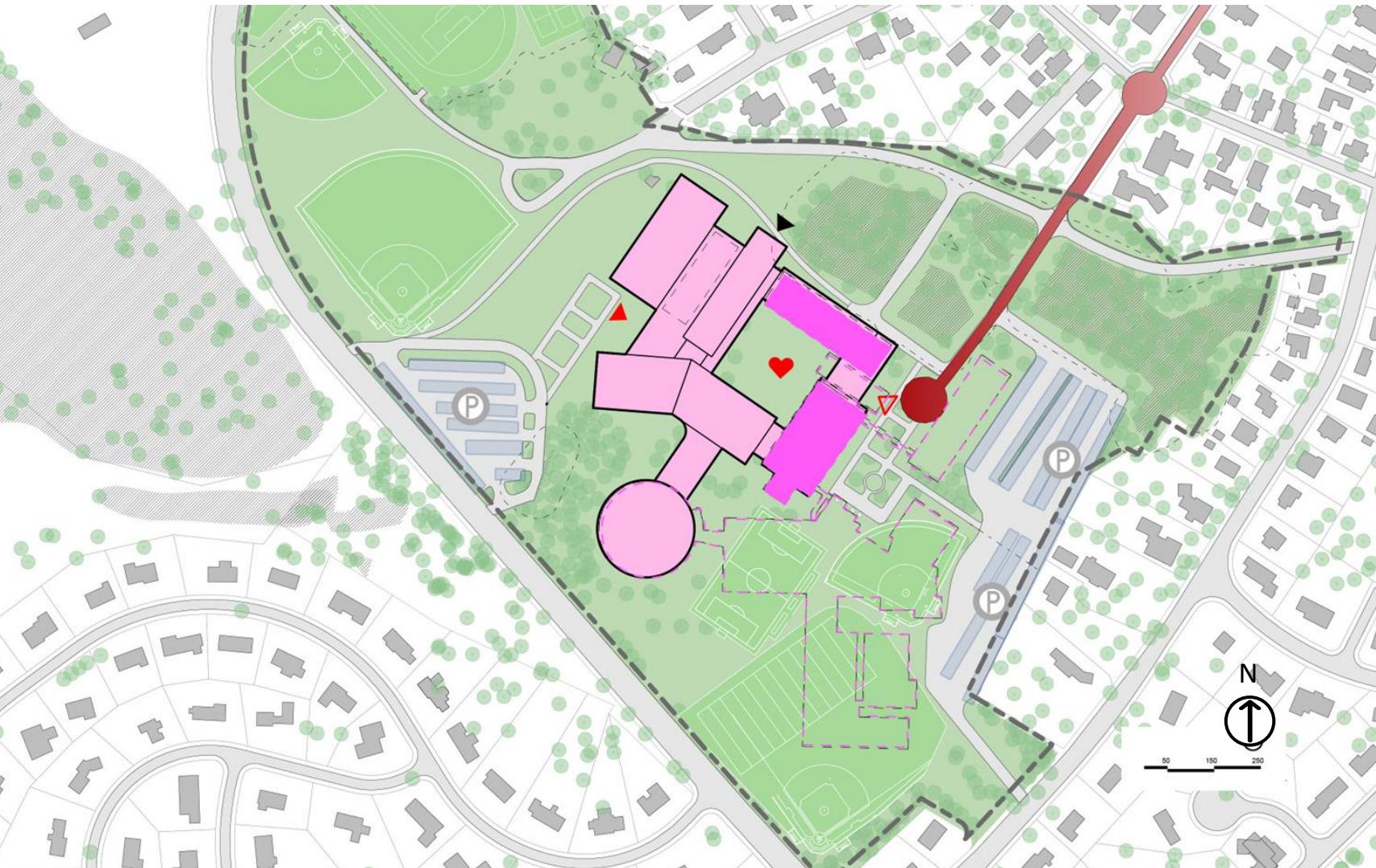
Cons:

- Multi-Phase Construction
- Renovations Down to Structure
- Low Headroom in Existing
- Extensive Need for Modular Classrooms During Construction
- Less Room for Additional Program



B.1 Renovation and Addition – Phased in Place

B.2 Renovation and Addition – Center Shift



Site Plan

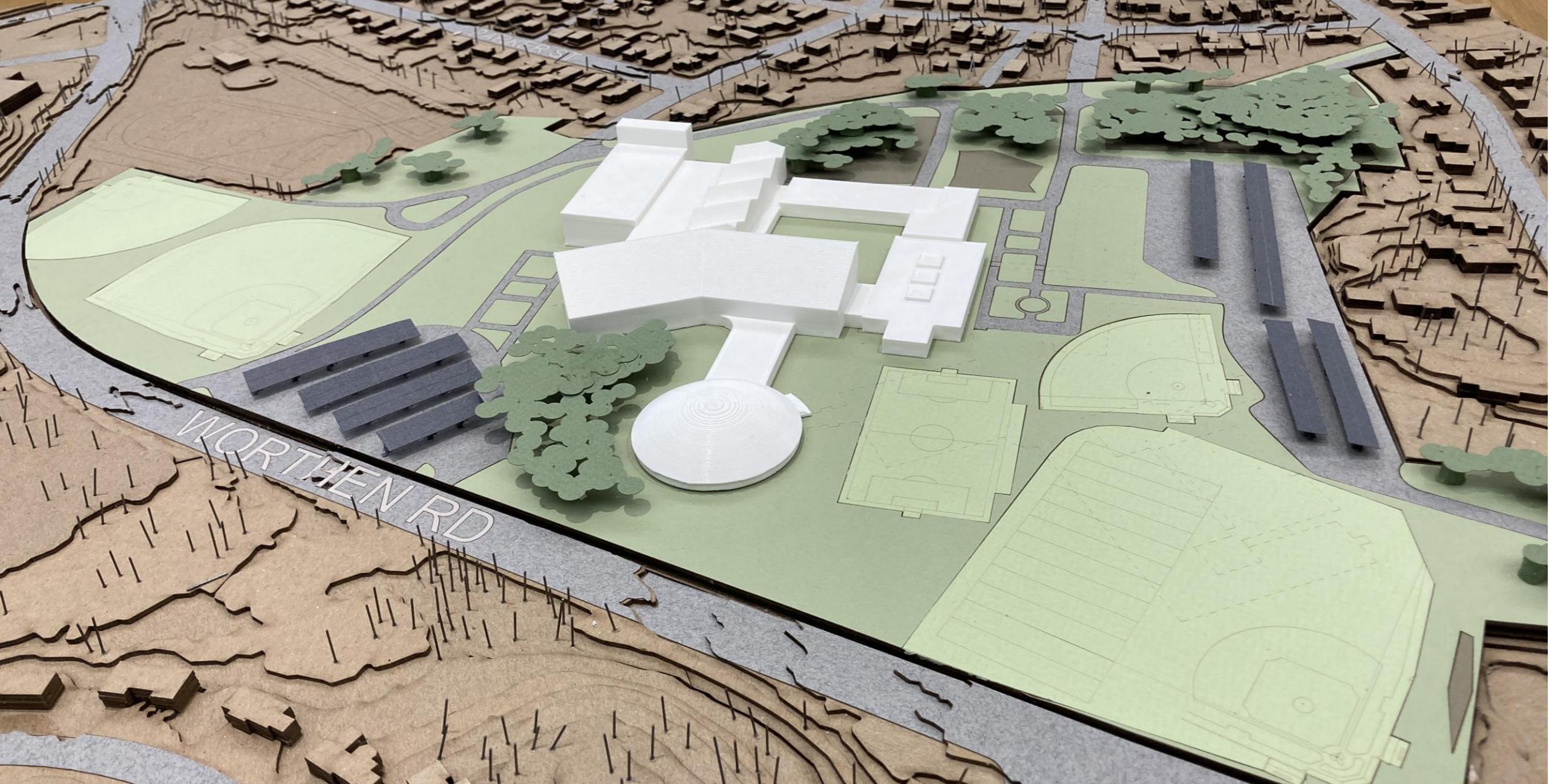
Building Footprint: 157,075 sf
Floors: 2-4

Pros:

- More Dense Massing Further From Neighborhood
- Preserves Existing Buildings G and J
- Access to Outdoors
- Enclosed Courtyard
- Can be realized without the use of modulars

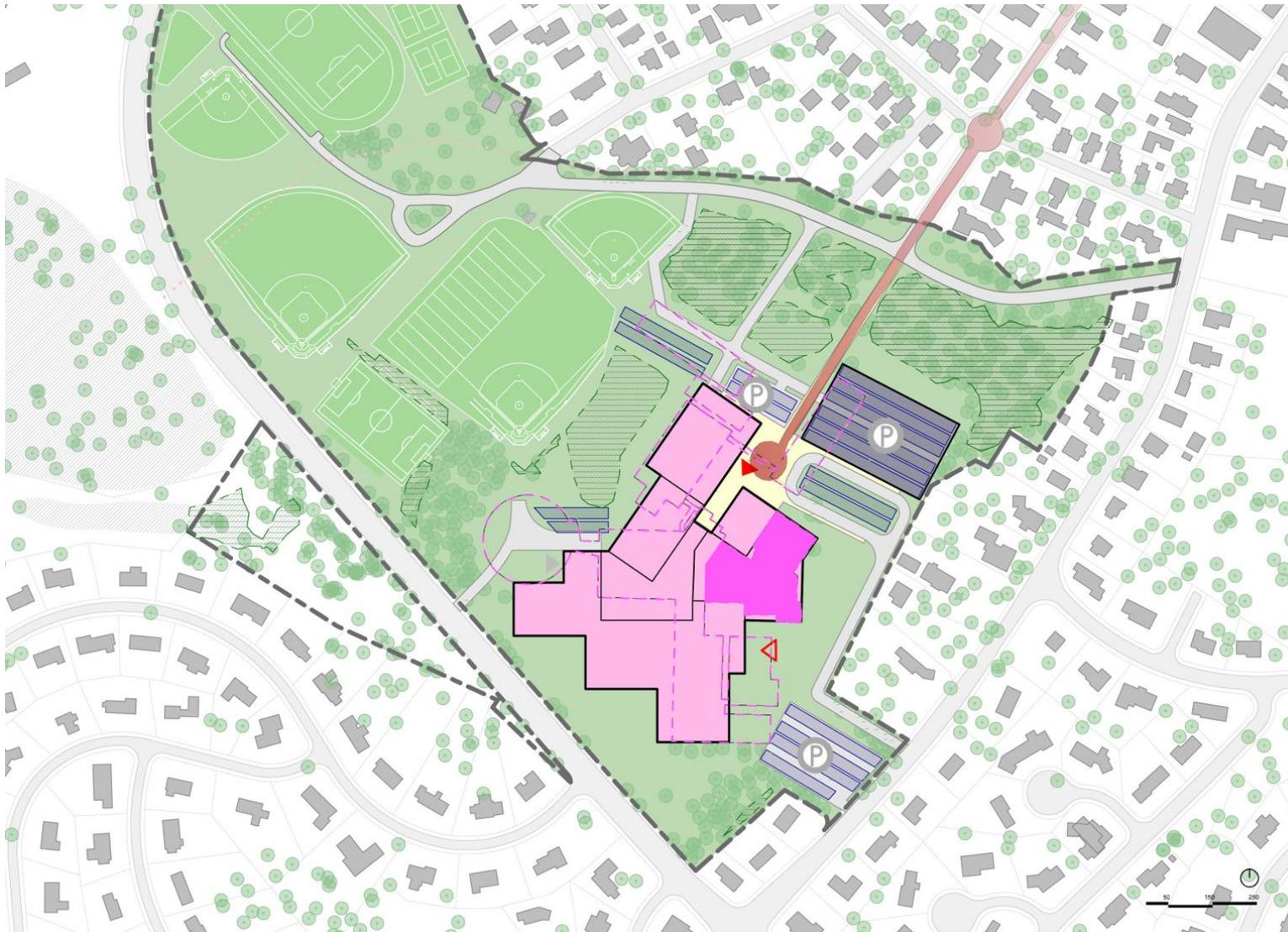
Cons:

- Multi-Phase Construction
- Displaces Some Athletic Fields
- Renovations Down to Structure
- Low Headroom in Existing
- Impact on wetlands > 5,000 sf
- Impact to Park Land



B.2 Renovation and Addition – Center Shift

B.3 Renovation and Addition - Phased



Site Plan

New 36,000 sf Field House

New Building Footprint: 172,700 sf

Renovation Footprint: 41,700 sf

Floors: 4

Pros:

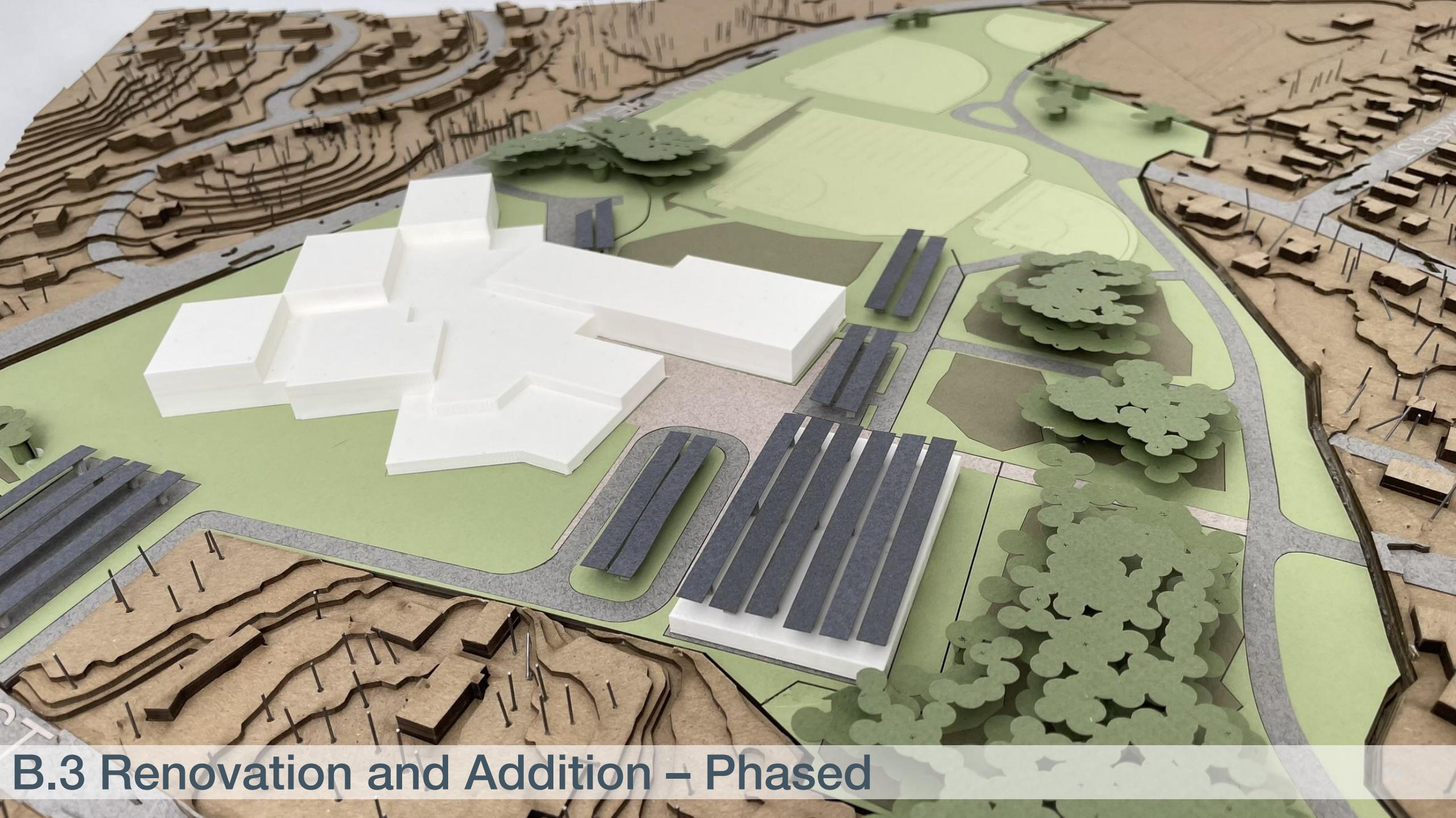
- Preserves existing buildings C & D
- No direct impact on wetlands
- No direct impact on Park Land
- No permanent changes to existing field locations
- Nice pedestrian connection to Muzzey Street
- Can be realized without modulars

Cons:

- Multi-Phase Construction
- Site pushed close to Worthen Rd, requiring new drop off circulation

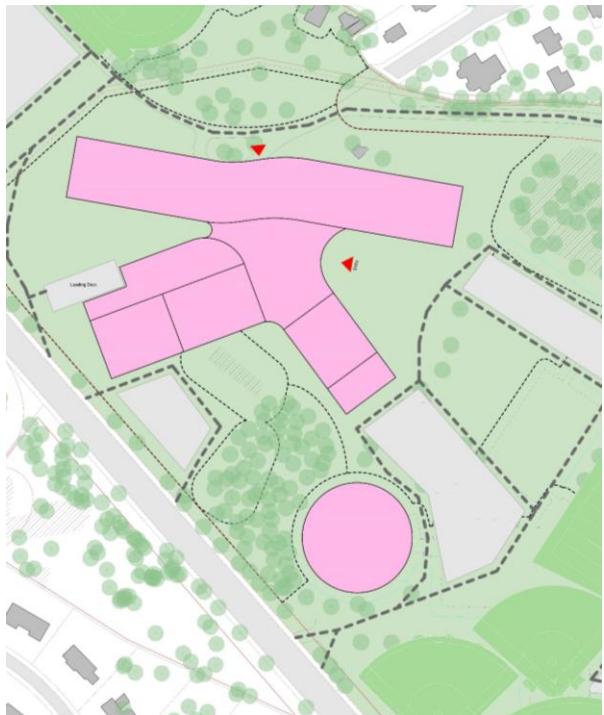
Notes:

- Parking structure required

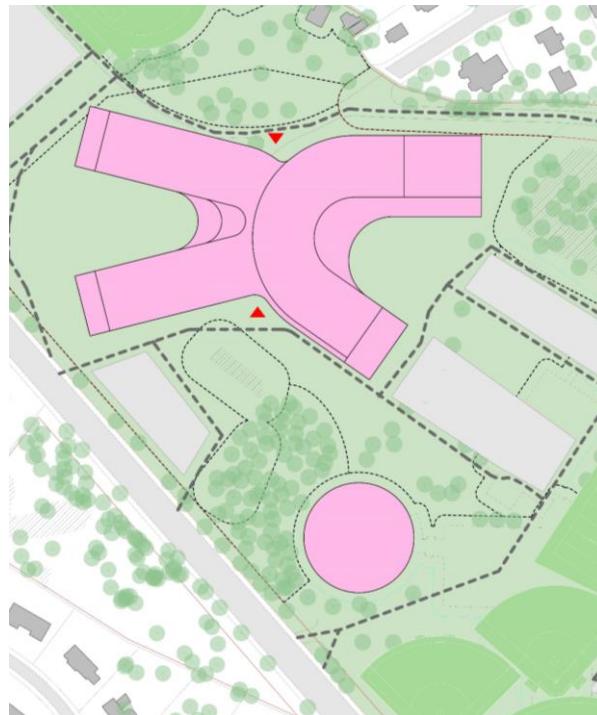


B.3 Renovation and Addition – Phased

C New Construction in One Phase – 3 Stories



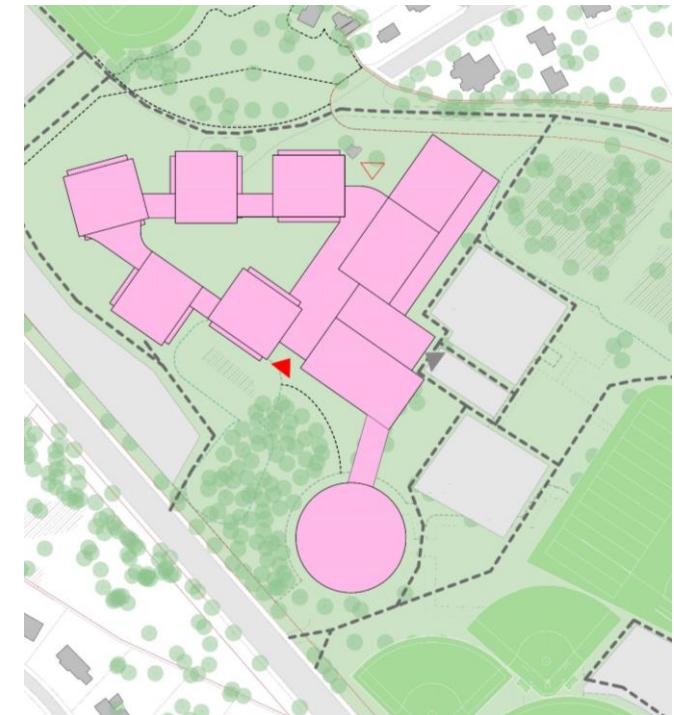
C.1a



C.2a

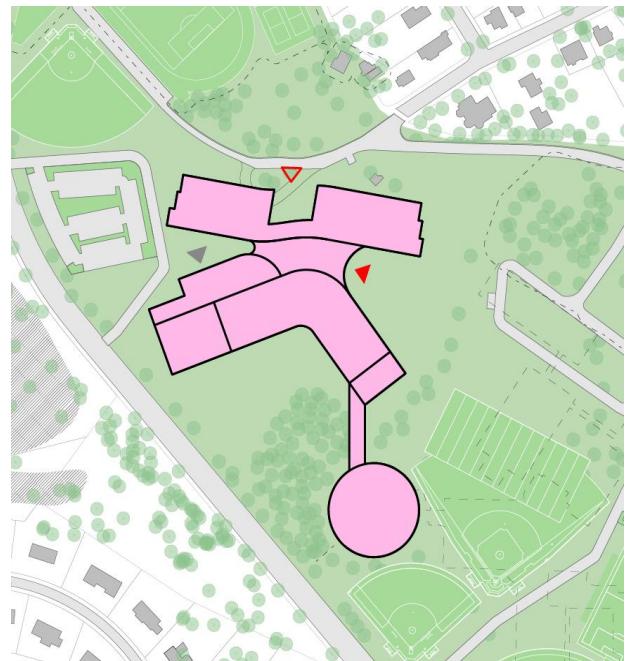


C.3a

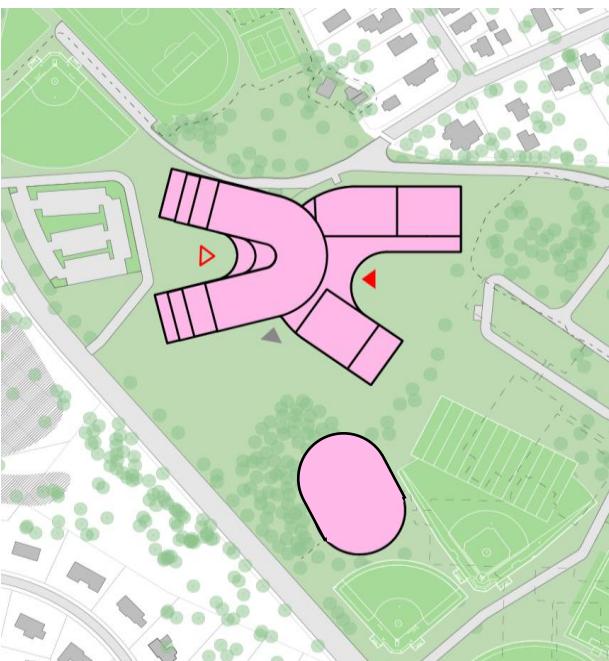


C.4a

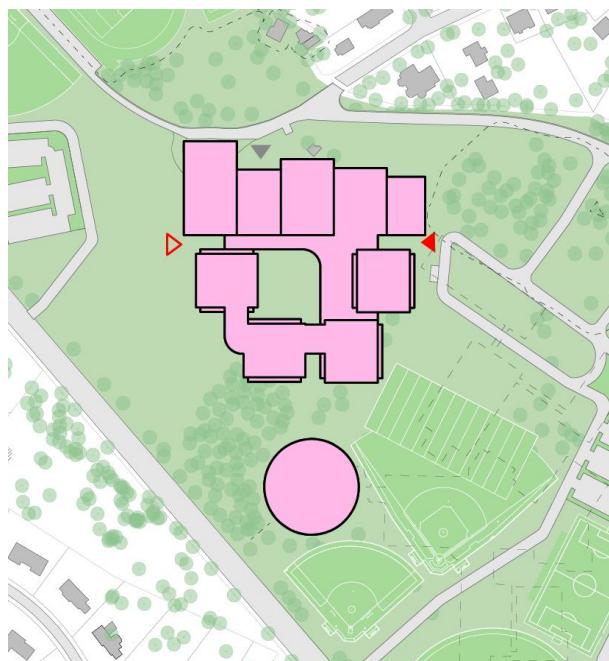
C New Construction in One Phase - 4 to 5 Stories



C.1 b&c



C.2b

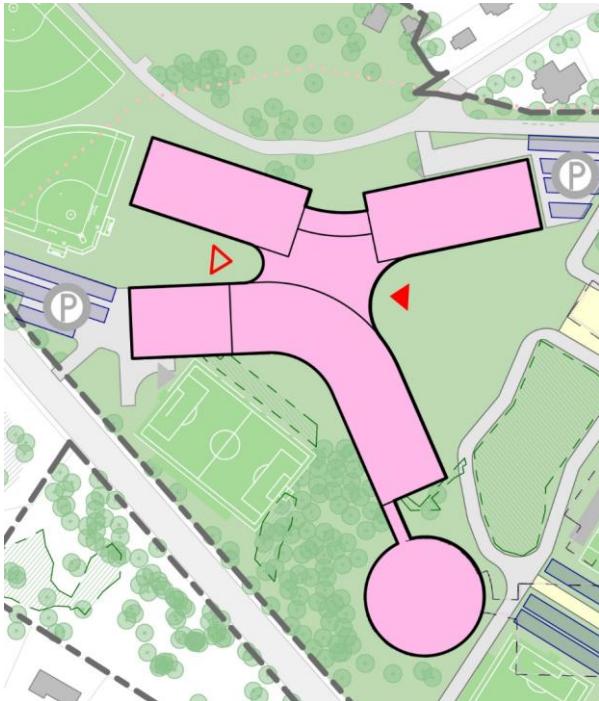


C.4b

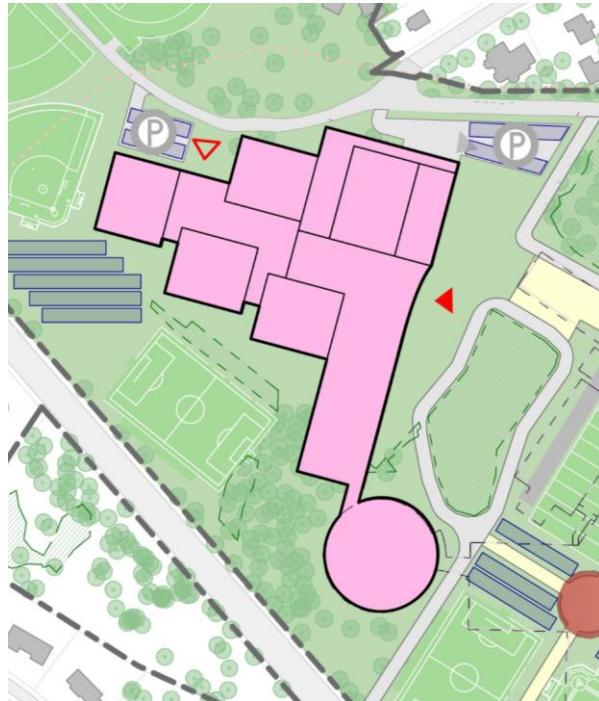


C.5

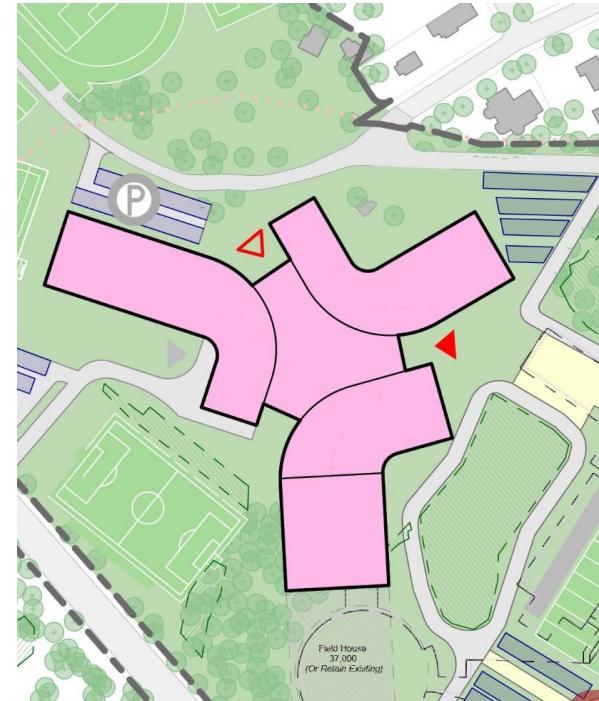
C New Construction - 4 Stories



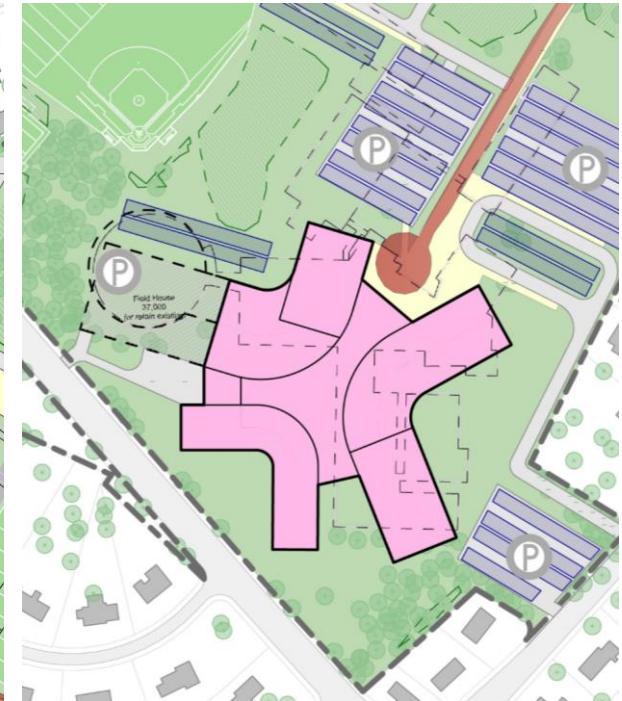
C.1d



C.4c

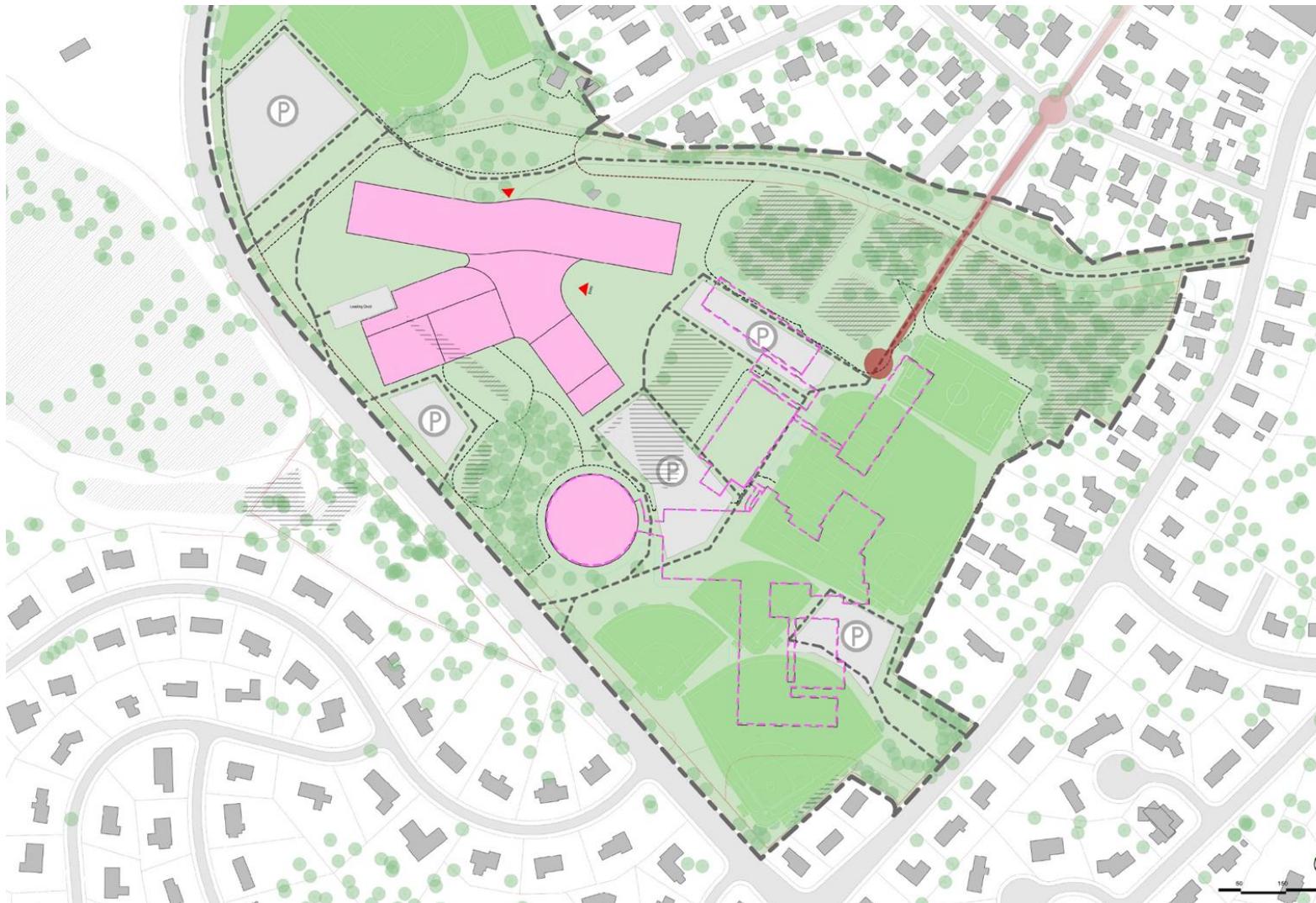


C.5b



C.6

C.1a New Construction – Wide Academic Bar North



Site Plan

Base Educational Program
Renovated Field House
Floors: 3

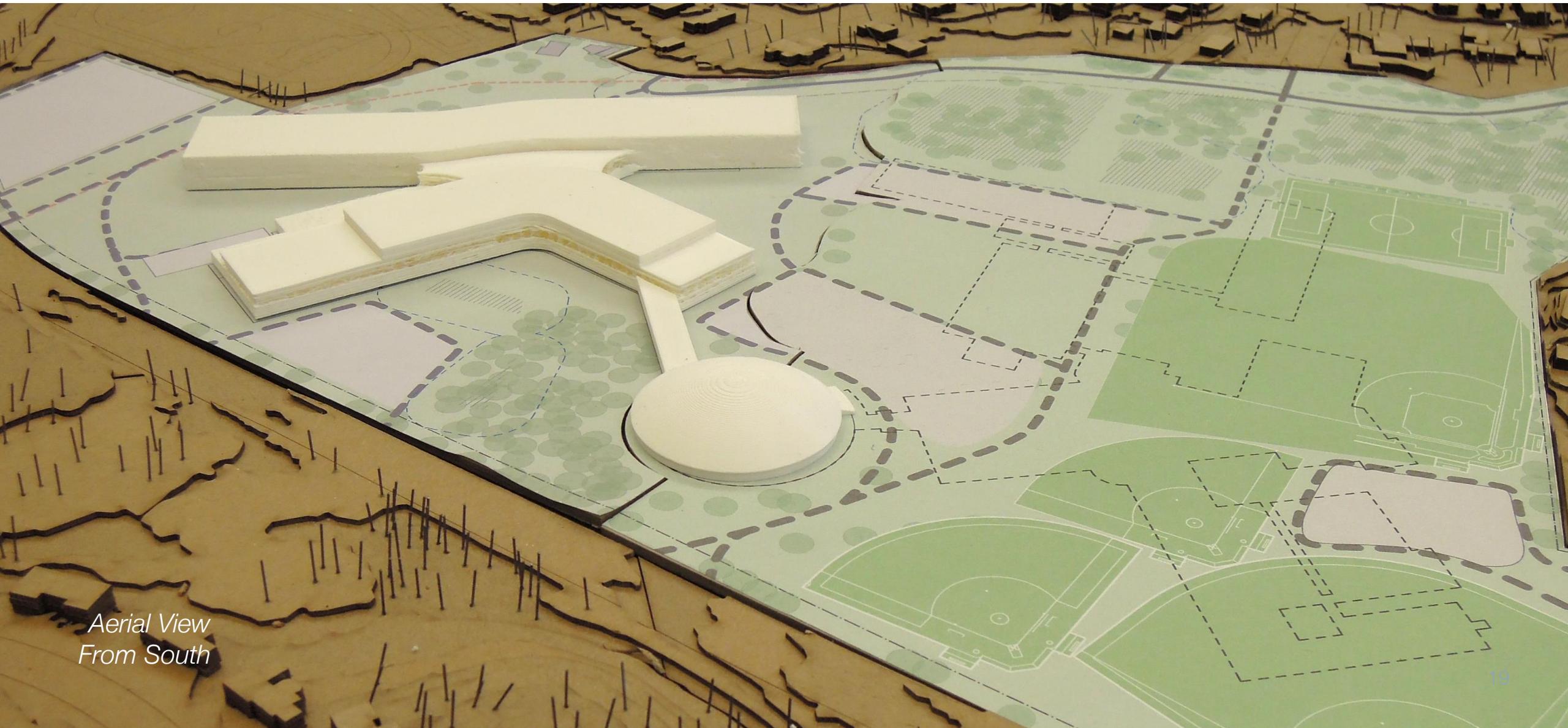
Pros:

- Current Building Remains in Use Throughout Construction
- Solar Orientation
- Access to Outdoors
- Generous Entry at East

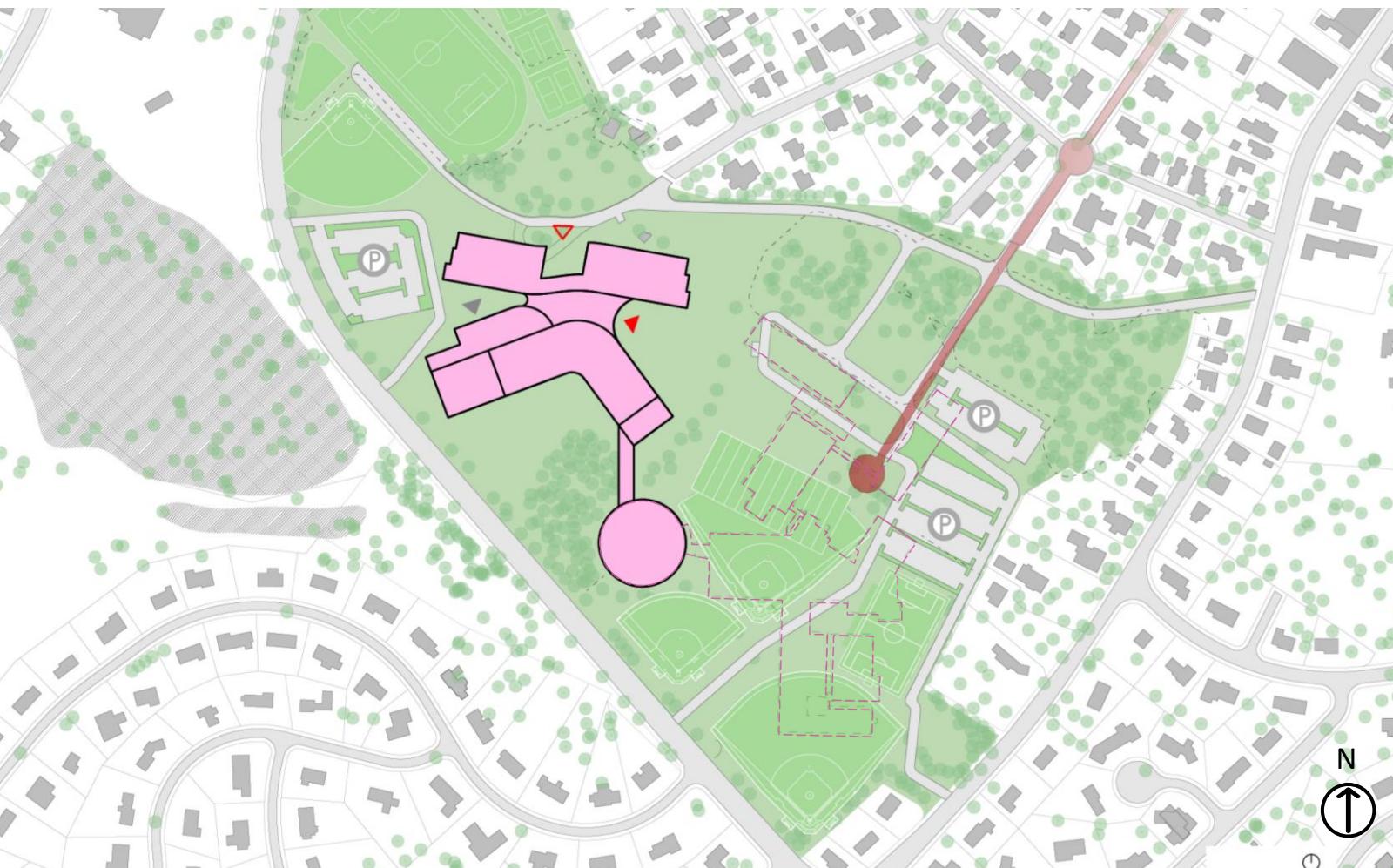
Cons:

- Fields Separate from Center Rec Complex

C.1a New Construction - Wide Academic Bar North – 3 Stories



C.1b New Construction – 4 Story Academics



Base Educational Program
Renovated Field House
Building Footprint: 218,400 sf
Floors: 4

Pros:

- Current Building Remains in Use Throughout Construction
- Solar Orientation
- Access to Outdoors
- Generous Entry at East
- More Compact Academic Bar

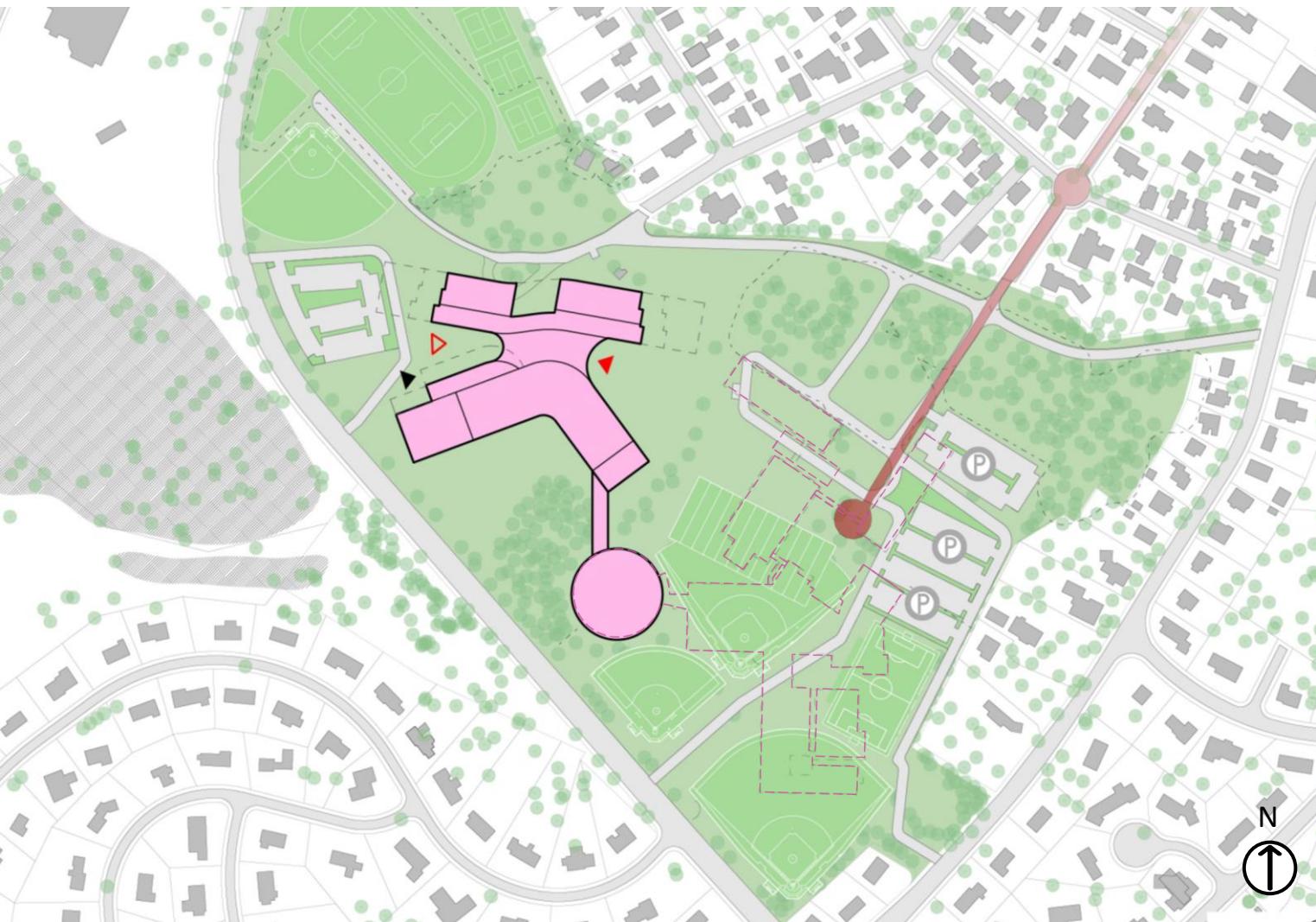
Cons:

- Fields Separate from Center Rec Complex



C.1b New Construction - Wide Academic Bar North – 4 Stories

C.1c New Construction – 5 Story Academics



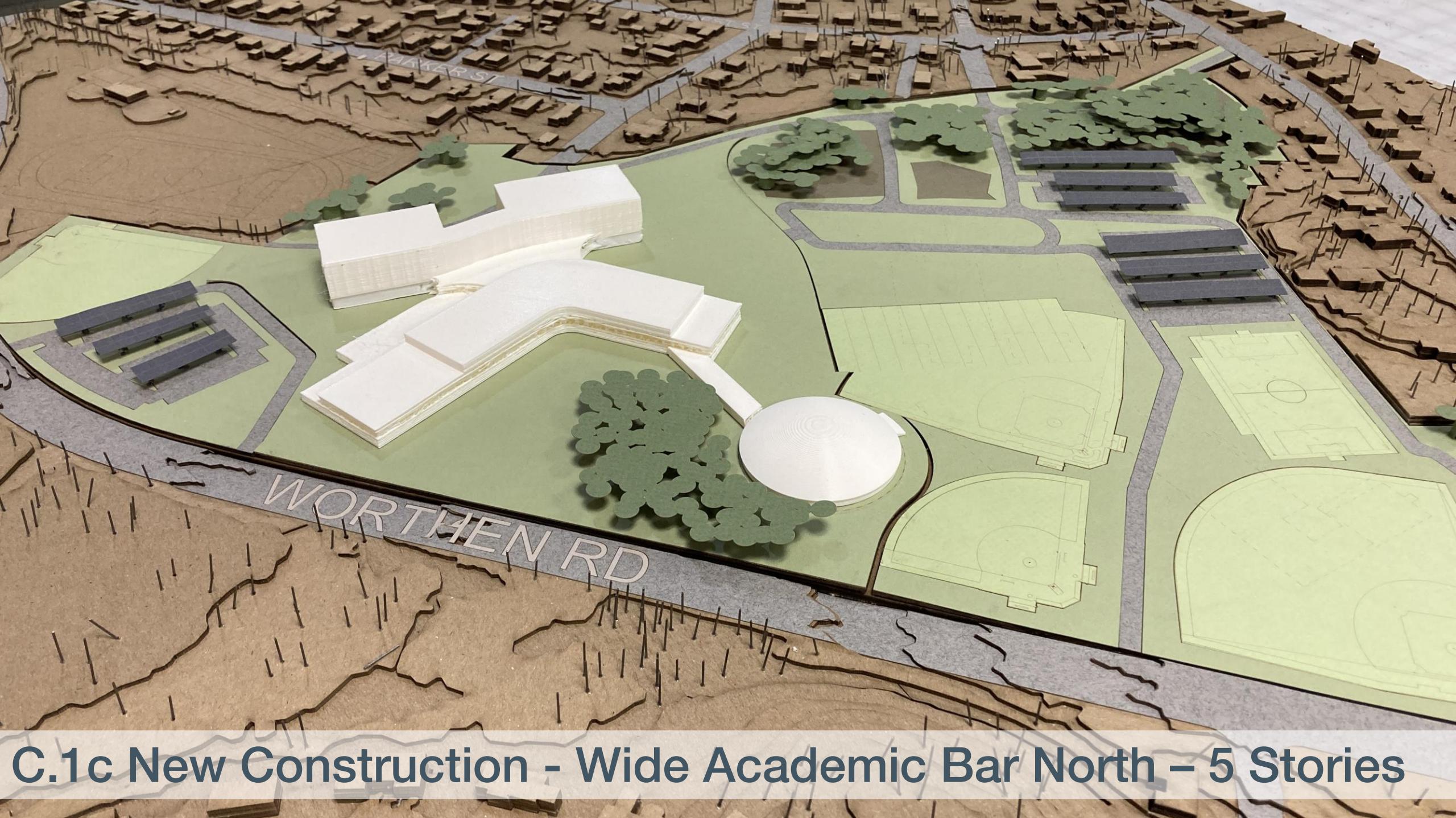
Base Educational Program
Renovated Field House
Building Footprint: 206,000 sf
Floors: 5

Pros:

- Current Building Remains in Use Throughout Construction
- Solar Orientation
- Access to Outdoors
- Generous Entry at East
- Even More Compact Footprint

Cons:

- Fields Separate from Center Rec Complex
- Diminishing Return on Cost per Squarefoot



C.1c New Construction - Wide Academic Bar North – 5 Stories

C.1d New Construction – Two Bars



Site Plan

Base Educational Program
Renovated Field House
Building Footprint: 170,000 sf
Floors: 4

Pros:

- Current Building Remains in Use Throughout Construction
- Solar Orientation
- Access to Outdoors
- Generous Entry at East
- Impact on wetlands < 5,000 sf

Cons:

- Fields Separate from Center Rec Complex
- Impact to Park Land

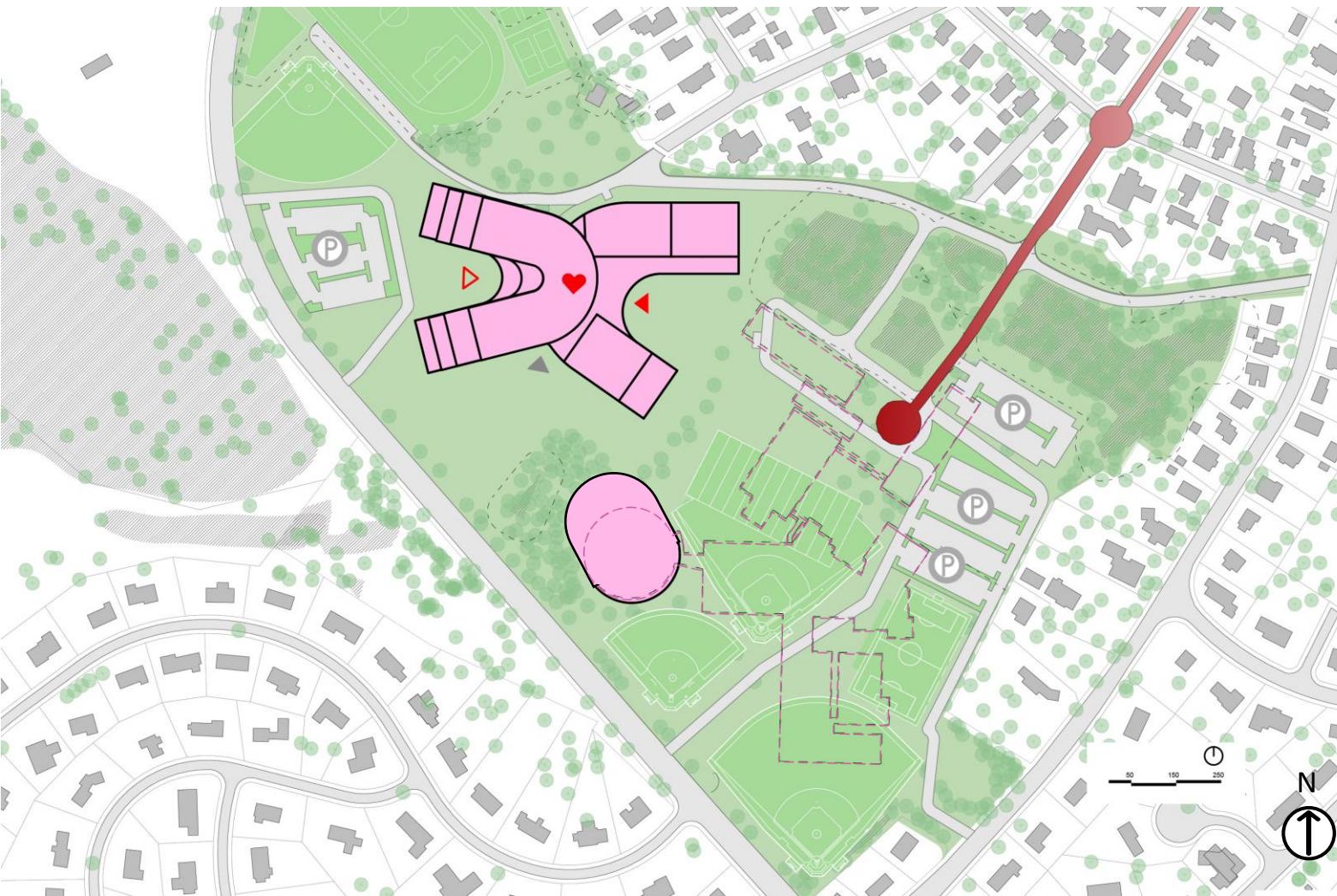
Notes:

- Parking structure required



C.1d New Construction – Two Bars – 4 Stories

C.2b New Construction - Wide Academic Bars West



Site Plan

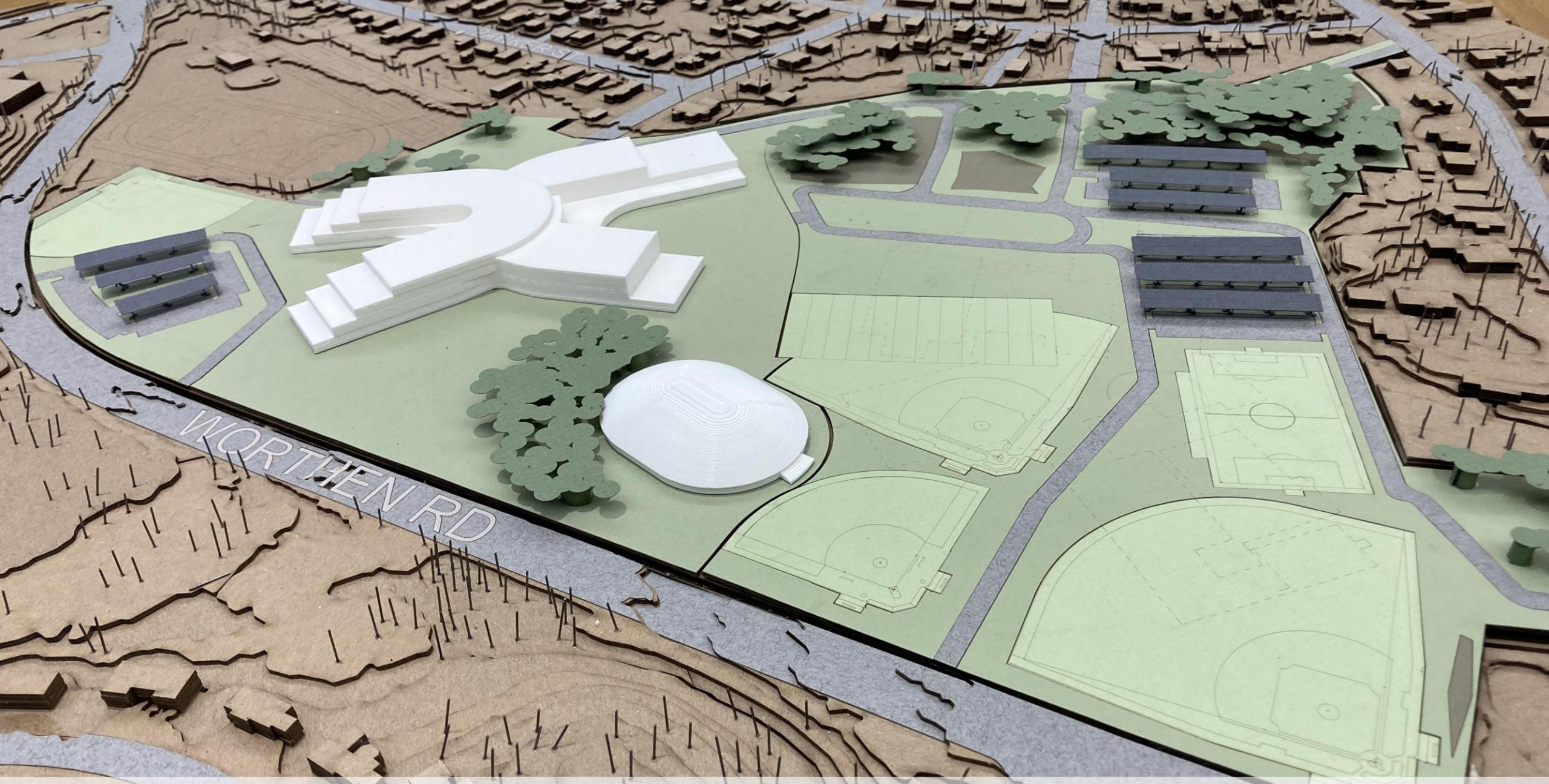
Base Educational Program
Renovated Field House (Enlarged)
Building Footprint: 229,000 sf
Floors: 4

Pros:

- Current Building Remains in Use Throughout Construction
- Solar Orientation
- Access to Outdoors
- 200m Indoor Track

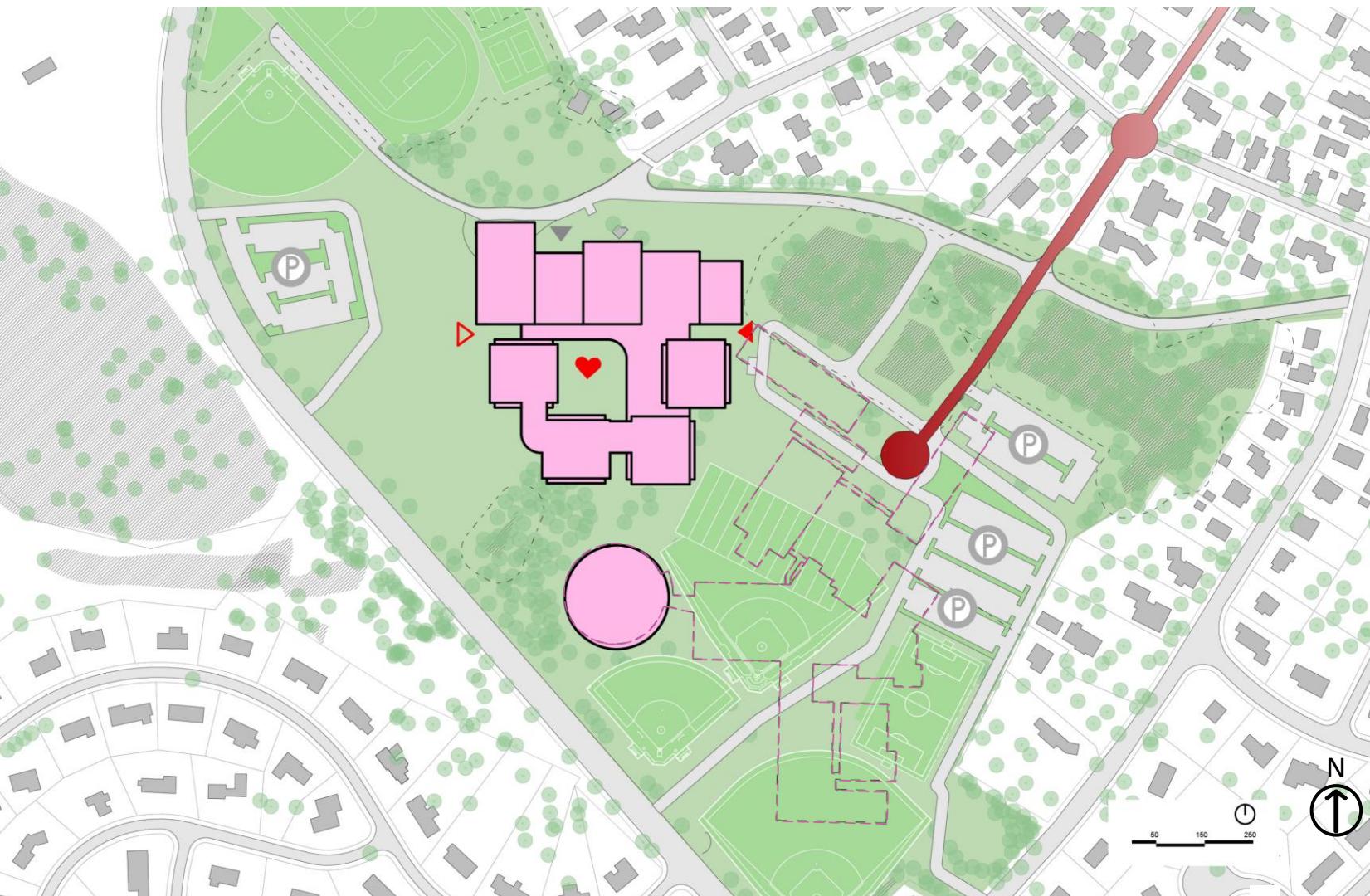
Cons:

- Fields Separate from Center Rec Complex
- Monumental Appearance
- No Direct Field House Connection



C.2b New Construction - Wide Academic Bars West – 4 Stories

C.4b New Construction – Academic Village



Site Plan

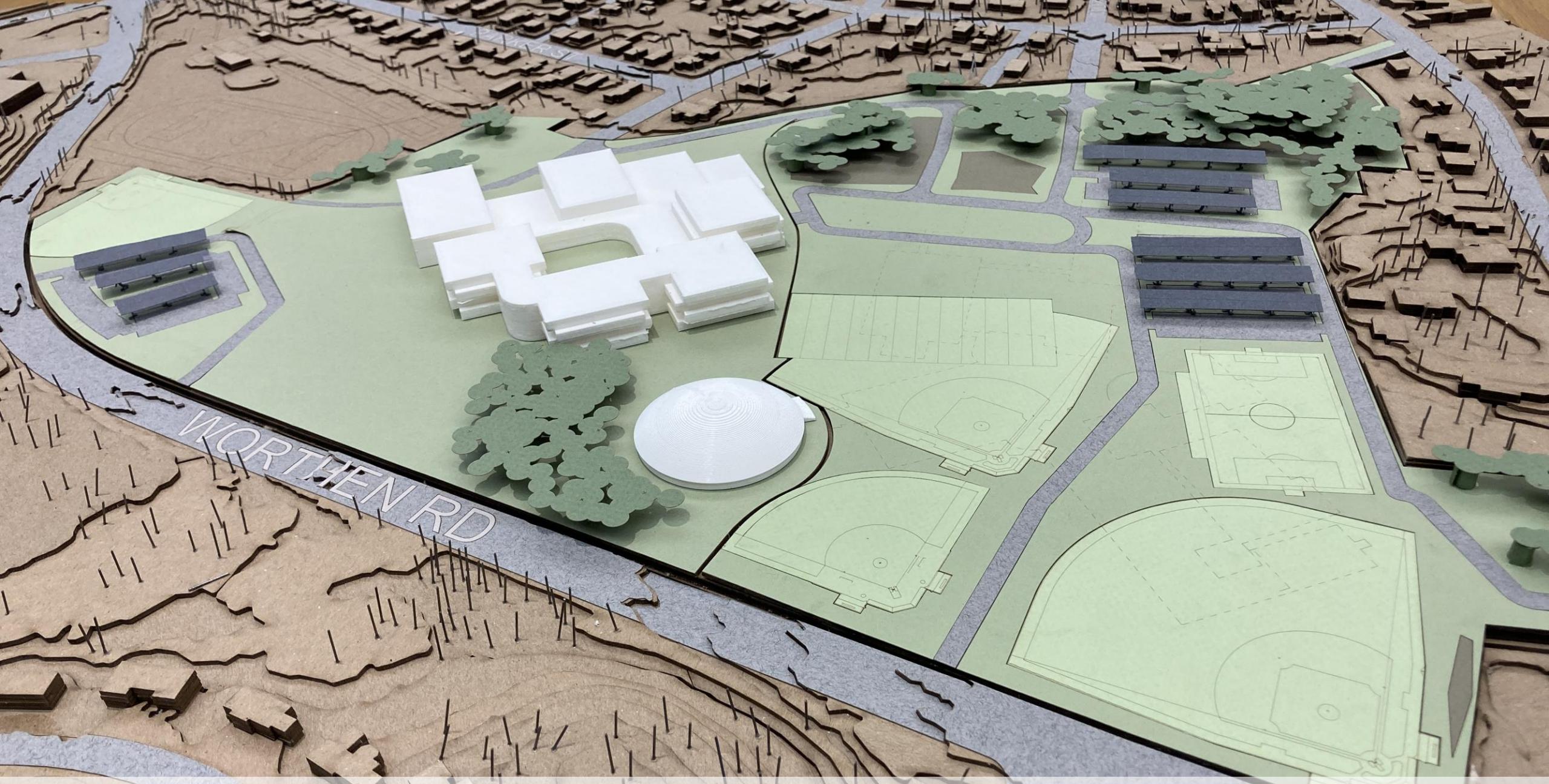
Base Educational Program
Renovated Field House
Building Footprint: 232,750
Floors: 4

Pros:

- Current Building Remains in Use Throughout Construction
- Access to Outdoors
- Highly Differentiated Educational Clusters
- Enclosed Courtyard

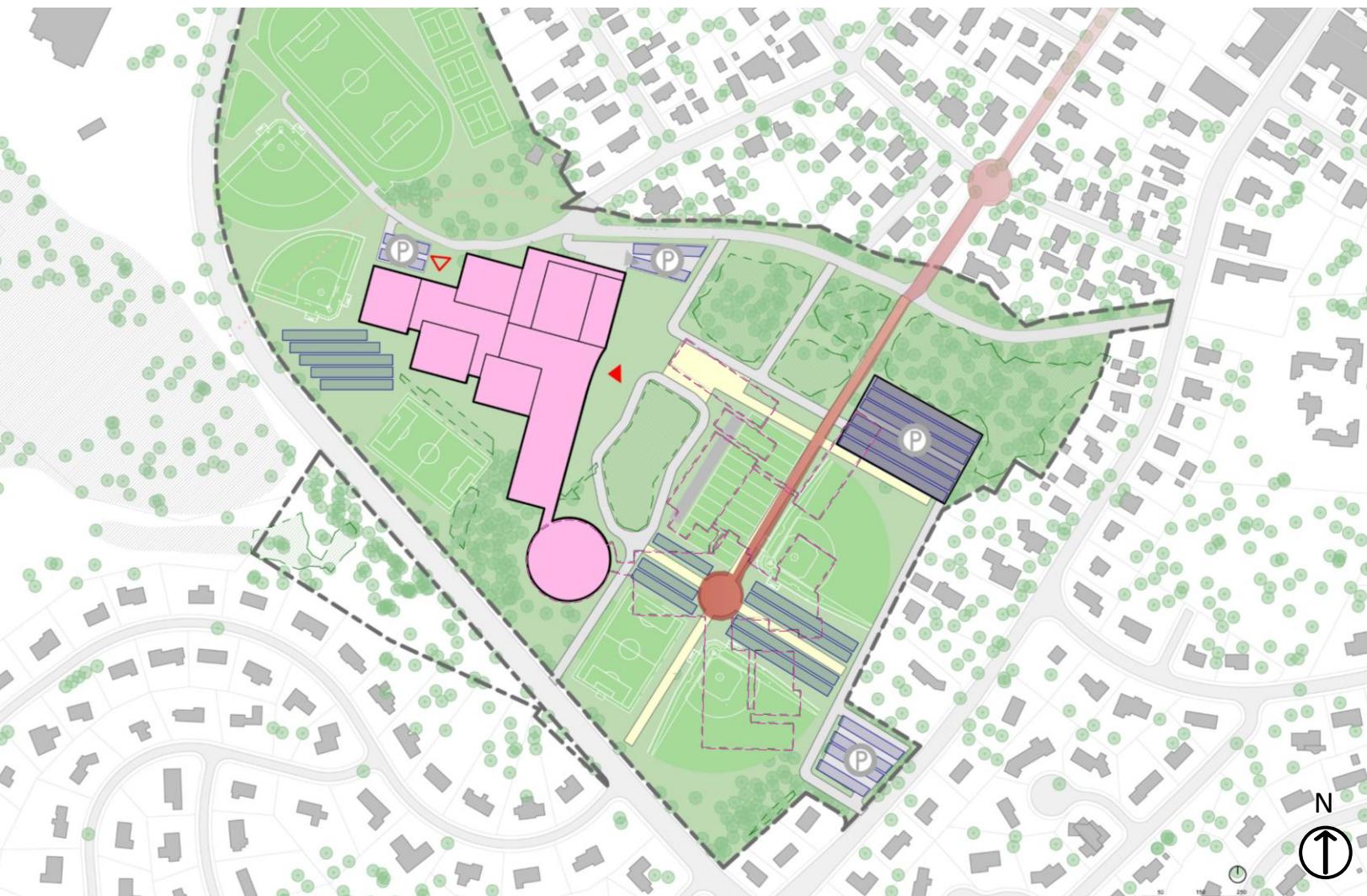
Cons:

- Fields Separate from Center Rec Complex
- Mix of Façade Orientations



C.4b New Construction - Academic Village – 4 Stories

C.4c New Construction – Academic Village



Site Plan

Building Footprint: 196,000 sf
Floors: 4

Pros:

- Impact on wetlands < 5,000 sf
- Phasing is not required
- Separate safe circulation of bus, vehicle, bike, and pedestrian access

Cons:

- Site is bound by wetlands, so there is not as much space for future expansion
- Impact to Park Land

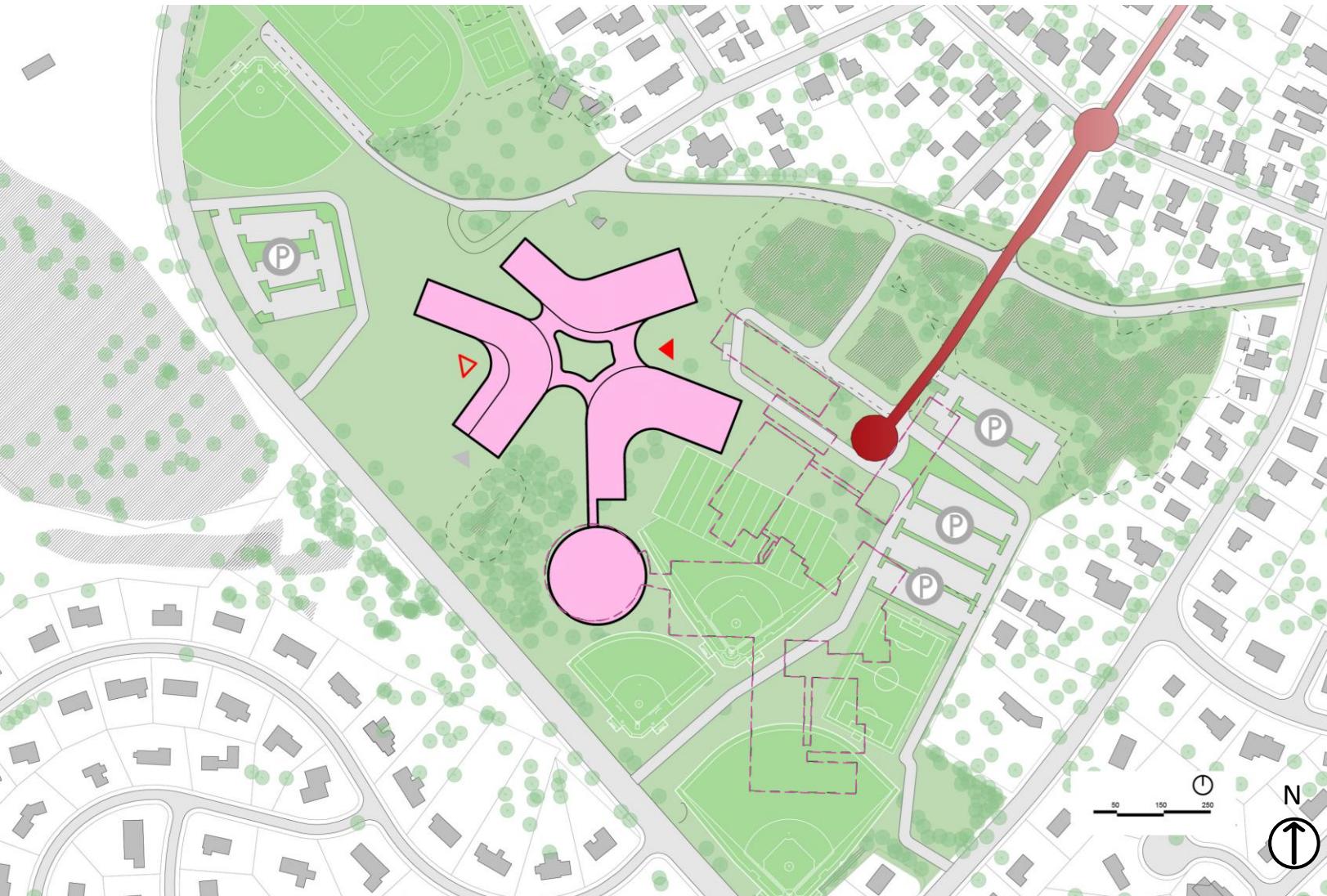
Notes:

- Parking structure required



C.4c New Construction – Academic Village – 4 Stories

C.5a New Construction



Site Plan

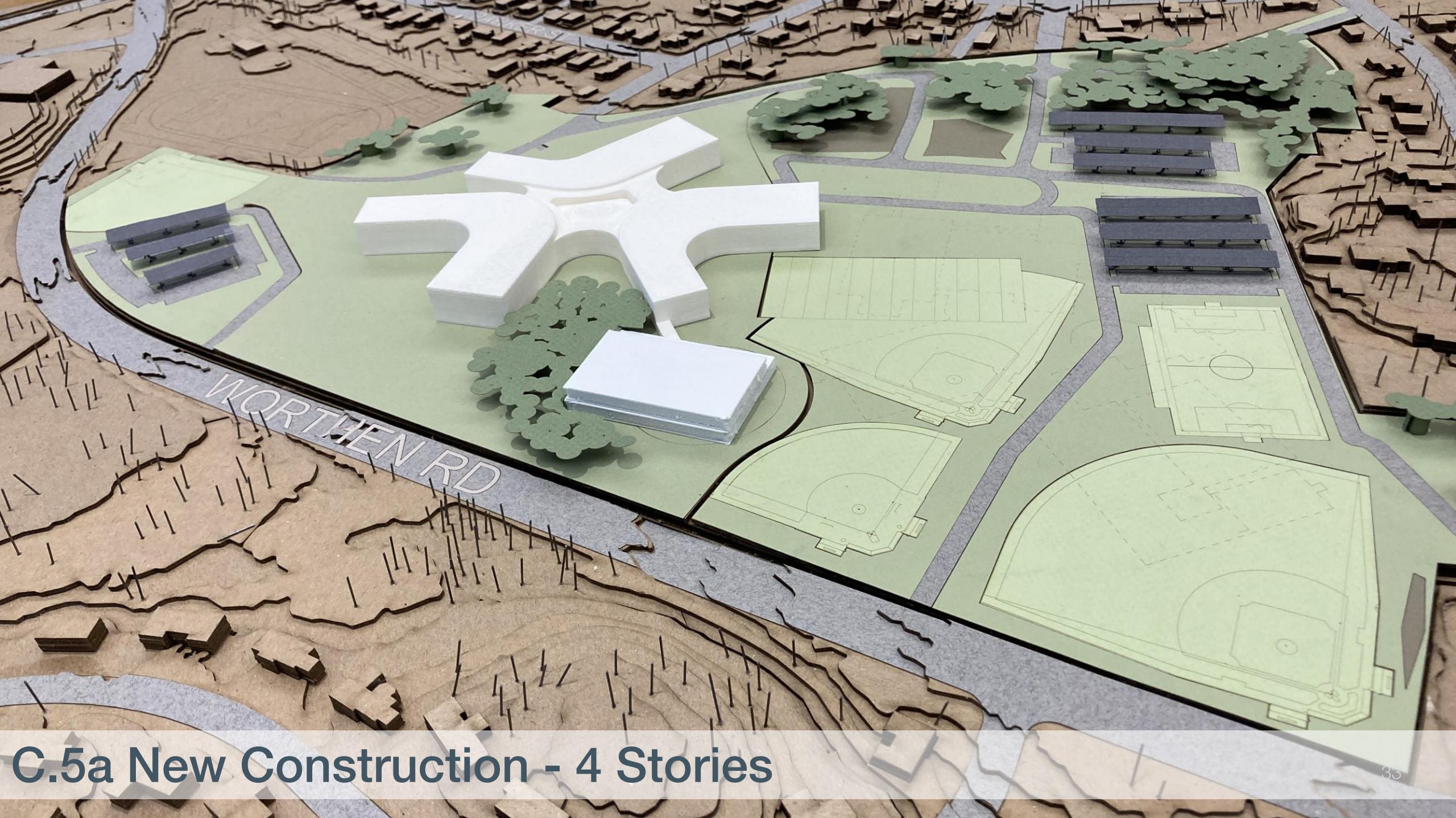
Base Educational Program
New 36,000 sf Field House
Building Footprint: 206,000
Floors: 4

Pros:

- Current Building Remains in Use Throughout Construction
- Access to Outdoors
- Highly Differentiated Educational Clusters
- Enclosed Courtyard
- Direct Connection to Field House
- 146m Track

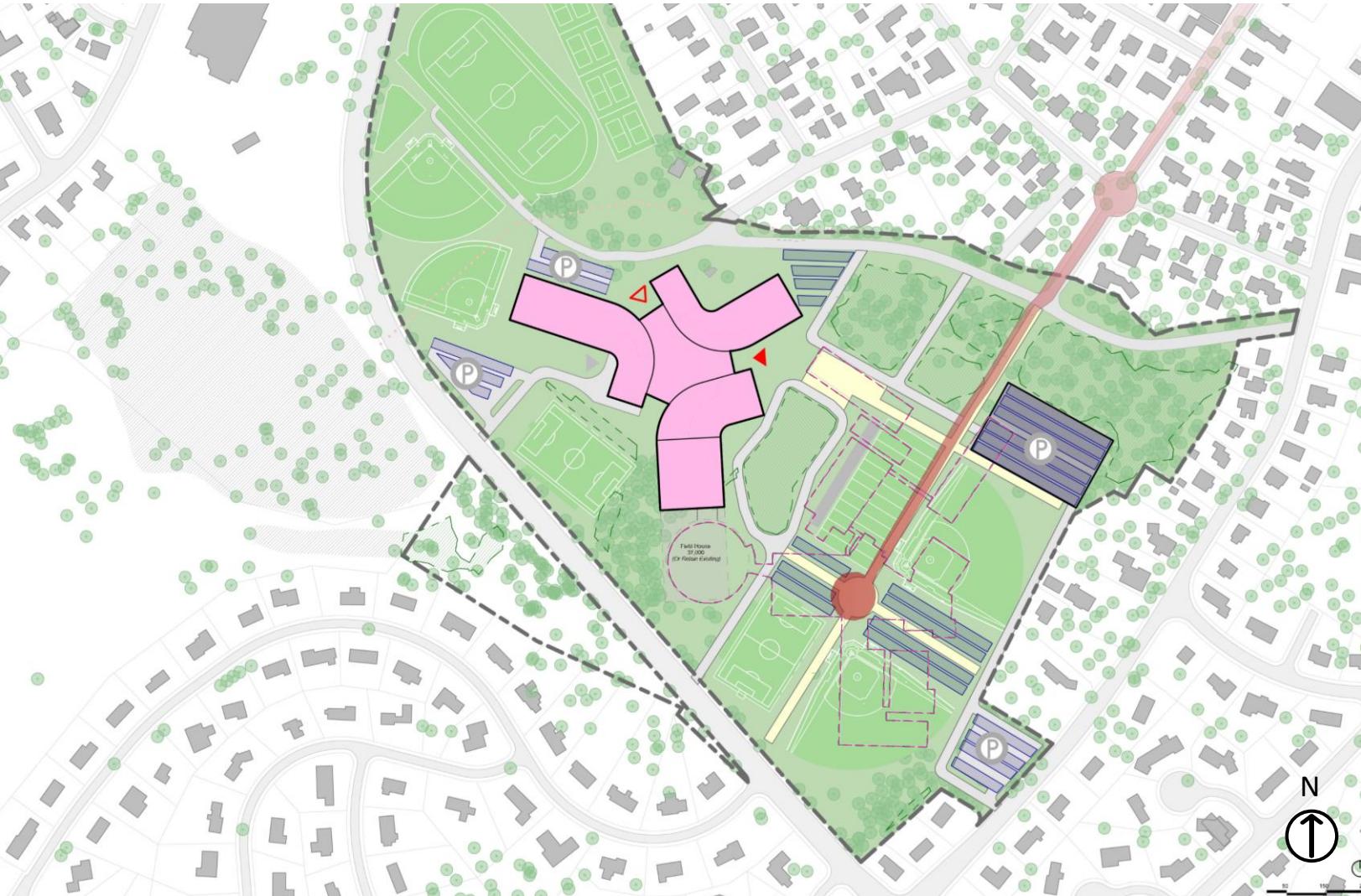
Cons:

- Fields Separate from Center Rec Complex
- Mix of Façade Orientations



C.5a New Construction - 4 Stories

C.5b New Construction



Site Plan

Base Educational Program
New 36,000 sf Field House
Building Footprint: 168,800 sf
Floors: 4

Pros:

- Current Building Remains in Use Throughout Construction
- Access to Outdoors
- Highly Differentiated Educational Clusters
- Enclosed Courtyard
- Direct Connection to Field House
- 146m Track
- Impact on wetlands < 5,000 sf

Cons:

- Fields Separate from Center Rec Complex
- Mix of Façade Orientations
- Impact to Park Land

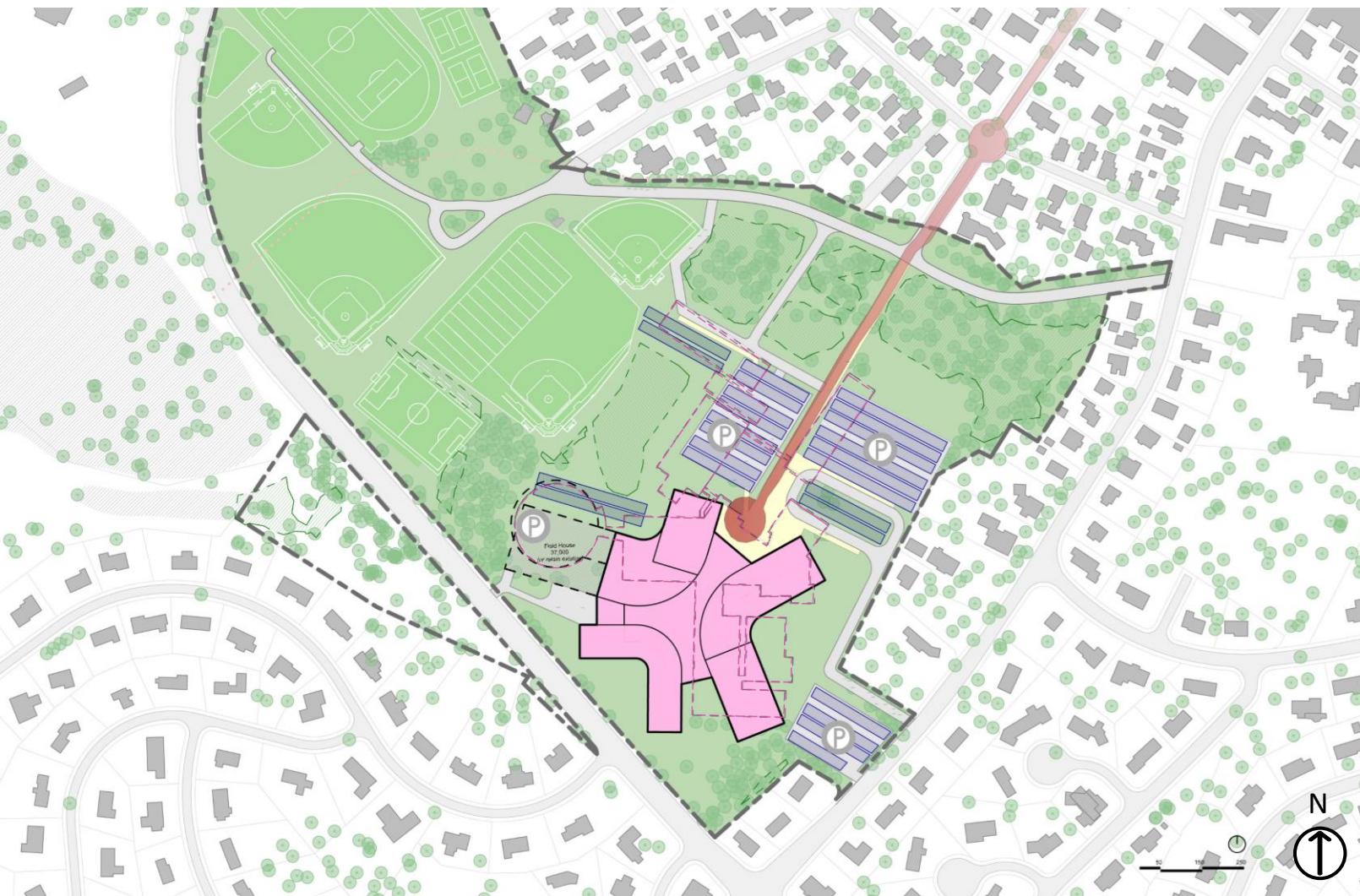
Notes:

- Parking structure required



C.5b New Construction - 4 Stories

C.6 New Construction - Phased



Site Plan

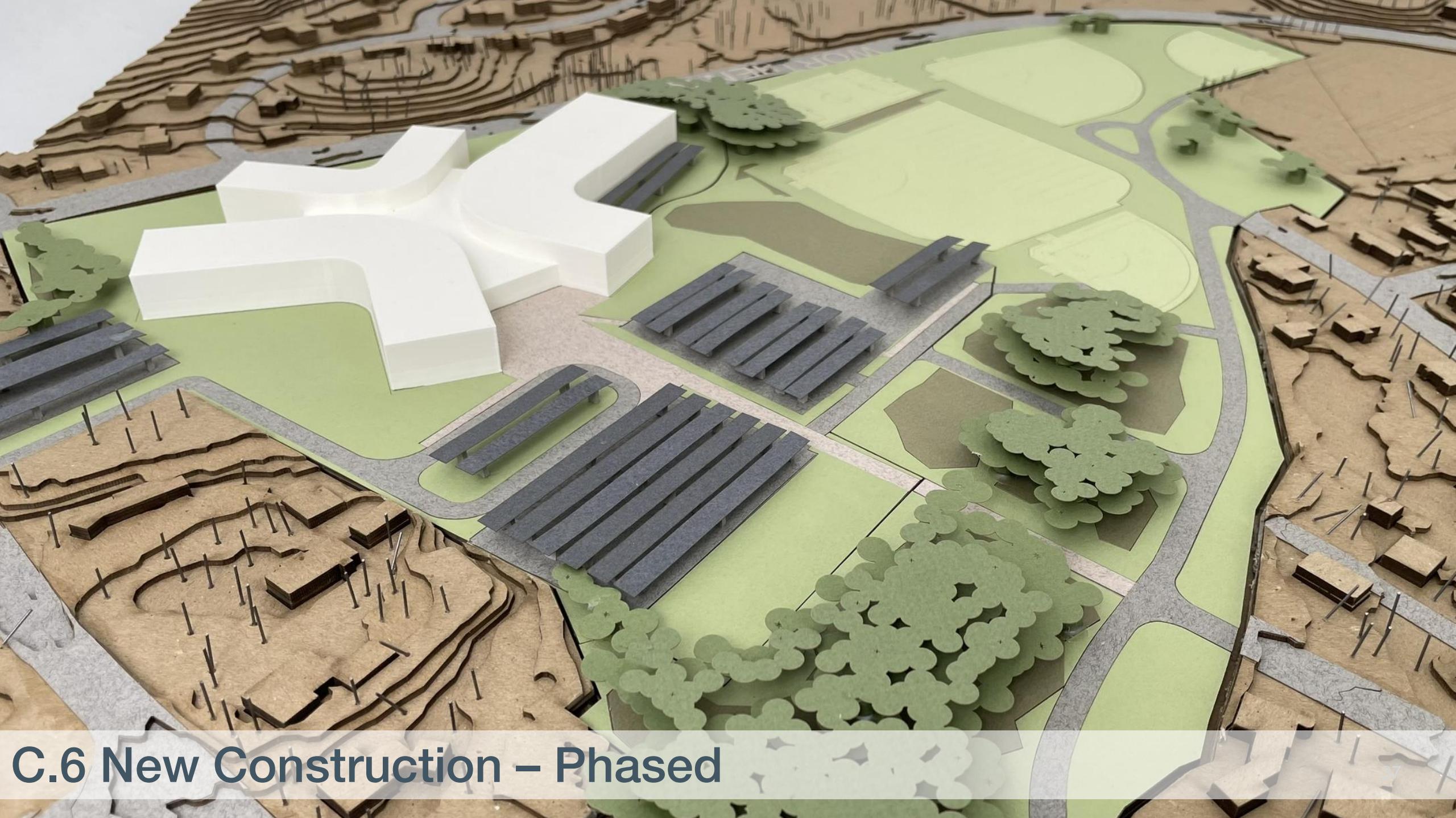
Building Footprint: 179,000 sf
Floors: 4
New 37,000 sf Field House

Pros:

- No direct impact to wetlands
- No direct impact to Park Land
- No permanent changes to existing field locations
- Nice pedestrian connection to Muzzey Street
- Can be realized without the use of modulars

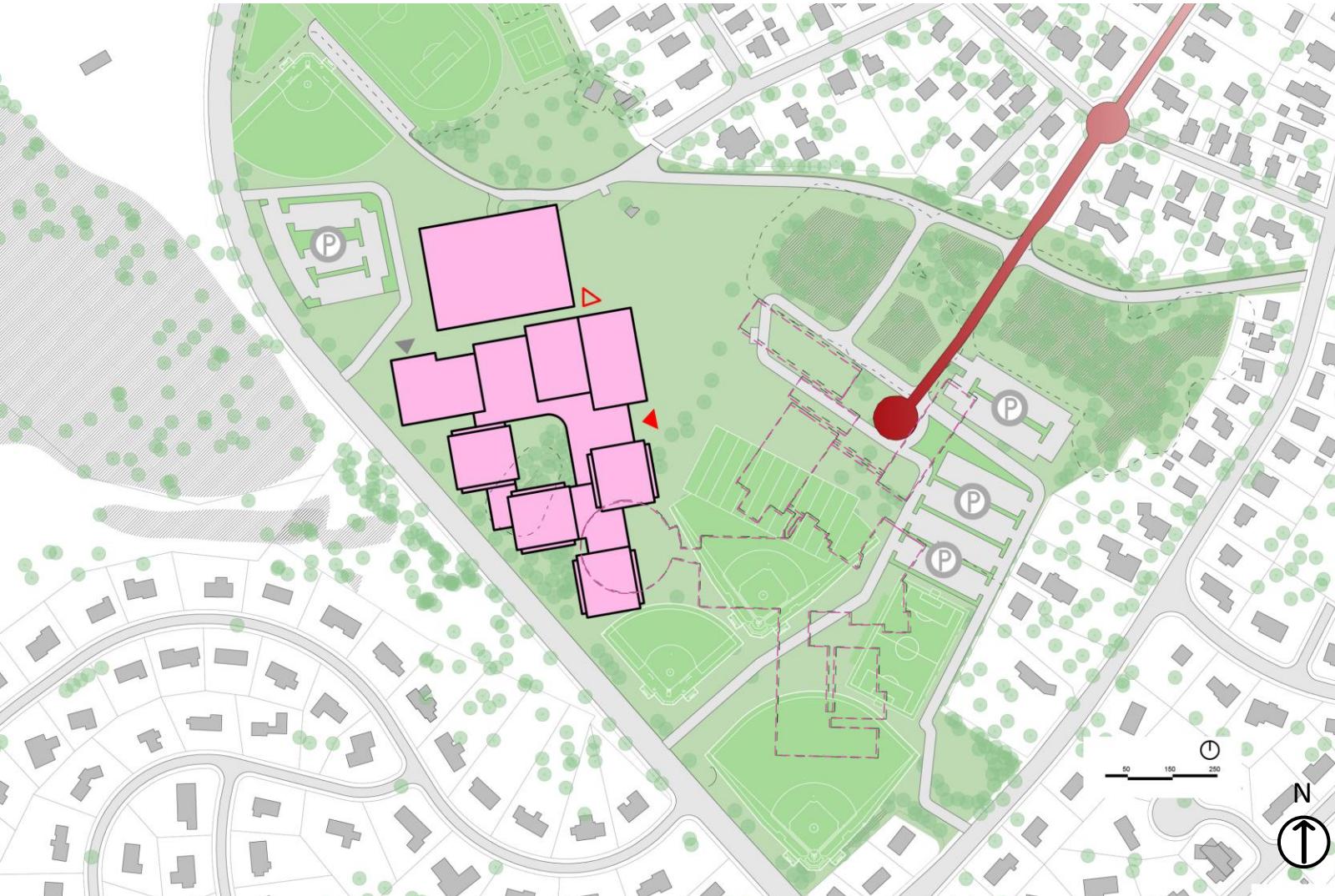
Cons:

- Multi-Phase Construction
- Site pushed close to Worthen Rd, requiring new drop off circulation



C.6 New Construction – Phased

D.1 New Construction – Phased with New Field House



Site Plan

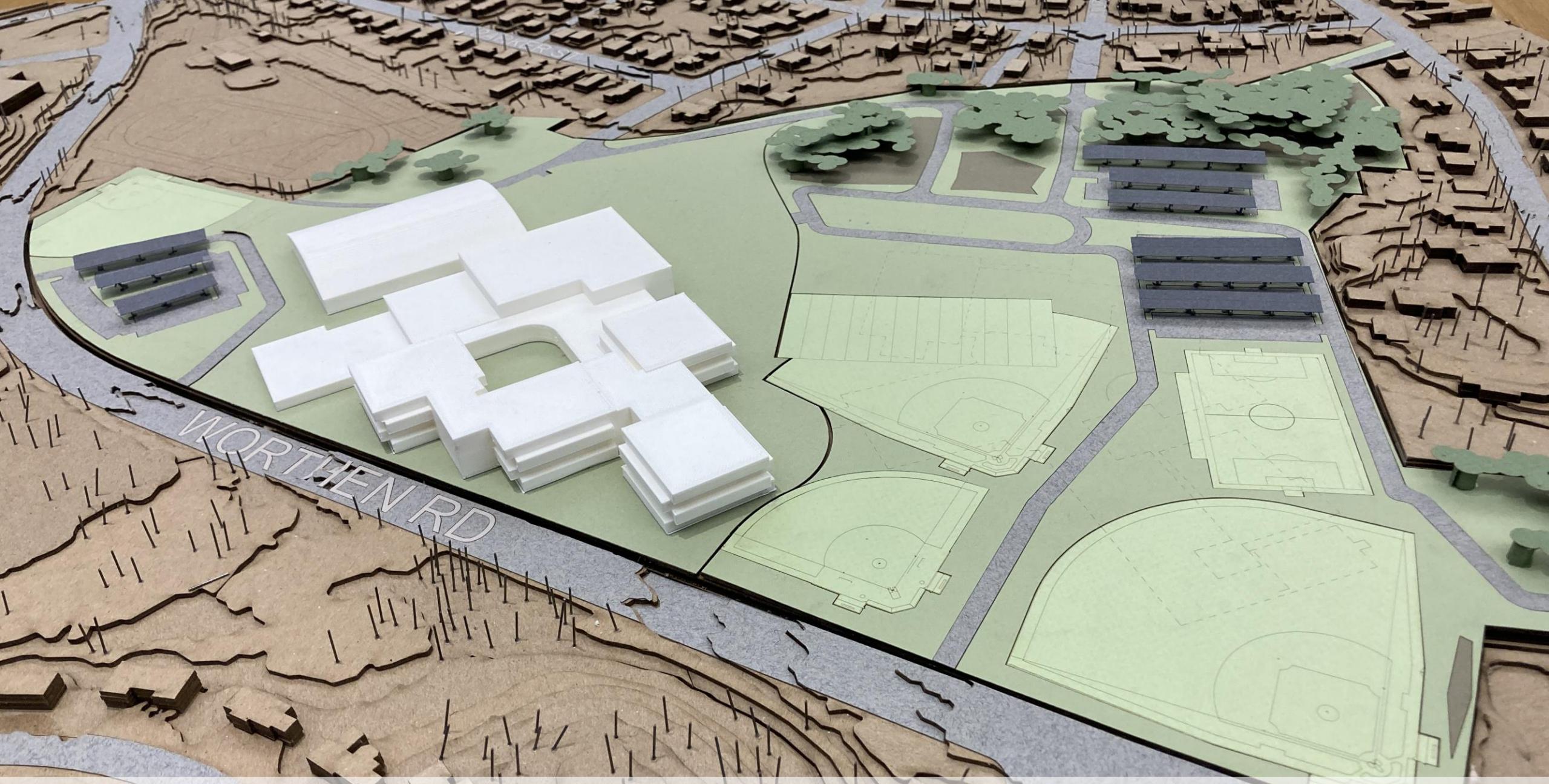
Base Educational Program
New 72,000 sf Field House
Building Footprint: 279,000 sf
Floors: 4

Pros:

- Current Building Remains in Use Throughout Construction
- Access to Outdoors
- Highly Differentiated Educational Clusters
- Enclosed Courtyard
- 200m Track

Cons:

- Fields Separate from Center Rec Complex
- Less than Ideal Façade Orientations



D.1 New Construction – Phased with New Field House



Thank You!



dw
DORE + WHITTIER

SMMA

Massing Studies

WHAT ARE MASSING STUDIES?

- Conceptual planning diagrams
- Conceptual geometry that indicate required size and heights
- Conceptual siting locations
- Conceptual site circulation

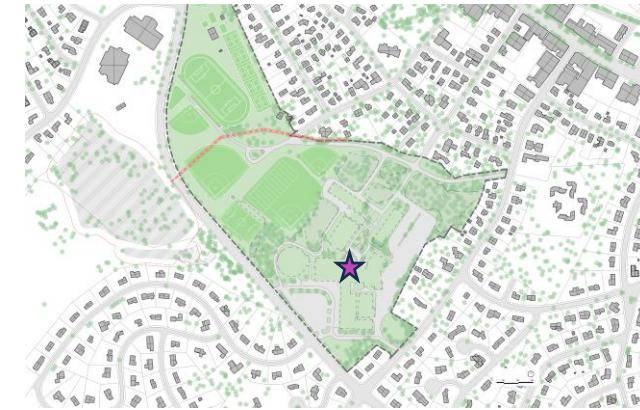
WHAT THEY ARE NOT!

- Designs
- Material selections
- Final siting locations
- Final traffic patterns
- Final costs

Code Upgrade

PROS

- Lowest cost alternative
- Addresses needed repairs
- Increases accessibility
- Does not impact the fields or Article 97 Land



CONS

- Doesn't address overcrowding problem
- Doesn't address disconnected buildings, outdoor circulation
- No change to educational environments to meet Ed Plan goals
- Potential disruption to ongoing LHS building uses
- Multiple phases of construction
- Large number of modulars required (cost not reimbursable)
- Significant cost for modest upgrade of facility
- Does not move one wall within the building

New Construction on Fields

PROS

- No disruption to ongoing LHS building uses
- Best site access and lay-down space for construction
- Best opportunity to efficiently consolidate desired site uses
- Most freedom of educational planning/adjacencies
- Single, economical construction phase for building
- No modulars required



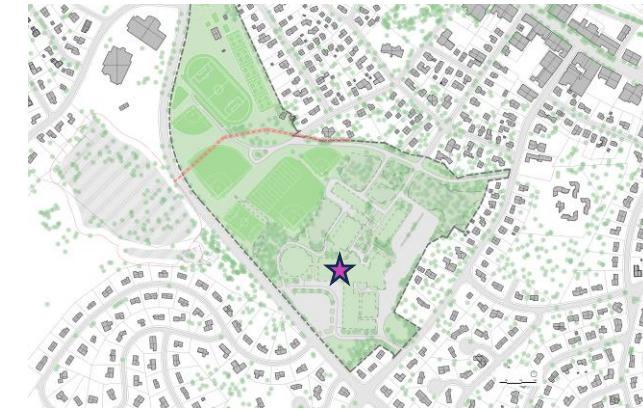
CONS

- Requires Article 97 Legislation
- Takes athletic fields offline for duration of construction (4+ years) then relocates them

New Construction – Phased in Place

PROS

- Reduced site scope.
- Some freedom of educational planning/adjacencies
- Options being explored to avert Article 97 process



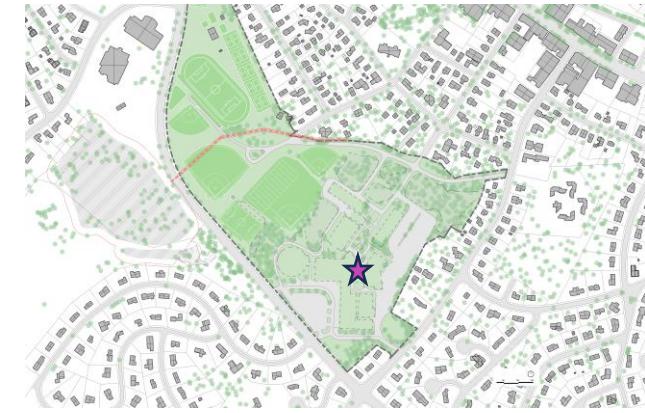
CONS

- Fields needed for construction activities are reconstructed in place.
- Major disruption to ongoing LHS building uses
- Multiple phases of construction extend schedule by ~2 years
- Increased cost vs new construction on fields
- Extremely constrained site may not accommodate all desired uses and adjacencies

Renovation and Addition – Phased in Place

PROS

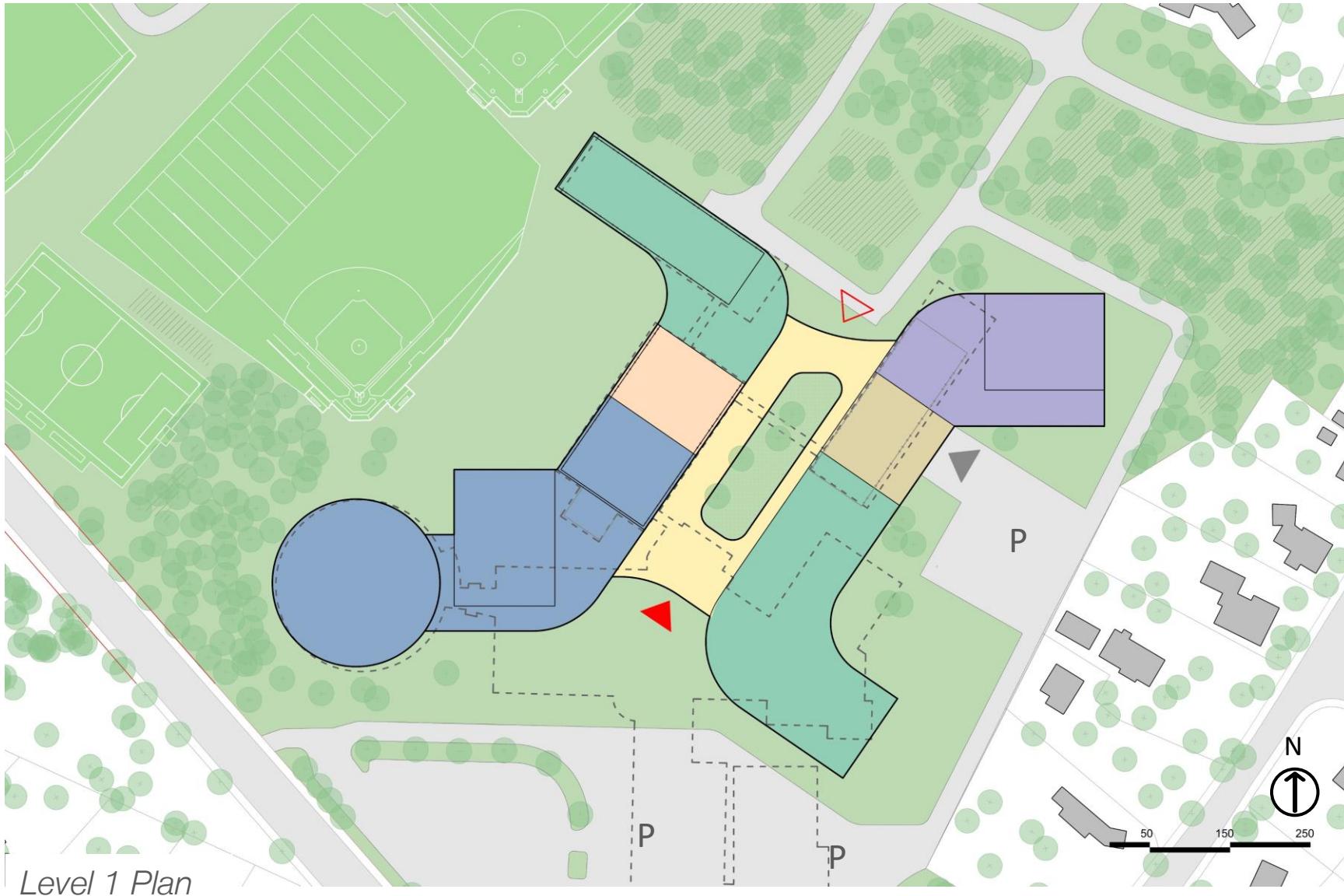
- Reduced site scope and cost (depending on location of addition)
- Options being explored to avert Article 97 process
- May reuse some building elements
- Retained concrete structure reduces carbon footprint
- Initial construction phase can avoid use of modulars in some options



CONS

- Major disruption to ongoing LHS building uses
- Multiple phases of construction extend schedule by ~1 to 2 years
- Extremely constrained site may not accommodate all desired uses and adjacencies
- Existing structural bays in Buildings A, B, H, and J not conducive to appropriately-sized classrooms
- New wall enclosures would require extensive rework and underpinning of existing foundations - not economical
- Existing structural frame not able to accommodate additional floor levels - limits efficient planning on available site
- Existing floor-to-floor heights of 1960's concrete buildings result in low headroom in classrooms
- Large number of modulars required for some options (cost not reimbursable)

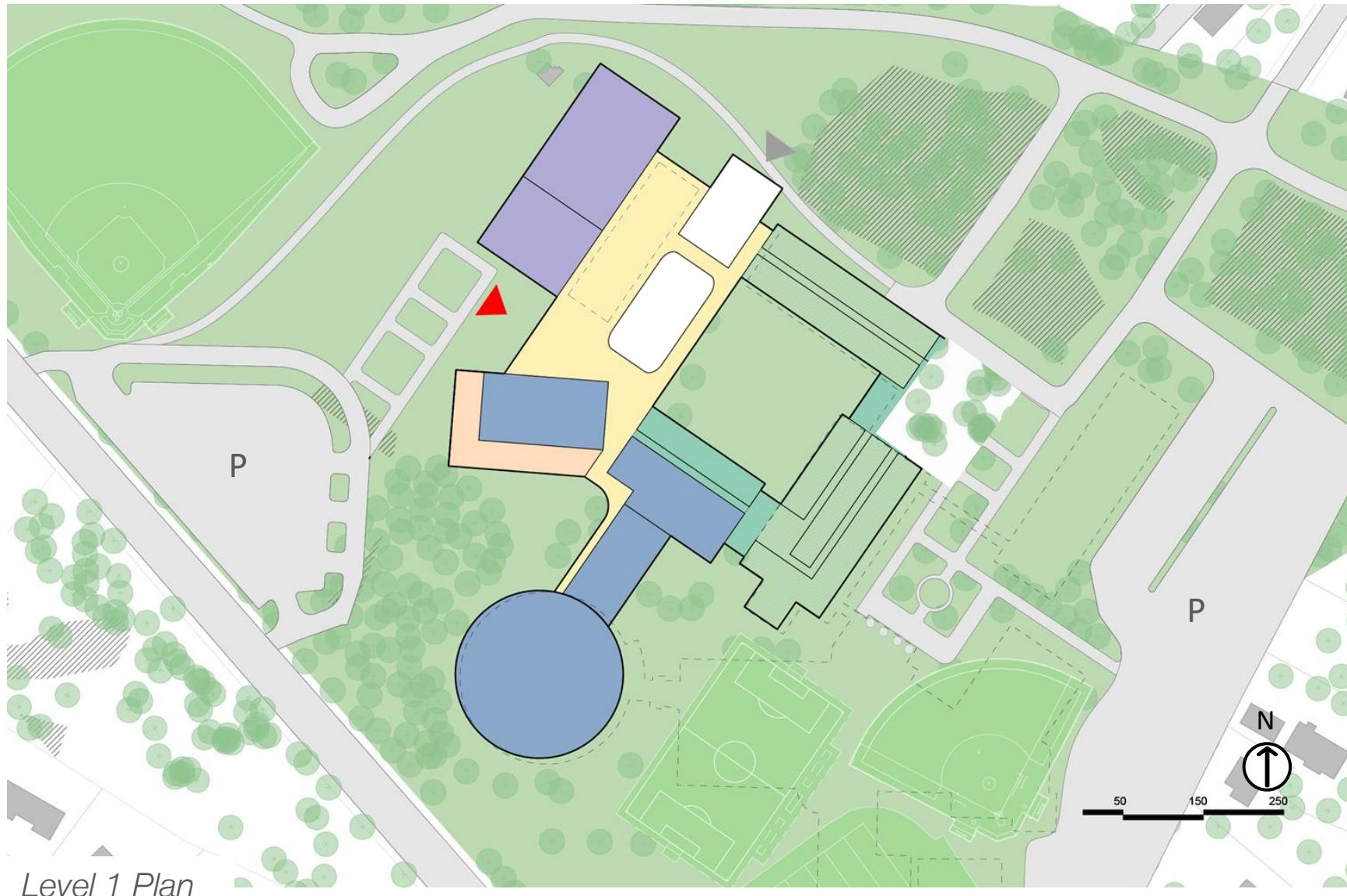
B.1 Renovation and Addition – Phased in Place



Legend

- Academics
- Health, Wellness + Athletics
- Fine + Performing Arts
- Media Center
- Dining Commons
- Kitchen + Custodial
- Admin
- Primary Entrance
- ▷ After-Hours Entrance
- ▶ Loading Entrance

B.2 Renovation and Addition – Center Shift



Legend

- Academics
- Health, Wellness + Athletics
- Fine + Performing Arts
- Media Center
- Dining Commons
- Kitchen + Custodial
- Admin
- Primary Entrance
- ▷ After-Hours Entrance
- ▶ Loading Entrance

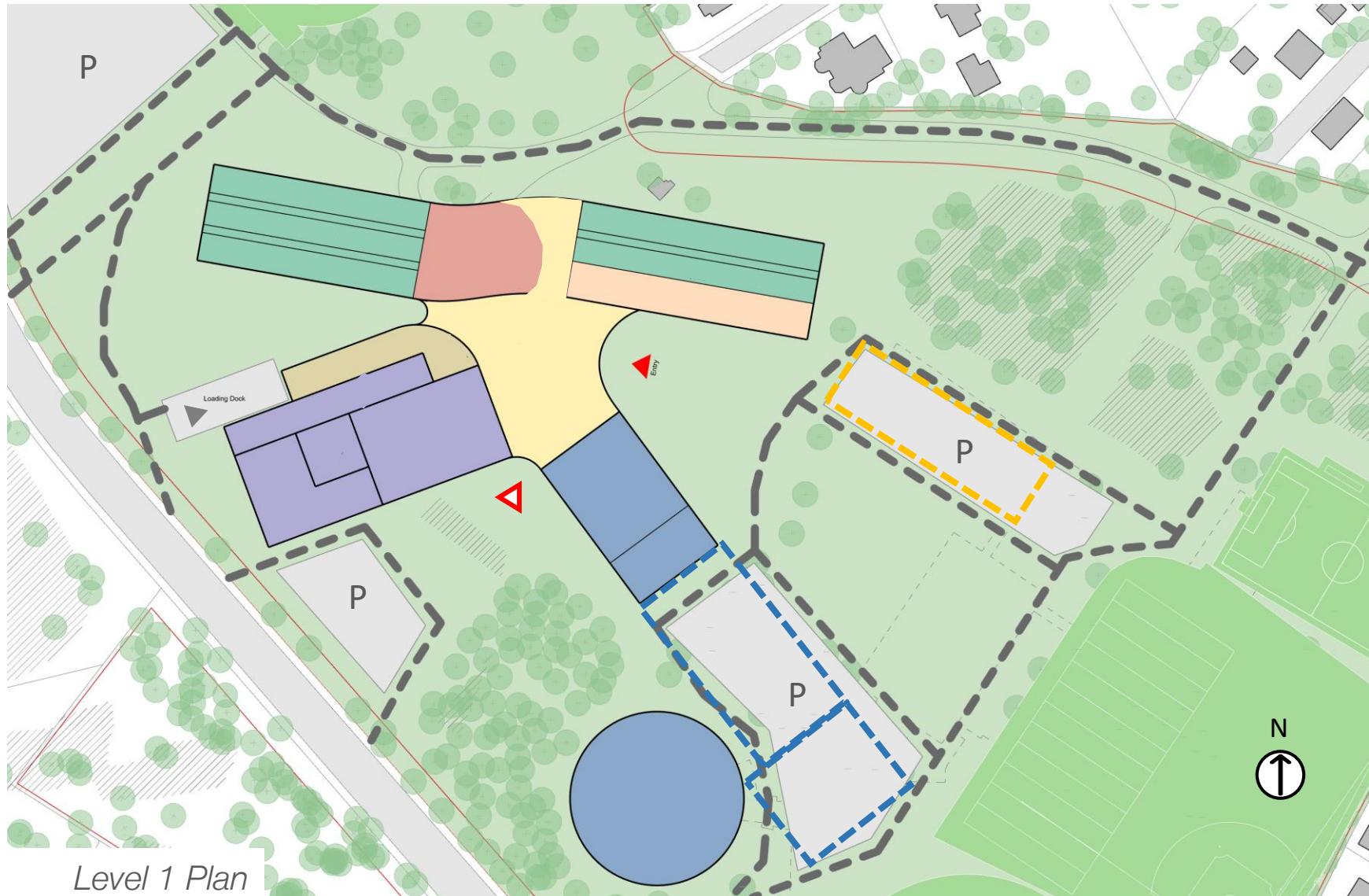
B.3 Renovation and Addition - Phased



Level 1 Plan

Legend	
Academics	
Health, Wellness + Athletics	
Fine + Performing Arts	
Media Center	
Dining Commons	
Kitchen + Custodial	
Admin	
► Primary Entrance	
► After-Hours Entrance	
► Loading Entrance	

C.1a New Construction - Wide Academic Bar North – 3 Stories

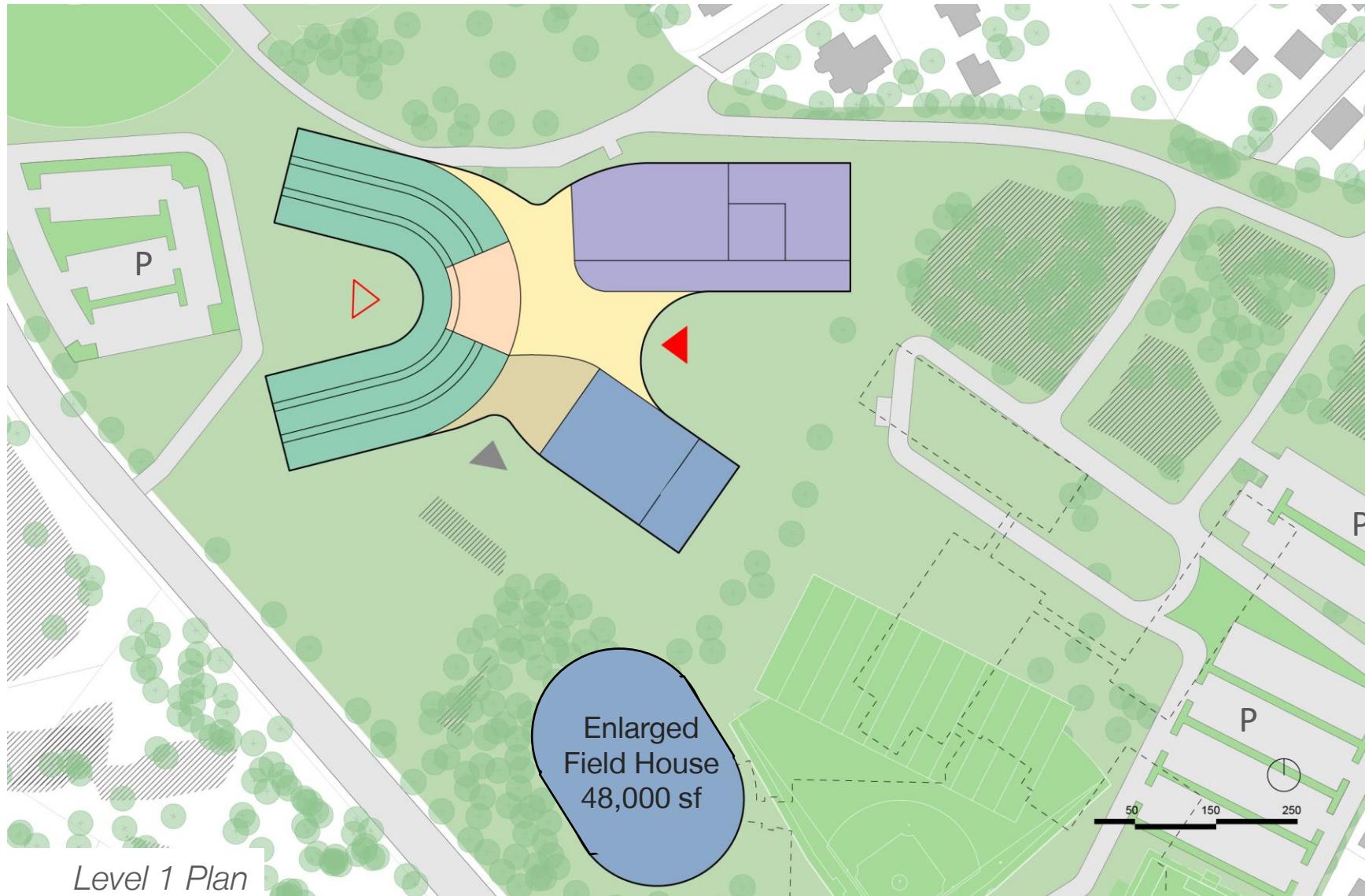


- Legend
- Academics
 - Health, Wellness + Athletics
 - Fine + Performing Arts
 - Media Center
 - Dining Commons
 - Kitchen + Custodial
 - Admin
 - Primary Entrance
 - After-Hours Entrance
 - Loading Entrance

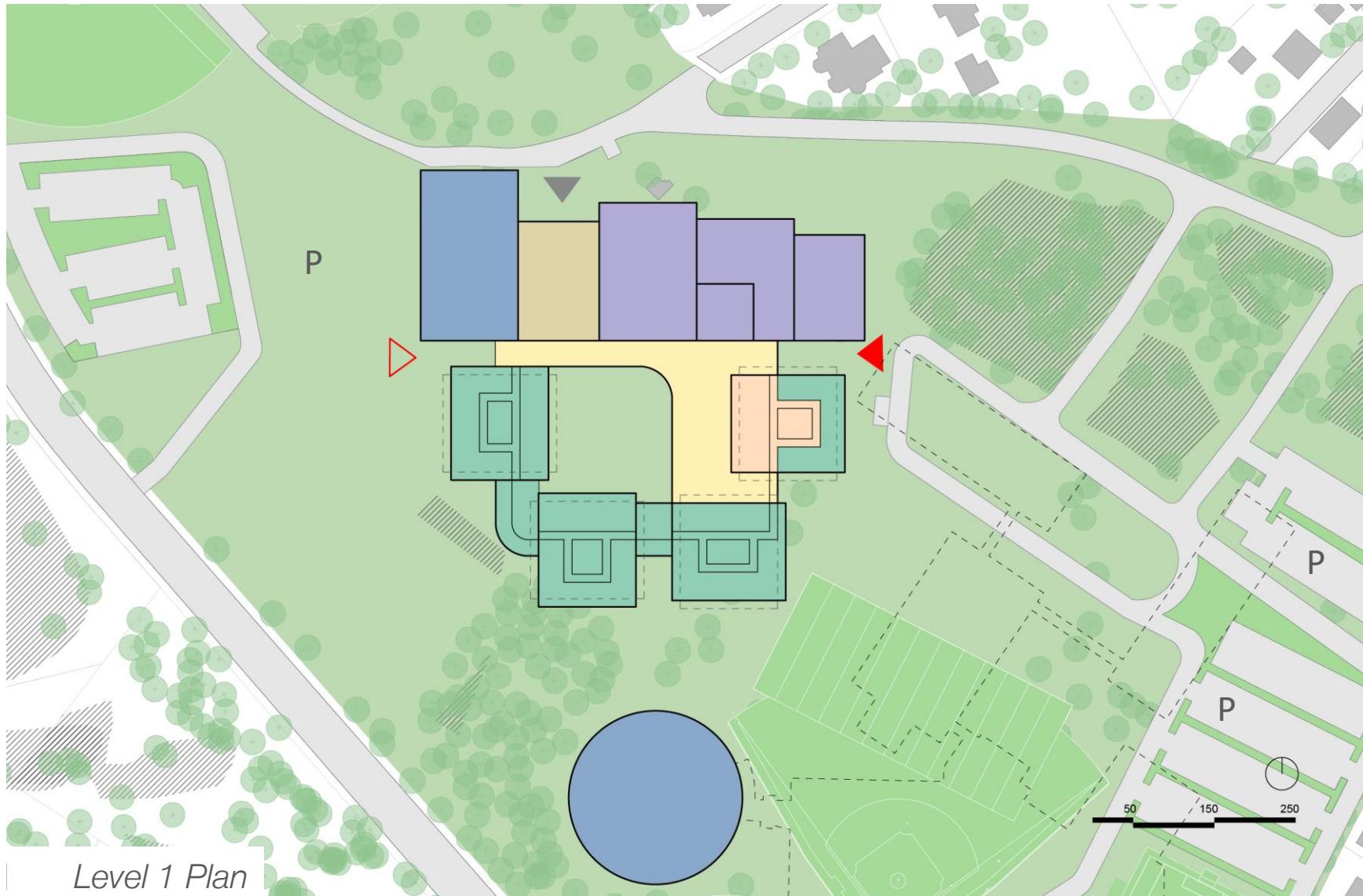
Additional Program:

- Central Office
- Field House and Pool

C.2b New Construction - Wide Academic Bars West



C.4b New Construction – Academic Village



Legend	
Academics	
Health, Wellness + Athletics	
Fine + Performing Arts	
Media Center	
Dining Commons	
Kitchen + Custodial	
Admin	
► Primary Entrance	
▷ After-Hours Entrance	
► Loading Entrance	

C.5a New Construction



- Legend
- Academics
 - Health, Wellness + Athletics
 - Fine + Performing Arts
 - Media Center
 - Dining Commons
 - Kitchen + Custodial
 - Admin
 - Primary Entrance
 - After-Hours Entrance
 - Loading Entrance

D.1 New Construction – Phased with New Field House



Legend	
Academics	
Health, Wellness + Athletics	
Fine + Performing Arts	
Media Center	
Dining Commons	
Kitchen + Custodial	
Admin	
► Primary Entrance	
► After-Hours Entrance	
► Loading Entrance	

C.1d New Construction – Two Bars – 4 Stories



C.4c New Construction – Academic Village



Level 1 Plan

- Legend
- Academics
 - Health, Wellness + Athletics
 - Fine + Performing Arts
 - Media Center
 - Dining Commons
 - Kitchen + Custodial
 - Admin
 - Primary Entrance
 - ▷ After-Hours Entrance
 - Loading Entrance

C.5b New Construction – 4 Stories



C.6 New Construction - Phased



Level 1 Plan

	A. Code Upgrade	B. Renovation & Addition				C. New Construction												D. New - Multi Phase
Alternative	A.1	B.1	B.2	B.3	C.1a	C.1b	C.1c	C.1d	C.2a	C.2b	C.3a	C.4a	C.4b	C.4c	C.5a	C.5b	C.6	D.1
Description	No Changes to Architecture	2-4 Floors Phased-in-Place Retain Building G & J Structure	2-4 Floors Addition on Athletic Fields Retain Building G & J Structure	4 Floors Phased-in-Place Retain Building C & D	3 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase	5 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase Reduced wetland impact	3 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase	3 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase Reduced wetland impact	4 Floors On Fields 1 Phase	4 Floors On Fields 1 Phase Reduced wetland impact	4 Floors On Fields 1 Phase	4 Floors On Fields Multiple phases