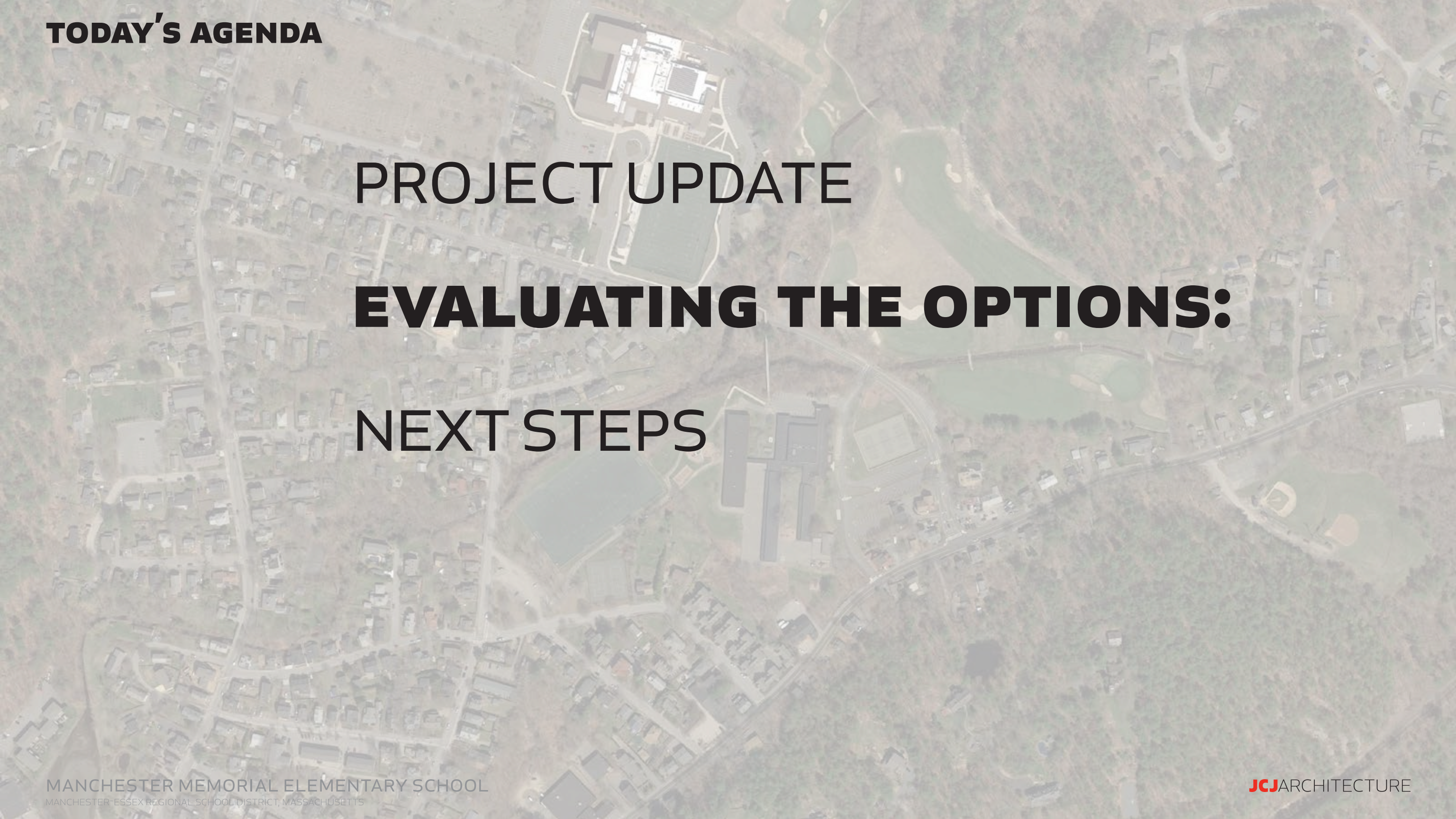




# MANCHESTER MEMORIAL ELEMENTARY SCHOOL

FEASIBILITY PHASE –  
**SBC MEETING #17**  
JANUARY 10<sup>TH</sup>, 2018





# TODAY'S AGENDA

## PROJECT UPDATE

# **EVALUATING THE OPTIONS:**

## NEXT STEPS



Today's Goal:

**Eliminate 3 Schemes**

*(1 Addition- Renovation and 2 New)*



**Today's Goal:**

**Allow us to Run Through All 7 Schemes**

***(Reserve Questions & Discussion Until After Presentation)***



# **EVALUATING THE OPTIONS**

## **Things to Know:**

**Scheme are not in their Final Configuration**

**Elements Between Scheme are Still Interchangeable**

**There are Multiple Ways to Phase Construction**



# EVALUATING THE OPTIONS

RECOMMENDED FOR FURTHER DEVELOPMENT

**R-1** FOUR WALLS



RENOVATION ONLY

**AR-2** SAVE THE CORE



ADDITION/RENOVATION  
RETAIN CORE BLOCK ONLY

**AR-4** OUT WEST



ADDITION/RENOVATION  
MODERATE INTERVENTION

**N-1** THE PIANO



NEW CONSTRUCTION  
PHASED - STUDENTS ON-SITE

**N-3** THE HUB



NEW CONSTRUCTION  
PHASED - STUDENTS ON-SITE

**N-8** TWO WINGS



NEW CONSTRUCTION  
PHASED - STUDENTS ON-SITE

**N-9** THE HOOK










NEW CONSTRUCTION  
PHASED - STUDENTS ON-SITE



# RECOMMENDATIONS

- FAVORABLE
- NEUTRAL
- UNFAVORABLE

	Option R-1 "Four Walls"	Option AR-2 "Save the Core"	Option AR-4 "Out West"	Option N-1 "The Piano"	Option N-3 "The Hub"	Option N-8 "Two Wings"	Option N-9 "The Hook"
							
<b>Educational</b>							
Meets District's Space Program Goals							
Provides Flexibility for Future Building Expansion							
Flexibility for Grade Level Re-Configuration (Bubble Grades)							
Minimizes Impact to Students During Construction							
Provides Separated Whole School Gathering Space							
<b>Community</b>							
Provides Independent Access to Community Used Space							
Allows for Competition Size Gym with Bleachers							
<b>Site</b>							
Increases Amount of Play Areas/ Fields							
Welcoming Street Presence							
Improves Parent Drop-Off/ Pick-Up Queuing							
Improves Impact to Riverfront Resource Areas							
Minimizes Potential Pedestrian/ Vehicular Conflicts							
<b>Building</b>							
Optimizes Building Area to Perimeter Ratio							
<b>Costs and Schedule</b>							
Relative Capital Costs							
Minimizes Number of Phases							







# R-1 FOUR WALLS

PHASE ONE



## PHASING

- Site Mobilization
- Install Modulares
- Renovate West Wing

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction



# R-1 FOUR WALLS

## PHASE TWO



## PHASING

- Renovate Center and East Wings
- Renovate Pre-K

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction



# R-1 FOUR WALLS

PHASE THREE



## PHASING

– Renovate Core Area

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction



R-1 FOUR WALLS



PHASING

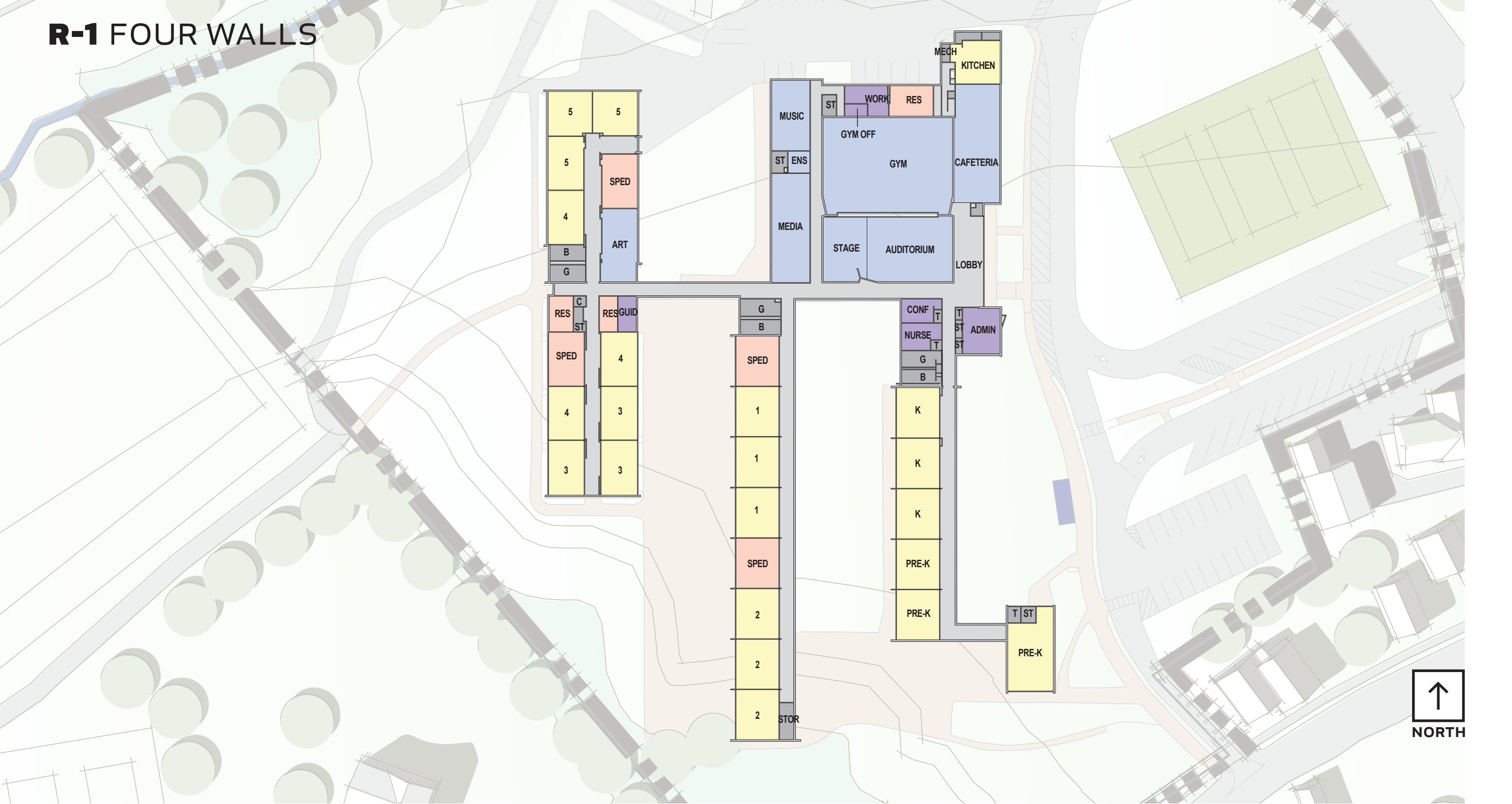
- Complete Site Work

- 1. GYMNASIUM
- 2. CAFETERIA
- 3. LIBRARY / MEDIA
- 4. ADMIN
- 5. CLASSROOMS
- 6. PARKING
- 7. PLAYFIELDS
- 8. OUTDOOR LEARNING





R-1 FOUR WALLS









# AR-2 SAVE THE CORE

PHASE ONE



## PHASING

- Mobilize
- Install Modulars
- Renovate Center and West Wings

-  Existing Building
-  Modulars
-  Demolition
-  Renovated Area or New Construction

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# AR-2 SAVE THE CORE

## PHASE TWO



## PHASING

– Construct New  
2-Story West Wing

- Existing Building
- Modulars
- Demolition
- Renovated Area or  
New Construction

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# AR-2 SAVE THE CORE

## PHASE THREE

## PHASING

– Demolition of East Wing and Pre-K



- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction



# AR-2 SAVE THE CORE

## PHASE FOUR



## PHASING

– Construction New Center Wing (Core)

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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# AR-2 SAVE THE CORE

PHASE FIVE



## PHASING

- Renovation of Existing "Core" Block
- Demolition of Remaining Existing Building

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction

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# AR-2 SAVE THE CORE



## PHASING

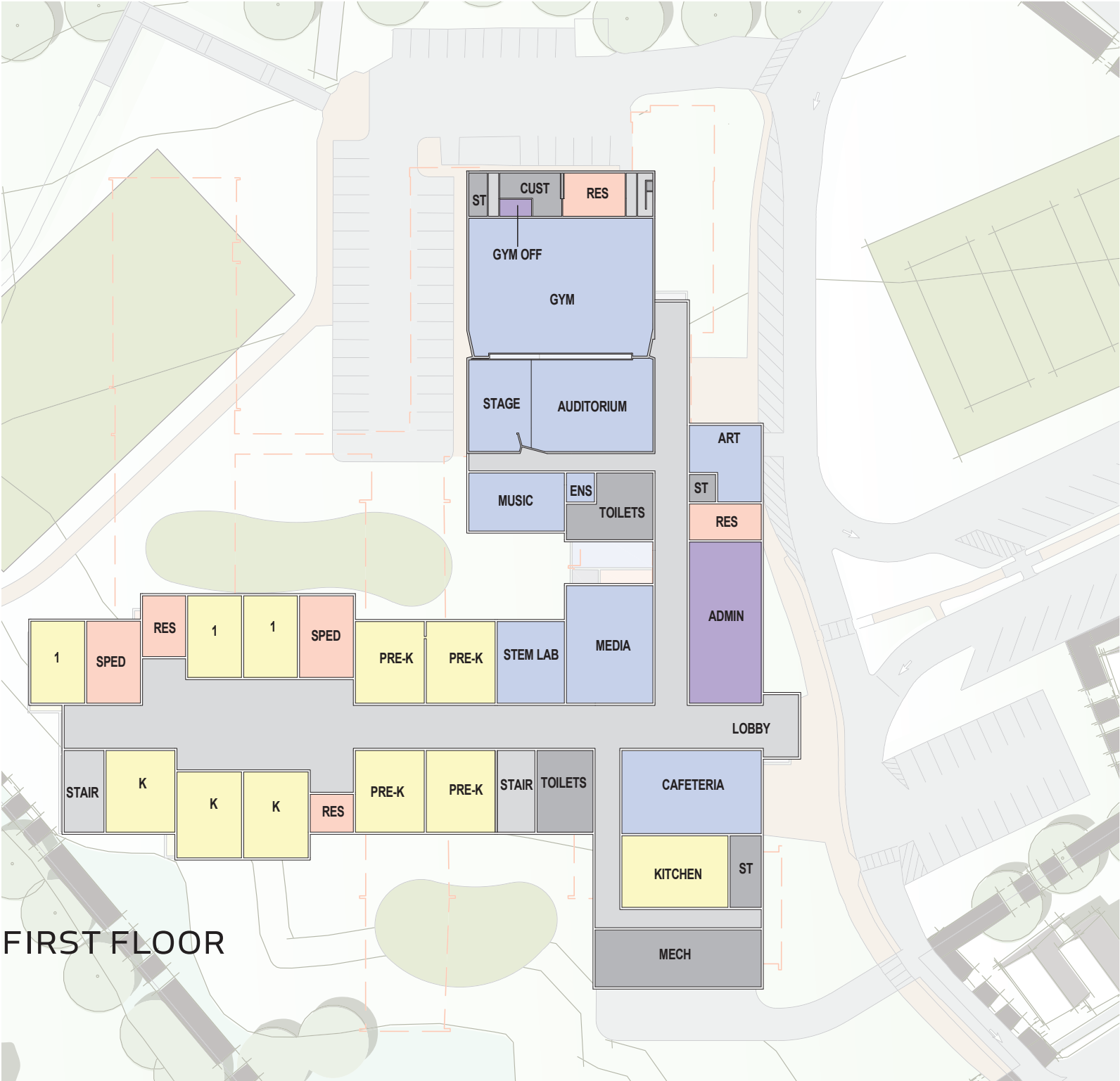
– Complete Site Work

- 1. GYMNASIUM
- 2. CAFETERIA
- 3. LIBRARY / MEDIA
- 4. ADMIN
- 5. CLASSROOMS
- 6. PARKING
- 7. PLAYFIELDS
- 8. OUTDOOR LEARNING

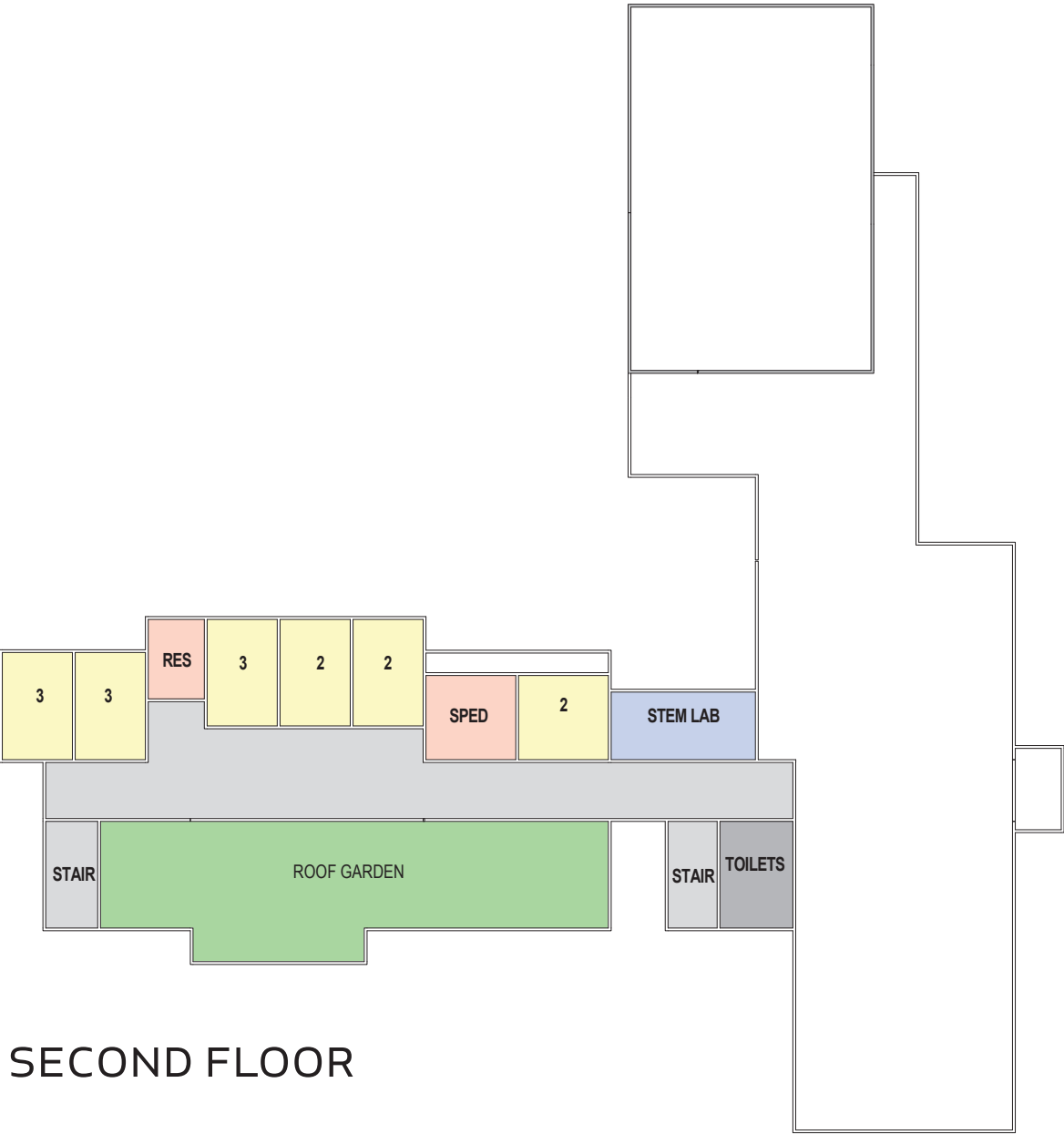




# AR-2 SAVE THE CORE



FIRST FLOOR



SECOND FLOOR





# AR-4 OUT WEST





## PHASE ONE



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## PHASING

- Site Mobilization
- Install Modulares
- Demolition of West Wing

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction

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# AR-4 OUT WEST

## PHASE TWO



## PHASING

– Construct New West Wing

-  Existing Building
-  Modulars
-  Demolition
-  Renovated Area or New Construction



# AR-4 OUT WEST

PHASE THREE







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## PHASING

– Renovate Center and East Wings of Existing Building

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction

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# AR-4 OUT WEST

## PHASE FOUR



## PHASING

– Renovate Existing Building "Core" Block

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction



# AR-4 OUT WEST

PHASE THREE



## PHASING

– Complete Site Work

- 1. GYMNASIUM
- 2. CAFETERIA
- 3. LIBRARY / MEDIA
- 4. ADMIN
- 5. CLASSROOMS
- 6. PARKING
- 7. PLAYFIELDS
- 8. OUTDOOR LEARNING



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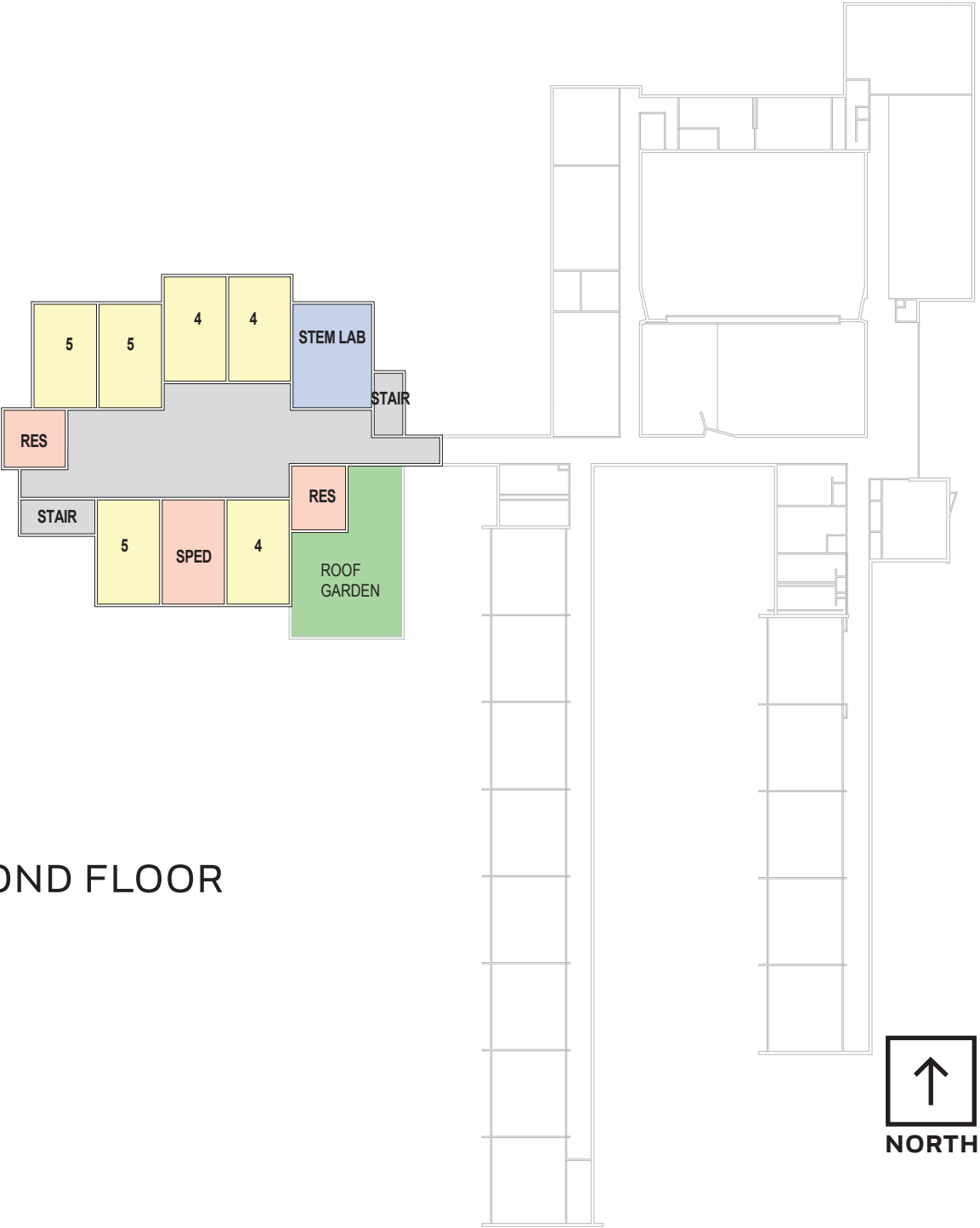
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AR-4 OUT WEST



FIRST FLOOR



SECOND FLOOR



NORTH



# N-1 THE PIANO

PHASE ONE



## PHASING

- Site Mobilization
- Install Modulares
- Demolition of Remaining Existing Building

- Existing Building
- Modulares
- Demolition
- Renovated Area or New Construction

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# N-1 THE PIANO

## PHASE TWO



## PHASING

– Construct New Building

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction



# N-1 THE PIANO

PHASE THREE



## PHASING

– Demolition of Remaining Existing Building

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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# N-1 THE PIANO



## PHASING

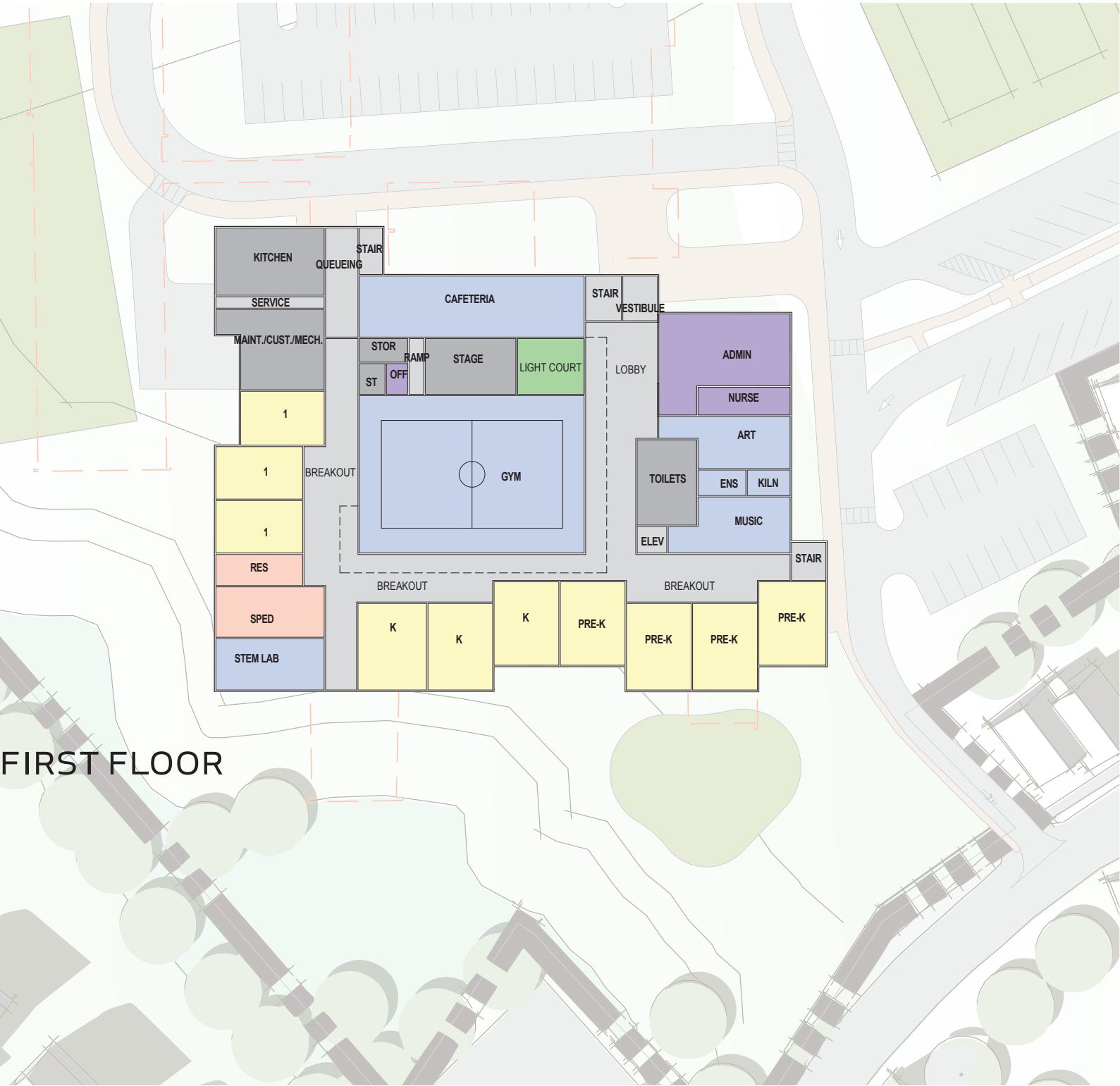
– Complete Site Work

- 1. GYMNASIUM
- 2. CAFETERIA  
LIBRARY / MEDIA ABOVE
- 4. ADMIN
- 5. CLASSROOMS
- 6. PARKING
- 7. PLAYFIELDS
- 8. OUTDOOR LEARNING





N-1 THE PIANO



FIRST FLOOR



SECOND FLOOR





# N-3 THE HUB

## PHASE ONE



## PHASING

- Site Mobilization
- Install Modulares
- Demolition of Remaining Existing Building

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction



# N-3 THE HUB

PHASE TWO



## PHASING

– Construct New West Wing

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction



# N-3 THE HUB

## PHASE TWO A



## PHASING

- Relocate Students to New Building
- Demolition of Center and East Wings of Existing Building

- Existing Building
- Modulares
- Demolition
- Renovated Area or New Construction







# N-3 THE HUB

PHASE THREE



## PHASING

- Relocate Students to New Building
- Demolition of Remaining Existing Building

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction



# N-3 THE HUB

PHASE THREE A



## PHASING

- Relocate Students to New Building
- Demolition of Remaining Existing Building

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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# N-3 THE HUB

PHASE FOUR



## PHASING

– Construct New East Wing

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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PHASING

- Complete Site Work



- 1. GYMNASIUM
- 2. CAFETERIA
- 3. LIBRARY / MEDIA
- 4. ADMIN
- 5. CLASSROOMS
- 6. PARKING
- 7. PLAYFIELDS
- 8. OUTDOOR LEARNING

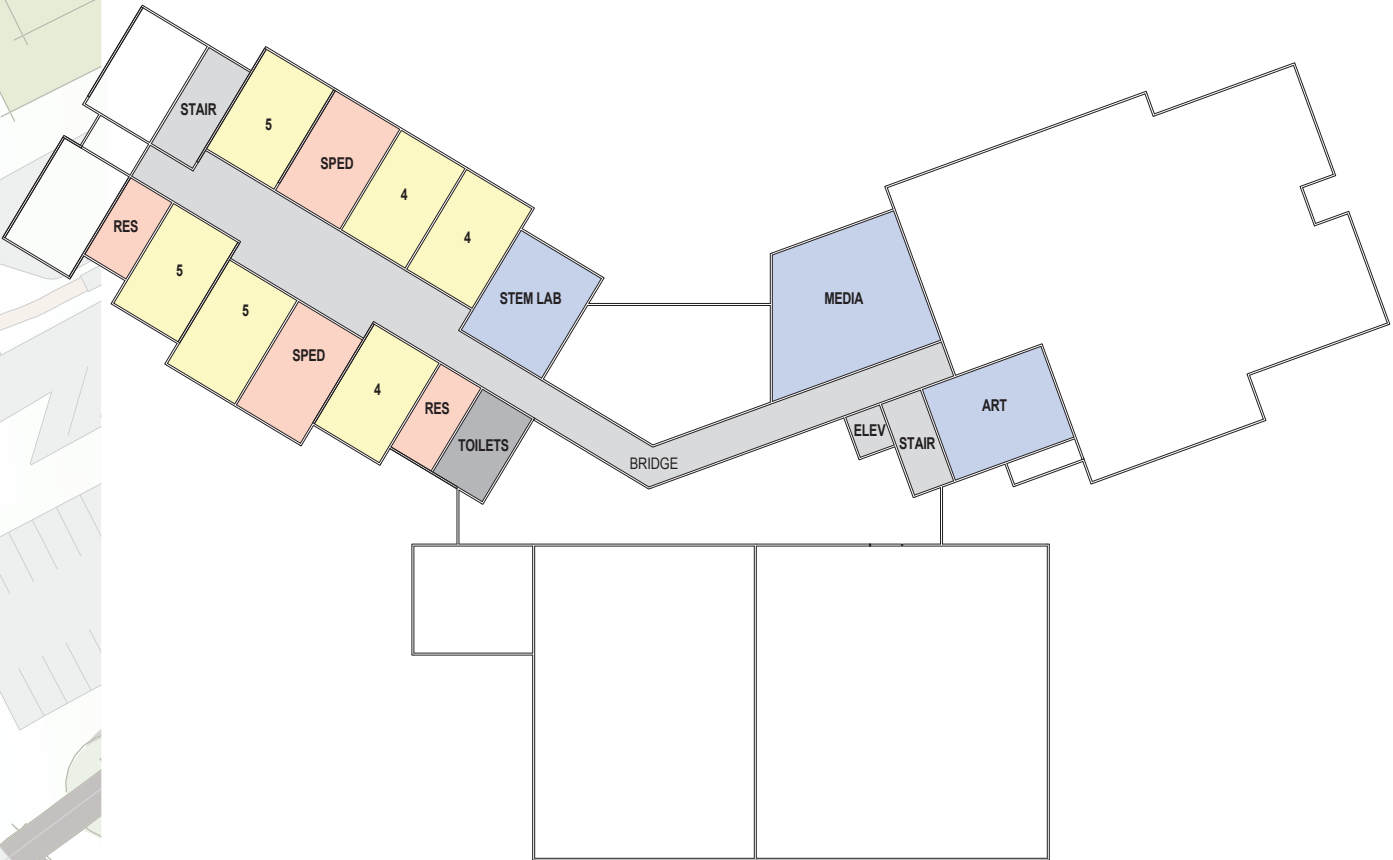




N-3 THE HUB



FIRST FLOOR



SECOND FLOOR



NORTH



# N-8 TWO WINGS

## PHASE ONE



## PHASING

- Site Mobilization
- Install Modulares
- Demolition of Center and East Existing Classroom Wings

- Existing Building
- Modulares
- Demolition
- Renovated Area or New Construction

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# N-8 TWO WINGS

PHASE TWO



## PHASING

– Construct South Classroom Wing and New "Core" Block

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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


# N-8 TWO WINGS

PHASE THREE



## PHASING

– Demolition of Remaining Existing Building

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction

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# N-8 TWO WINGS

PHASE FOUR



## PHASING

- Construct New North Classroom Wing
- Remove Modulares

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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# N-8 TWO WINGS

PHASE FOUR



## PHASING

– Complete Site Work

- 1. GYMNASIUM
- 2. CAFETERIA
- 3. LIBRARY / MEDIA
- 4. ADMIN
- 5. CLASSROOMS
- 6. PARKING
- 7. PLAYFIELDS
- 8. OUTDOOR LEARNING



NORTH

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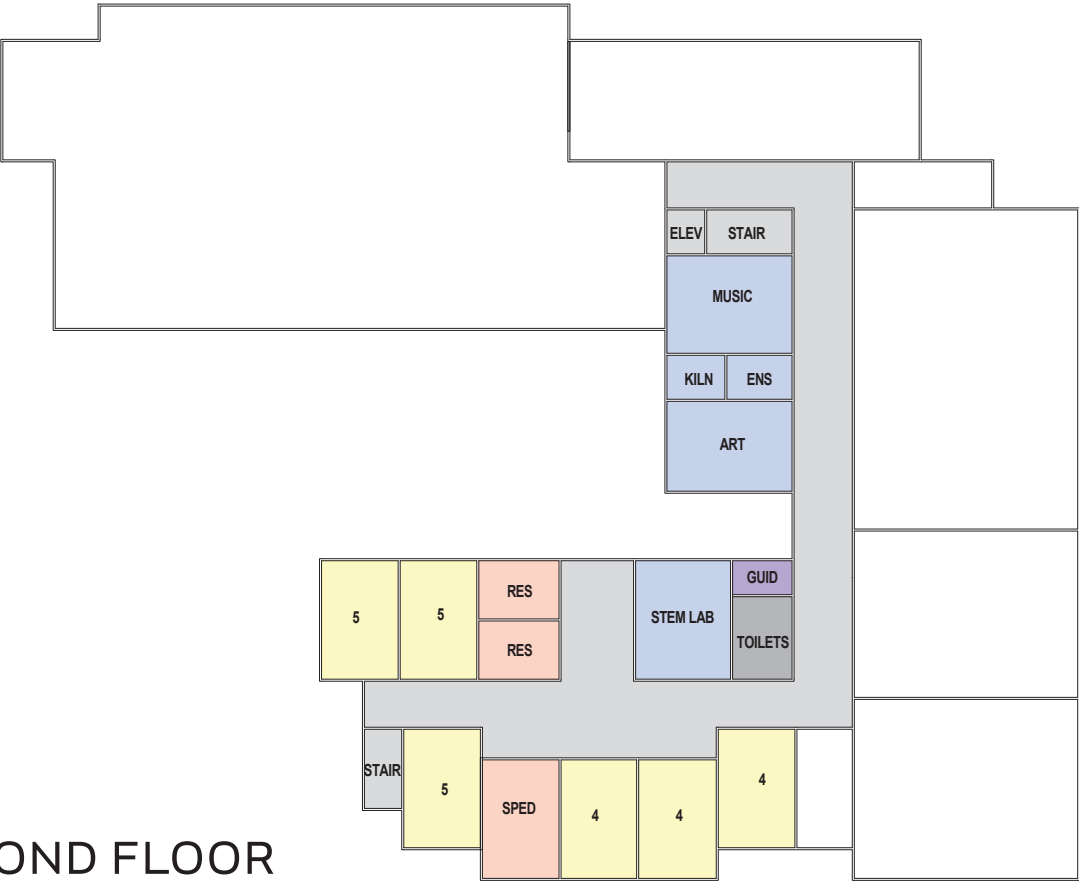


N-8 TWO WINGS



FIRST FLOOR

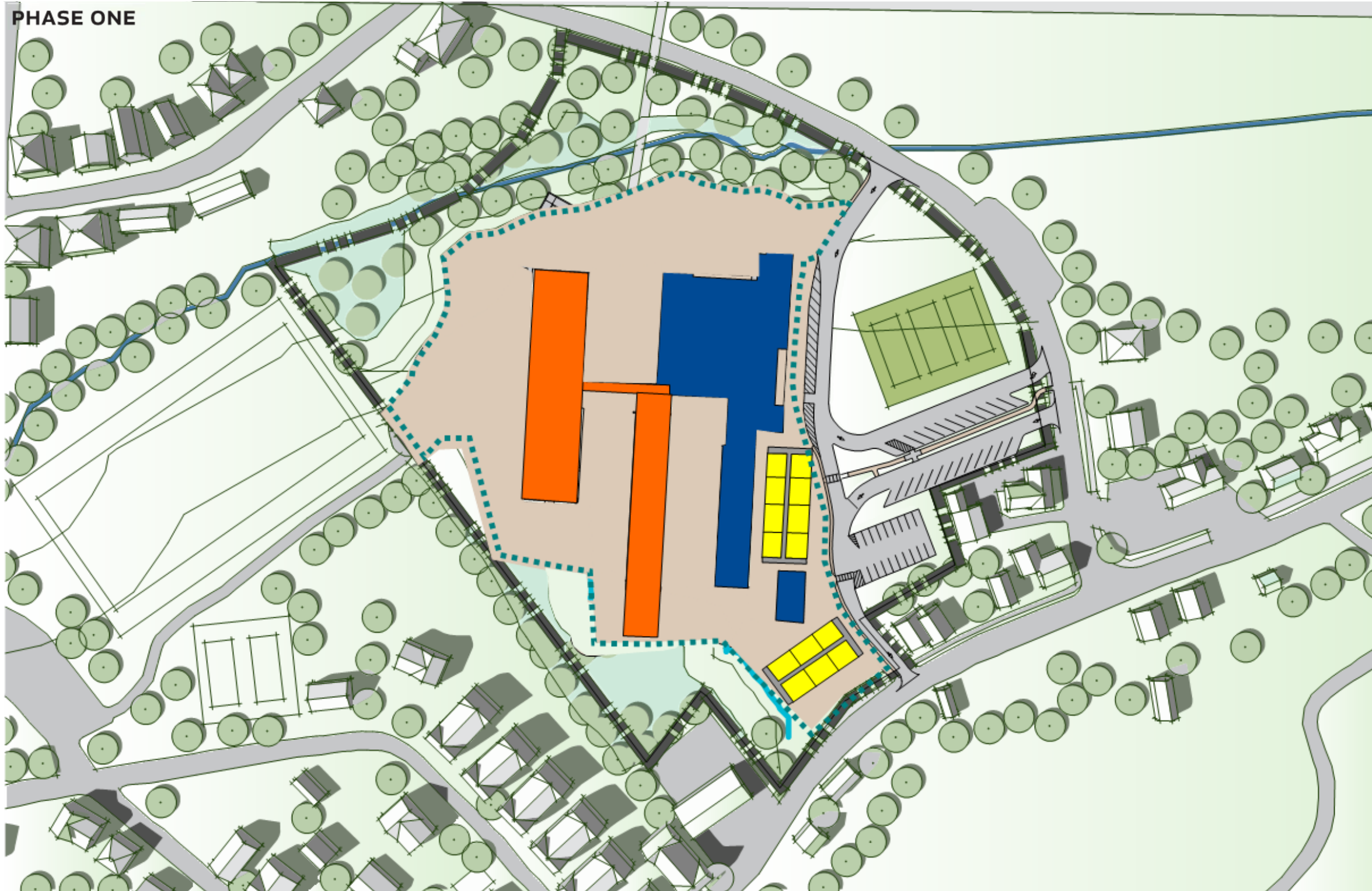
SECOND FLOOR





# N-9 THE HOOK

PHASE ONE



## PHASING

- Mobilize
- Construct New Wing of nr-9. New 2-Story West Wing

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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


# N-9 THE HOOK

PHASE TWO



## PHASING

- Construct New Classroom Wings
- Relocate Students to New Construction
- Remove Modulares
- Temporary Connector from Existing to New Building

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction

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
# N-9 THE HOOK

PHASE THREE



## PHASING

– Demolition of Art and Music Area

-  Existing Building
-  Modulares
-  Demolition
-  Renovated Area or New Construction

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# N-9 THE HOOK

PHASE FOUR



## PHASING

– Construct New  
"Core" Block"

- Existing Building
- Modulars
- Demolition
- Renovated Area or  
New Construction

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# N-9 THE HOOK

PHASE FIVE



## PHASING

- Demolition of Remaining Existing Building

- Existing Building
- Modulars
- Demolition
- Renovated Area or New Construction

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PHASING

- Complete Site Work



- 1. GYMNASIUM
- 2. CAFETERIA
- 3. LIBRARY / MEDIA
- 4. ADMIN
- 5. CLASSROOMS
- 6. PARKING
- 7. PLAYFIELDS
- 8. OUTDOOR LEARNING



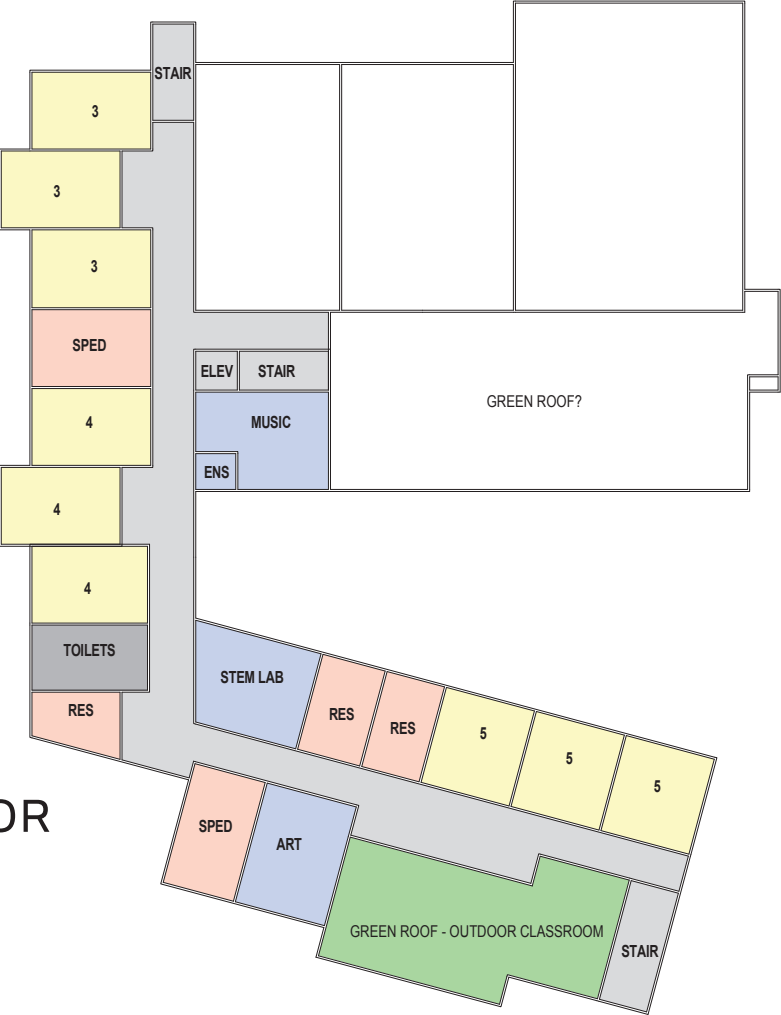


N-9 THE HOOK



FIRST FLOOR








SECOND FLOOR





RECOMMENDATIONS

- FAVORABLE
- NEUTRAL
- UNFAVORABLE

	Option R-1 "Four Walls"	Option AR-2 "Save the Core"	Option AR-4 "Out West"	Option N-1 "The Piano"	Option N-3 "The Hub"	Option N-8 "Two Wings"	Option N-9 "The Hook"
							
Educational							
Meets District's Space Program Goals	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Provides Flexibility for Future Building Expansion	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Flexibility for Grade Level Re-Configuration (Bubble Grades)	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Minimizes Impact to Students During Construction	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Provides Space for All-School Gathering	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Community							
Provides Independent Access to Community Used Space	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Allows for Competition Size Gym with Bleachers	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Site							
Increases Amount of Play Areas/ Fields	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Welcoming Street Presence	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Improves Parent Drop-Off/ Pick-Up Queuing	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Improves Impact to Riverfront Resource Areas	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Minimizes Potential Pedestrian/ Vehicular Conflicts	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Building							
Optimizes Building Area to Perimeter Ratio	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Costs and Schedule							
Relative Capital Costs * Dollar Amounts are based on PDP Estimates	\$ 25,4 M *	\$ 43.6 M *	TBD	\$ 45.6 M *	\$ 45.6 M *	\$ 45.6 M *	\$ 45.6 M *
Minimizes Number of Phases	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>



# System Narratives Ready For Review Next Week Mechanical Basis of Design

*Fully Air-Conditioned Mixed-Air Overhead VAV RTU  
Systems w/ Energy Recovery (ERV) and Terminal  
VAV Boxes w/ Hot Water Reheat Coils served by  
Code-Efficient Non-Condensing Boiler Plant  
(Approximately \$40/s.f.)*



# System Narratives Ready For Review Next Week

## Mechanical: Other Systems Also being Studied

### Alternate 1:

*Full Air Conditioning  
Mixed-Air Overhead VAV  
RTU Systems w/ Energy  
Recovery and Terminal  
VAV Boxes w/ Hot Water  
Reheat Coils & Demand  
Control Ventilation (DCV)  
served by High-Efficiency  
Condensing Boiler Plant  
(Approximately \$41/s.f.)*

### Alternate 2:

*Full Air Conditioning  
Induction Unit Systems  
w/ VAV Ventilation RTU's  
w/ ERV with Terminal  
VAV Boxes w/ DCV  
served by High-Efficiency  
Condensing Boiler Plant  
and High-Efficiency  
Air-Cooled Chiller Plant  
(Approximately \$39/s.f.)*

### Alternate 3:

*(New Construction Only)  
Full AC Displacement Ventilation  
Systems (serving the classrooms,  
café, & gym) and Induction Unit  
Systems (serving the media  
center & admin areas) w/ VAV  
Ventilation RTU's w/ ERV with  
Terminal VAV Boxes w/ DCV  
served by High-Efficiency  
Condensing Boiler Plant and  
High-Efficiency Air-Cooled  
Chiller Plant (serving the  
Induction Units)  
(Approximately \$36/s.f.)*



## PROJECT UPDATE

# System Narratives Ready For Review Next Week Electrical Basis of Design

*Emergency Generator  
100 - 125 KW Size*

*Load assumes Life Safety, Communications  
Equipment, Freeze Protection, Refrigeration, and  
Basic Miscellaneous Loads Required*



# NEXT STEPS

---

<b>1/10</b>	Evaluating Options / Select Schemes for Estimating
<b>1/22</b>	Design Update
<b>1/31</b>	Community Meeting

---

<b>2/1</b>	Review Cost Estimates
<b>2/5</b>	Select Preferred Option
<b>2/13</b>	Joint Committee Approval of PSR
<b>2/21</b>	Submit PSR to MSBA

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# THANK YOU

