

# Coakley Middle School

Norwood Public Schools

## School Building Committee

April 12, 2021



Ai3 Architects, LLC  
Compass Project Management

# Agenda

March 22, 2021

- ◆ Reviewed PDP Report
- ◆ Reviewed Educational Plan
- ◆ Reviewed Space Summary
- ◆ Voted to Submit PDP Report

April 12, 2021

- ◆ PDP & PSR update
- ◆ Cafetorium discussion
- ◆ Review Draft Site Plans
- ◆ Review Evaluation Criteria Matrix



# CAFETERIA & AUDITORIUM = CAFETORIUM

## CAFETORIUM

**6 - 8**  
grade configuration

Student Dining = 3,650 SF  
stage = 1,600 SF

TOTAL = 5,250 SF  
(100% reimburseable)  
**TOTAL = 7,718 GSF**

**5 - 8**  
grade configuration

Student Dining = 3,760 SF  
stage = 1,600 SF

TOTAL = 5,360 SF  
(100% reimburseable)  
**TOTAL = 8,040 GSF**

## AUDITORIUM

**6 - 8**  
grade configuration

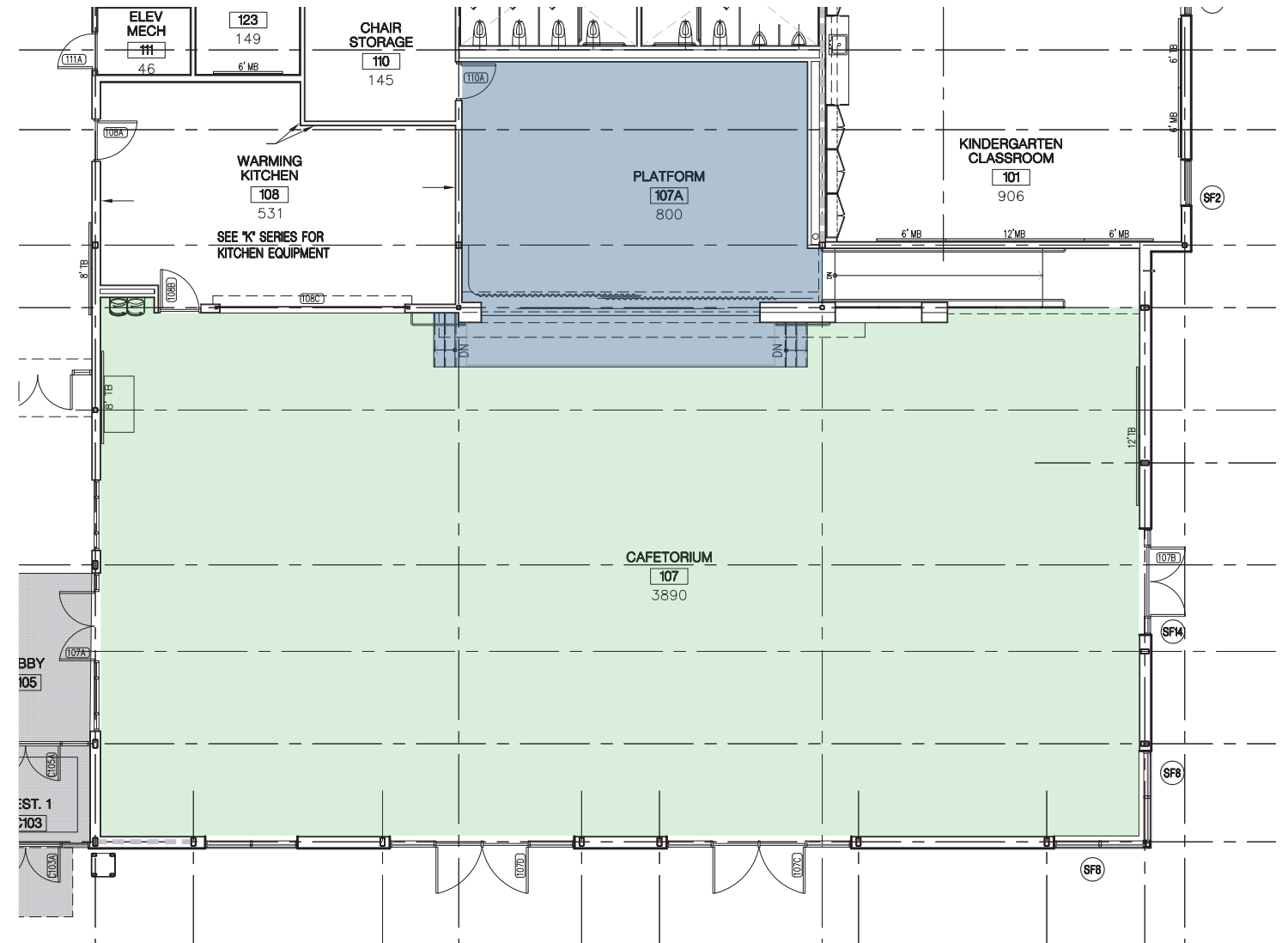
400 seat auditorium = 4,500 SF  
stage = 1,600 SF

TOTAL = 6,100 SF  
(non-reimbursable)  
**TOTAL = 8,967 GSF**

**5 - 8**  
grade configuration

535 seat auditorium = 5,500 SF  
stage = 1,600 SF

TOTAL = 7,100 SF  
(non-reimbursable)  
**TOTAL = 10,650 GSF**





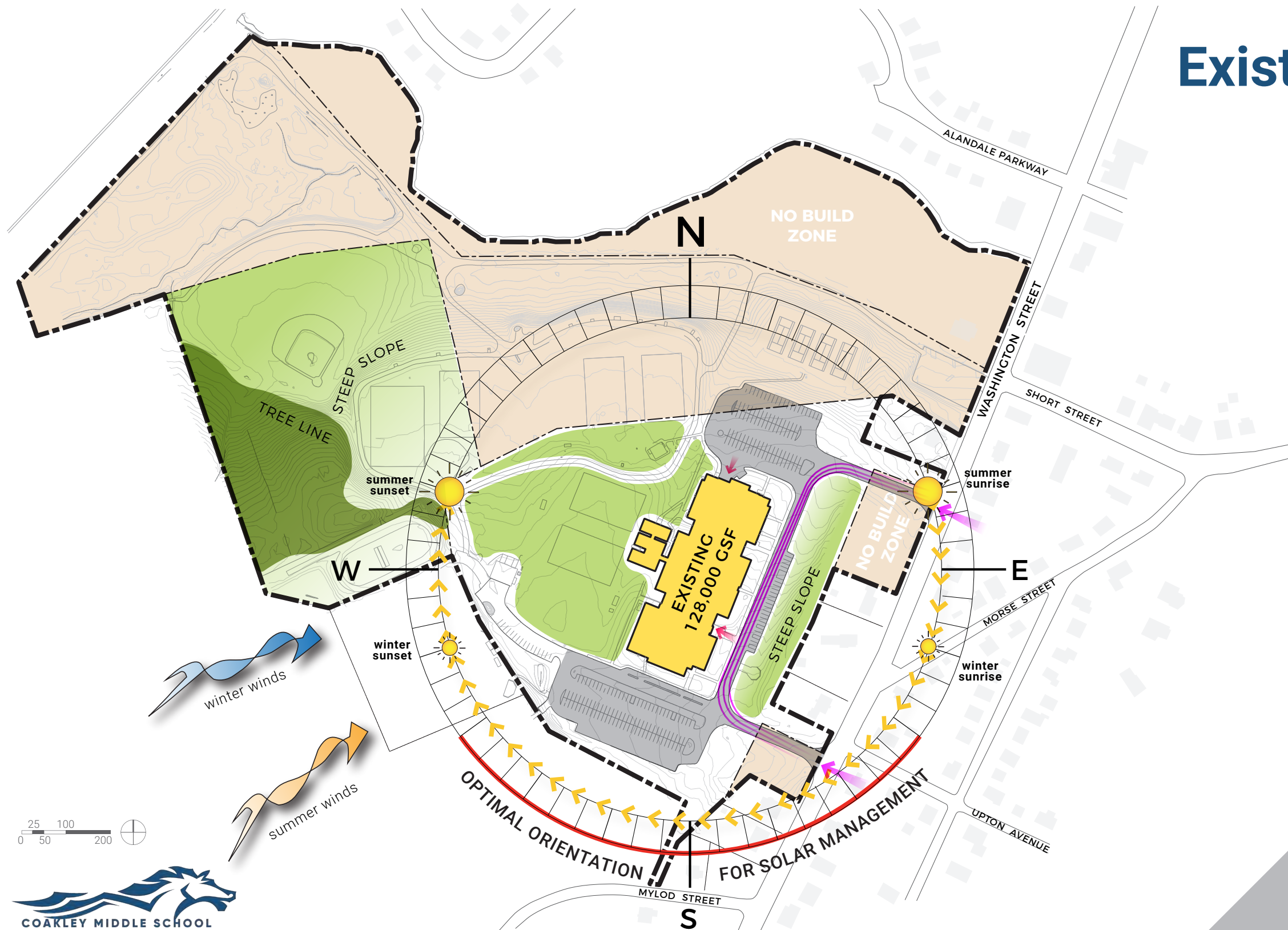






# Existing Conditions

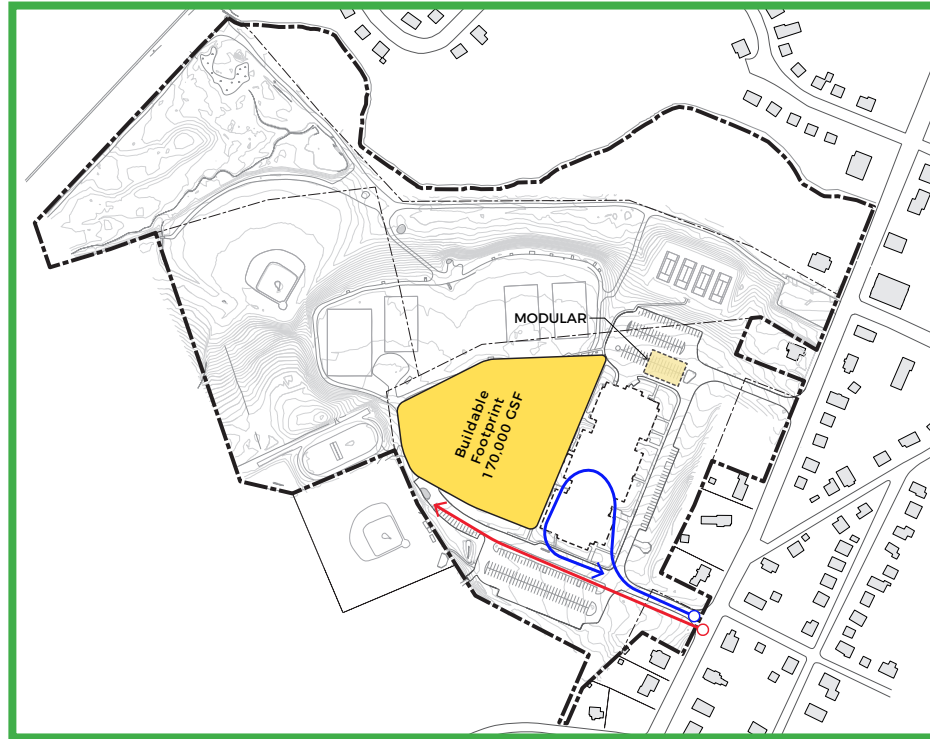
## site analysis



- ◆ large areas of the site are restricted from having built structures added
- ◆ building orientation to consider solar orientation for optimal solar management
- ◆ building orientation to consider southwest prevailing winds for ventilation and open space
- ◆ consider all natural buffers between site and residential neighbors







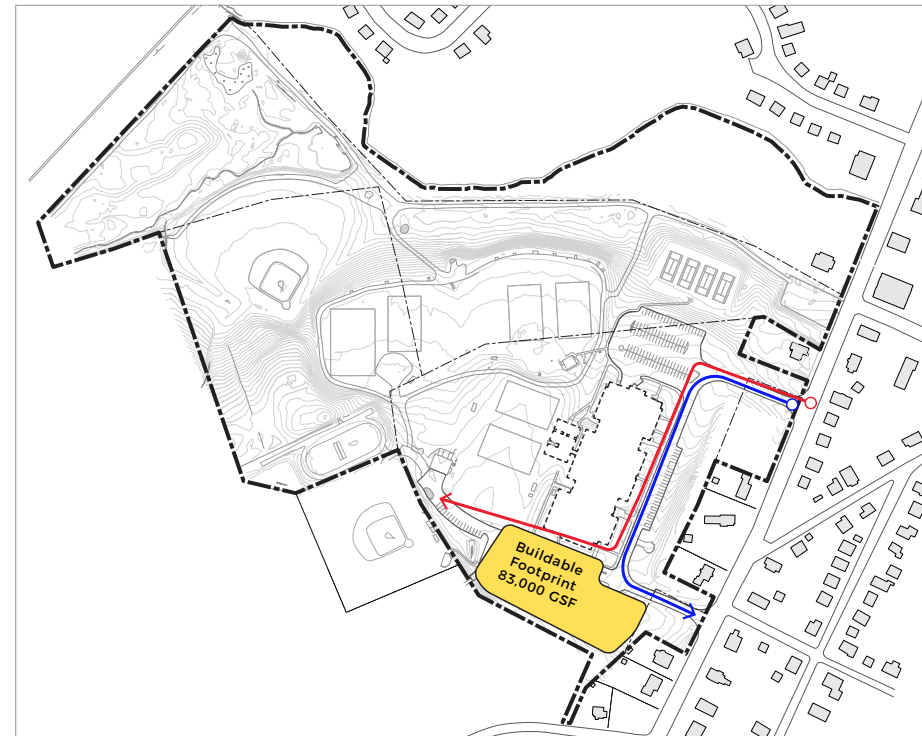
## Back

**170,000 GSF**

uses the modular replacement to gain additional GSF

centrally located on site

2 practice fields would be offline during construction



# New Options

## buildable area

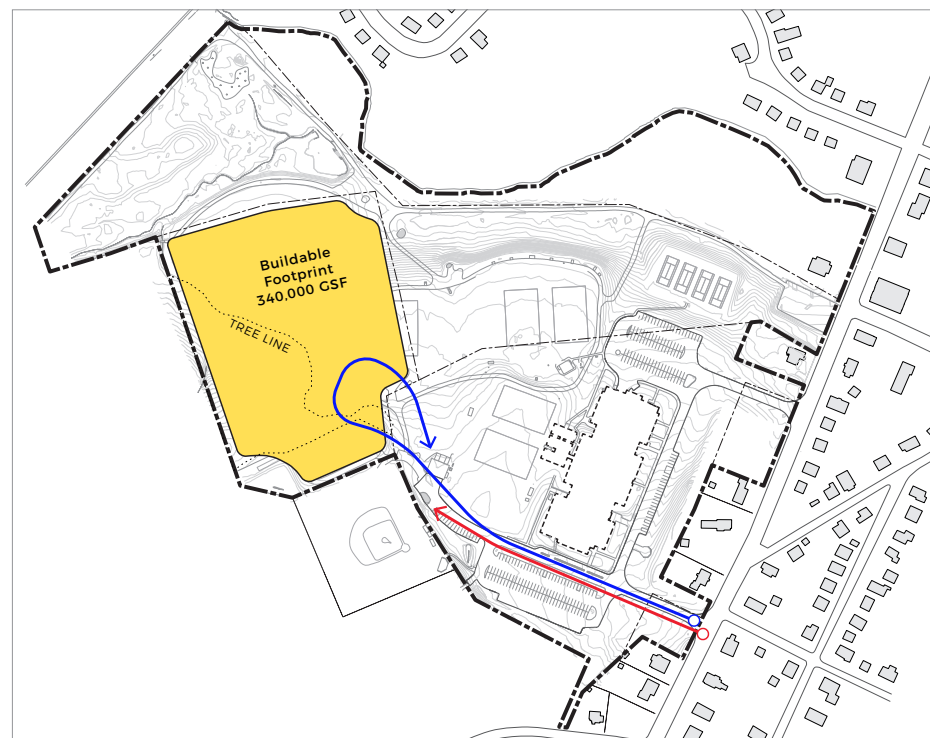
— school access  
— little league access

## South

**83,000 GSF**

smallest footprint results in tallest building closest to abutters

longest access drive to little league field



## Far Back

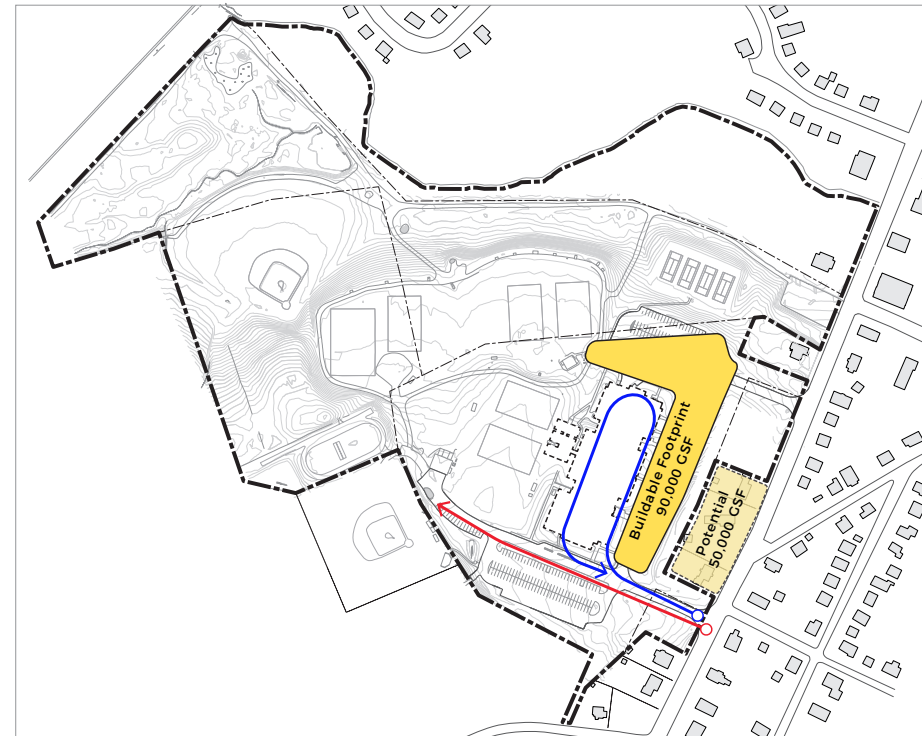
**340,000 GSF**

steep slopes

requires the removal of existing established trees

poor access through site pinch-point

2-3 structured fields would be offline during construction



## Front

90,000 GSF + 50,000 GSF =  
**140,000 GSF**

narrow lot with steep slopes results in long building and entry/circulation at back

project would incur added cost if 3 properties were purchased

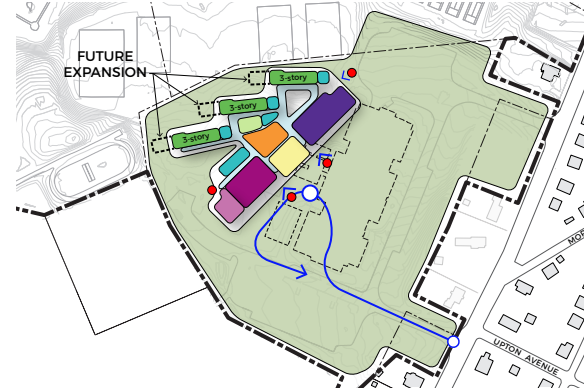
ADD/RENO

**option 2A**  
2-story



NEW

**option 3A - stepped**  
3/4-story



**option 3B - 2 wings**  
2-story

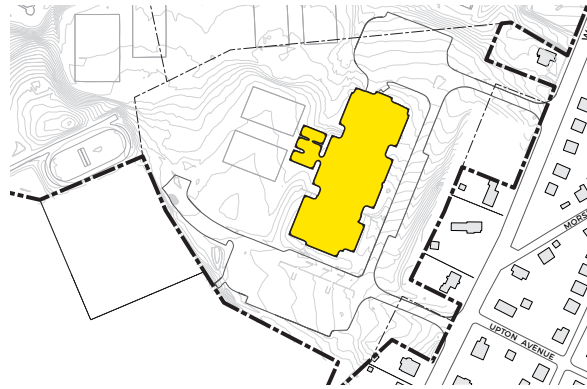


**option 3C - 2 wings phased**  
2-story



BASE REPAIR

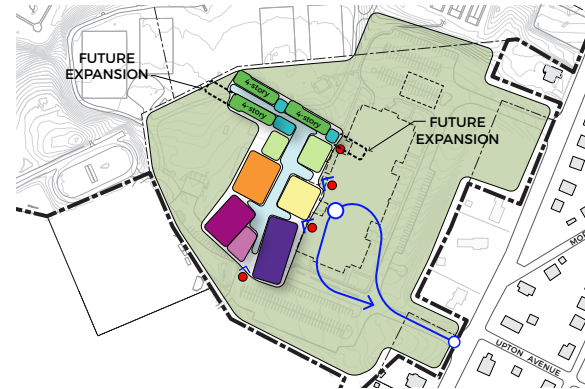
**option 1**  
2-story



**option 3D - backwards "C"**  
2-story



**option 3E - angle**  
3/4-story



**option 3F - linear**  
3/4-story

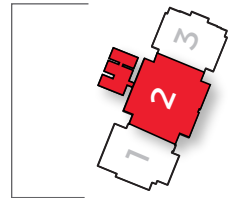


# option 2A

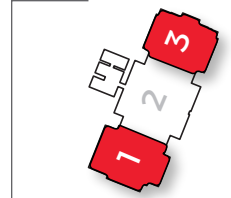
## Add/Reno

### 1-story/2-story

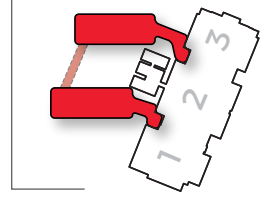
zone 2 contains undersized program: 50% of that program has no natural light/ventilation



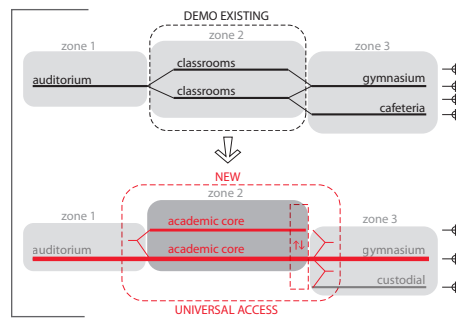
zones 1 and 3 renovated to retain program space that exceeds MSBA guidelines



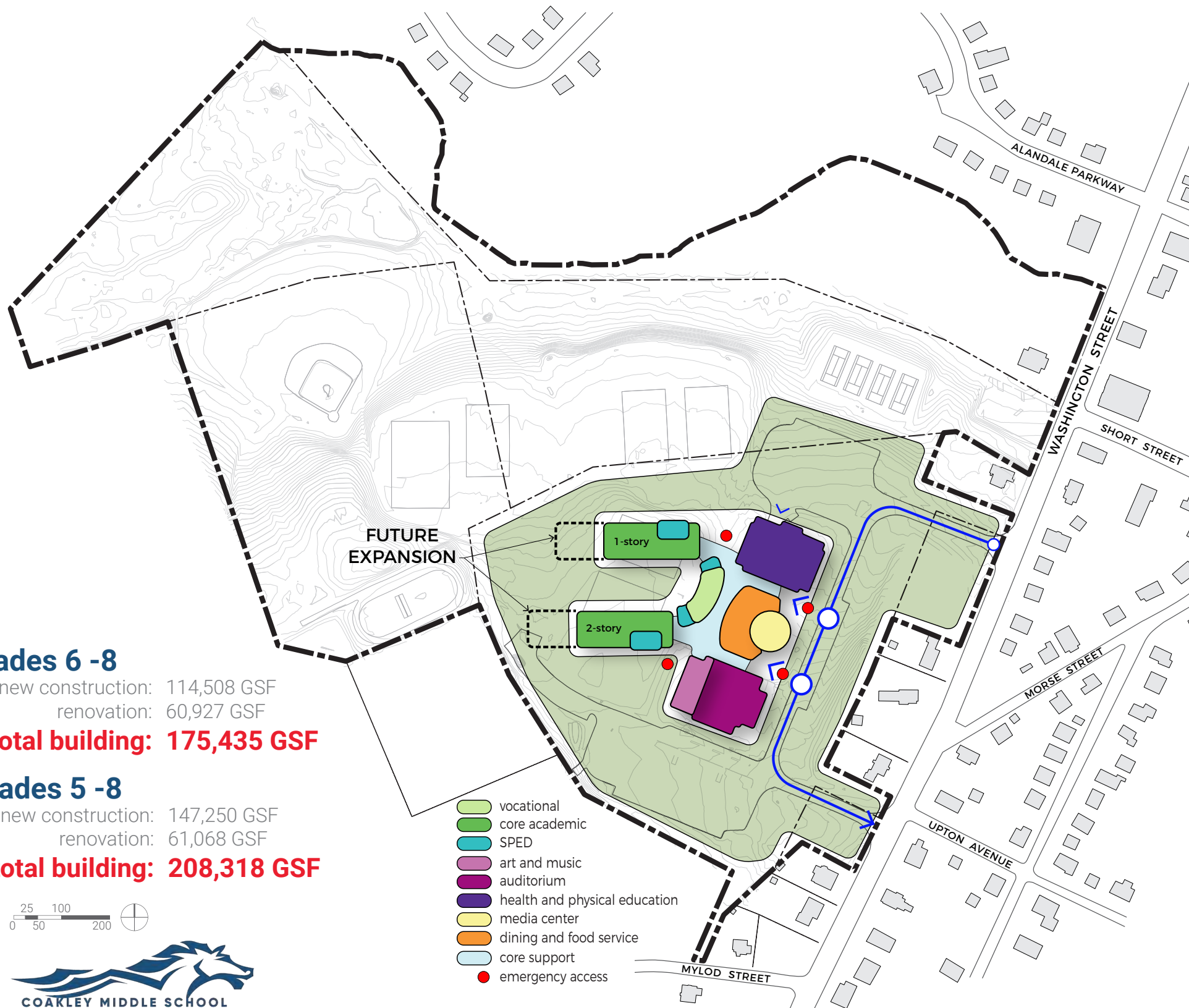
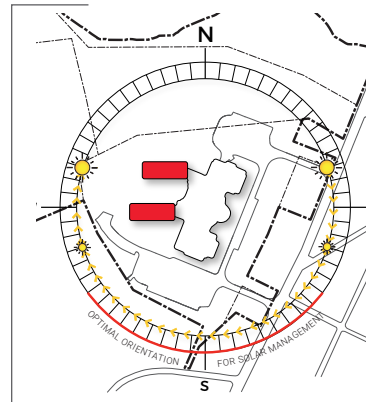
classroom wings added first for swing space



new zone 2 to connect zones 1 and 3 with a main floor that has universal access



optimal solar orientation for classrooms



- vocational
- core academic
- SPED
- art and music
- auditorium
- health and physical education
- media center
- dining and food service
- core support
- emergency access

**grades 6 -8**  
 new construction: 114,508 GSF  
 renovation: 60,927 GSF  
**total building: 175,435 GSF**

**grades 5 -8**  
 new construction: 147,250 GSF  
 renovation: 61,068 GSF  
**total building: 208,318 GSF**



option 2A  
**Add/Reno**  
1/2-story

- ◆ loss of 1 field
- ◆ no additional parking
- ◆ full perimeter access

**PARKING**  
existing: 234  
6 - 8: 234  
5 - 8: 234



# option 3A - stepped New Construction 3-story

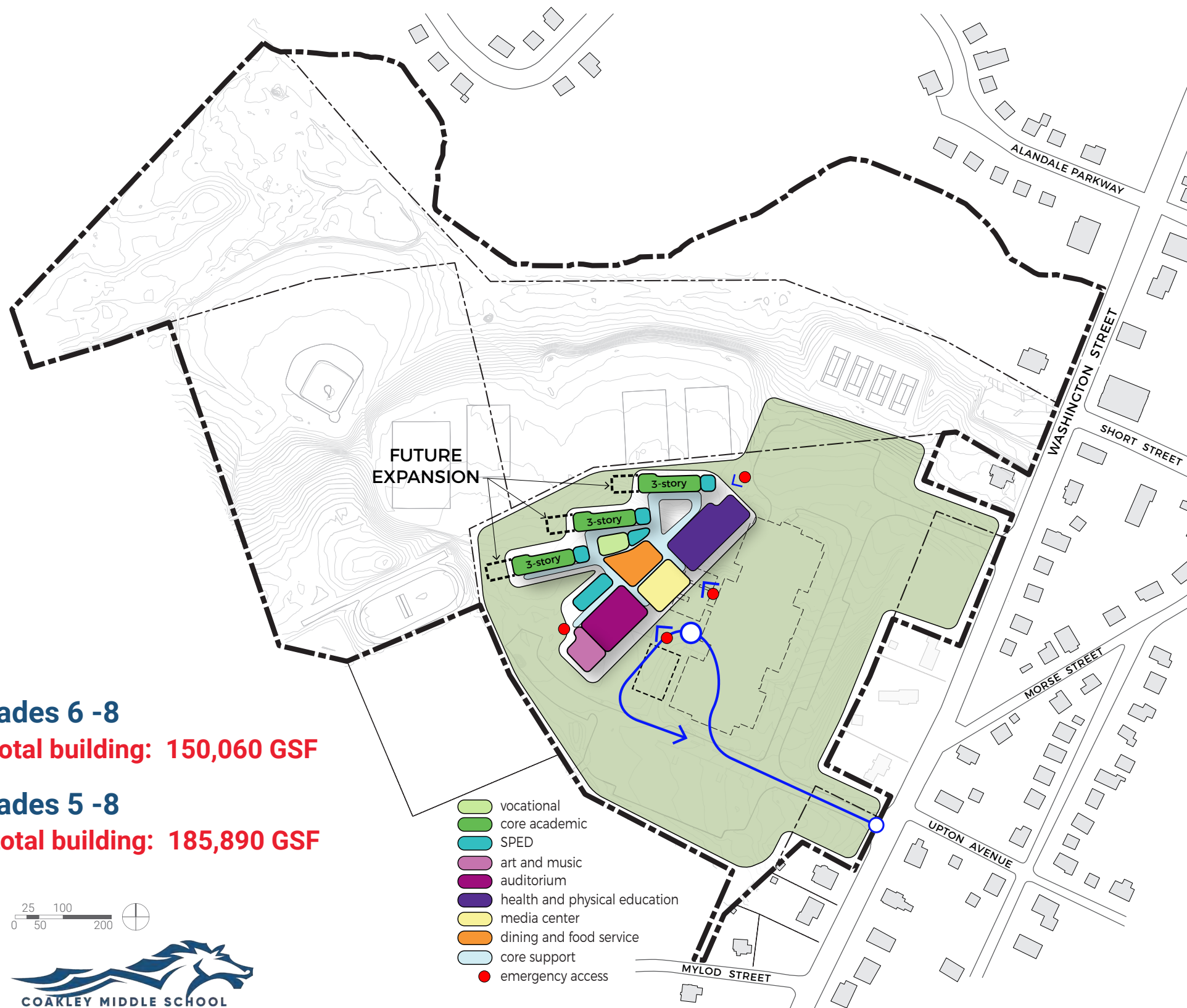
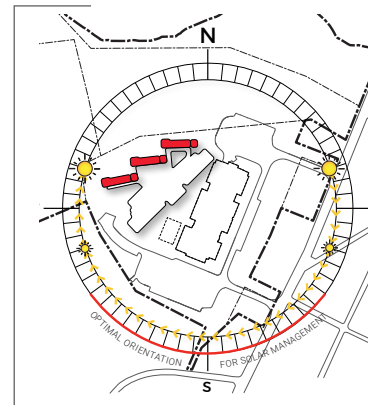
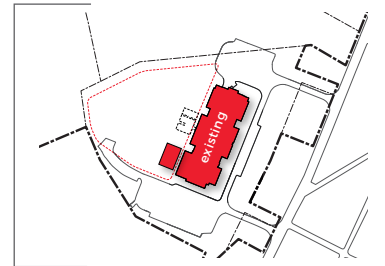
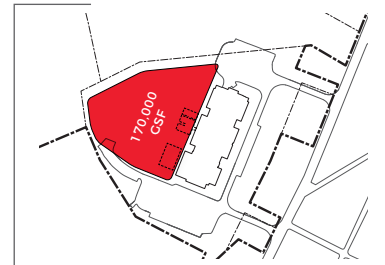
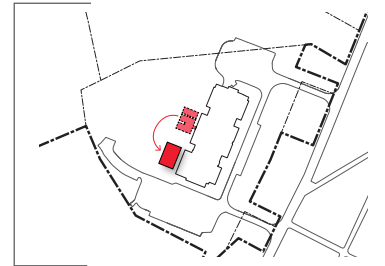
Total Duration: +/- 32 months

modulars move in first phase  
to accommodate building  
footprint

takes advantage of centrally  
located buildable site

existing building to  
remain functional during  
construction

optimal solar orientation  
for classrooms



**grades 6 -8**  
total building: 150,060 GSF

**grades 5 -8**  
total building: 185,890 GSF

- vocational
- core academic
- SPED
- art and music
- auditorium
- health and physical education
- media center
- dining and food service
- core support
- emergency access



option 3A  
**New  
Construction**  
3/4-story

- ◆ replication of 1 field
- ◆ additional parking
- ◆ full perimeter access
- ◆ perimeter access close to fields
- ◆ concessions would be demo'd & rebuilt

**PARKING**  
existing: 234  
6 - 8: 254  
5 - 8: 319



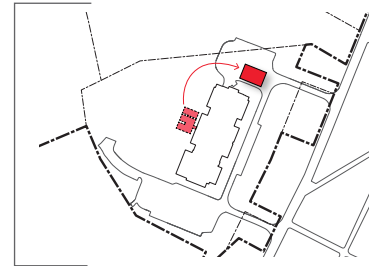
# option 3B - 2 wings

# New Construction

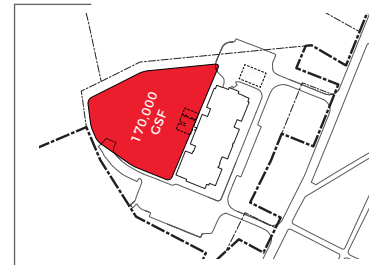
1-story/2-story

Total Duration: +/- 32 months

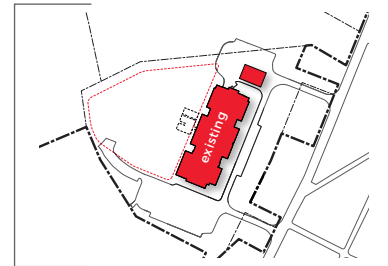
modulars move in first phase to accommodate building footprint



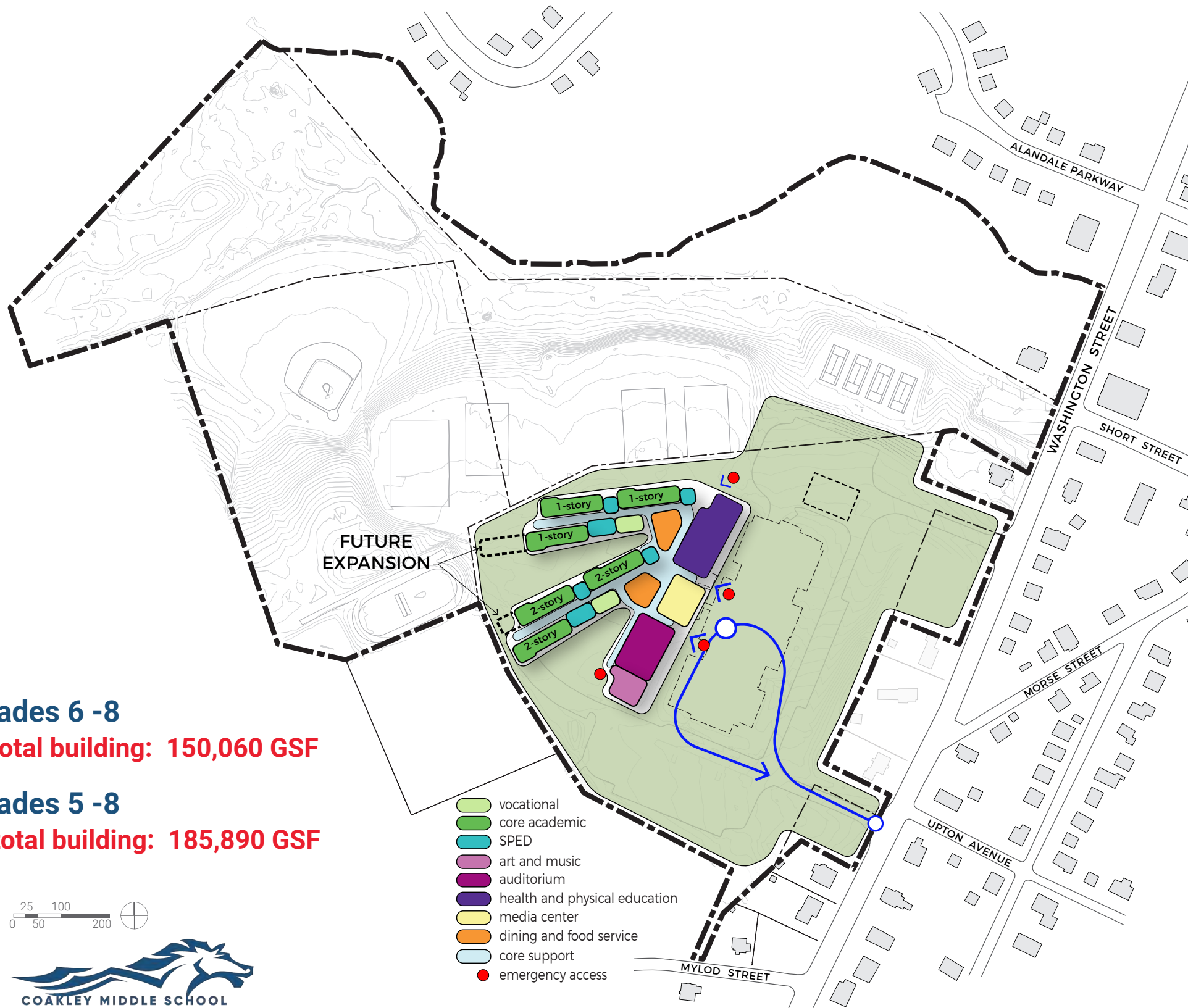
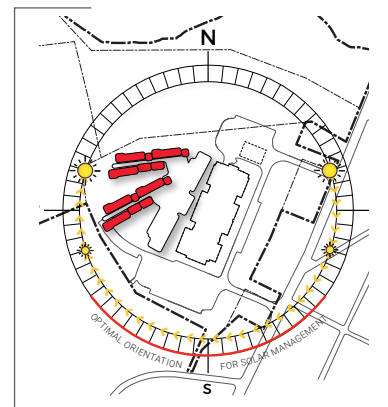
takes advantage of centrally located buildable site



existing building to remain functional during construction



optimal solar orientation for classrooms



grades 6 -8  
total building: 150,060 GSF

grades 5 -8  
total building: 185,890 GSF

- vocational
- core academic
- SPED
- art and music
- auditorium
- health and physical education
- media center
- dining and food service
- core support
- emergency access



# option 3B New Construction 1/2-story

- ◆ replication of 1 field
- ◆ additional parking
- ◆ full perimeter access
- ◆ perimeter access close to fields & little league
- ◆ concessions would be demo'd & rebuilt

**PARKING**  
existing: 234  
6 - 8: 254  
5 - 8: 319

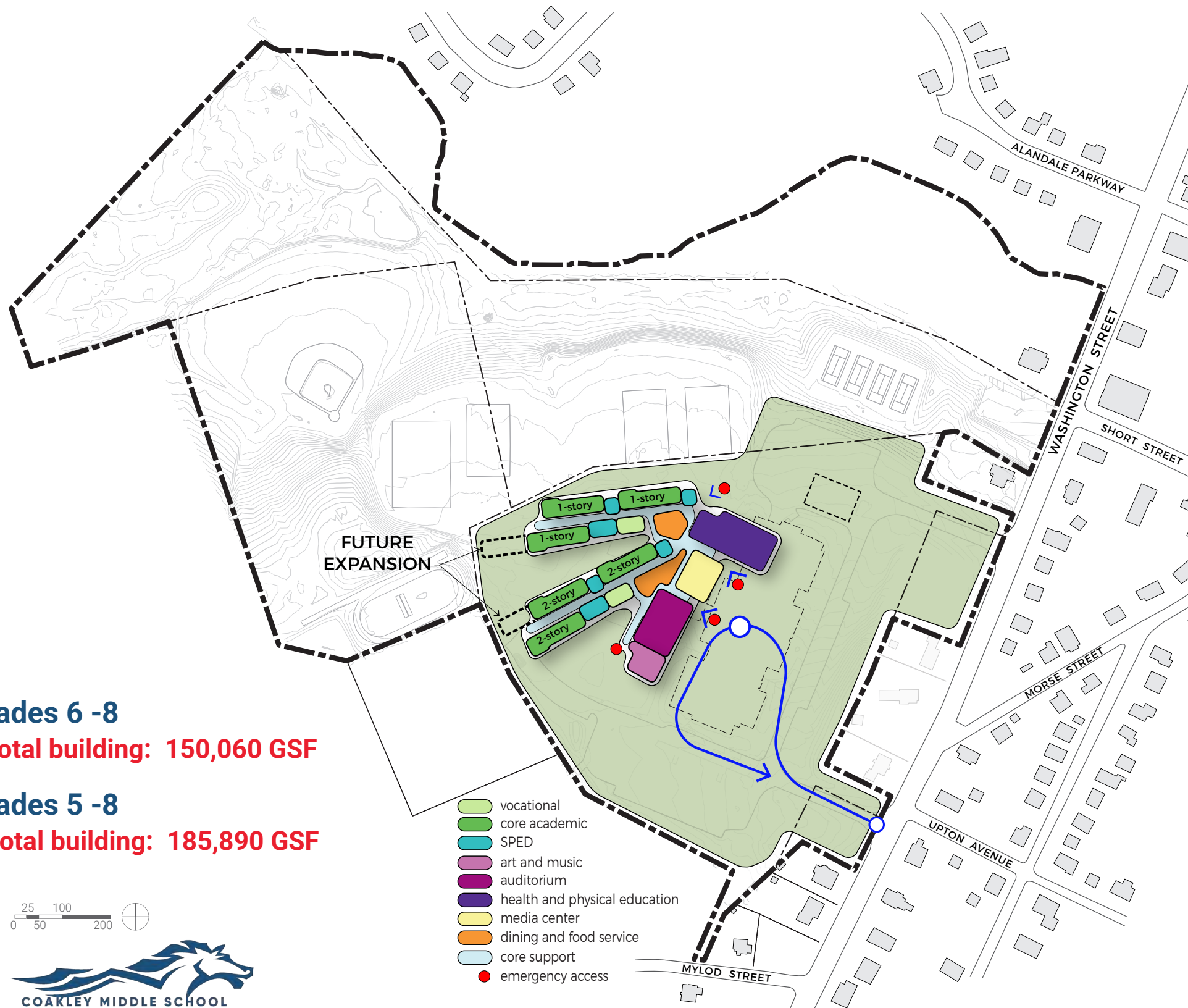




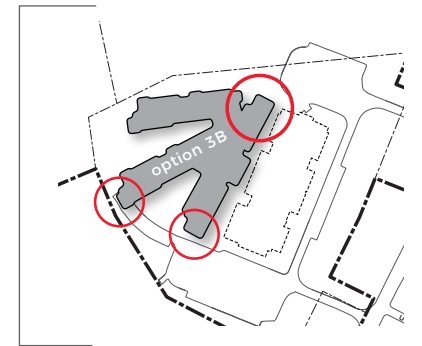
# option 3C - 2 wings phased New Construction

1-story/2-story

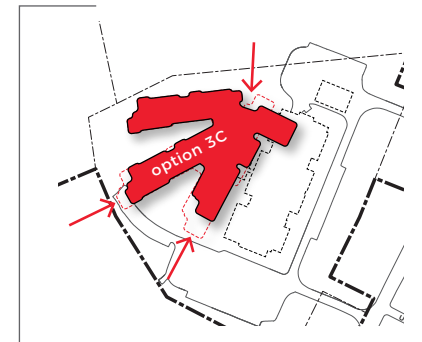
Total Duration: +/- 38 months



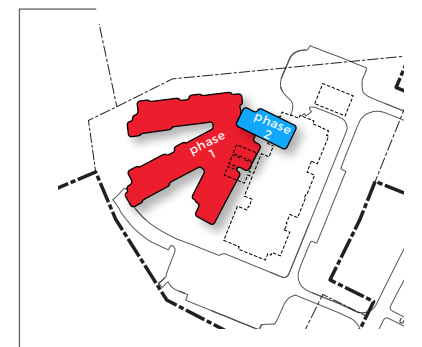
option 3B creates potential constraints



rotation of the gym allows adjustment to address these constraints



phase 1 of construction would keep existing zone 3 (gymnasium) with the new gym being built in phase 2



option 3C  
**New  
Construction**  
1/2-story

- ◆ replication of 1 field
- ◆ additional parking
- ◆ full perimeter access
- ◆ perimeter access close to fields & little league
- ◆ concessions would be demo'd & rebuilt

**PARKING**  
existing: 234  
6 - 8: 254  
5 - 8: 319



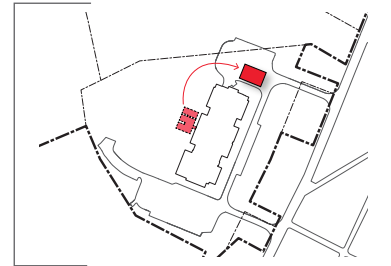
# option 3D - backwards "C"

## New Construction

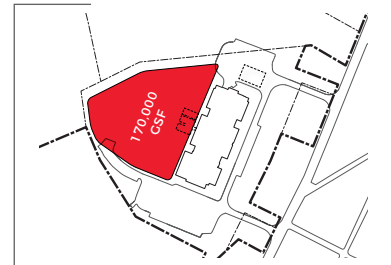
1-story/2-story

Total Duration: +/- 32 months

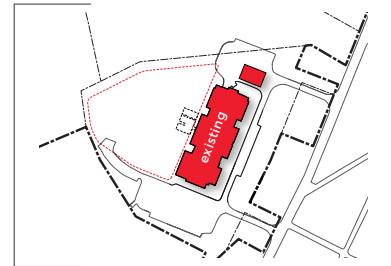
modulars move in first phase to accommodate building footprint



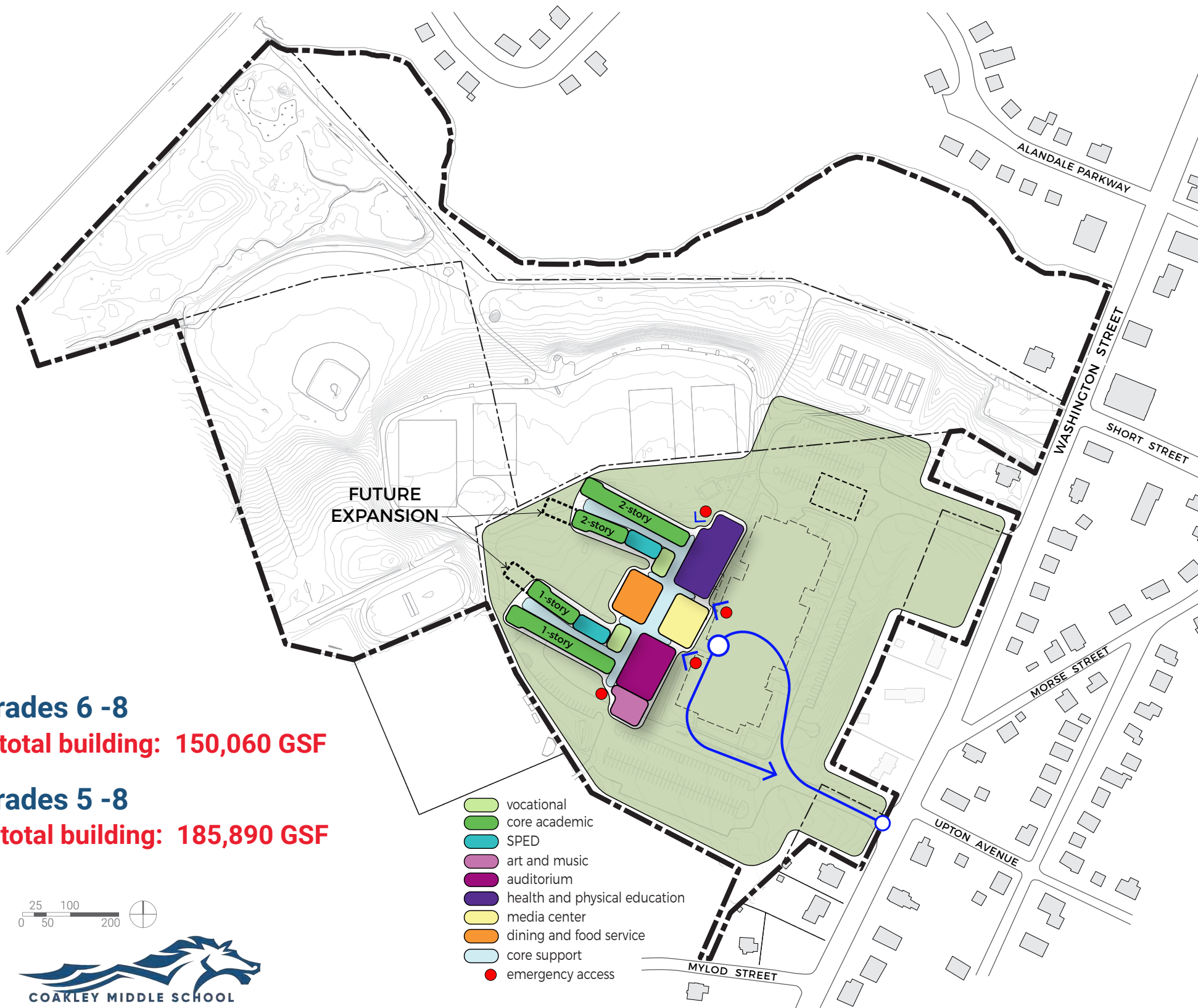
takes advantage of centrally located buildable site



existing building to remain functional during construction



student commons and main courtyard open to endean park vistas



grades 6 -8  
total building: 150,060 GSF

grades 5 -8  
total building: 185,890 GSF

- vocational
- core academic
- SPED
- art and music
- auditorium
- health and physical education
- media center
- dining and food service
- core support
- emergency access



option 3D  
**New  
Construction**  
1/2-story

- ◆ replication of 1 field
- ◆ additional parking
- ◆ full perimeter access
- ◆ perimeter access close to/encroaching fields
- ◆ concessions would be demo'd & rebuilt

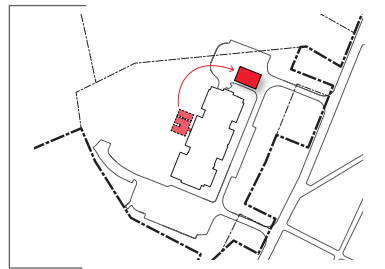
**PARKING**  
existing: 234  
6 - 8: 254  
5 - 8: 319



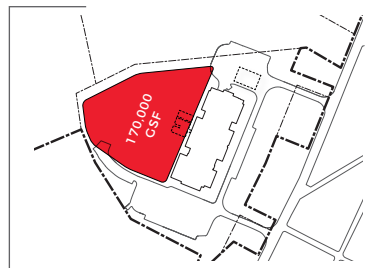
option 3E - angle  
**New 6-8**  
 3-story

**Total Duration: +/- 32 months**

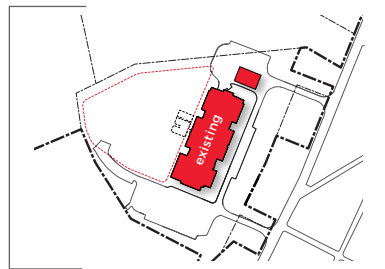
modulars move in first phase  
 to accommodate building  
 footprint



takes advantage of centrally  
 located buildable site



existing building to  
 remain functional during  
 construction



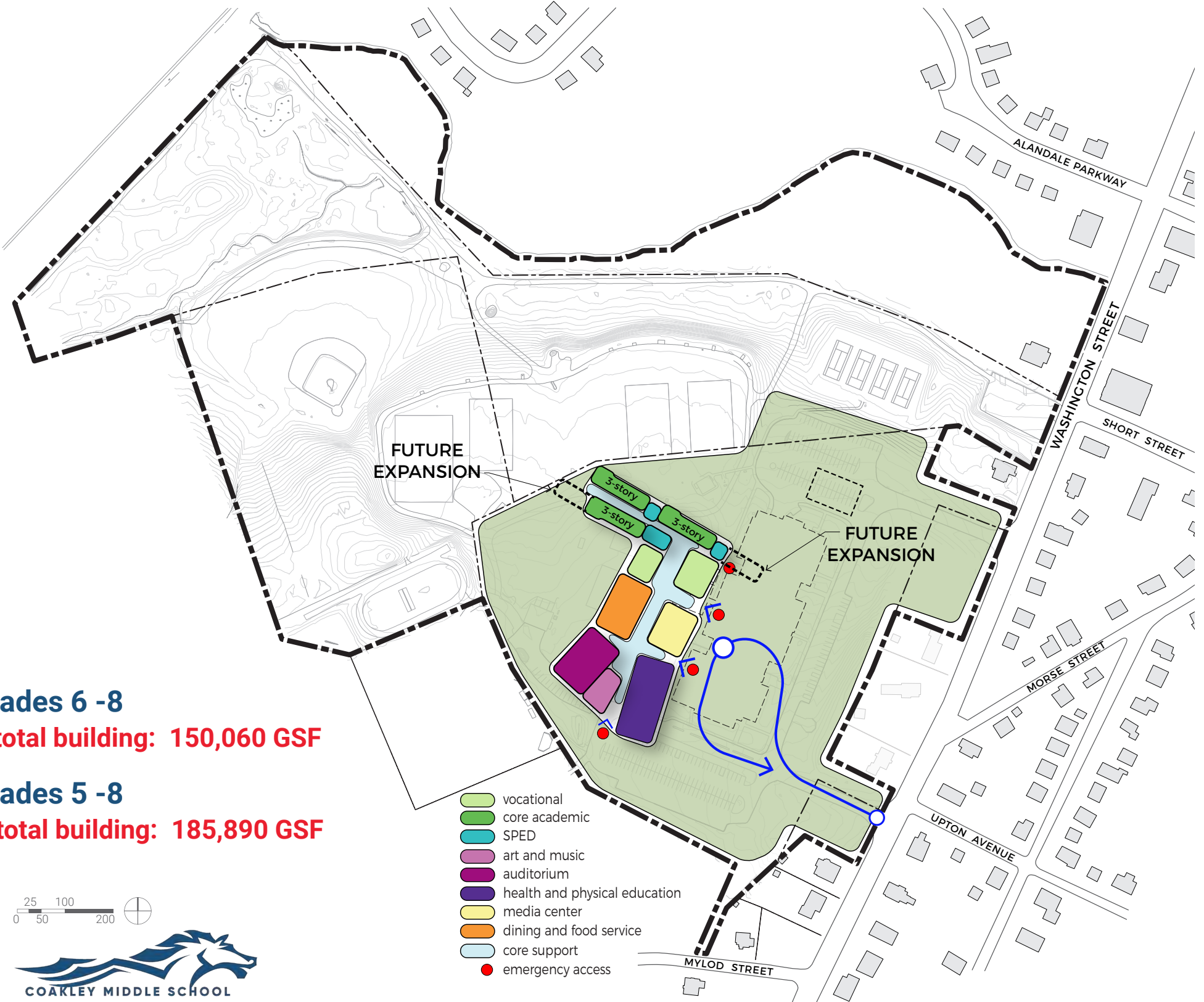
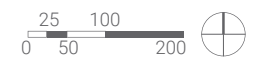
auditorium and  
 gymnasium are grouped  
 together at one end of  
 the building



**grades 6 -8**  
 total building: 150,060 GSF

**grades 5 -8**  
 total building: 185,890 GSF

- vocational
- core academic
- SPED
- art and music
- auditorium
- health and physical education
- media center
- dining and food service
- core support
- emergency access



option 3E  
**New  
Construction**  
3/4-story

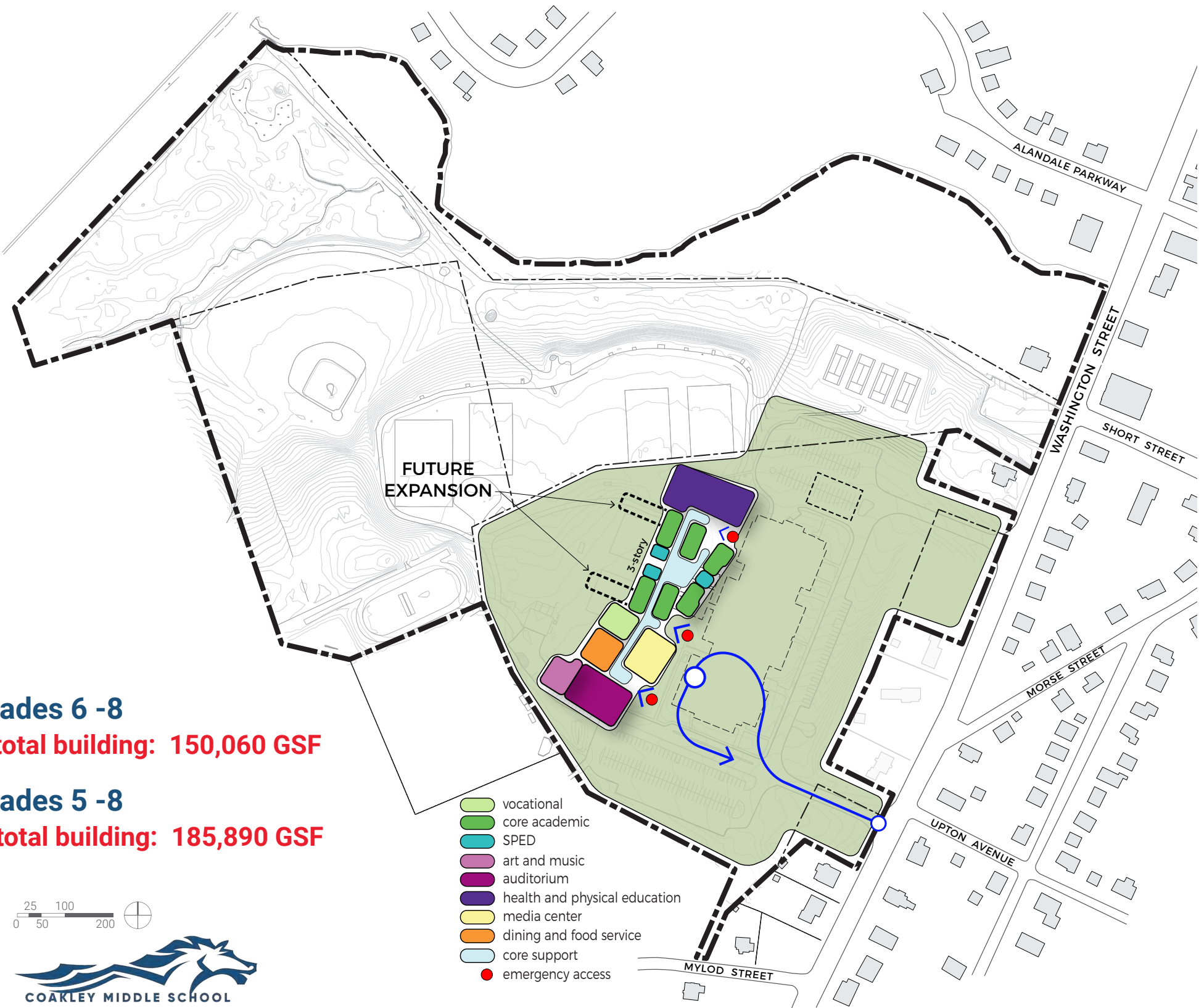
- ◆ replication of 1 field
- ◆ additional parking
- ◆ full perimeter access
- ◆ perimeter access close to/encroaching fields
- ◆ concessions could remain

**PARKING**  
existing: 234  
6 - 8: 254  
5 - 8: 319



option 3F - linear  
**New 6-8**  
 3-story

**Total Duration: +/- 32 months**

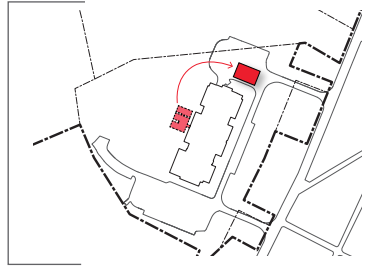


**grades 6 -8**  
 total building: 150,060 GSF

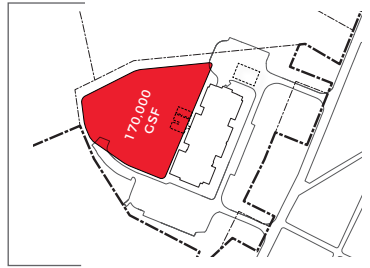
**grades 5 -8**  
 total building: 185,890 GSF



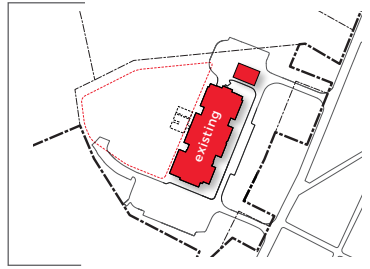
modulars move in first phase  
 to accommodate building  
 footprint



takes advantage of centrally  
 located buildable site



existing building to  
 remain functional during  
 construction



core academics centrally  
 located with a front  
 facade presence



option 3F  
**New  
Construction**  
3/4-story

- ◆ replication of 1 field
- ◆ addition of small field
- ◆ additional parking
- ◆ full perimeter access
- ◆ perimeter access close to/encroaching fields
- ◆ concessions would be demo'd & rebuilt

**PARKING**  
existing: 234  
6 - 8: 254  
5 - 8: 319





ADD/RENO

**option 2A**  
2-story



NEW

**option 3A - stepped**  
3/4-story



**option 3B - 2 wings**  
2-story

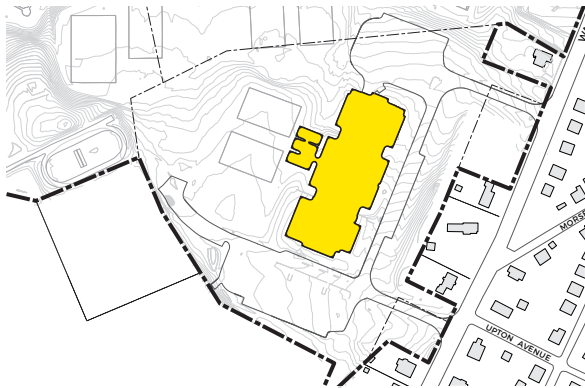


**option 3C - 2 wings phased**  
2-story



BASE REPAIR

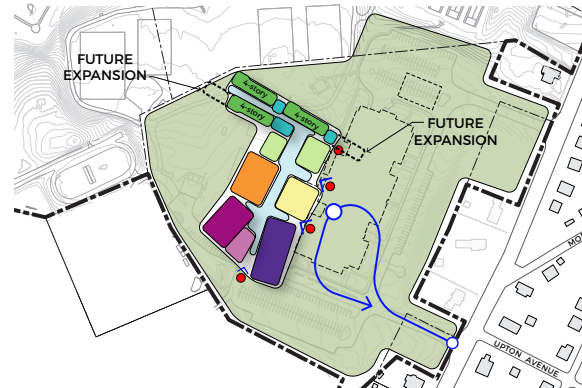
**option 1**  
2-story



**option 3D - backwards "C"**  
2-story



**option 3E - angle**  
3/4-story



**option 3F - linear**  
3/4-story



# PSR Stage: Evaluation Criteria

Getting to a Preferred Option...

what factors should be considered?

## PRELIMINARY CRITERIA









- ◆ Support Educational Goals
- ◆ Total Project Cost
- ◆ Construction Duration/Phasing
- ◆ Impact to the Existing School
- ◆ Impact to Fields & Greenspace
- ◆ Traffic / Site Circulation
- ◆ Community Use / Access
- ◆ Educational Space Daylighting

Coakley Middle School Project  
Norwood Public Schools, Norwood MA  
School Building Committee

Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**

Supports Education Program							
Project Cost							
Construction Duration / Phasing							
Impact to Existing School							
Impact to Existing Fields & Greenspace							
Traffic / Site Circulation							
Community Use / Accessibility							
Educational Space Daylighting							


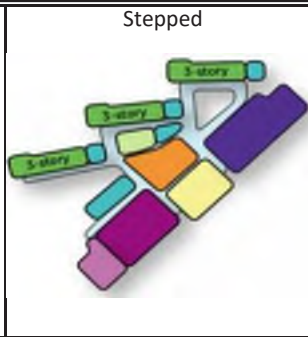
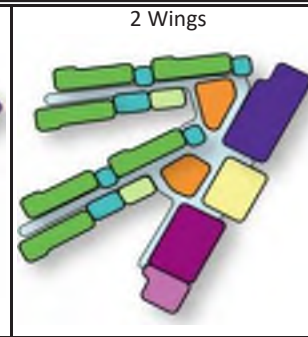
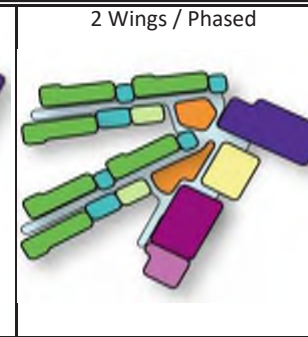
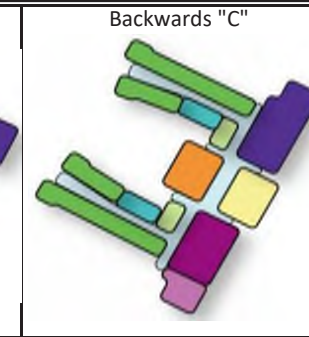
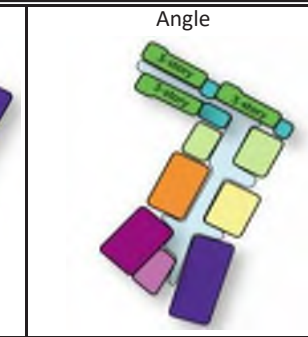
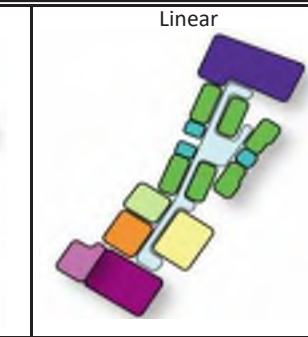
Option 1	Option 2A	Option 3A Stepped	Option 3B 2 Wings	Option 3C 2 Wings / Phased	Option 3D Backwards "C"	Option 3E Angle	Option 3F Linear
							
Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story

BEST	GOOD	FAIR	POOR	WORST
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Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**



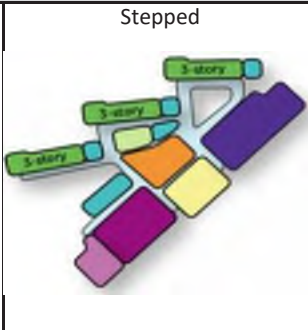
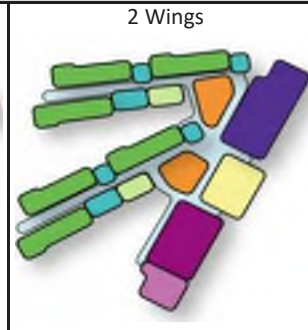
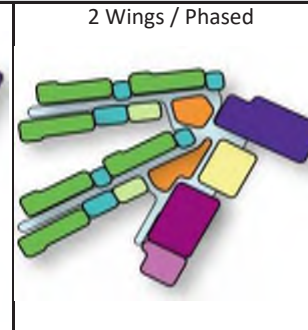
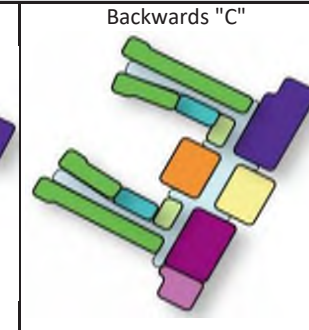
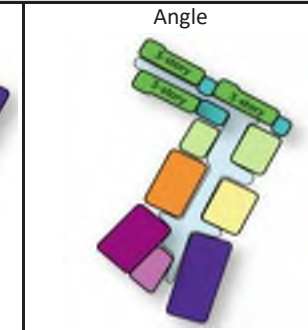
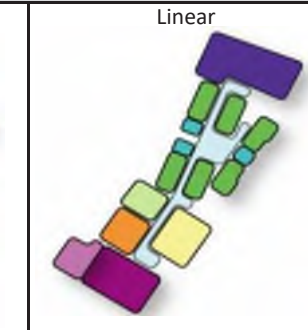
	Option 1	Option 2A	Option 3A Stepped	Option 3B 2 Wings	Option 3C 2 Wings / Phased	Option 3D Backwards "C"	Option 3E Angle	Option 3F Linear
								
	Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story
Supports Education Program								
Project Cost								
Construction Duration / Phasing								
Impact to Existing School								
Impact to Existing Fields & Greenspace								
Traffic / Site Circulation								
Community Use / Accessibility								
Educational Space Daylighting								

BEST	GOOD	FAIR	POOR	WORST
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Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**

	Option 1	Option 2A	Option 3A Stepped	Option 3B 2 Wings	Option 3C 2 Wings / Phased	Option 3D Backwards "C"	Option 3E Angle	Option 3F Linear
								
	Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story
Supports Education Program								
Project Cost								
Construction Duration / Phasing								
Impact to Existing School								
Impact to Existing Fields & Greenspace								
Traffic / Site Circulation								
Community Use / Accessibility								
Educational Space Daylighting								



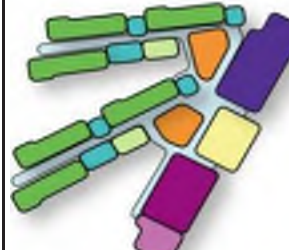
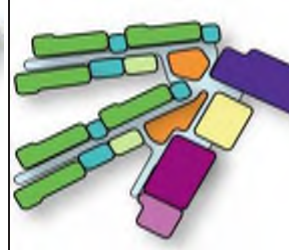
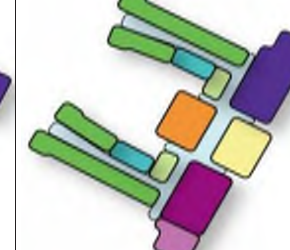


BEST	GOOD	FAIR	POOR	WORST
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Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**



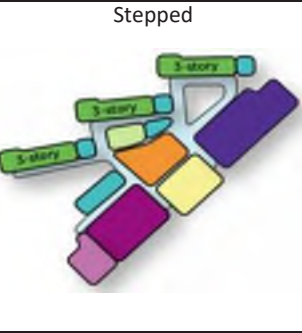
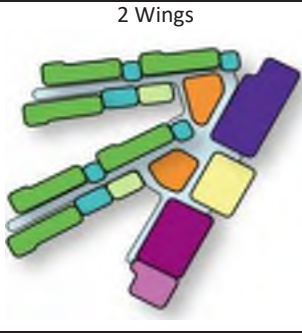
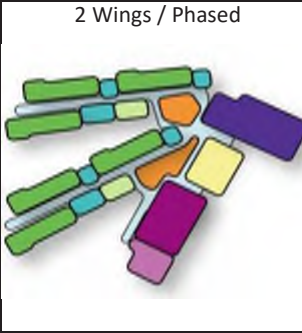
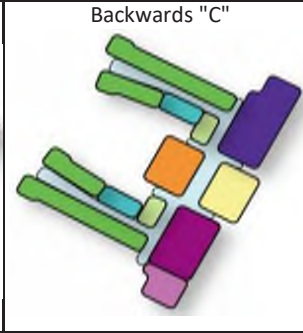
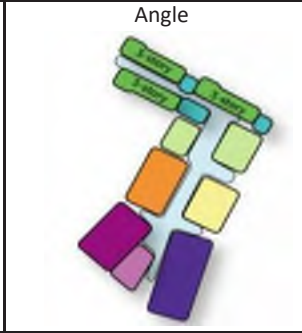
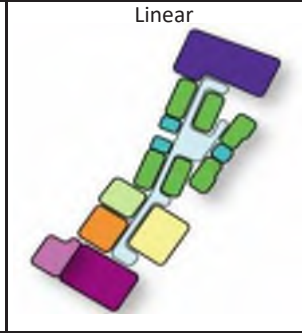
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			Stepped 	2 Wings 	2 Wings / Phased 	Backwards "C" 	Angle 	Linear 
	Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story
Supports Education Program								
Project Cost								
Construction Duration / Phasing	48+ months	45 months	32 months	32 months	38 months	32 months	32 months	32 months
Impact to Existing School								
Impact to Existing Fields & Greenspace								
Traffic / Site Circulation								
Community Use / Accessibility								
Educational Space Daylighting								

BEST	GOOD	FAIR	POOR	WORST
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Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**

	Option 1	Option 2A	Option 3A Stepped	Option 3B 2 Wings	Option 3C 2 Wings / Phased	Option 3D Backwards "C"	Option 3E Angle	Option 3F Linear
								
	Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story
Supports Education Program								
Project Cost								
Construction Duration / Phasing								
Impact to Existing School								
Impact to Existing Fields & Greenspace								
Traffic / Site Circulation								
Community Use / Accessibility								
Educational Space Daylighting								

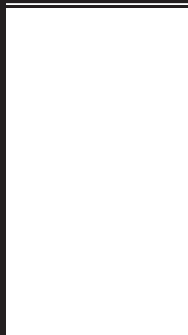

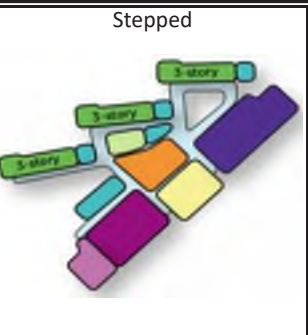
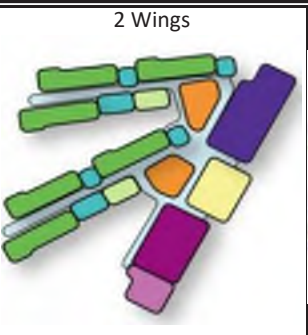
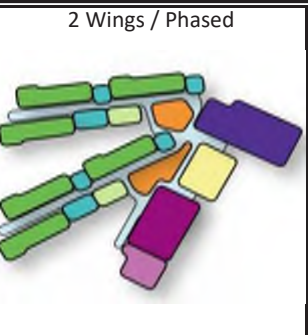
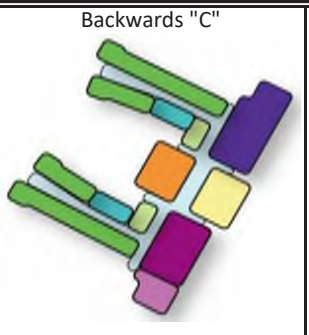
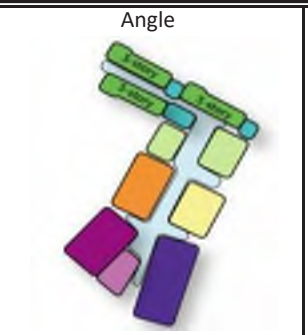
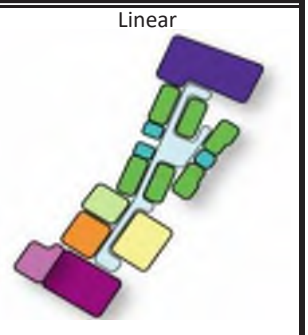
BEST	GOOD	FAIR	POOR	WORST
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Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**

Supports Education Program
Project Cost
Construction Duration / Phasing
Impact to Existing School
Impact to Existing Fields & Greenspace
Traffic / Site Circulation
Community Use / Accessibility
Educational Space Daylighting

Option 1	Option 2A	Option 3A Stepped	Option 3B 2 Wings	Option 3C 2 Wings / Phased	Option 3D Backwards "C"	Option 3E Angle	Option 3F Linear
							
Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story

BEST	GOOD	FAIR	POOR	WORST
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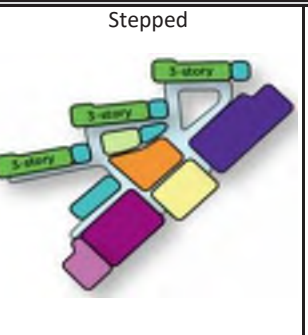
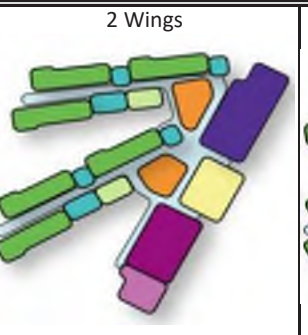
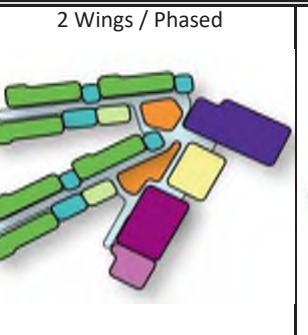
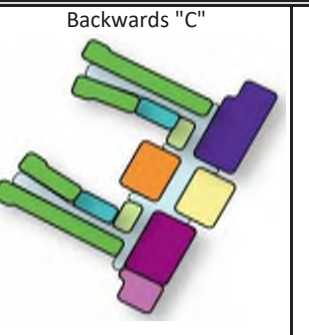
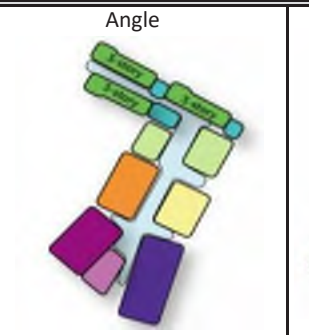
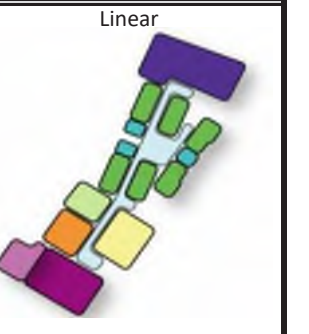






Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**

	Option 1	Option 2A	Option 3A Stepped	Option 3B 2 Wings	Option 3C 2 Wings / Phased	Option 3D Backwards "C"	Option 3E Angle	Option 3F Linear
								
	Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story
Supports Education Program								
Project Cost								
Construction Duration / Phasing								
Impact to Existing School								
Impact to Existing Fields & Greenspace								
Traffic / Site Circulation								
Community Use / Accessibility	POOR	GOOD	BEST	POOR	POOR	POOR	POOR	BEST
Educational Space Daylighting								



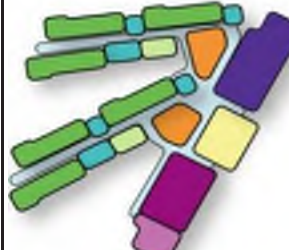
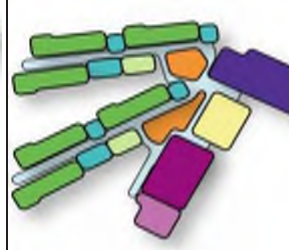
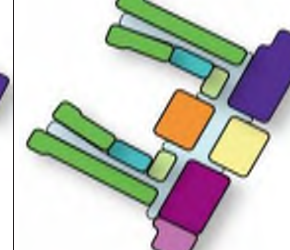


BEST	GOOD	FAIR	POOR	WORST
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Project Evaluation Criteria Matrix

**DRAFT 4.12.2021**

	Option 1	Option 2A	Option 3A	Option 3B	Option 3C	Option 3D	Option 3E	Option 3F
			Stepped 	2 Wings 	2 Wings / Phased 	Backwards "C" 	Angle 	Linear 
	Base Repair	Add/Reno	New 3/4 Story	New 1/2 Story	New 1/2 Story 2 Phase	New 1/2 Story	New 3/4 Story	New 3/4 Story
Supports Education Program	Red	Yellow	Green	Green	Green	Green	Green	Green
Project Cost	\$61.3 mil	\$136.6 - \$160.2 mil	\$113.8 - \$134.5 mil	\$116.5 - \$138.0 mil	\$118.8 - \$140.4 mil	\$116.5 - \$138.0 mil	\$113.8 - \$134.5 mil	\$113.8 - \$134.5 mil
Construction Duration / Phasing	48+ months	45 months	32 months	32 months	38 months	32 months	32 months	32 months
Impact to Existing School	Red	Red	Green	Green	Orange	Green	Green	Green
Impact to Existing Fields & Greenspace	Green	Orange	Green	Green	Green	Green	Green	Green
Traffic / Site Circulation	Orange	Green	Green	Green	Green	Green	Orange	Green
Community Use / Accessibility	Orange	Yellow	Green	Yellow	Yellow	Yellow	Orange	Green
Educational Space Daylighting	Red	Yellow	Green	Yellow	Yellow	Green	Green	Yellow

BEST	GOOD	FAIR	POOR	WORST
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# Questions?

