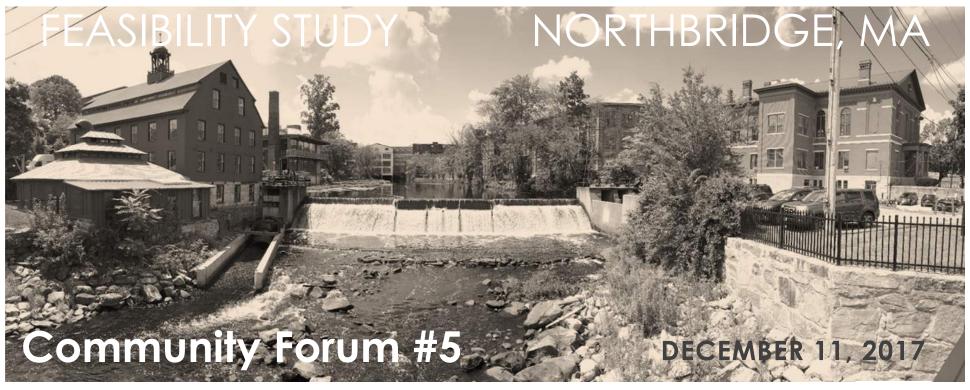
W. EDWARD BALMER SCHOOL



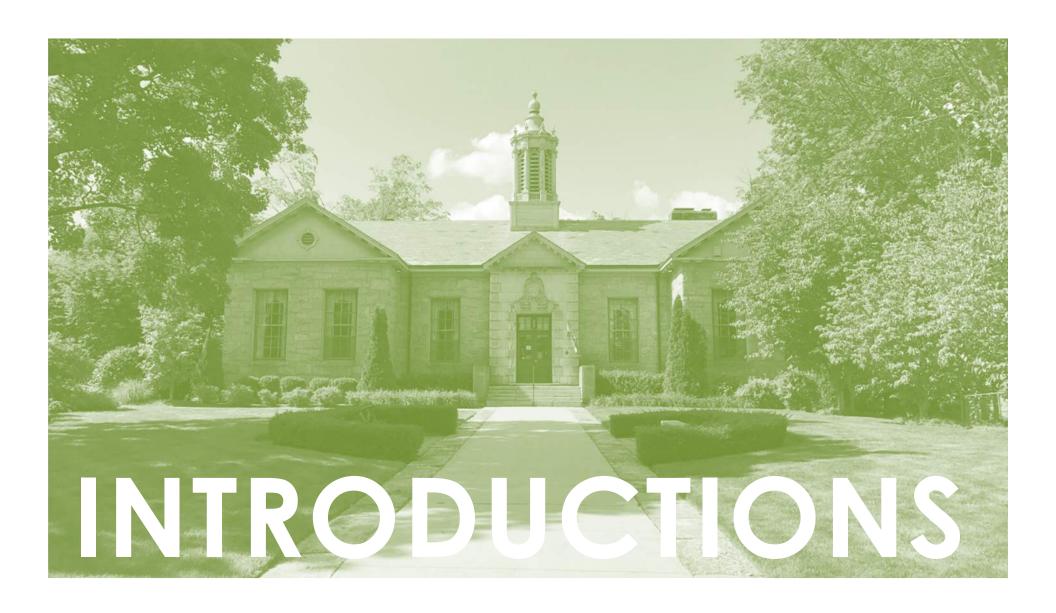








- 1. Introductions
- 2. Process and Schedule
- 3. Defining the Need
- 4. Fifth Grade Rejoined with Elementary School
- 5. Design Alternatives and Project Phasing Update
- 6. Project Cost Estimates and Analysis
- 7. Breakout Groups Input on Options
- 8. Questions, Comments, Feedback



SCHOOL BUILDING COMMITTEE:

Joseph Strazzulla

James Marzec

Michael LeBrasseur

Adam Gaudette

Steven Gogolinski

Dr. Catherine Stickney

Melissa Walker

Steve Von Bargen

Karlene Ross

Jill Healy

Kathleen Perry

Paul Bedigian

Jeffrey Tubbs

Peter L'Hommedieu

Jeff Lundquist

Andrew Chagnon

Spencer Pollock

Chair, School Building Committee

Member, Board of Selectmen

Chair, School Committee

Town Manager

Member, Finance Committee

Superintendent of Schools

School Business Manager

Director of Facilities & Operations

Principal, Balmer Elementary School

Principal, Northbridge Elementary School

Director of Pupil Personnel Services

Building, Planning, Construction Comm.

Community Member

Community Member

Community Member

Community Member

Parent Representative





study team

OWNER'S PROJECT MANAGER (OPM)

Symmes Maini & McKee Associates

DESIGNER (Architect) and its team of CONSULTANTS

Dore & Whittier Architects

PUBLIC SCHOOL CONSTRUCTION PARTNER

Massachusetts School Building Authority (MSBA)





MASSACHUSETTS SCHOOL BUILDING AUTHORITY (MSBA) PROCESS:

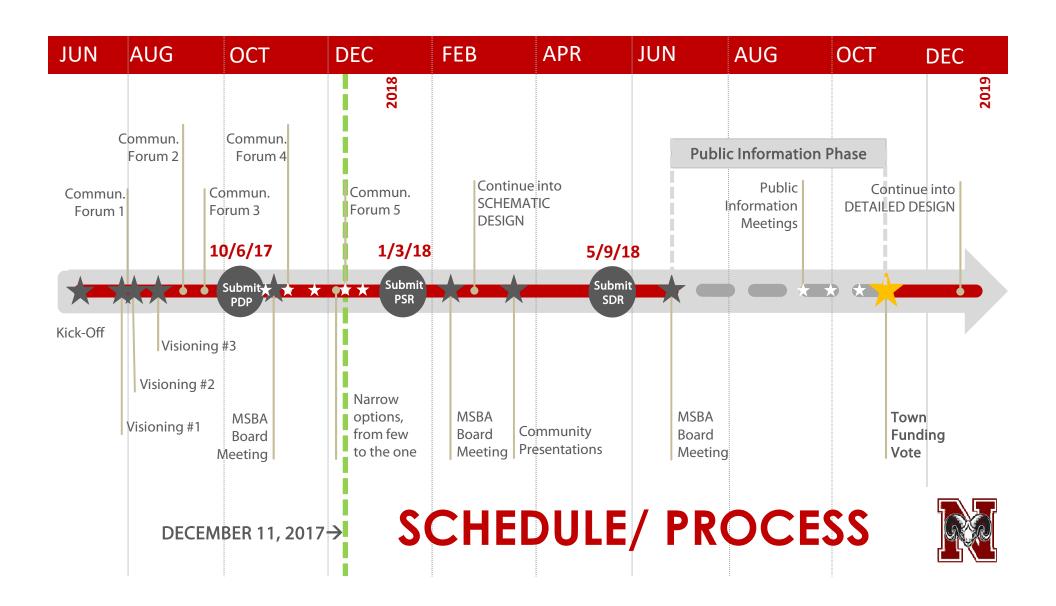
Partners with the District to support the design and construction of public school facilities that are:

- Educationally Appropriate
- Flexible
- Sustainable
- Cost-Effective

MSBA will fund 57.11% plus incentives of <u>eligible</u> project costs for an approved project if accepted by the voters of Northbridge.

FEASIBILITY STUDY SCOPE:

- Two grade configurations/enrollments/school sizes:
 - Grades 2-4 (510 students)
 - Grades PK-5 (1030 students)
- Educational Program Requirements
- Space Program
- Location/site
- Conceptual design alternatives:
 - Renovation of existing only (bring up to code)
 - Renovation/addition (like-new interiors)
 - New Construction
- Conceptual Cost Estimates







DEFINING THE NEED

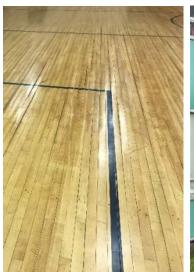
- Need a long-term solution to resolve deteriorating school buildings
- Provide educational spaces to meet MSBA standards
- Update the school to meet Educational Visioning Session goals
- Provide 21st century educational spaces
- Provide schools that are safe, code-compliant, and places
 Northbridge can be proud of



BALMER: EXISTING PHYSICAL LIMITATIONS

Built 1968 Issues:

- Windows/ Curtain Wall
- Exterior Walls/ Thermal Insulation
- Roof patched and leaky
- Ceilings/ Interior Walls
- Cracks/ Interiors worn















BALMER: EXISTING PHYSICAL LIMITATIONS

MEP FP Issues:

- **Original Mechanical/ Electrical/** Plumbing systems beyond expected lifespan
- Low Efficiency
- No Sprinkler System
- Technology exposed to room













N.E.S. Modulars on leased land \$27K per year





N.E.S.: EXISTING PHYSICAL LIMITATIONS



Built 1952/ 1983/ Modulars 2000 Architectural Issues

- Windows Drafty / Roof Leaky
- Exterior Walls/ Insulation
- Interiors Worn













N.E.S.: EXISTING PHYSICAL LIMITATIONS

MEP FP Issues:

- Original Mechanical/ Electrical/ Plumbing systems beyond expected lifespan
- Low Efficiency
- No Sprinkler System
- Technology exposed to room











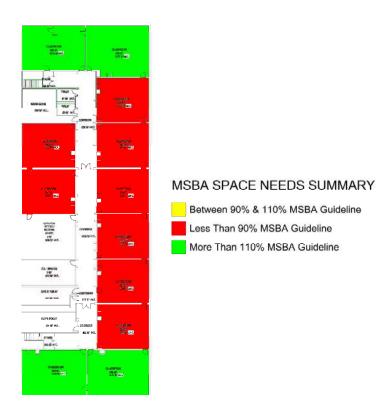




odce assessment

BALMER: EXISTING EDUCATIONAL LIMITATIONS





FIRST FLOOR PLAN

SECOND FLOOR PLAN

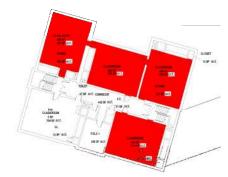


N.E.S.: EXISTING EDUCATIONAL LIMITATIONS





THIRD FLOOR PLAN



SECOND FLOOR PLAN

MSBA SPACE NEEDS SUMMARY

- Between 90% & 110% MSBA Guideline
- Less Than 90% MSBA Guideline
- More Than 110% MSBA Guideline

EXISTING EDUCATIONAL LIMITATIONS

Grade 2-4 Option (510 enrollment):

• Existing (Balmer): 71,871 GSF

Proposed (meets MSBA standard): 89,463 GSF

Existing Balmer School is 19.7% undersized

Grade PK-5 Option (1030 enrollment):

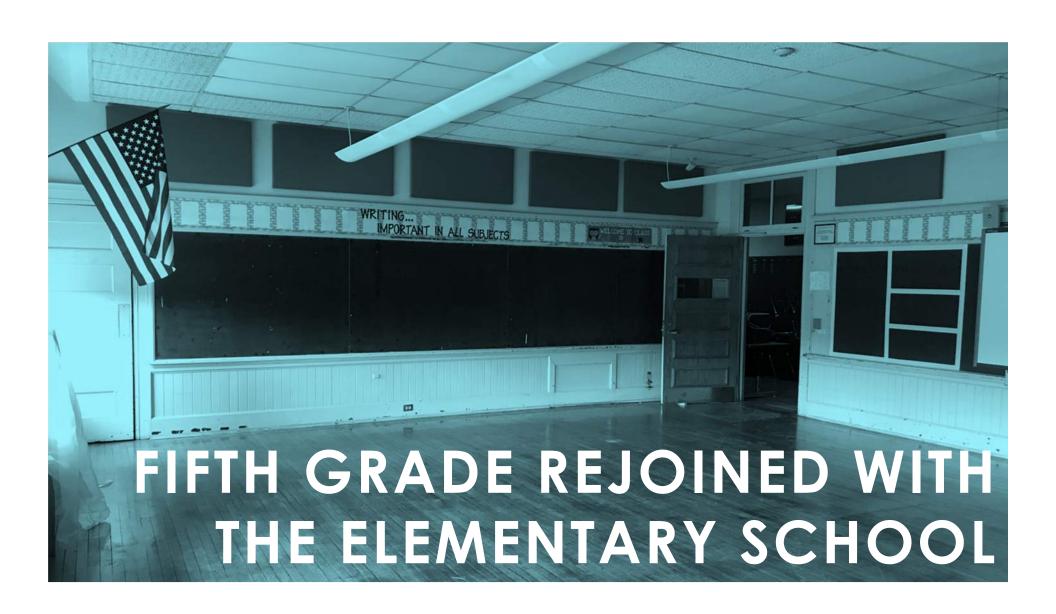
Existing (Balmer + NES)
 128,431 GSF

Proposed (meets MSBA standard): 172,845 GSF

Existing Balmer + NES space is 25.7% undersized







FIFTH GRADE MOVING OUT OF MIDDLE SCHOOL

REASONS:

Moving 5th grade back to the elementary building will...

- Reduce the number of building transitions in the district
- Better align fifth graders with their peers educationally and developmentally
- Allow better vertical alignment of curriculum between grades
- Create reorganization opportunities in the Middle School, possibly vacating older, substandard spaces



MIDDLE SCHOOL CAPACITY ANALYSIS

DWA completed a space analysis (SF area) to establish existing conditions: what is available

RECONFIGURATION STUDY:

- Variables in play:
 - Move 5th grade to Balmer
 - District Maintenance/Storage repurpose, consolidate
 - District Admin Offices 87 Linwood Ave not suitable office space
 - 1905 Wing- substandard space with building condition issues
- Three cases for reconfiguration studied



MIDDLE SCHOOL CAPACITY ANALYSIS

CONCLUSIONS:

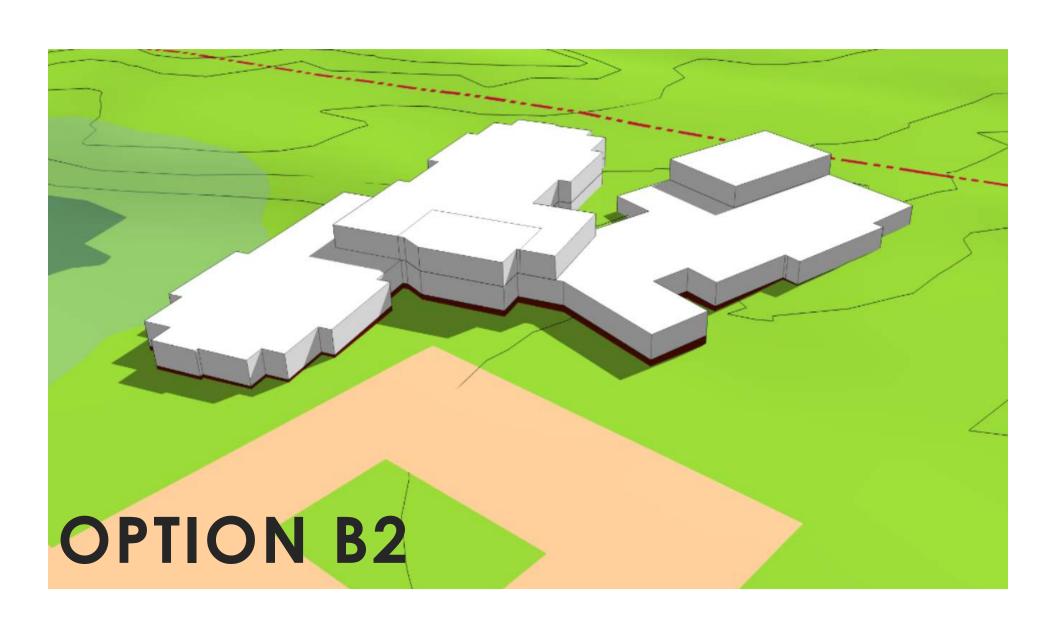
- Case 3 scenario promising:
 - Move 5th grade to Balmer
 - Repurpose some district storage into productive space
 - District Admin Offices to NMS
 - Take part or all of 1905 wing off-line?
- The District should do a more detailed study of the Case 3 scenario
- Reconfigurations will incur design and renovation costs, which are not reimbursable and not included in this project.







SELECTED DESIGN OPTIONS AND COSTS



OPTION B2

- **GRADES 2-4 (510)**
- **NEW BUILD**
- 2 STORIES
- REAR/EAST EDGE OF SITE
- 2 YEAR DURATION

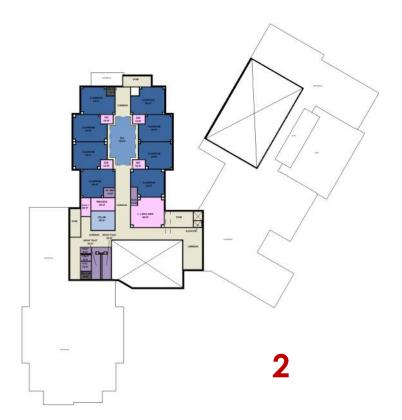




SITE PROGRAM

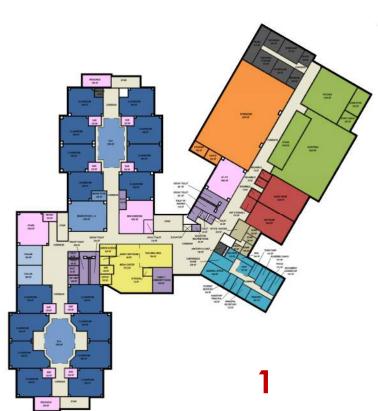
PROGRAM

PARKING	100	116
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOO
PK-K PARK/DROP	0	0
CAR QUEUE	50	72
FIELDS & SI	TE AM	ENITIES
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	6
U-6 SOCCER	1	2
PK- 2 PLAYGROUND	0	0
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	1
OUTDOOR LEARNING	2	3



OPTION B2

• 2-4 (510)





OPTION B2 **PROS**

- Good solar orientation
- Good program fit, satisfies program requirements
- Clean replacement project no swing space needed
- Good drop-off design for busses
 Intensive cut/fill site work and cars, and queue length
- Extra play fields
- Safety: Admin has commanding view of site
- Shorter project duration, minimal impact on existing operation

CONS

- Does not provide benefit to most number of students
- Does not fix NES issues
- Grades 2-3 paired but 4 on its own

 - Paired with a future NES project, will be more money overall in long run

ALL C-SERIES OPTIONS HAVE...

- · Required site elements replaced/reconstituted
- Separate bus and car loops
- PK-K park and drop lot
- · Public/private separation: core versus academic wings
- Grade pairings aligned by floor level: PK-K; 1-2; 3-4-5
- Grade pairings not separated by core
- · All space summary program elements present
- Extended learning areas
- Outdoor learning areas
- · Shared program centrally located
- Special education integrated





liminary desig

OPTION C2

- GRADES PK-5 (1,030)
- ADD/RENO

DADIZINIO

- 2 STORY ADDITIONS
- EXISTING SITE
- 4 YEAR DURATION

SITE PROGRAM PROGRAM

DESIGN

PARKING	205	248	
BUSSES, 30'	3	3	
BUSSES, 40'	7	7	
VANS	4	USE BUS LOOP	
PK-K PARK/DROP	15	12	
CAR QUEUE	50	26	
FIELDS & SITE AMENITIES			
BASEBALL	1	1	
SOFTBALL	1	1	
U-10 SOCCER	1	1	
U-8 SOCCER	3	4	
U-6 SOCCER	1	1	
PK- 2 PLAYGROUND	1	1	
3-5 PLAYGROUND	1	1	
PAVED PLAY AREA	1	USE PK-K DROP	
OUTDOOR LEARNING	G 2	4	









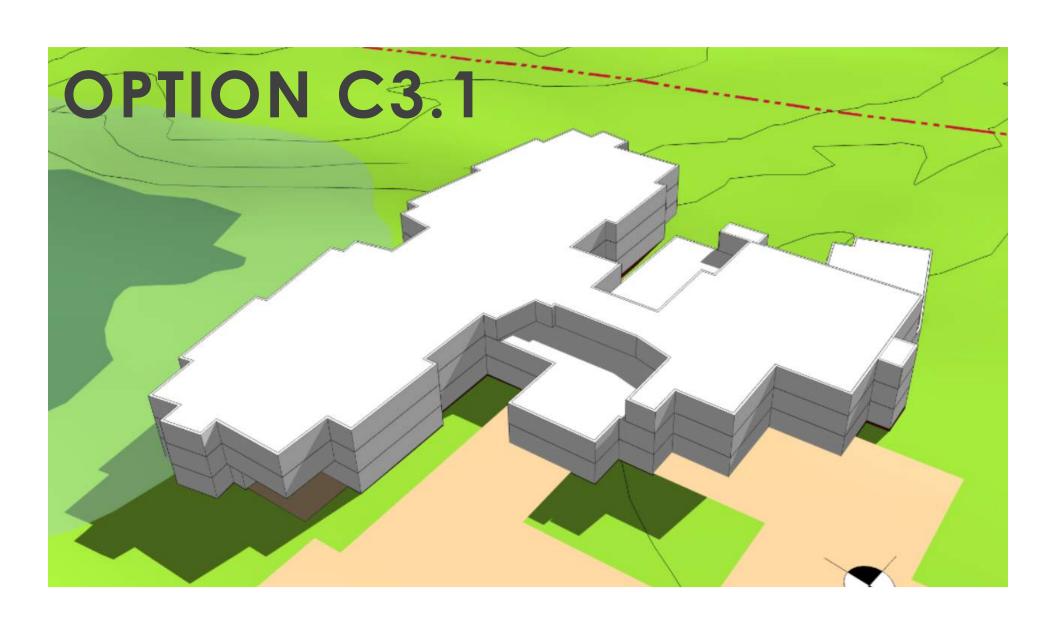
• PK-5 (1,030)

OPTION C2 PROS

- Reused existing building
- Phased to avoid need for leased modular swing space
- Additions define interesting exterior landscape spaces
- Additions avoid wetlands and topography

CONS

- Compromises in plan layout and adjacencies
- Complex phased add/reno could disrupt education
- Poor solar orientation
- Many site plan compromises: circulation, car & bus dropoffs tight and far from entry, parking distant & fragmented, small play-grounds, no ring road; car queue line short
- Safety: Admin has no view of parking, bus loop
- 4 year duration longest of options; risk of delays due to complexity



OPTION C3.1a

- GRADES PK-5 (1,030)
- PHASED NEW BUILD
- 3 STORIES
- REAR OF SITE
- 3.5 YEAR DURATION





SITE PROGRAM

	PROGRAM	DESIGN	
PARKING	205	221	
BUSSES, 30'	3	3	
BUSSES, 40'	7	7	
VANS	4	USE BUS LOOP	
PK-K PARK/DROP	15	15	
CAR QUEUE	50	78	
FIELDS & SITE AMENITIES			
BASEBALL	1	1	
SOFTBALL	1	1	
U-10 SOCCER	1	1	
U-8 SOCCER	3	3	
U-6 SOCCER	1	1	
PK-2 PLAYGROUND	1	1	
3-5 PLAYGROUND	1	1	
PAVED PLAY AREA	1	1 + PK-K DROP	
OUTDOOR LEARNIN	G 2	3	

13,330 SF - 100' WETLAND SETBACK ZONE IMPACT - BUILDING/ DRIVE

OPTION C3.1b

WETLAND

100' SETBACK

- **GRADES PK-5** (1,030)
- PHASED NEW BUILD
- 3 STORIES

PARKING

VANS

BUSSES, 30'

BUSSES, 40'

CAR QUEUE

BASEBALL

SOFTBALL

U-10 SOCCER

U-8 SOCCER U-6 SOCCER PK-2 PLAYGROUND 3-5 PLAYGROUND

PAVED PLAY AREA

OUTDOOR LEARNING

PK-K PARK/DROP

- REAR OF SITE
- 3 YEAR DURATION

SITE PROGRAM

PROGRAM

205

15

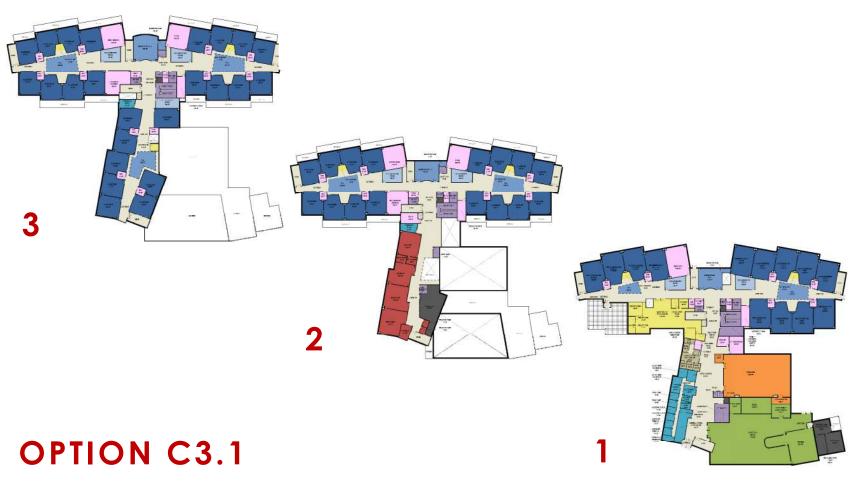
STREET **DESIGN** 212 3 OVERLOOK STREET **USE BUS LOOP** 20 DRIVE FIELDS & SITE AMENITIES SULLIVANI **EXISTING** BUILDING (DEMOLISHED) N. MAIN STREET USE PK-K DROP

PROPOSED

BUILDING







PK-5 (1030)



OPTION C3.1A

PROS

- Compact, logical plan with good adjacencies
- Dynamic extended learning spaces touch nearly all classrooms
- Excellent solar orientation
- Phased project means no leased swing space
- Good design for bus and car drop-off, car queue good
- Outdoor learning opps good
- Safety: Admin has good view of site

- Phased takedown project increases duration, impacts on school operations
- Car queue line could be clearer, needs more design
- New construction close to existing building
- Upper playground distant from building
- · Intensive site work, grading

OPTION C3.1B PROS

- Compact, logical plan with good adjacencies
- Dynamic extended learning spaces touch nearly all classrooms
- Excellent solar orientation
- Clean new construction means no leased space
- Good design for bus and car drop-off, car queue good
- Outdoor learning opps good
- Safety: Admin has good view of site

- New construction close to existing building
- Car queue line could be clearer, needs more design
- Some play fields distant from building
- Intensive site work, cut/ fill, grading



OPTION C3.2

- **GRADES PK-5** (1,030)
- **NEW BUILD**
- 3 STORIES

PARKING

VANS

BUSSES, 30'

BUSSES, 40'

CAR QUEUE

BASEBALL

SOFTBALL

U-10 SOCCER U-8 SOCCER U-6 SOCCER PK-2 PLAYGROUND 3-5 PLAYGROUND PAVED PLAY AREA

OUTDOOR LEARNING

PK-K PARK/DROP

- REAR OF SITE
- 3 YEAR DURATION

SITE PROGRAM **PROGRAM**

205

3

4

15

50

FIELDS & SITE AMENITIES

211

3

18

86

USE BUS LOOP

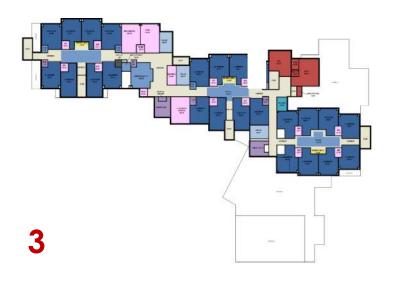
1 + PK-K DROP

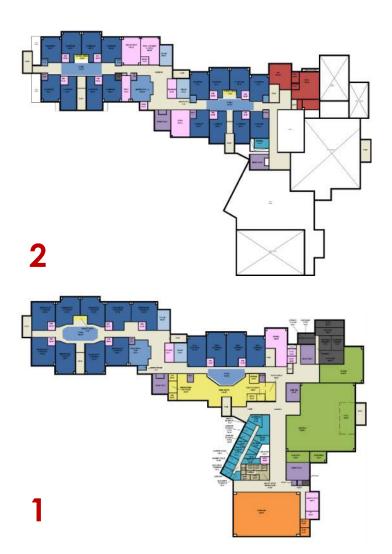
WETLAND 100' SETBACK DESIGN OVERLOOK STREET DRIVE SULLIVAN **EXISTING** BUILDING N. MAIN STREET (DEMOLISHED)

PROPOSED BUILDING

14,200 SF - 100' WETLAND SETBACK ZONE IMPACT - BUILDING/ DRIVE







OPTION C3.2

PK-5 (1030)



OPTION C3.2 PROS

- Good neighborhood feel
- Large mass broken into smaller pods, mediates scale
- Excellent solar orientation
- Clean project means no leased swing space, minimal impact to students
- Logical design for bus and car drop-off, car queue good
- Playgrounds in forecourt
- Safety: Admin has good view of site

- Elongated plan means longer travel times
- Cafeteria in back, gym in front of building
- Playfield locations fragmented
- Not the best outdoor learning spaces
- New construction close to existing building
- Intensive site work, grading



OPTION C3.3

- GRADES PK-5 (1,030)
- NEW BUILD
- 3 STORIES, STEPPED
- REAR/EAST EDGE OF SITE
- 3 YEAR DURATION

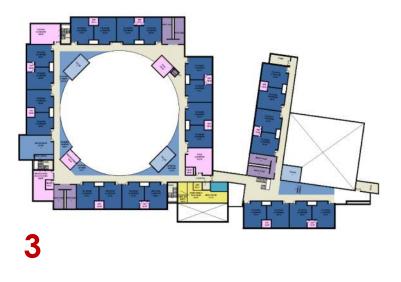
SITE PROGRAM

	PROGRAM	DESIGN
PARKING	205	212
BUSSES, 30'	3	3
BUSSES, 40'	7	7
VANS	4	USE BUS LOOP
PK-K PARK/DROP	15	20
CAR QUEUE	50	88
FIELDS 8	SITE AME	NITIES
BASEBALL	1	1
SOFTBALL	1	1
U-10 SOCCER	1	1
U-8 SOCCER	3	3
U-6 SOCCER	1	1
PK- 2 PLAYGROUND) 1	1
3-5 PLAYGROUND	1	1
PAVED PLAY AREA	1	USE PK-K DROP
OUTDOOR LEARNIN	IG 2	3









OPTION C3.3

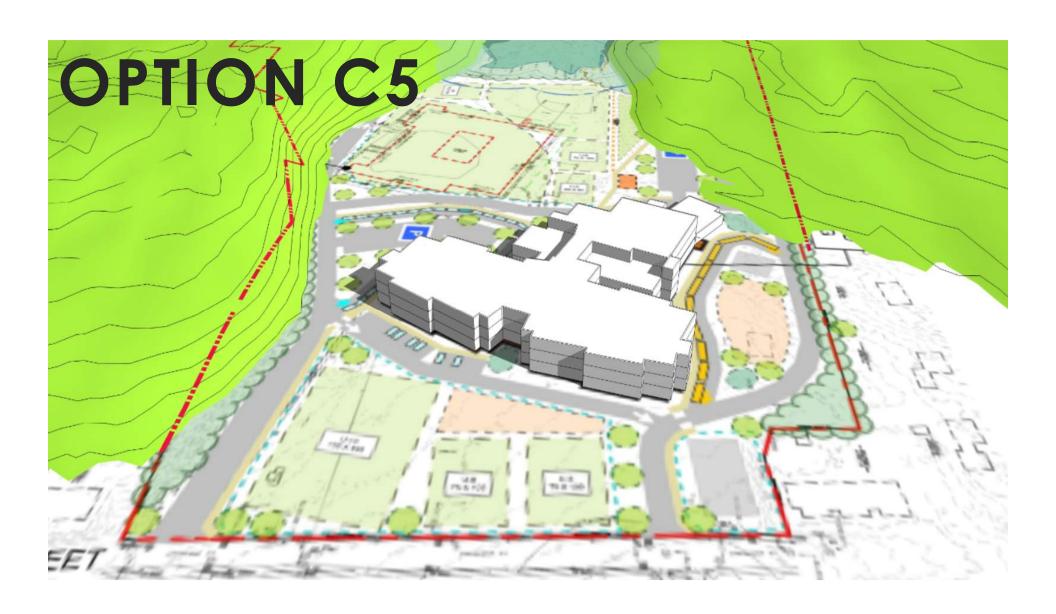
• PK-5 (1,030)



OPTION C3.3 PROS

- Clean replacement project allows Balmer to function
- Built into hillside to save earthwork
- Logical drop-off design for busses and cars, queue good
- Media center central, 2nd floor
- Dynamic, central outdoor learning space
- Arts plaza
- Good relationships to playgrounds & most fields

- 5th grade somewhat isolated
- Extended learning area
 (ELA) shapes not practical
- Some classrooms do not have "frontage" on ELAs
- Solar orientation mixed
- Admin has view of parking and car drop, but not rest of site
- Intensive sitework, cut/fill
- More complex foundations



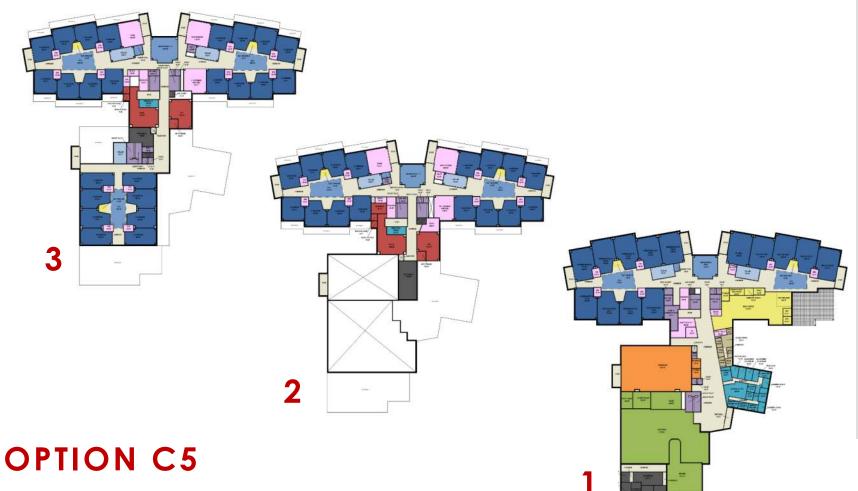
OPTION C5

- **GRADES PK-5** (1,030)
- **NEW BUILD**
- 3 STORIES
- FRONT OF SITE
- 3 YEAR DURATION

SITE PROGRAM **PROGRAM** DESIGN **PARKING** 205 209 BUSSES, 30' 3 3 BUSSES, 40' 7 **USE BUS LOOP** VANS PK-K PARK/DROP 15 18 DRIVE CAR QUEUE 50 74 FIELDS & SITE AMENITIES SULLIVAN BASEBALL SOFTBALL U-10 SOCCER U-8 SOCCER U-6 SOCCER PK-2 PLAYGROUND 3-5 PLAYGROUND PAVED PLAY AREA 2 + PK-K DROP 11,100 SF - 100' WETLAND SETBACK ZONE IMPACT - FIELDS ONLY **OUTDOOR LEARNING**









PK-5 (1030)

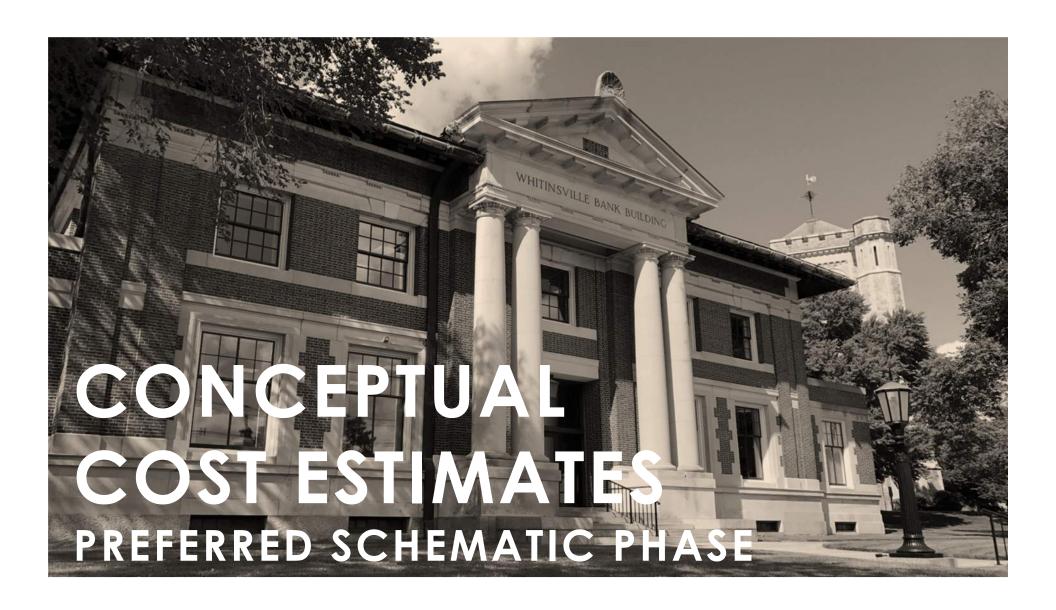


OPTION C5 PROS

- Compact, logical plan with good adjacencies
- Dynamic extended learning spaces
- Excellent solar orientation
- Clean new construction well away from existing building
- Least amount of grading & site work
- Playfields make green space in front of building
- Least amount of disruption during construction

- Building at front of site could be a scale issue for some
- Design for bus and car dropoff, car queue not ideal
- Some parking remote from building entrance
- Outdoor learning spaces not ideal, distant from woods
- Safety: Admin has no view of site entrance or bulk of parking





MSBA REIMBURSEMENT PROCESS

- MSBA is the state authority that administers and funds a grant program for
 Massachusetts school projects.
- MSBA mandates a rigorous, multi-step study and approval process.
- MSBA will reimburse all Eligible Costs, at the mandated District Base Rate (57.11% for Northbridge), plus bonus points.
- Examples of Ineligible Costs include:
 - Site costs over 8%
 - Building costs over \$326/\$F
 - Asbestos flooring abatement
 - FF&E/ Technology costs over \$2,400 per student
 - Legal Fees, Moving Expenses, Construction contingencies over 1% for new construction or 2% for renovations.
 - Classroom modulars used for temporary swing space



schemati oreferred

A SERIES (RENO ONLY)

A1 2 - 4 Balmer ES \$32.7M RENOVATIONS TO EXISTING BUILDINGS

 CODE AND DEFERRED MAINTENANCE UPGRADES

A2 PK-1st NES \$20.3M

NO
 EDUCATIONAL
 IMPROVEMENTS

\$ 53.0M total

NON-MSBA-Reimbursed Project(s) B SERIES (GRADE 2-4)

B2

NEW/
REAR

\$66.9M

MSBA-Reimbursed Project

C SERIES (GRADE PK-5)

C2
RENO/ADD
KEEP EXISTG.
\$108.7M

C3.1a

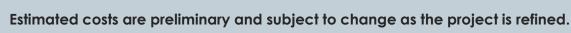
NEW/
REAR
\$107.4M

C3.1b NEW/ REAR \$105.2M

C3.2 NEW/ SIDE \$105.6M C3.3 NEW/ SIDE \$110.1M C5 NEW/ FRONT \$102.6M

MSBA-Reimbursed Project

CONCEPTUAL PROJECT COST ESTIMATES





schemati referred

A SERIES (RENO ONLY)

A1
2 - 4
Balmer ES

 RENOVATIONS TO EXISTING BUILDINGS

 CODE AND DEFERRED MAINTENANCE UPGRADES

A2 PK-1st NES O

 NO EDUCATIONAL IMPROVEMENTS

0

NON-MSBA-Reimbursed Project(s) B SERIES (GRADE 2-4)

B2 NEW/ REAR 61.11%

MSBA- Reimbursed Project (of eligible costs)

C SERIES (GRADE PK-5)

C2
RENO/ADD
KEEP EXISTG.
63.2%

C3.1a

NEW/
REAR
61.11%

C3.1b

NEW/
REAR
61.11%

C3.2 NEW/ SIDE 61.11% C3.3

NEW/
SIDE

61.11%

C5
NEW/
FRONT
61.11%

MSBA- Reimbursed Project (of eligible costs)

PRELIMINARY REIMBURSEMENT RATES

Estimated costs are preliminary and subject to change as the project is refined.



schemati oreferred

A SERIES (RENO ONLY)

A1 Balmer ES \$32.7M

- **RENOVATIONS** TO EXISTING BUILDINGS
- **CODE AND DEFERRED MAINTENANCE UPGRADES**

A2 PK-1st **NES** \$20.3M

NO **EDUCATIONAL IMPROVEMENTS**

\$ 53.0M total

NON-MSBA-Reimbursed Project(s)

B SERIES (GRADE 2-4)

> **B2** NEW/ **REAR** \$40.5M

AFTER MSBA REIMBURSEMENT

C SERIES (GRADE PK-5)

C2 RENO/ADD KEEP EXISTG. \$60.0M

NEW/ **REAR** \$59.9M

C3.1a

C3.1b NEW/ **REAR** \$58.0M

C3.2 NEW/ SIDE

\$58.5M

C3.3 NEW/ SIDE \$62.5M

C5 NEW/ **FRONT** \$55.7M

AFTER MSBA REIMBURSEMENT

APPROXIMATE COST TO TOWN

Estimated costs are preliminary and subject to change as the project is refined.



A SERIES (RENO ONLY)

A1

\$458.22

\$1.61

Balmer

A2 PK-1st

\$283.61

\$.998 NES ← AVERAGE ANNUAL TAX INCREASE PER \$1000 VALUATION

← 20-YR AVERAGE ANNUAL TAX

IMPACT, AVERAGE

HOME*

B SERIES (GRADE 2-4)

B2NEW/REAR
\$566.09
\$1.99

C SERIES (GRADE PK-5)

C2 RENO/ADD

\$839.68

\$2.96

C3.1aNEW/REAR

\$838.36

\$2.95

C3.1b NEW/REAR

\$811.79

\$2.85

C3.2

NEW/SIDE

\$818.06

\$2.88

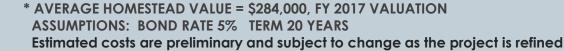
C3.3 NEW/SIDE \$875.24

\$3.08

C5
NEW/FRONT
\$779.04

\$2.74

APPROXIMATE TAX IMPACTS











B2 \$40.5M



C2 \$60.0M



C3.1A \$59.9M



C3.1B \$58.0M



Balmer + NES CODE/ DM ONLY

\$53.0M

total



C3.2 \$58.5M



C3.3 \$62.5M



C5 \$55.7M

OPTIONS REVIEW WITH COST TO TOWN

Estimated costs are preliminary and subject to change as the project is refined.



NEXT STEPS

- December 6-15 Community Wide Survey #2
- December 11, 2017 Community Forum #5 at NES Cafeteria
- December 19, 2017 SBC meeting to select the Preferred Alternative
- January 3, 2018 Submit Preferred Schematic Report (PSR) to MSBA
- March 13, 2018 Community Forum #6
- April 24, 2018 Community Forum #7
- May 9, 2018 Submit Schematic Design (SD) documents to MSBA
- June 27, 2018 MSBA board meeting to approve project to bring to voters
- Fall 2018 Town Vote

COMMUNITY RESOURCES

Project Website:

https://www.nps.org/sbc

Project Email: SBC@nps.org



