

5 Concept Matrix

Please refer to your handouts starting with this slide.

	CONCEPT	R	L1	L2	L3	C
BUILDING OPERATIONS	MEETS CODE (life safety, accessibility, structural)	✓	✓	✓	✓	✓
	UPGRADES SYSTEMS (heat, electric, plumbing)	✓	✓	✓	✓	✓
	KITCHENS	2 WARMING KITCHENS: 1 @ SMITH & 1 @ BROOKS	1 WARMING KITCHEN @ SMITH & 1 FULL KITCHEN @ BROOKS	1 CENTRAL, FULL KITCHEN	1 CENTRAL, FULL KITCHEN	1 CENTRAL, FULL KITCHEN
SAFETY	CONNECTS REED GYM TO SCHOOL	✗	✓	✓	✓	✓
	ENHANCED ACCESS FOR FIRE/POLICE	✗	✗	✓	✓	✓
ENHANCED EDUCATIONAL SPACES	DEDICATED DINING SPACES (COMMONS)	✗	1 @ SMITH; 1 @ BROOKS	1 CENTRAL	1 CENTRAL	1 CENTRAL
	PRE-K MOVES INTO THE BUILDING	✗	✗	✓	✓	✓
	FLEX SPACES (shared by multiple grades)	✗	✗	1 @ SMITH; 1 @ BROOKS	N/A	N/A
	HUB SPACES (1 for each grade)	✗	✗	✗	GRADES 3 - 8	GRADES 3 - 8
	ROOM FOR AN ADDITIONAL PLAY FIELD	✗	✗	✗	✗	✓
SUSTAINABILITY	NET-ZERO READY + solar on roof and over parking	✗	✗	✓	✓	✓
TOTAL PROJECT COSTS		~ \$49M	~ \$73M	~ \$84M	~ \$93.9M	~ \$97.8M



R

- Replaces major systems
- Meets Safety, Accessibility, Structural Codes



L1

- Replaces major systems
- Meets Safety, Accessibility, Structural Codes
- Connects Reed Gym to School
- 2 dining commons & 1 Full Kitchen/1 Warming Kitchen



L2

- Replaces major systems
- Meets Safety, Accessibility, Structural Codes
- Connects Reed Gym to School
- PreK
- Central Dining & Kitchen
- 2 Flex Spaces



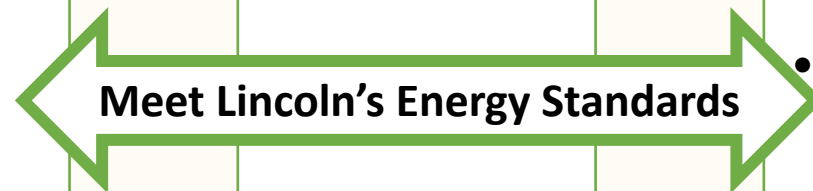
L3

- Replaces major systems
- Meets Safety, Accessibility, Structural Codes
- Connects Reed Gym to School
- PreK
- Central Dining & Kitchen
- Teaching Hubs Grades 3 - 8



C

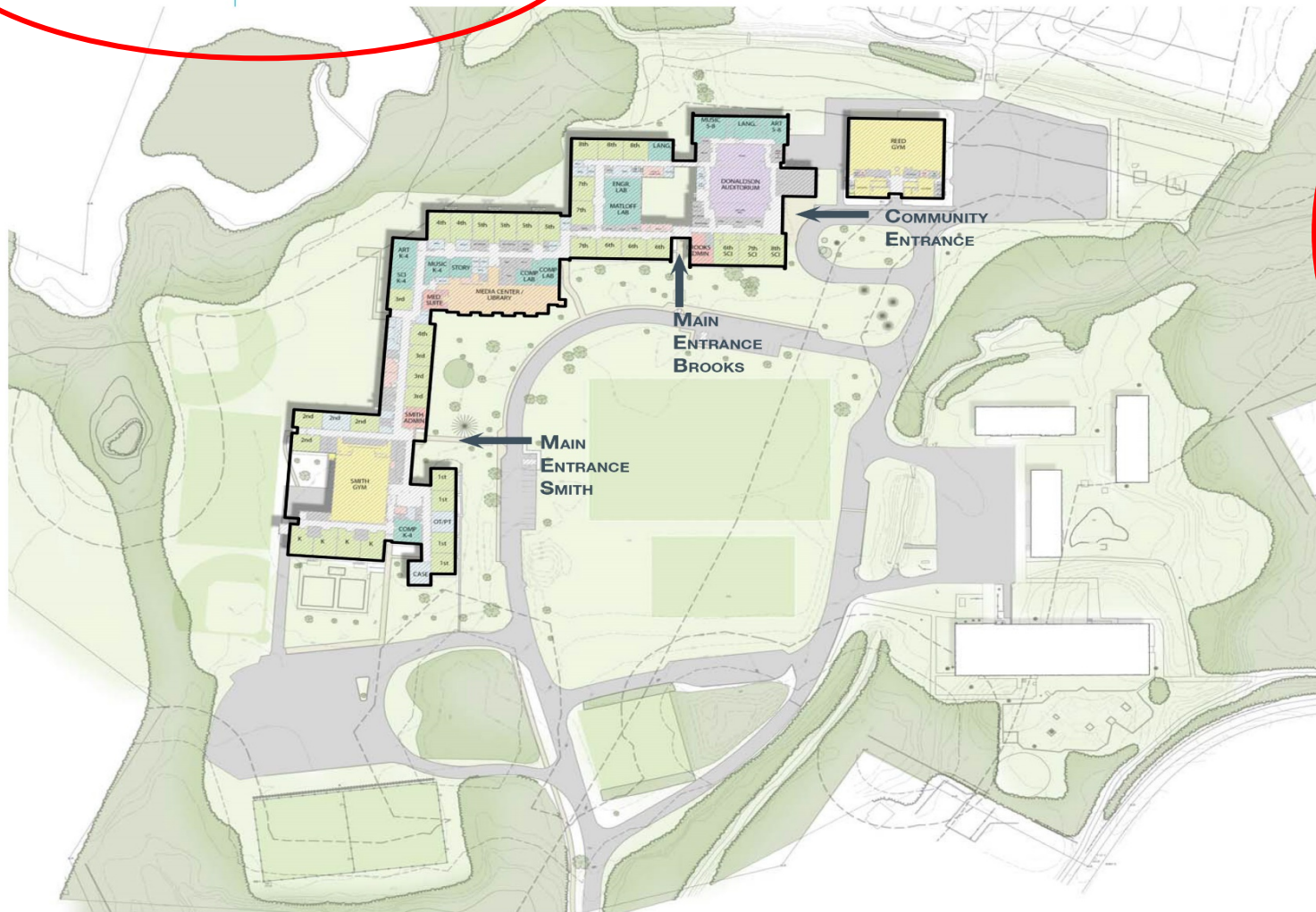
- Replaces major systems
- Meets Safety, Accessibility, Structural Codes
- Connects Reed Gym to School
- PreK
- Central Dining Adjacent to Auditorium
- Teaching Hubs Grades 3 - 8
- Additional Playing Field/Green Space



Meet Lincoln's Energy Standards

OPTION R

\$49M
138,464 SF
 138,464 sf Existing to be Renovated
 0 sf New Additions



- BUILDING CODE AND SYSTEMS UPGRADES ONLY
- PRE-K REMAINS AT HARTWELL
- MAINTAINS EXISTING EDUCATIONAL SPACES
- MAINTAINS EXISTING BALLFIELDS

ENERGY PERFORMANCE ANALYSIS

	ADDED COST	PREDICTED EUI
CODE COMPLIANT	\$0	57

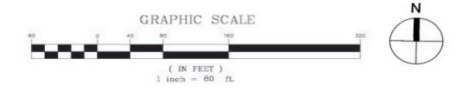
- THIS OPTION DOES NOT MEET LINCOLN'S 2030 ENERGY BY-LAW

ANNUAL TAX BILL INCREASE FOR MEDIAN TAXPAYER

	COST OF PROJECT & BORROWING AMOUNT	4%	5%
R CONCEPT	\$49M	\$1,329	\$1,494

MEDIAN TAXPAYER: \$271-305 PER \$10MM INCREASE ON 2018 TAX BILL OF \$13,566
 MEDIAN HOME VALUE IN LINCOLN \$997,500

- ADMINISTRATION/ FACULTY SUPPORT
- SERVICES
- STUDENT SUPPORT
- CLASSROOMS - GRADE LEVEL & TEAM TEACHING
- SPECIALS - ART, MUSIC, LANGUAGE, MEDIA, INFORMATION, COMMUNITY & TECHNOLOGY
- PERFORMING ARTS
- GYM / MULTI-PURPOSE
- MEDIA CENTER / LIBRARY
- EXISTING BUILDING
- COMMONS



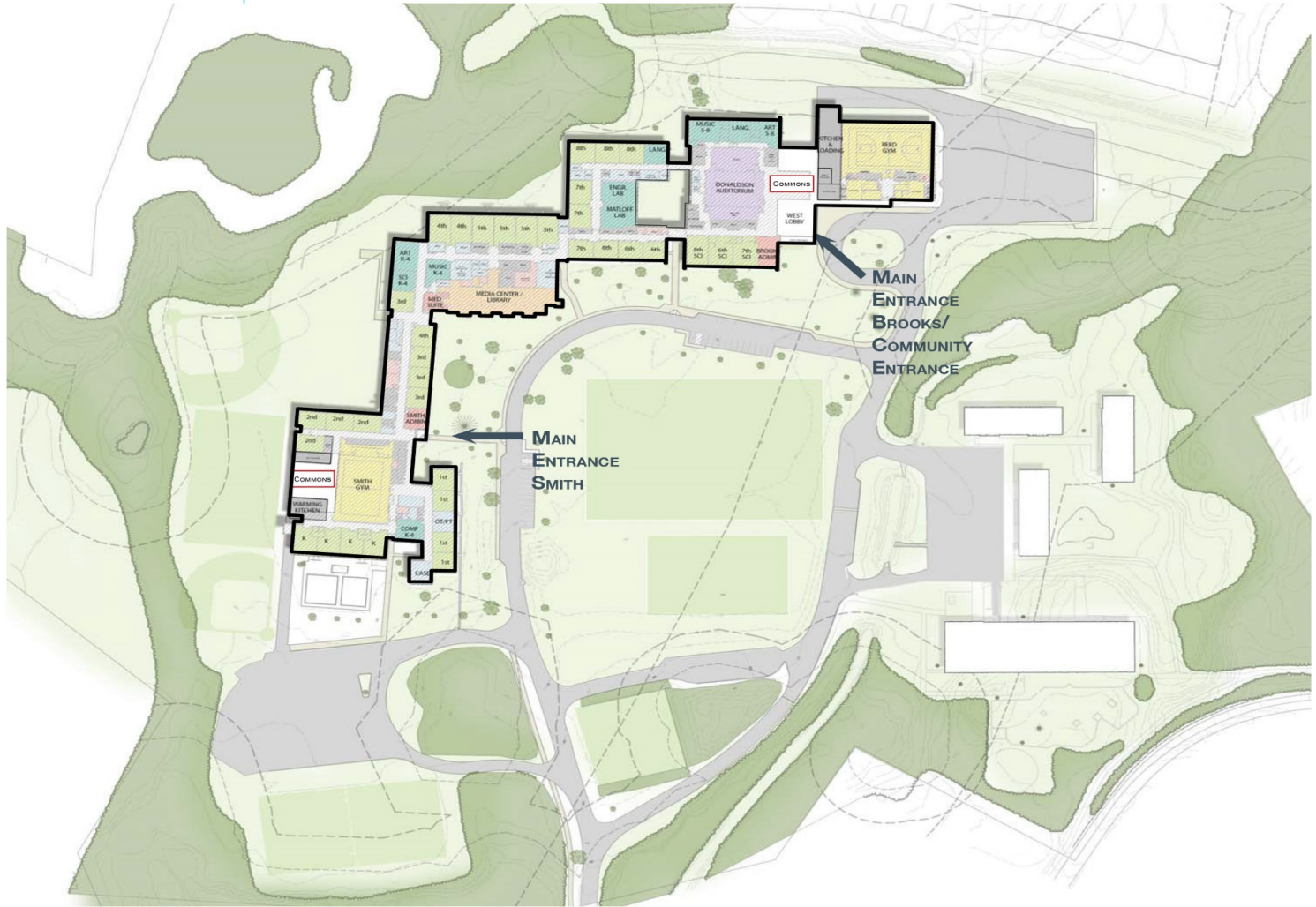
Lincoln School

May 15, 2018

EWING COLE | **SMMA**

OPTION L1

\$73M
155,292 SF
 136,942 sf Existing to be Renovated
 18,350 sf New Additions



- PRE-K REMAINS AT HARTWELL
- MAINTAINS EXISTING EDUCATIONAL SPACES
- NEW FULL KITCHEN AT BROOKS
- NEW DINING COMMONS AT BROOKS
- NEW WARMING KITCHEN AT SMITH
- NEW DINING COMMONS AT SMITH
- MAINTAINS EXISTING BALLFIELDS

ENERGY PERFORMANCE ANALYSIS

	ADDED COST	PREDICTED EUI
CODE COMPLIANT	\$0	57

- THIS OPTION DOES NOT MEET LINCOLN'S 2030 ENERGY BY-LAW

ANNUAL TAX BILL INCREASE FOR MEDIAN TAXPAYER

	COST OF PROJECT & BORROWING AMOUNT	4%	5%
L1 CONCEPT	\$73M	\$1,980	\$2,226
INCREASE OVER R		\$651	\$732

MEDIAN TAXPAYER: \$271-305 PER \$10MM INCREASE ON 2018 TAX BILL OF \$13,566
 MEDIAN HOME VALUE IN LINCOLN \$997,500

- ADMINISTRATION/ FACULTY SUPPORT
- SERVICES
- STUDENT SUPPORT
- CLASSROOMS - GRADE LEVEL & TEAM TEACHING
- SPECIALS - ART, MUSIC, LANGUAGE, MEDIA, INFORMATION, COMMUNITY & TECHNOLOGY
- PERFORMING ARTS
- GYM / MULTI-PURPOSE
- MEDIA CENTER / LIBRARY
- EXISTING BUILDING
- COMMONS

EXISTING TO BE RENOVATED
 NEW ADDITION

GRAPHIC SCALE
 (IN FEET)
 1 inch = 80 ft.



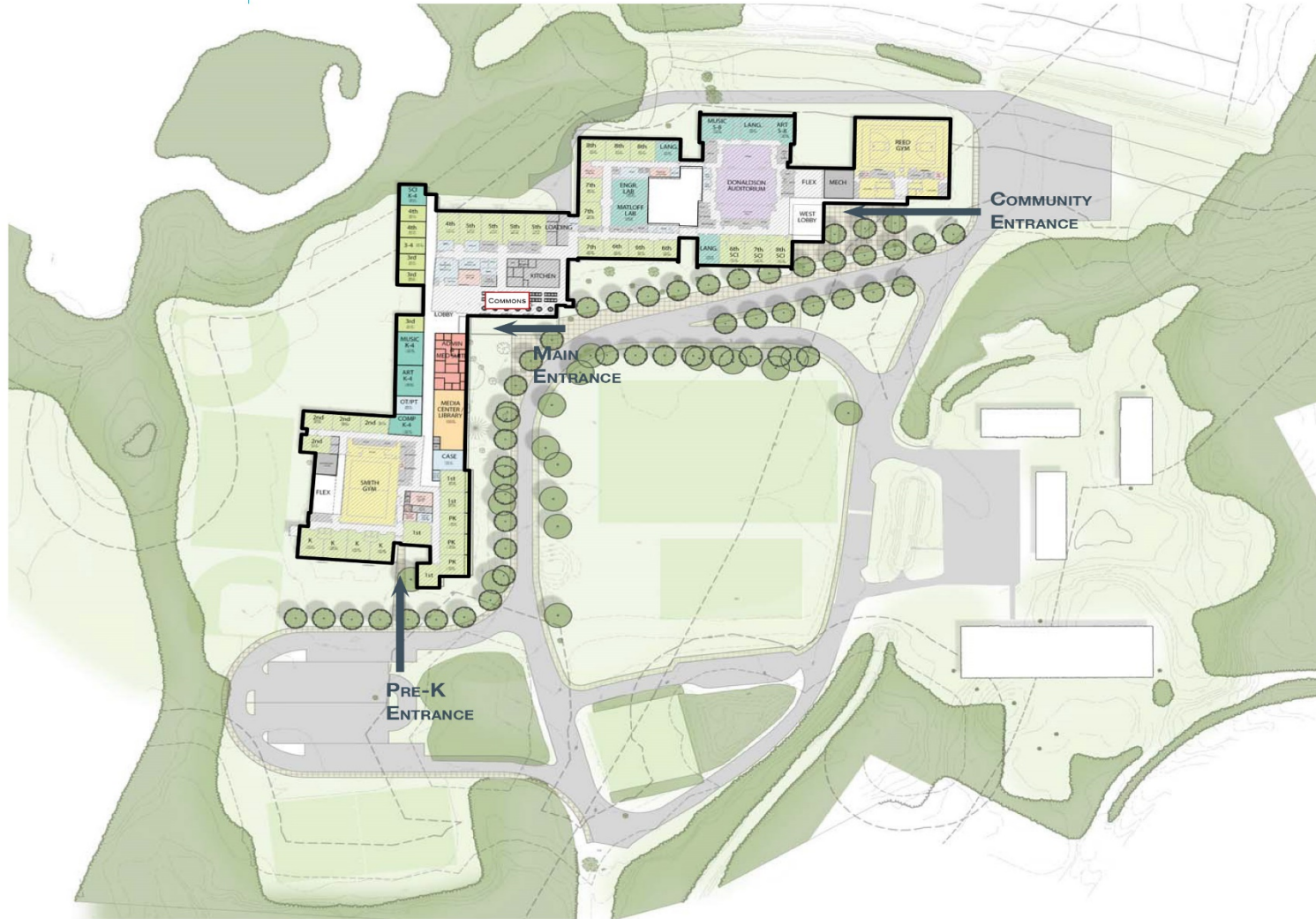
Lincoln School

May 15, 2018



OPTION L2

\$84M
158,355 SF
 121,403 sf Existing to be Renovated
 36,952 sf New Additions



- PRE-K INCLUDED
- ACCOMMODATES ESSENTIAL EDUCATIONAL SPACES
- SINGULAR, CENTRALIZED KITCHEN AND DINING COMMONS
- ADDED FLEX SPACE AT SMITH AND BROOKS
- MAINTAINS EXISTING BALLFIELDS

ENERGY PERFORMANCE ANALYSIS

	TOTAL PROJECT COST	PREDICTED EUI
NET ZERO READY/ 2030 BYLAW W/ ROOF AND PARKING CANOPY PV ARRAY	\$84M	9
NET ZERO W/ ROOF PARKING CANOPY AND OFFSITE PV ARRAY	\$84M *	0

*ASSUMES ANY OFFSITE PV SYSTEMS WILL BE CONTRACTED DIRECT BETWEEN THE TOWN AND PV COMPANY UNDER A PPA (POWER PURCHASE AGREEMENT) WITH NO COST IMPACT TO THE CONSTRUCTION PROJECT

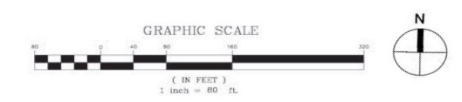
- This option, with pv system, meets or exceeds the requirements of Lincoln's 2030 energy by-law
- At this conceptual phase, there is a considerable contingency built into the estimates of how much will be required to get the building to net zero
- Even with these conservative estimates, the upfront investment needed to achieve a net zero building should be recouped through reduced energy costs over the 30 year life of the bond

ANNUAL TAX BILL INCREASE FOR MEDIAN TAXPAYER

	COST OF PROJECT & BORROWING AMOUNT	4%	5%
L2 CONCEPT	\$84M	\$2,278	\$2,562
INCREASE OVER L1		\$298	\$335

MEDIAN TAXPAYER: \$271-305 PER \$10MM INCREASE ON 2018 TAX BILL OF \$13,566
 MEDIAN HOME VALUE IN LINCOLN \$997,500

- ADMINISTRATION/ FACULTY SUPPORT
- SERVICES
- STUDENT SUPPORT
- CLASSROOMS - GRADE LEVEL & TEAM TEACHING
- SPECIALS - ART, MUSIC, LANGUAGE, MEDIA, INFORMATION, COMMUNITY & TECHNOLOGY
- PERFORMING ARTS
- GYM / MULTI-PURPOSE
- MEDIA CENTER / LIBRARY
- EXISTING BUILDING
- COMMONS



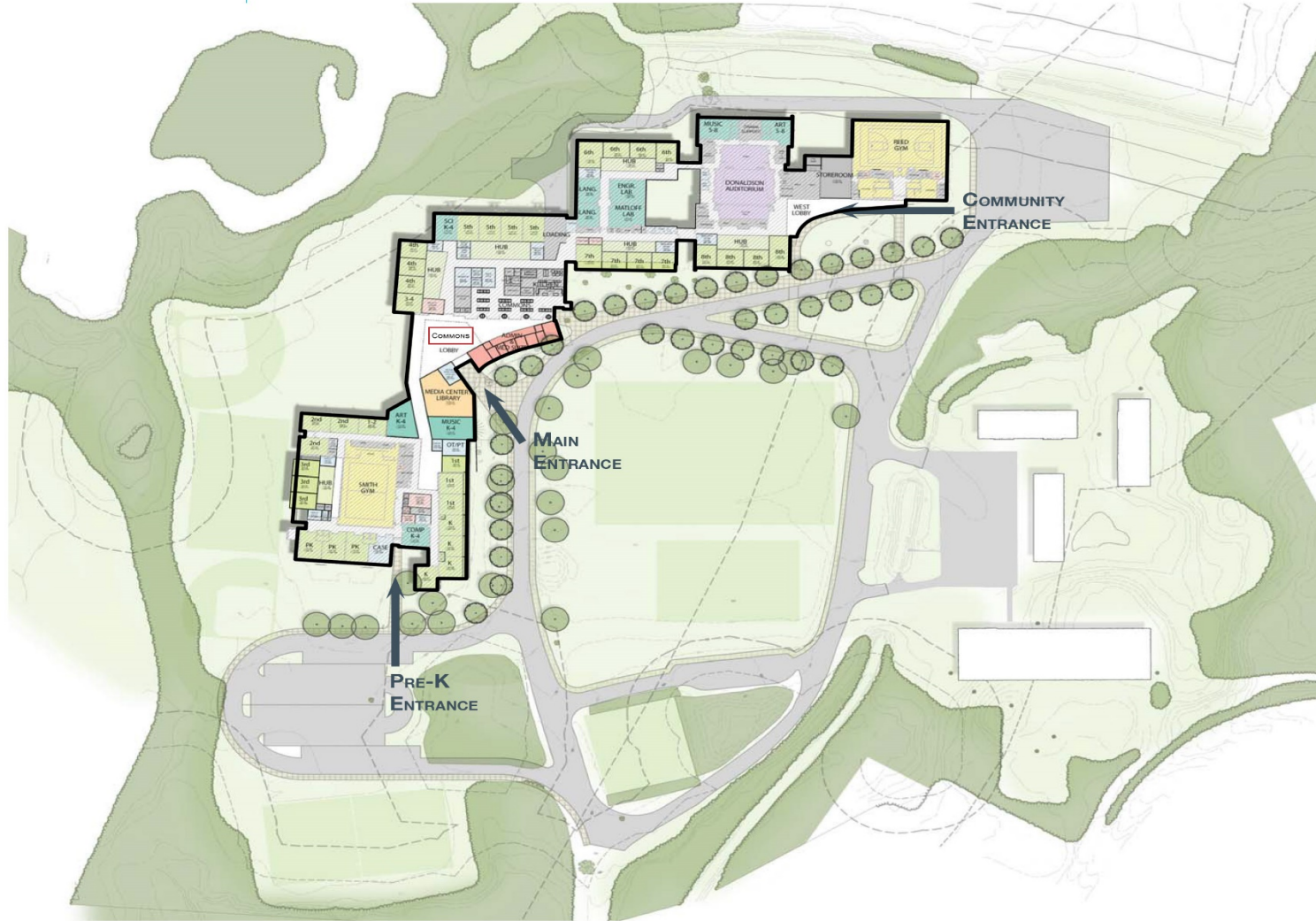
Lincoln School

May 15, 2018

EWING COLE | **SMMA**

OPTION L3

\$93.9M
165,078 SF
 127,528 sf Existing to be Renovated
 37,550 sf New Additions



- PRE-K INCLUDED
- ACCOMMODATES ESSENTIAL EDUCATIONAL SPACES
- SINGULAR, CENTRALIZED KITCHEN AND DINING COMMONS
- HUBS INCLUDED FOR GRADES 3-8
- MAINTAINS EXISTING BALLFIELDS

ENERGY PERFORMANCE ANALYSIS

	TOTAL PROJECT COST	PREDICTED EUI
NET ZERO READY/ 2030 BYLAW w/ ROOF AND PARKING CANOPY PV ARRAY	\$93.9M	9
NET ZERO w/ ROOF PARKING CANOPY AND OFFSITE PV ARRAY	\$93.9M *	0

* ASSUMES ANY OFFSITE PV SYSTEMS WILL BE CONTRACTED DIRECT BETWEEN THE TOWN AND PV COMPANY UNDER A PPA (POWER PURCHASE AGREEMENT) WITH NO COST IMPACT TO THE CONSTRUCTION PROJECT

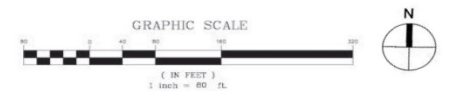
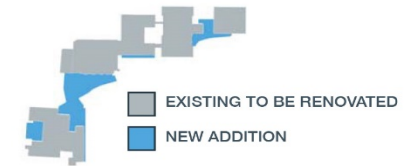
- This option, with pv system, meets or exceeds the requirements of Lincoln's 2030 energy by-law
- At this conceptual phase, there is a considerable contingency built into the estimates of how much will be required to get the building to net zero
- Even with these conservative estimates, the upfront investment needed to achieve a net zero building should be recouped through reduced energy costs over the 30 year life of the bond

ANNUAL TAX BILL INCREASE FOR MEDIAN TAXPAYER

	COST OF PROJECT & BORROWING AMOUNT	4%	5%
L3 CONCEPT	\$93.9M	\$2,546	\$2,864
INCREASE OVER L2		\$268	\$302

MEDIAN TAXPAYER: \$271-305 PER \$10MM INCREASE ON 2018 TAX BILL OF \$13,566
 MEDIAN HOME VALUE IN LINCOLN \$997,500

- ADMINISTRATION/ FACULTY SUPPORT
- SERVICES
- STUDENT SUPPORT
- CLASSROOMS - GRADE LEVEL & TEAM TEACHING
- SPECIALS - ART, MUSIC, LANGUAGE, MEDIA, INFORMATION, COMMUTING & TECHNOLOGY
- PERFORMING ARTS
- GYM / MULTI-PURPOSE
- MEDIA CENTER / LIBRARY
- EXISTING BUILDING
- COMMONS



Lincoln School

May 15, 2018



OPTION C

1ST FLOOR

\$97.8M
152,898 SF
 66,107 sf Existing to be Renovated
 86,791 sf New Additions



- PRE-K INCLUDED
- ACCOMMODATES ESSENTIAL EDUCATIONAL SPACES
- SINGULAR, CENTRALIZED KITCHEN AND DINING COMMONS
- HUBS INCLUDED FOR GRADES 3-8
- ADDS BALLFIELD/GREEN SPACE

ENERGY PERFORMANCE ANALYSIS

	TOTAL PROJECT COST	PREDICTED EUI
NET ZERO READY/ 2030 BYLAW W/ ROOF AND PARKING CANOPY PV ARRAY	\$97.8M	9
NET ZERO W/ ROOF PARKING CANOPY AND OFFSITE PV ARRAY	\$97.8M *	0

* ASSUMES ANY OFFSITE PV SYSTEMS WILL BE CONTRACTED DIRECT BETWEEN THE TOWN AND PV COMPANY UNDER A PPA (POWER PURCHASE AGREEMENT) WITH NO COST IMPACT TO THE CONSTRUCTION PROJECT

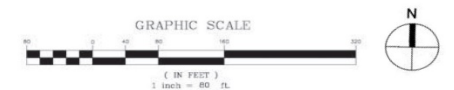
- This option, with pv system, meets or exceeds the requirements of Lincoln's 2030 energy by-law
- At this conceptual phase, there is a considerable contingency built into the estimates of how much will be required to get the building to net zero
- Even with these conservative estimates, the upfront investment needed to achieve a net zero building should be recouped through reduced energy costs over the 30 year life of the bond

ANNUAL TAX BILL INCREASE FOR MEDIAN TAXPAYER

	COST OF PROJECT & BORROWING AMOUNT	4%	5%
C CONCEPT	\$97.8M	\$2,652	\$2,983
INCREASE OVER L3		\$106	\$119

MEDIAN TAXPAYER: \$271-305 PER \$10MM INCREASE ON 2018 TAX BILL OF \$13,566
 MEDIAN HOME VALUE IN LINCOLN \$997,500

- ADMINISTRATION/ FACULTY SUPPORT
- SERVICES
- STUDENT SUPPORT
- CLASSROOMS - GRADE LEVEL & TEAM TEACHING
- SPECIALS - ART, MUSIC, LANGUAGE, MEDIA, INFORMATION, COMMUNITY & TECHNOLOGY
- PERFORMING ARTS
- GYM / MULTI-PURPOSE
- MEDIA CENTER / LIBRARY
- EXISTING BUILDING
- COMMONS



Lincoln School

May 15, 2018

EWING COLE | **SMMA**

OPTION C

2ND FLOOR

\$97.8M
152,898 SF
 66,107 sf Existing to be Renovated
 86,791 sf New Additions



- PRE-K INCLUDED
- ACCOMMODATES ESSENTIAL EDUCATIONAL SPACES
- SINGULAR, CENTRALIZED KITCHEN AND DINING COMMONS
- HUBS INCLUDED FOR GRADES 3-8
- ADDS BALLFIELD/GREEN SPACE

ENERGY PERFORMANCE ANALYSIS

	TOTAL PROJECT COST	PREDICTED EUI
NET ZERO READY/ 2030 BYLAW W/ ROOF AND PARKING CANOPY PV ARRAY	\$97.8M	9
NET ZERO W/ ROOF PARKING CANOPY AND OFFSITE PV ARRAY	\$97.8M *	0

* ASSUMES ANY OFFSITE PV SYSTEMS WILL BE CONTRACTED DIRECT BETWEEN THE TOWN AND PV COMPANY UNDER A PPA (POWER PURCHASE AGREEMENT) WITH NO COST IMPACT TO THE CONSTRUCTION PROJECT

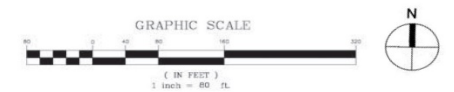
- This option, with pv system, meets or exceeds the requirements of Lincoln's 2030 energy by-law
- At this conceptual phase, there is a considerable contingency built into the estimates of how much will be required to get the building to net zero
- Even with these conservative estimates, the upfront investment needed to achieve a net zero building should be recouped through reduced energy costs over the 30 year life of the bond

ANNUAL TAX BILL INCREASE FOR MEDIAN TAXPAYER

	COST OF PROJECT & BORROWING AMOUNT	4%	5%
C CONCEPT	\$97.8M	\$2,652	\$2,983
INCREASE OVER L3		\$106	\$119

MEDIAN TAXPAYER: \$271-305 PER \$10MM INCREASE ON 2018 TAX BILL OF \$13,566
 MEDIAN HOME VALUE IN LINCOLN \$997,500

- ADMINISTRATION/ FACULTY SUPPORT
- SERVICES
- STUDENT SUPPORT
- CLASSROOMS - GRADE LEVEL & TEAM TEACHING
- SPECIALS - ART, MUSIC, LANGUAGE, MEDIA, INFORMATION, COMMUNITY & TECHNOLOGY
- PERFORMING ARTS
- GYM / MULTI-PURPOSE
- MEDIA CENTER / LIBRARY
- EXISTING BUILDING
- COMMONS



Lincoln School

May 15, 2018

EWING COLE | **SMMA**