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DORE + WHITTIER

NEEDHAM SCHOOL MASTER PLAN

Project Update

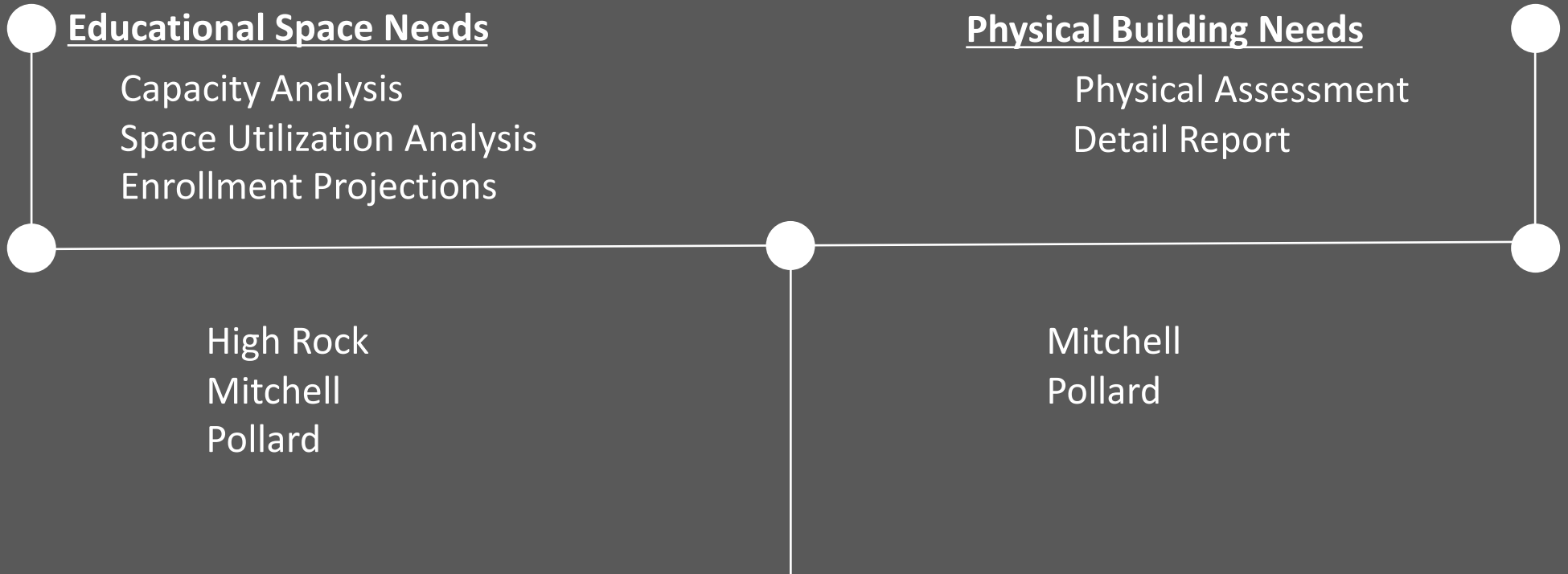
School Committee 9/15/20

Objectives / Agenda

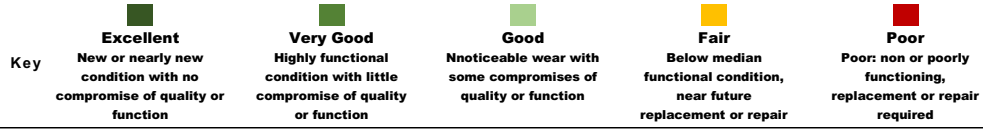
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- Review Process
 - Facility Needs & Code Triggers
 - Capacity Needs for Enrollment & Educational Programming
 - Review Master Plan Scenarios

Process

Goal: Determine Facility Needs To Meet Educational Program District Wide



EXISTING CONDITIONS GRAPH FOR NEEDHAM 2020 MASTER PLAN

























School	Site & Civil	Site Accessibility -Parking / Play Area	Exterior Building Elements	Interior Building Elements	Accessibility	Structural Elements	Mechanical Systems	Electrical Systems	Plumbing Systems	Fire Protection System	Functional Use of Space
MIDDLE SCHOOLS Pollard Middle School	Good	Good	Fair	Fair	Fair	Excellent	Fair	Fair	Good	Fair	Fair
High Rock (Gr 6 School)	Excellent	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Poor
ELEMENTARY SCHOOLS Broadmeadow Elementary School	Good	Excellent	Excellent	Excellent	Excellent	Good	Fair	Excellent	Excellent	Excellent	Excellent
Eliot Elementary School	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Fair	Excellent	Good	Excellent	Good
Mitchell Elementary School	Good	Fair	Fair	Fair	Poor	Good	Poor	Fair	Poor	Poor	Poor
Newman Elementary School	Good	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Fair	Excellent	Excellent	Excellent
Sunita L Williams Elementary School	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Former Hillside Elementary School	Poor	Poor	Poor	Fair	Poor	Good	Poor	Poor	Fair	Poor	Poor

Facility Needs

EXISTING CONDITIONS GRAPH FOR NEEDHAM 2020 MASTER PLAN

Key	 Excellent New or nearly new condition with no compromise of quality or function	 Very Good Highly functional condition with little compromise of quality or function	 Good Noticeable wear with some compromises of quality or function	 Fair Below median functional condition, near future replacement or repair	 Poor Poor: non or poorly functioning, replacement or repair required
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School	Site & Civil	Site Accessibility Parking / Play Area	Exterior Building Elements	Interior Building Elements	Accessibility	Structural Elements	Mechanical Systems	Electrical Systems	Plumbing Systems	Fire Protection System	Functional Use of Space
Pollard Middle School											
\$39,048,770	\$3,226,377	\$14,092,560	\$1,618,044	\$488,520 *	\$12,705,412	\$4,686,542	\$158,976	\$2,072,339			
Mitchell Elementary School											
\$24,801,107	\$1,338,387	\$5,504,357	\$1,831,496	Included *	\$10,528,158	\$3,076,073	\$1,778,267	\$744,369			

- * Does not include cost for seismic upgrades
- * Does not address capacity issues
- * Does not resolve Functional Use of Space

What's Included

Pollard
+/- \$40 m

- Accessibility of the Courtyard
- Repairs to Exterior Columns
- Building Envelope Upgrades
- Window Replacement
- Modular Building Replacement (\$9m)
- HVAC, Electrical , Plumbing Upgrades
- Fire Protection Installation

Mitchell
+/- \$25 m

- Window and Vent Replacement
- HVAC, Electrical , Plumbing Upgrades
- Fire Protection Installation

Compliance & Triggers

Code Compliance

Issues not in compliance with **CURRENT** are identified. As an occupied building constructed under former building codes the facilities are code compliant with approved occupancies.

Triggers

- **Seismic:**
if **renovations, additions or alterations of an existing building exceed 50%** of the aggregate **area** of the building then **the entire facility** must be upgraded to meet current seismic codes.
- **Fire Protection**
buildings that exceed 7500 sq. ft. any addition or renovation to the building will require that the entire facility have an automatic fire suppression system

Handicap Accessibility:

Items that met the accessibility guidelines of the 1991 ADA and have not been altered may be considered “safe harbor”

However, Schools and other public building are required to meet the minimum of **access to the front entrance**, and provide an **accessible toilet room** , and an **accessible drinking fountain**

All renovations must comply.
Renovations over the course of 3 years that amount to **more than 30% of the fair values** will trigger the requirement for the **entire facility to be upgraded** including access to the site, parking, front entrance playground and playfields

Total Gross Square Feet

Pollard = 134,427 (no modulars) 50% = 67,213.5

Mitchell = 53,785 (no modulars) 50% = 26,892.5

Fair Market Value

Pollard = \$ 20,421,500 30% = \$6,126,450 = NTE \$2 m / yr for 10 years

Mitchell = \$ 8,215,200 30% = \$2,464,560 = NTE \$800t /yr for 10 years

Capacity & Ed. Program Needs

Educational Space Needs

Capacity Analysis

Space Utilization Analysis

Enrollment Projections

Elementary Schools

- Current General Classroom
123

Middle Schools

- Current General Classroom
86

Elementary School Needs

- Capacity Challenges @
Broadmeadow
Eliot &
Mitchell
- Classroom target for Master Plan is
126 General Classrooms

Middle School Needs

- Capacity Challenges @
High Rock
Pollard
- Classroom target for Master Plan is
101 General Classrooms

Master Plan Scenarios Explored:

* Not a free-standing elementary school. Two schools under one roof model with 6th-8th MS.

Major Project Required

	Status Quo Pk, K-5 th , 6 th , 7 th -8 th	Discontinue High Rock 5ES & MS Pk, K-5 th , 6 th -8 th	High Rock As ES 6ES & MS Pk, K-5 th , 6 th -8 th	Two 6-8 Middle Schools 5ES & 2MS Pk, K-5 th , 6 th -8 th	One 5-8 Middle School 5ES & MS Pk, K-4 th , 5 th -8 th	Two 5-8 Middle Schools 5ES & 2 MS Pk, K-4 th , 5 th -8 th	Super School 5ES* & MS Pk, K-5 th , 6 th -8 th
Broadmeadow	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
Eliot	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
Mitchell	K-5 th New ES (5 sections)	K-5 th New ES (5 sections)	K-5 th New ES (3 sections)	K-5 th New ES (7 sections)	K-4 th New ES (4 sections)	K-4 th New ES (3 sections)	Discontinued
Newman	PK, K-5 th Remains	PK, K-5 th Remains	PK, K-5 th Remains	6 th -8 th MS Reno	PK, K-4 th Remains	5 th -8 th Reno/Add	PK, K-5 th Remains
Williams	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-5 th Remains	K-4 th Remains	K-4 th Remains	K-5 th Remains
High Rock	6 th Only Addition	Repurposed TBD	Repurposed for ES	Repurposed for ES	Repurposed TBD	Repurposed K-4 th	Repurposed TBD
Pollard	7 th -8 th Reno/Add or New	6 th -8 th Reno/Add or New	6 th -8 th Reno/Add or New	6 th -8 th Reno or New	5 th -8 th Reno/Add or New	5 th -8 th Reno or New	K-5 th & 6 th -8 th Reno/Add or New

Potential Scenarios

FINAL OPTIONS

Status Quo Grade Configuration

\$310.3 m +/-

Pollard 7&8

Renovations + Addition
907-955 Students

High Rock 6

Addition
430-477 students

Mitchell

5 sect / grade
New School
650 +/- Students

Discontinue High Rock

\$287.1 m +/-

Pollard 6-8

Renovations + Addition
1,337-1,432 Students

High Rock

Vacant
0 Students

Mitchell

5 sect / grade
New School
650 +/- Students

High Rock 6th Elementary School

\$251.9 m +/-

Pollard 6-8

Renovations + Addition
1,337-1,432 Students

High Rock K-5

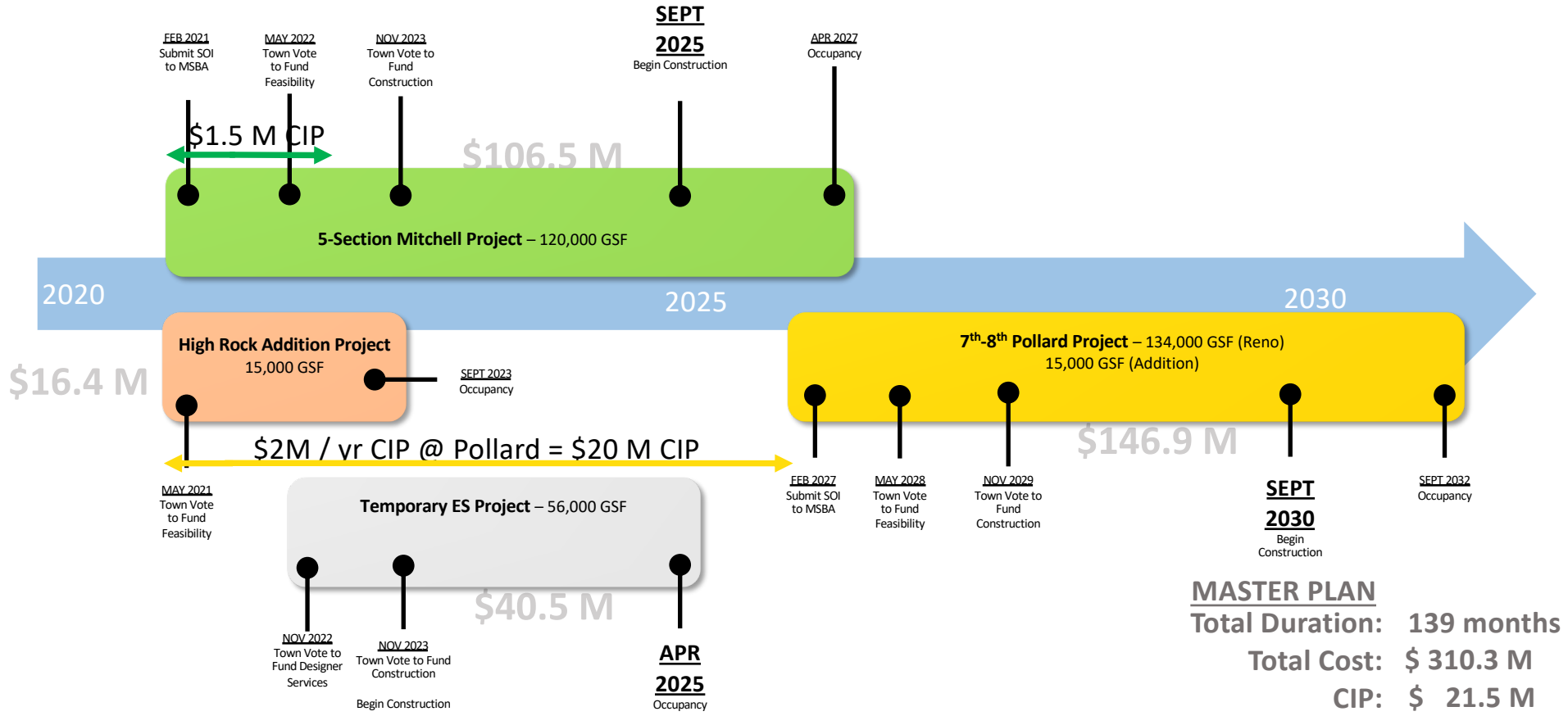
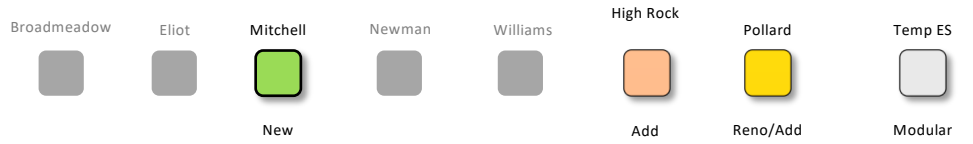
3 sect / grade
Renovations
330 +/- Students

Mitchell

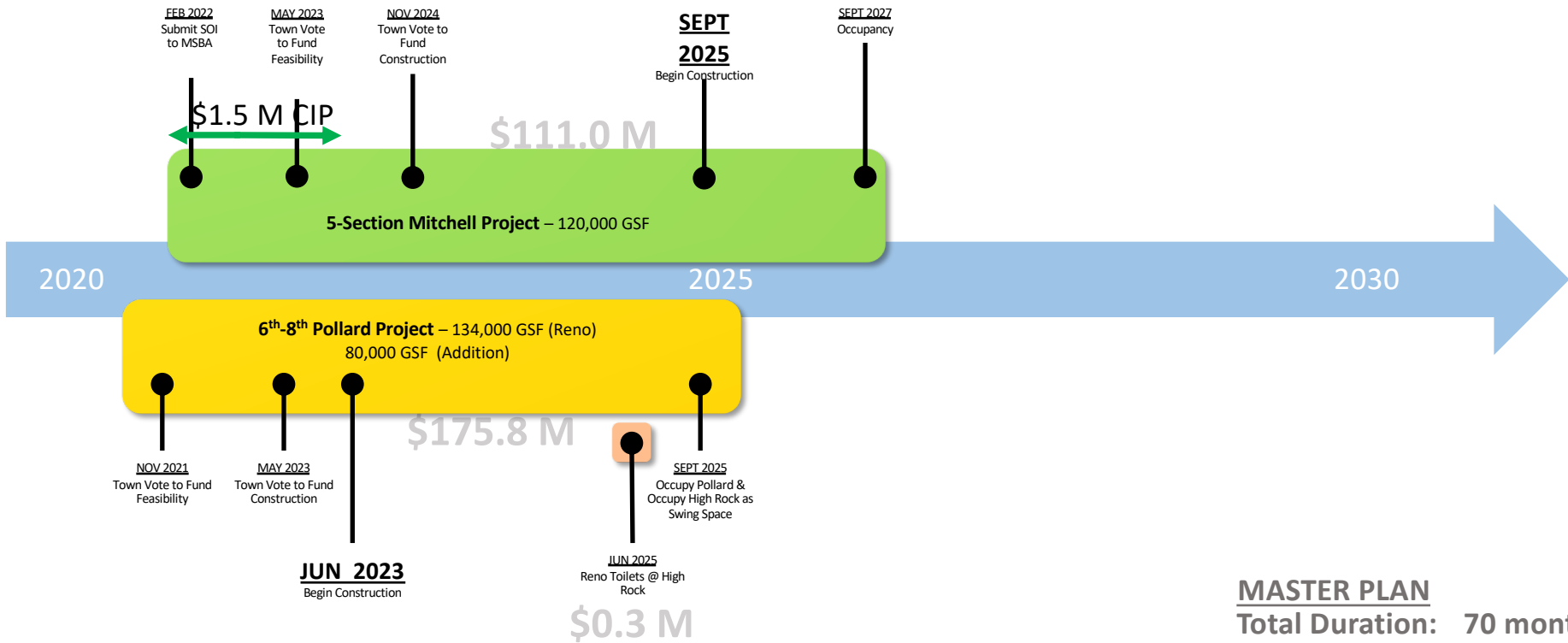
3 sect / grade
New School
330 +/- Students

Master Plan Sequences w/ Cost Estimates

Status Quo (grade configuration) Scenario

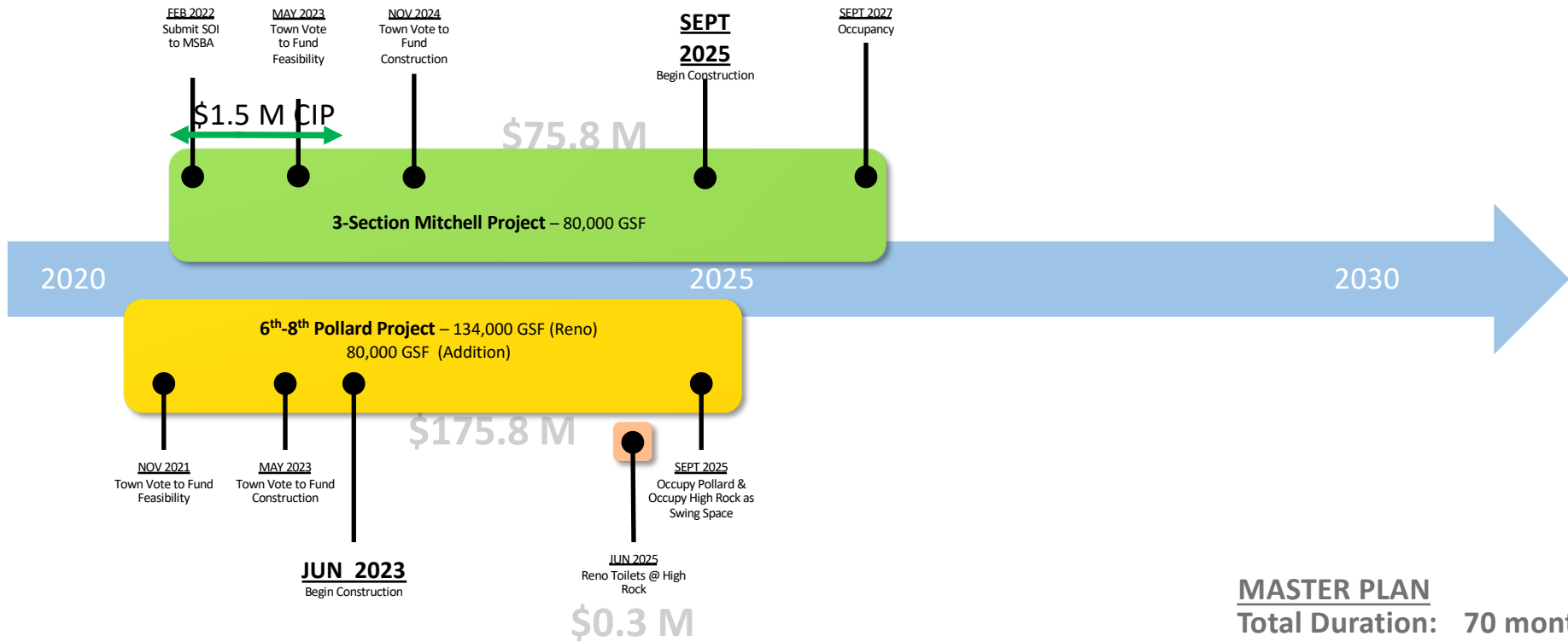


Discontinue High Rock Scenario



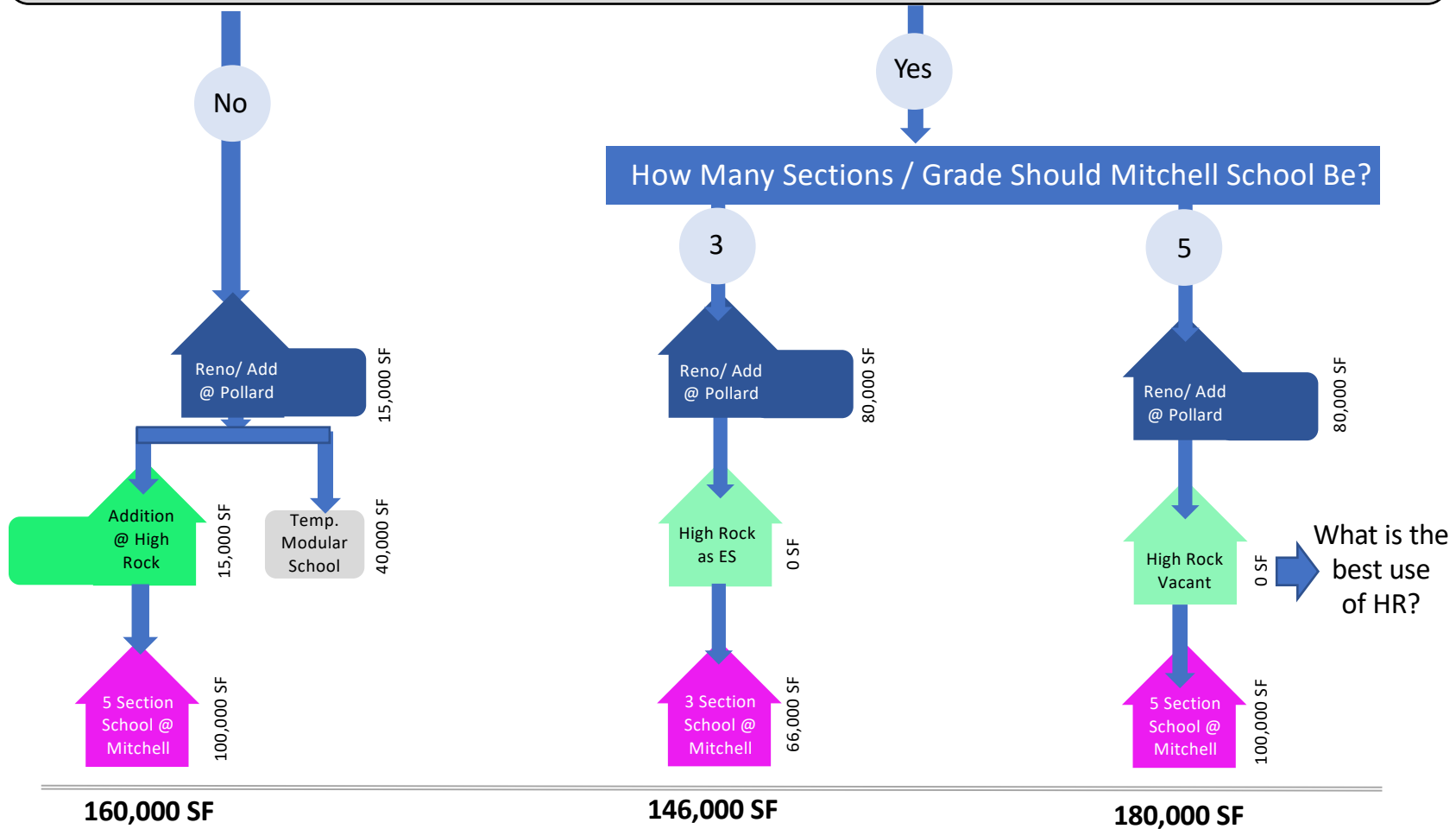
MASTER PLAN
 Total Duration: 70 months
 Total Cost: \$ 287.1 M
 CIP: \$ 1.5 M

High Rock as ES Grade 6 at Pollard Scenario



MASTER PLAN
 Total Duration: 70 months
 Total Cost: \$ 251.9 M
 CIP: \$ 1.5 M

Should Grade 6 be part of the 7th & 8th Grade School?



Solving the Problem

Next Steps

- School Committee Public Hearing 10/6/20
- Issue Final Report
- Town to begin conversations with MSBA



NEEDHAM SCHOOL MASTER PLAN

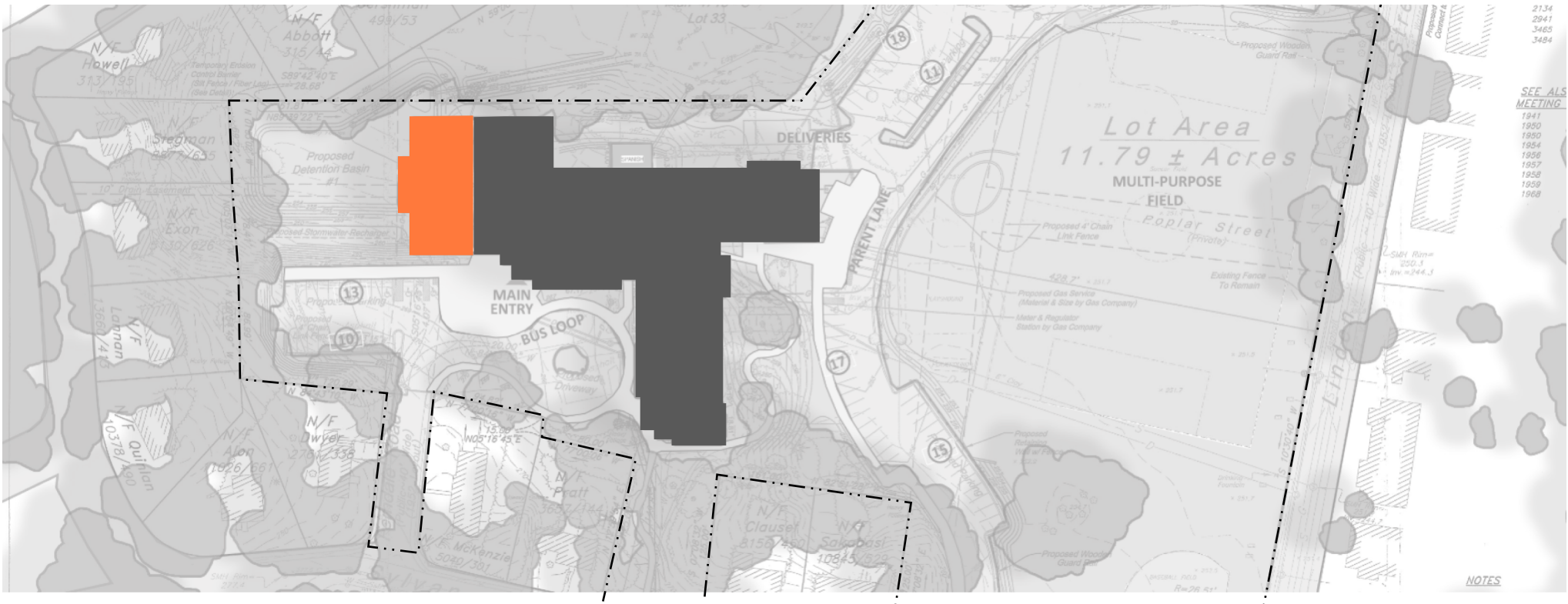
Project Update

School Committee 9/15/2020

Addition @ High Rock

6th Grade Only

- 15,000 GSF
- 2 Stories
- Occupied, Phased Construction



2134
2941
3465
3494

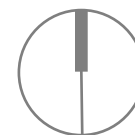
SEE ALSO MEETING

1941
1950
1950
1954
1956
1957
1958
1959
1968

- Addition Placed over existing Detention Basin
- Results in some windowless classrooms
- Construction adjacent to occupied space is a challenge
- Construction logistics are a challenge

High Rock School, Proposed Site Plan

- 10 Classroom Addition, Two Stories
- Grades 6th



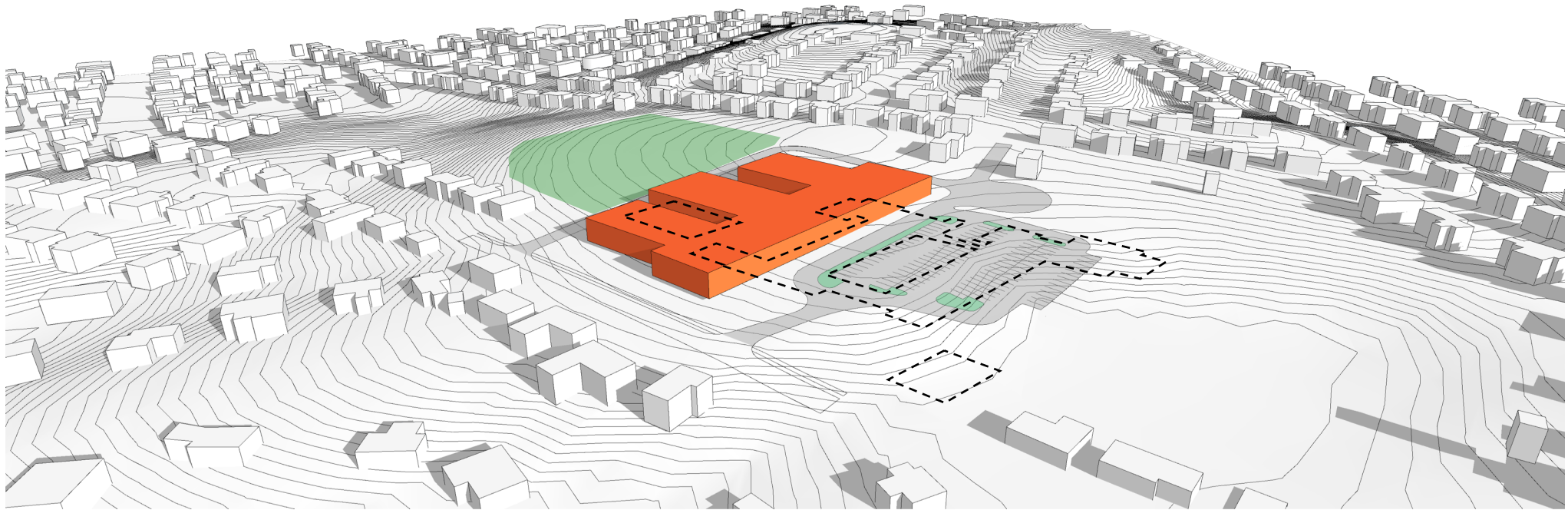
- Existing Buildings
- New 15,000 GSF Addition

NOTES

New Mitchell Elementary School

5 Sections/Grade

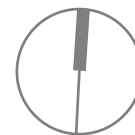
- 120,000 GSF
- 2 Stories





- No phasing required if Students are off-site during construction
- Existing fields are retained
- Construction logistics manageable

Mitchell ES, Proposed Site Plan

- 4 Sections Per Grade, Two Stories
- Grades K-5th

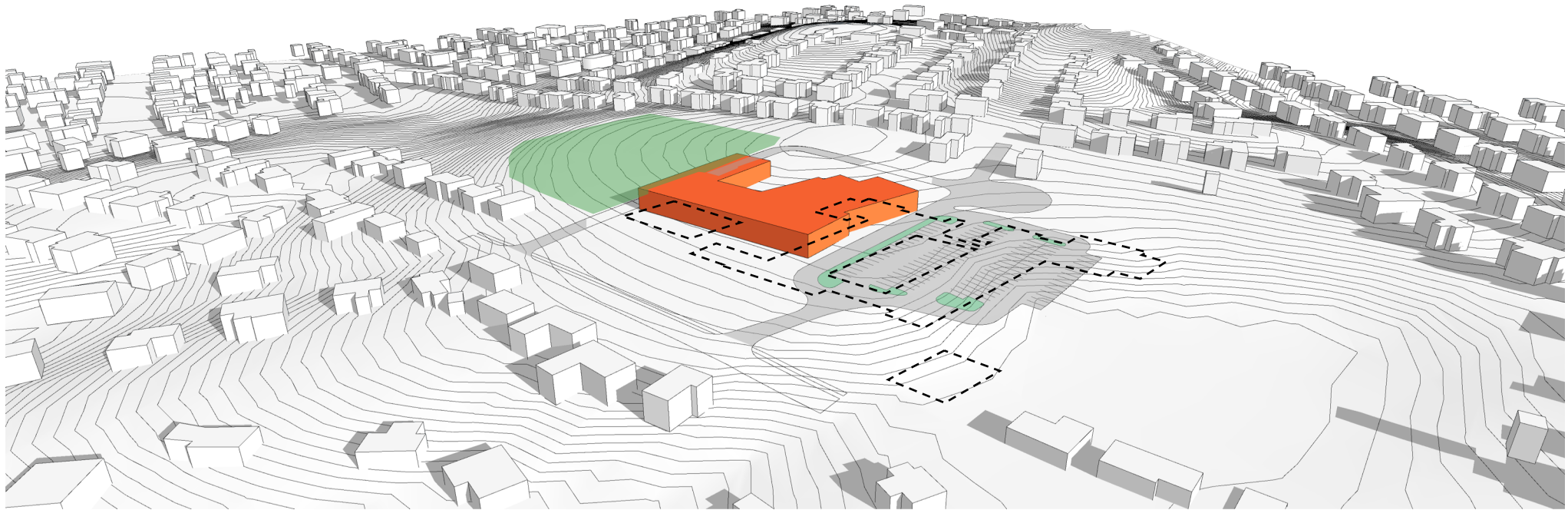


-  New 90,000 GSF Building
-  Modified Playfield

New Mitchell Elementary School

3 Sections/ Grade

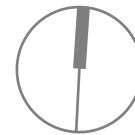
- 80,000 GSF
- 2 Stories





- No phasing required if Students are off-site during construction
- Existing fields are retained
- Construction logistics manageable
- More open space and less architectural impact to neighbors

Mitchell ES, Proposed Site Plan

- 3 Sections Per Grade, Two Stories
- Grades K-5th

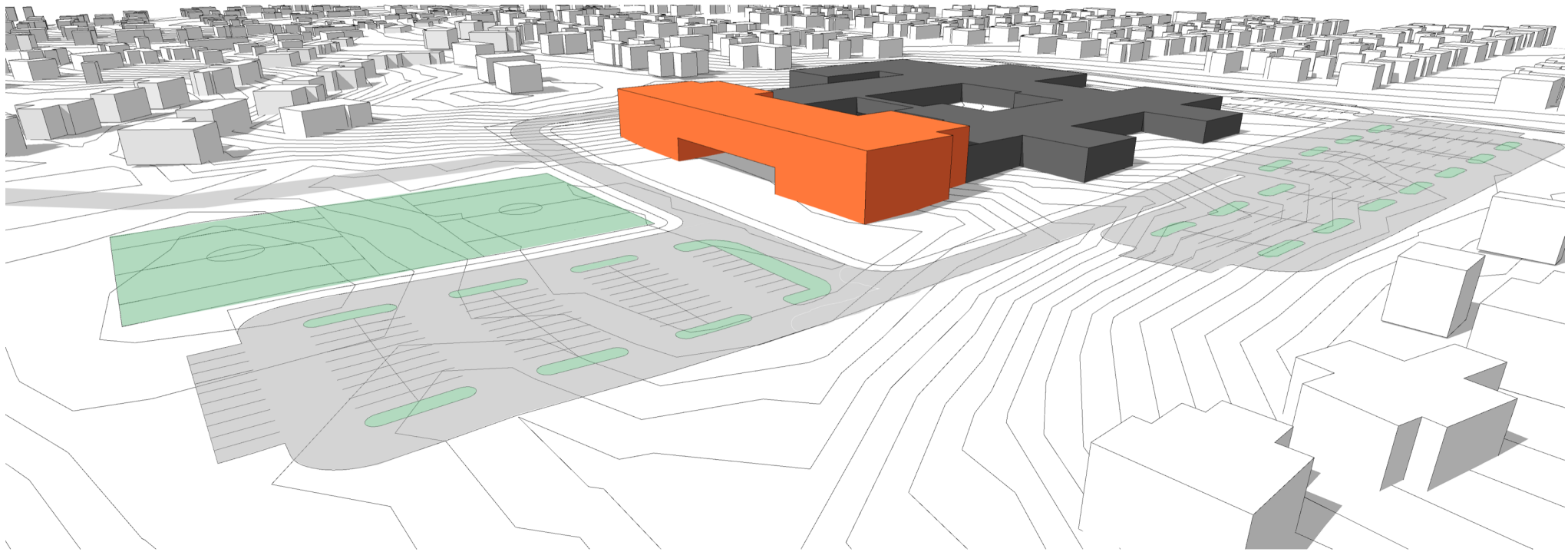


-  New 80,000 GSF Building
-  Modified Playfield

Addition/Reno to Pollard MS

6th-8th Grade (1,432 Students)

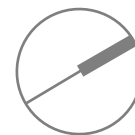
- 35 Teaching Stations
- 60,000 GSF Addition
- 2+ Stories
- Occupied, Phased Construction



- Requires removal of modular classrooms during construction. Swing space?
- Construction adjacent to occupied space is a challenge.
- Construction logistics more manageable.
- Results in loss of softball field and tennis courts.
- Concerns about increased traffic in neighborhood.

Pollard MS, Addition/ Renovation

- 1,432 Students
- Grades 6th-8th



- Existing Building to Remain
- New 80,000 GSF Addition
- Replicated Playfield