

Somerville High School



Symmes Maini & McKee
Associates


SMMA

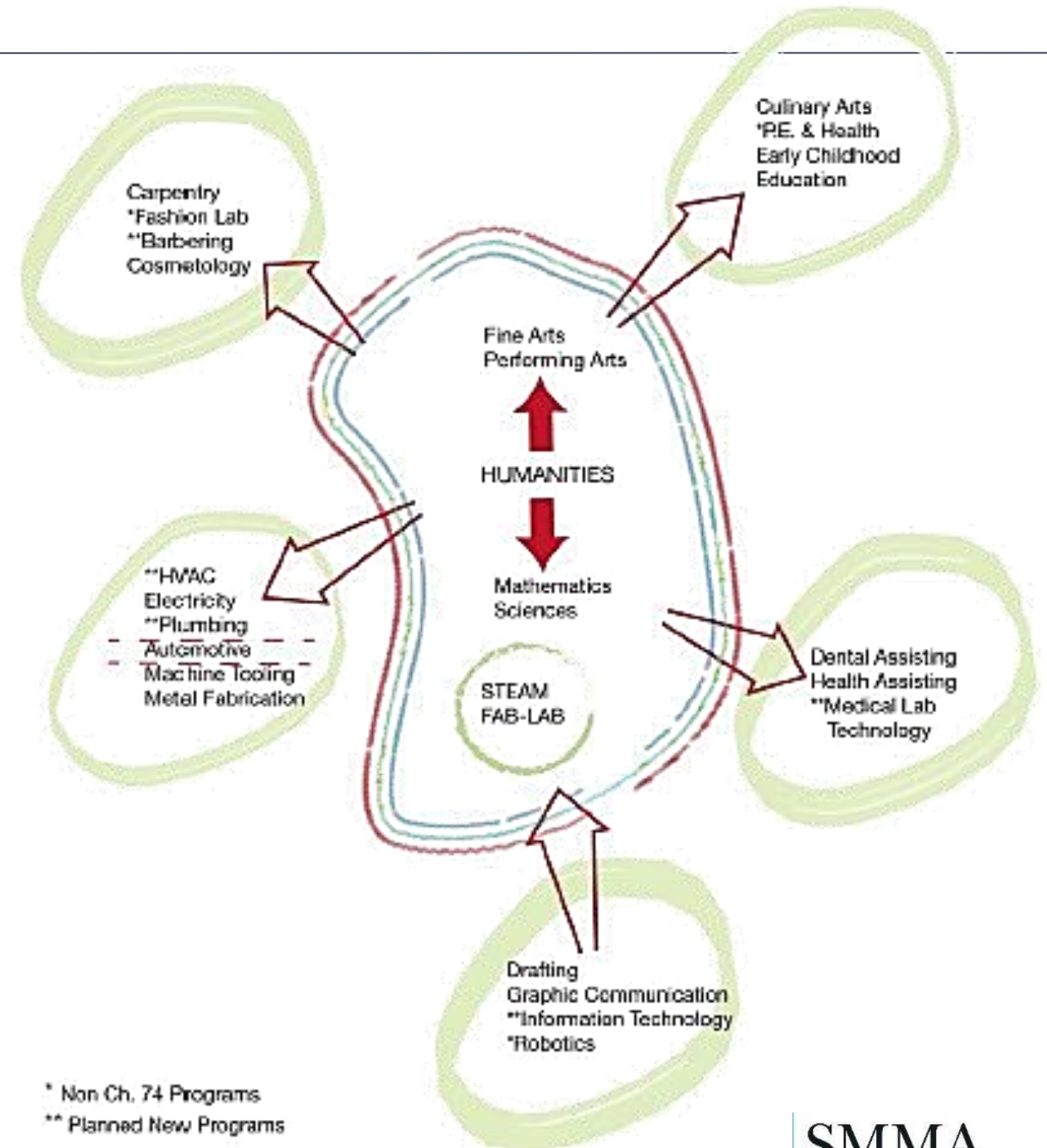
March 14, 2016

PDP/PSR Alternatives Criteria and Preferred Schematic Design Selection Planning

An aerial, isometric illustration of a city street scene. The scene features a central street with several cars, including a red truck and a yellow car. On the left side of the street, there is a large, multi-story building with a prominent clock tower. To the right of the street, there is a large, open green space with several trees. In the background, there are more buildings and a grid of streets. The overall style is a clean, modern illustration with a blue and green color palette.

EDUCATIONAL PROGRAM DIAGRAM

- 2.11 Performing Arts Programs
- 2.12 Physical Education Programs
- 2.13 Special Education Programs
- 2.14 Vocations and Technology Programs
- 2.15 Narrative description of the types of educational activities. 
- 2.16 Transportation Policies
- 2.17 Functional and Spatial Relationships
- 2.18 Security and Visual Access Requirements



6.6 Construction Alternates



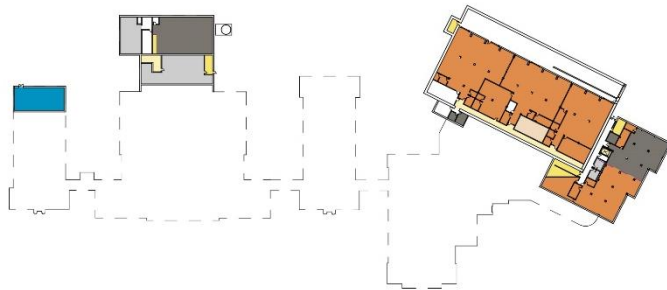
PROGRAM PLAN LEGEND

ADMINISTRATION / GUIDANCE / STUDENT SERVICES / NURSE	HEALTH & FITNESS
BUILDING EQUIPMENT	KITCHEN / SERVERY
CAFETERIA & CIRCULATION	PHYSICAL EDUCATION & SPORT SUPPORT
CHAPTER 74	SPECIAL EDUCATION
CLASSROOM & GENERAL EDUCATION SUPPORT	VERTICAL CIRCULATION
COMMUNITY USE	VOCATIONAL & TECHNOLOGY
CUSTODIAL / MAINTENANCE / STORAGE	

1

LEVEL 1

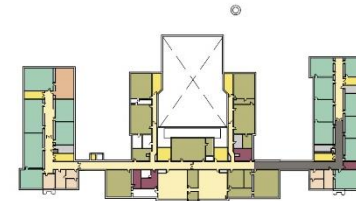
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L

LOWER LEVEL PLAN

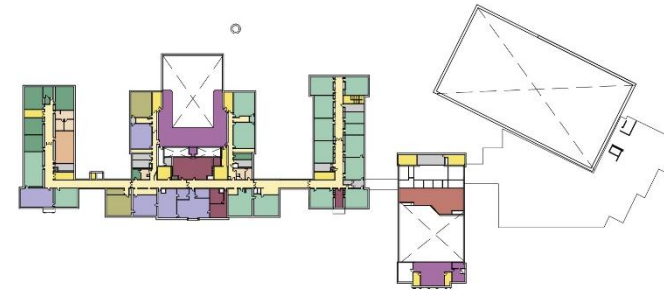
SCALE: 1" = 160'-0"



4

LEVEL 4

SCALE: 1" = 160'-0"



3

LEVEL 3

SCALE: 1" = 160'-0"



2

LEVEL 2

SCALE: 1" = 160'-0"

Alt 0 & 1

Alternative 0 – Code Upgrade & Repair Only

Alternative 1 – Full Gut Renovation, No New Additions

Both Alternatives Involve Phased Construction



Alternate 0



PROS

- Cost
- Duration

CONS

- The completed construction would not accommodate the current or future curriculum.
- No space or flexibility is provided for the projected growth in student population.

Alternate 1



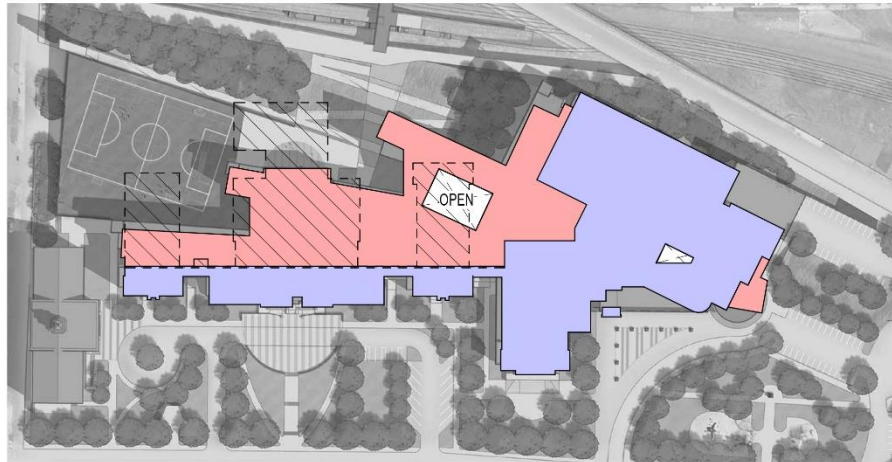
PROS

- Cost
- Completely renewed school with modern & functional systems
- Potential for improved energy conservation and lower operating costs
- Some response to current educational programming needs

CONS

- Neither current nor future curriculum are fully accommodated.
- Neither space nor flexibility provided for the projected growth in student population.
- Less potential for meeting community design and image goals given the ability to only refresh the existing exterior envelope.
- Complicated construction phasing
- Long construction duration
- Swing space is required
- Internal and external construction congestion

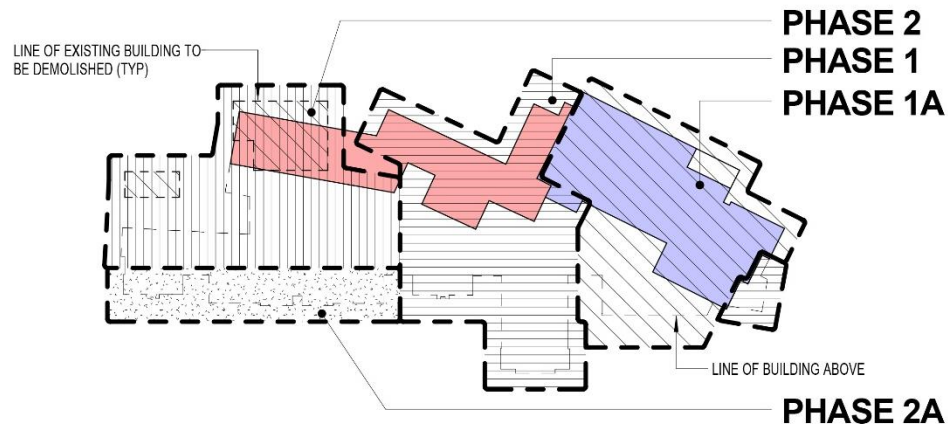
6.6 Construction Alternates



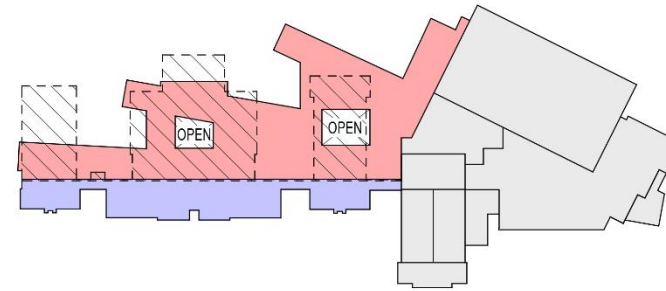
CONSTRUCTION LEGEND

ADD RENO ROOF

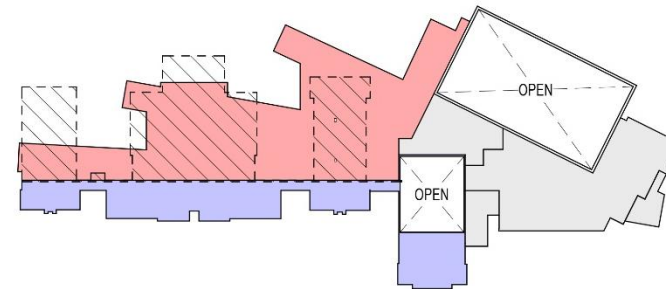
1 LEVEL 1
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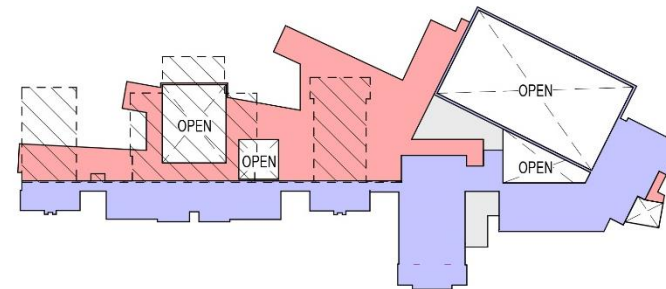
L LOWER LEVEL
SCALE: 1" = 160'-0"



4 LEVEL 4
SCALE: 1" = 160'-0"



3 LEVEL 3
SCALE: 1" = 160'-0"



2 LEVEL 2
SCALE: 1" = 160'-0"

Alt 2

Alternative 2 – Addition /
Renovation

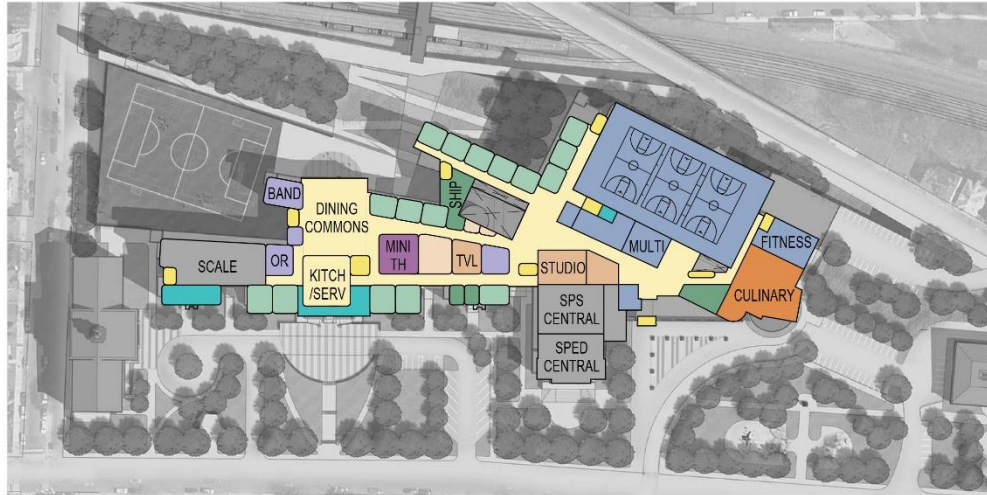
Renovate 1986 CTE
Wing & Southern
Portions of 1895/1929
Classrooms

New Auditorium &
Cafeteria

Phased Construction



6.6 Construction Alternates



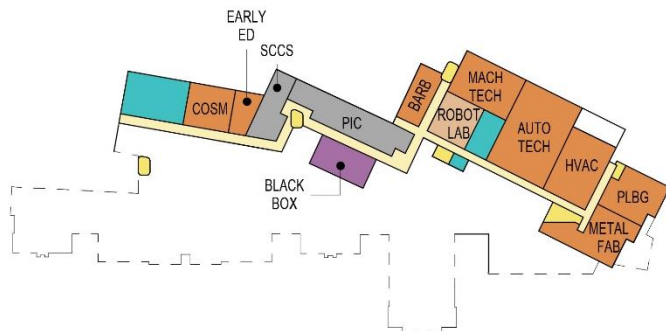
PROGRAM AREAS

ADMIN	CIRCULATION	NWFC	SPED
ARTS	CR	OFF-SITE AUXILIARY	STAIR/ELEV
AUDITORIUM/DRAMA	HEALTH/PE	ROOF	SUPPORT
CH 74	MEDIA CENTER	SCIENCE	TECH

1

LEVEL 1

SCALE: 1" = 160'-0"



L

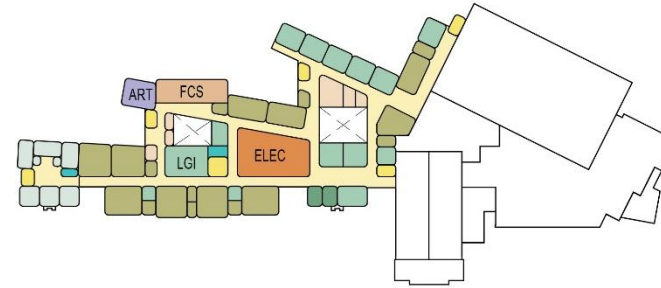
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SCALE: 1" = 160'-0"

4

LEVEL 4

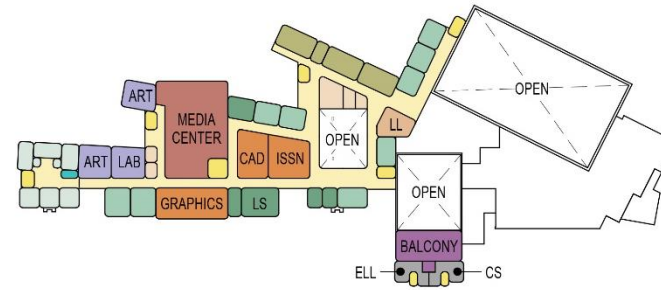
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3

LEVEL 3

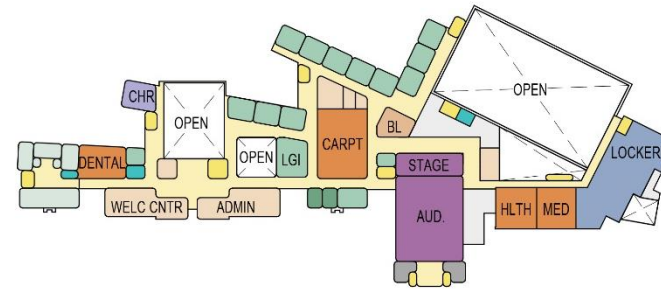
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2

LEVEL 2

SCALE: 1" = 160'-0"



Alt 2

Alternative 2 – Addition / Renovation

Renovate 1986 CTE Wing & Southern Portions of 1895/1929 Classrooms

New Auditorium & Cafeteria

Phased Construction



Alternate 2



PROS

- Completely renewed school, leveraging the most recent construction on site for renovation economy
- Potential energy conservation and lower operating costs
- Response to current educational programming needs
- Full accommodation of current and future curriculum
- Space and flexibility is provided for the projected growth in student population
- Potential for meeting community design and image goals
- Preserves the historic assets of the highest-value construction facing the main lawn.

CONS

- Third highest cost (3 of 8)
- Complicated construction phasing
- Long construction duration
- Swing space is required
- Internal and external construction congestion

6.6 Construction Alternates



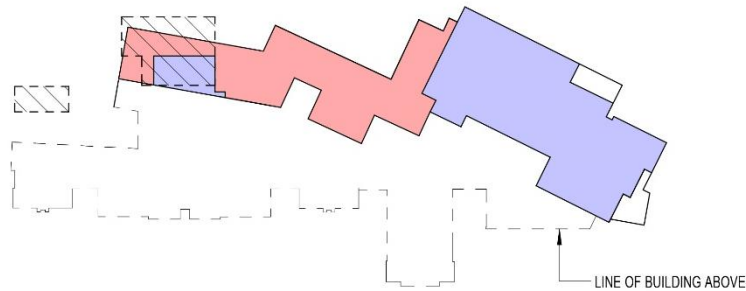
CONSTRUCTION LEGEND

ADD RENO ROOF

1

LEVEL 1

SCALE: 1" = 160'-0"



L

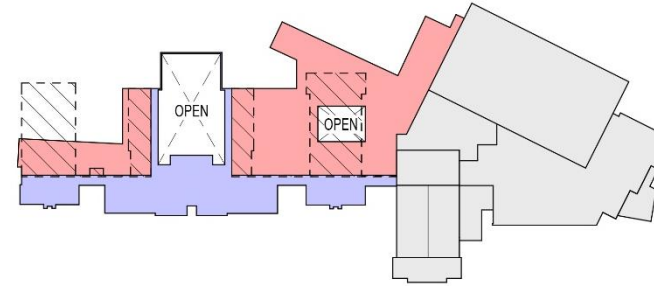
LOWER LEVEL

SCALE: 1" = 160'-0"

4

LEVEL 4

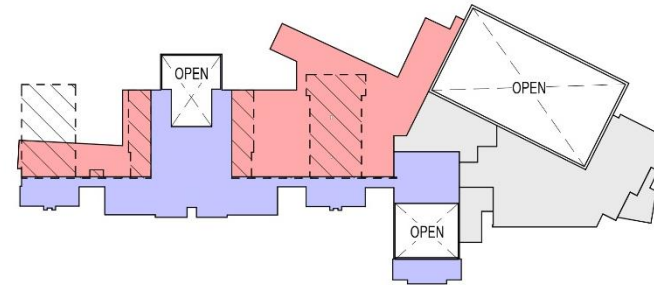
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3

LEVEL 3

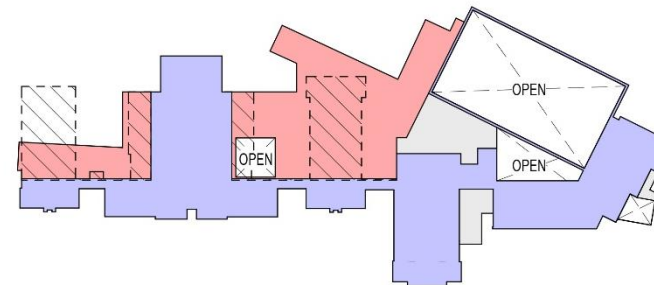
SCALE: 1" = 160'-0"



2

LEVEL 2

SCALE: 1" = 160'-0"



Alt 3

Alternative 3 – Addition / Renovation

Renovate 1986 CTE Wing & Southern Portions of 1895/1929 Classrooms

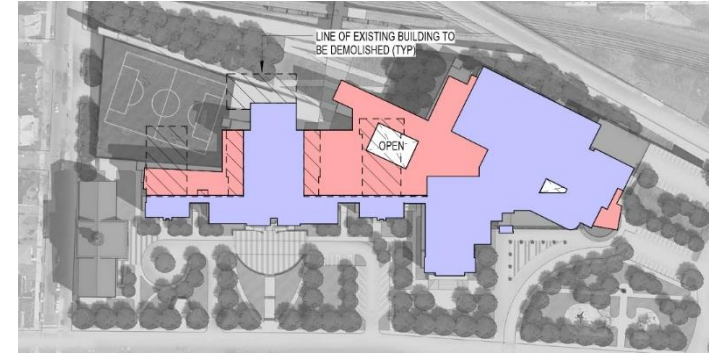
Renovate Auditorium

New Cafeteria

Phased Construction



Alternate 3



PROS

- Completely renewed school, leveraging the most recent construction on site for renovation economy
- Potential for energy conservation and lower operating costs
- Response to current educational programming needs
- Full accommodation of current and future curriculum
- Space and flexibility is provided for the projected growth in student population
- Potential for meeting community design and image goals
- Preserves the historic assets of the highest-value construction facing the main lawn

CONS

- Cost
- Complicated construction phasing
- Long construction duration
- Swing space is required
- Internal and external construction congestion

6.6 Construction Alternates



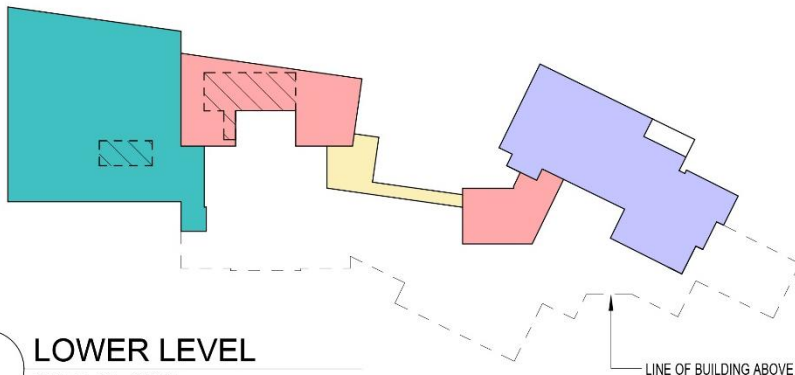
CONSTRUCTION LEGEND

ADD FIELD MAIN STREET PARKING RENO ROOF

1

LEVEL 1

SCALE: 1" = 160'-0"



5

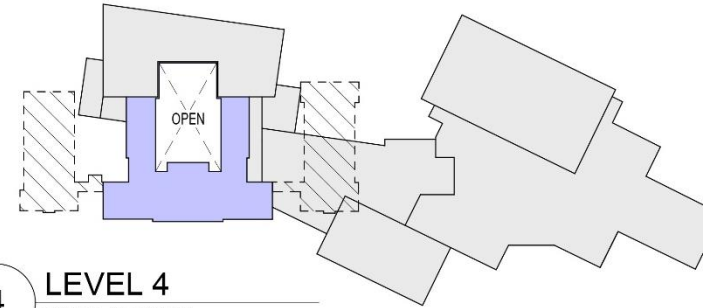
LOWER LEVEL

SCALE: 1" = 160'-0"

4

LEVEL 4

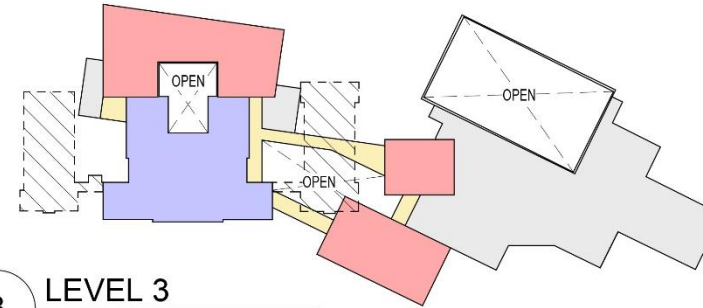
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3

LEVEL 3

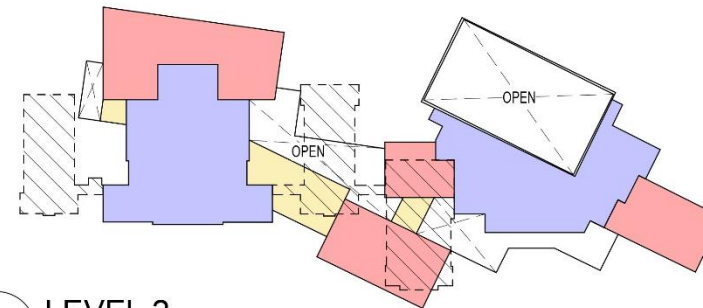
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2

LEVEL 2

SCALE: 1" = 160'-0"



Alt 4

Alternative 4 – Addition / Renovation

Concourse Approach

Enclosed / Open Central Circulation and Activity Space – Incorporates Cafeteria

Renovate 1986 CTE Wing & 1895/1929 B Wing

Renovate Auditorium

Phased Construction



Alternate 4



PROS

- Completely renewed school, leveraging the most recent construction on site for renovation economy
- Potential for energy conservation and lower operating costs
- Response to current educational programming needs
- Full accommodation of current and future curriculum
- Space and flexibility is provided for the projected growth in student population
- Potential for meeting community design and image goals

CONS

- Cost
- Complicated construction phasing
- Long construction duration
- Swing space is required
- Internal and external construction congestion

6.6 Construction Alternates



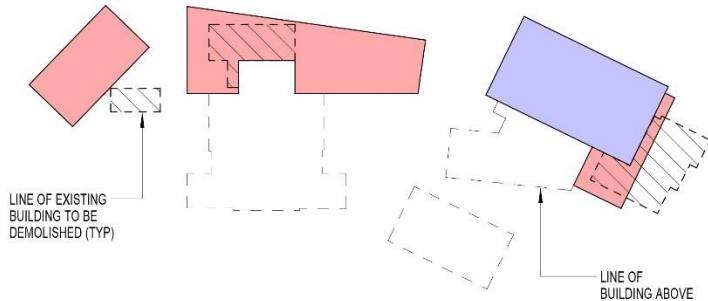
CONSTRUCTION LEGEND

ADD FIELD RENO ROOF

1

LEVEL 1

SCALE: 1" = 160'-0"



L

LOWER LEVEL

SCALE: 1" = 160'-0"

4

LEVEL 4

SCALE: 1" = 160'-0"

3

LEVEL 3

SCALE: 1" = 160'-0"

2

LEVEL 2

SCALE: 1" = 160'-0"

Alt 4a

Alternative 4a – Addition
/ Renovation

Campus Approach

Renovate 1986
Gymnasium & 1895
Building

Renovate Auditorium

New Cafeteria

New Disconnected
Buildings

Phased Construction



Alternate 4a



PROS

- Completely renewed school.
- Potential for energy conservation and lower operating costs
- Response to current educational programming needs
- Full accommodation of current and future curriculum
- Space and flexibility is provided for the projected growth in student population
- Potential for meeting community design and image goals
- Greater ability to isolate operations of individual buildings for improved security and energy consumption during after-hours use.

CONS

- Cost
- Complicated construction phasing
- Long construction duration
- Swing space is required
- Internal and external construction congestion
- Maintaining a secure campus is more complicated due to multiple buildings and multiple entry points.
- Increased grossing requirements associated with multiple buildings to account for additional stairs, elevators, toilet rooms and similar support services.
- Disconnected buildings compromise day-to-day operations of the school, with the potential to reinforce curriculum separation, rather than unification.

6.6 Construction Alternates



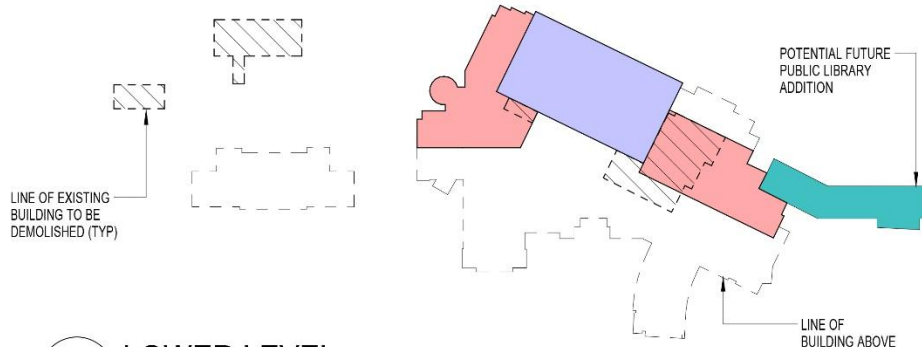
POTENTIAL FUTURE RE-USE OF
1895 STRUCTURE FOR CITY
OFFICES (TYP. FOR FOUR FLOORS)

CONSTRUCTION LEGEND

ADD FIELD FUTURE RENO ROOF

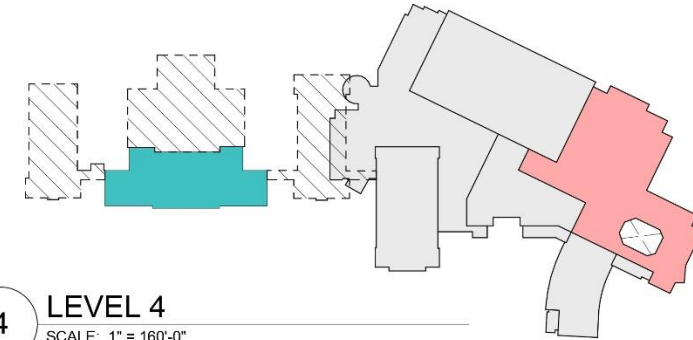
1 LEVEL 1

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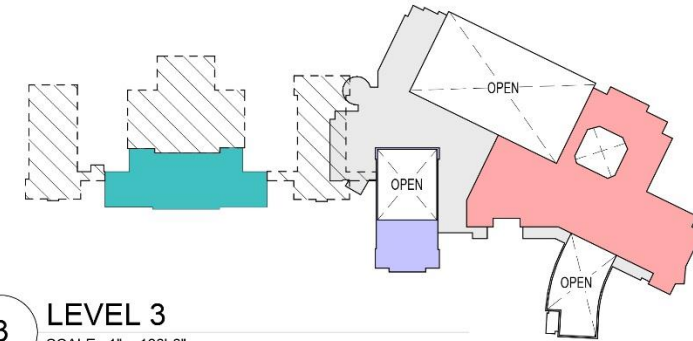
L LOWER LEVEL

SCALE: 1" = 160'-0"



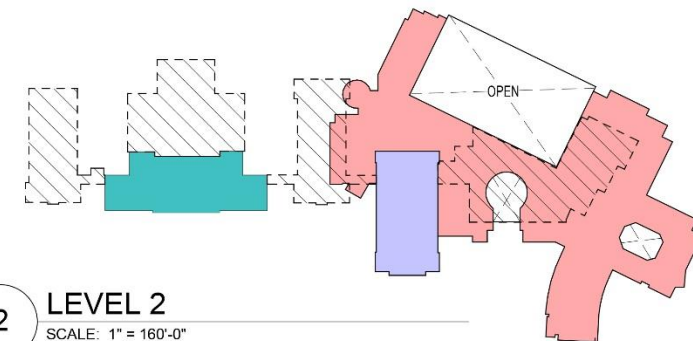
4 LEVEL 4

SCALE: 1" = 160'-0"



3 LEVEL 3

SCALE: 1" = 160'-0"



2 LEVEL 2

SCALE: 1" = 160'-0"

Alt 4b

Alternative 4b – Addition
/ Renovation

Build HS to East Site

Enclosed / Open Central
Circulation and Activity
Space – Incorporates
Cafeteria

Renovate 1986 Field
House & CTE Spaces
below Wing & D Wing
(1929 War Memorial)

Phased Construction



Alternate 4b



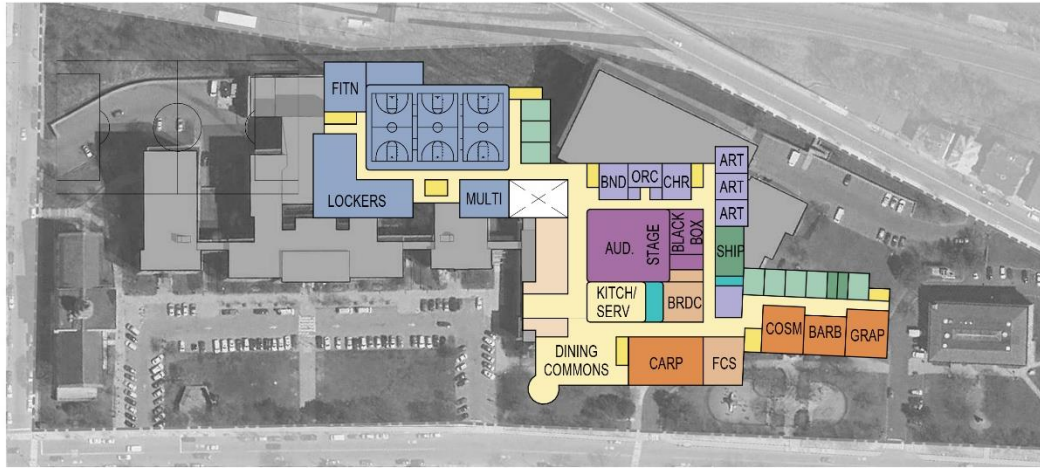
PROS

- Completely renewed school.
- Potential for energy conservation and lower operating costs
- Response to current educational programming needs
- Full accommodation of current and future curriculum
- Space and flexibility is provided for the projected growth in student population
- Potential for meeting community design and image goals
- Simplified phasing approach by building new addition on a relatively open portion of the site.
- Allows for a potential future addition connection to the Somerville Public Library Main Branch building

CONS

- Cost
- Long construction duration
- Swing space is required for the heavy vocational shops given the extent of proposed construction in the E Wing.
- External construction congestion

6.6 Construction Alternates

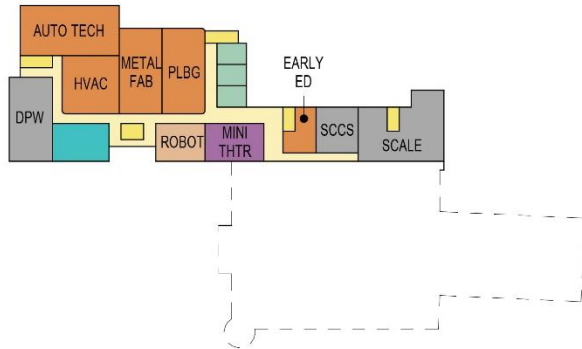


PROGRAM AREAS

ADMIN	CH 74	HEALTH/PE	OFF-SITE AUXILIARY	STAIR/ELEV
ARTS	CIRCULATION	MEDIA CENTER	SCIENCE	SUPPORT
AUDITORIUM/DRAMA	CR	NWFC	SPED	TECH

1 LEVEL 1

SCALE: 1" = 160'-0"

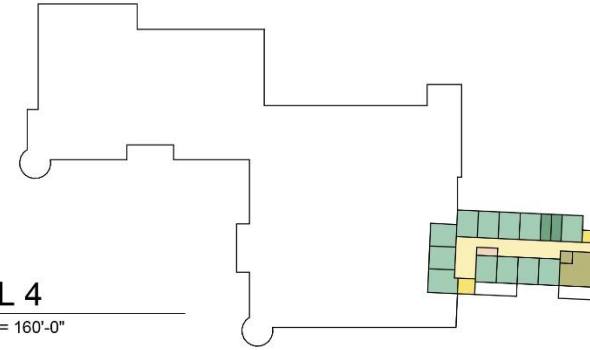


L LOWER LEVEL

SCALE: 1" = 160'-0"

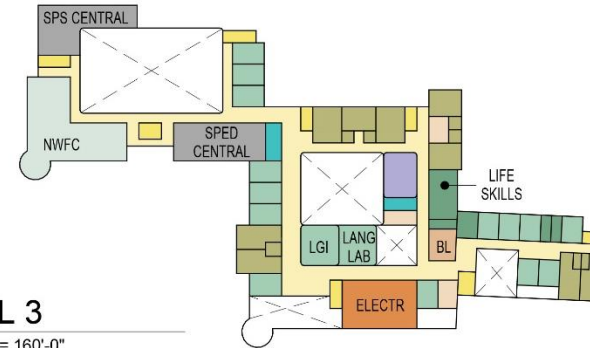
4 LEVEL 4

SCALE: 1" = 160'-0"



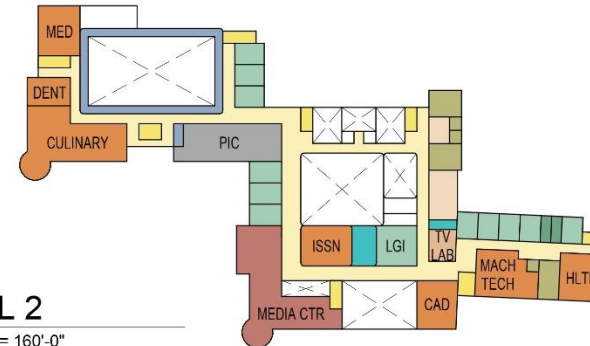
3 LEVEL 3

SCALE: 1" = 160'-0"



2 LEVEL 2

SCALE: 1" = 160'-0"



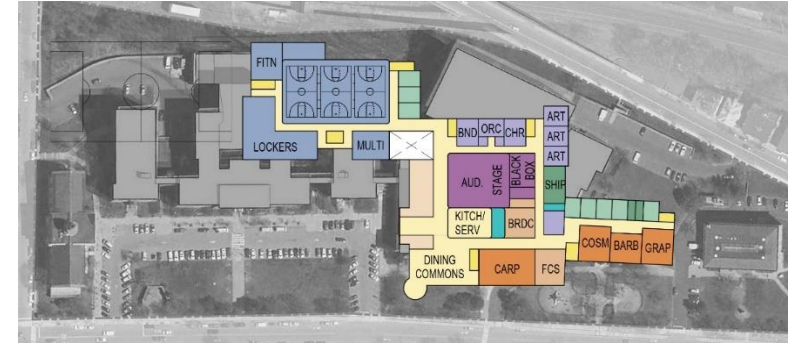
Alt 5

Alternative 5 – New Construction

Demolish Existing High School and Build Completely New on the Existing High School Site
Phased Construction



Alternate 5



PROS

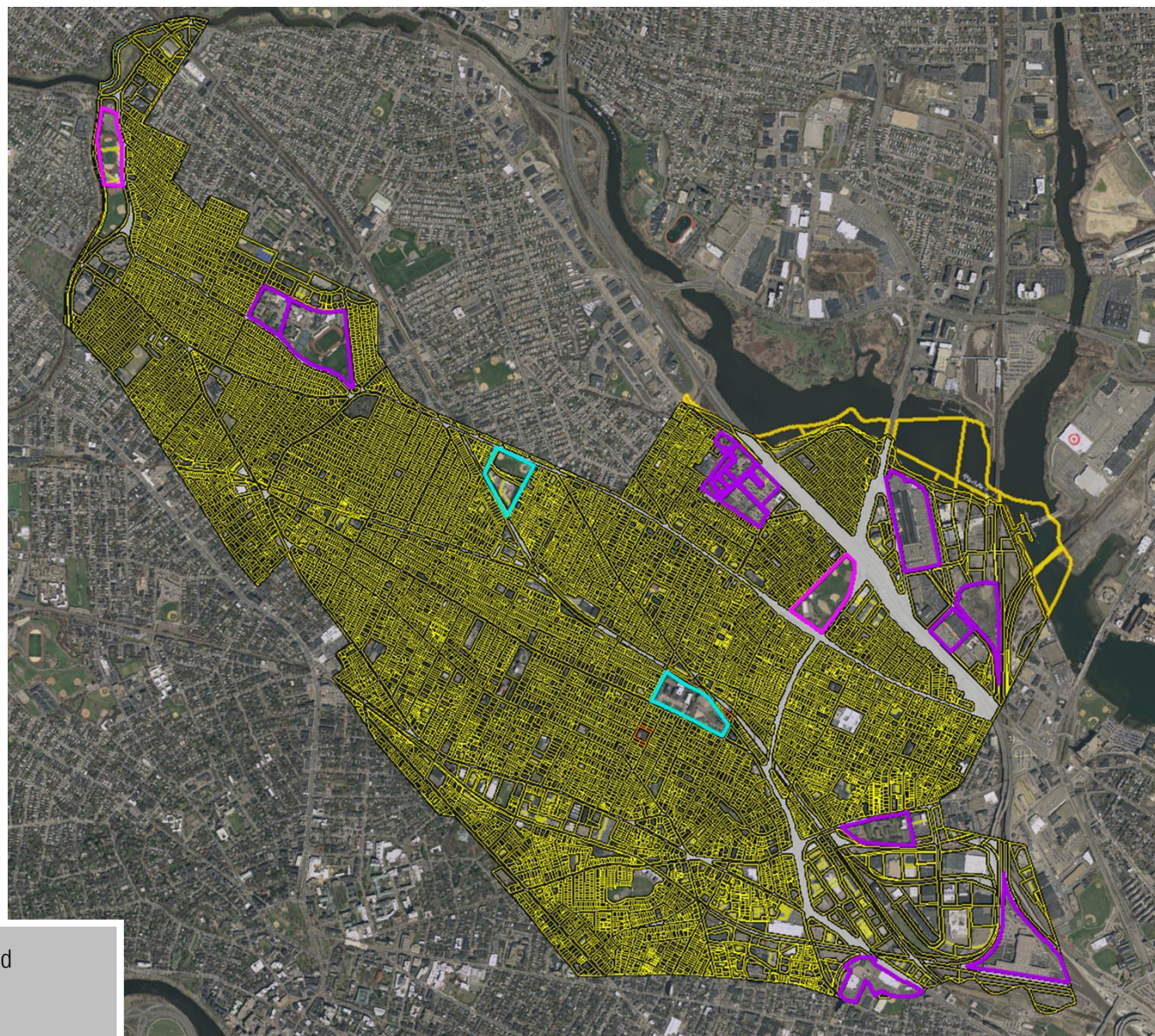
- Completely new school
- Simplified construction
- Greatest potential energy conservation and lowest operating cost
- Response to current educational programming needs
- Full accommodation of current and future curriculum
- Space and flexibility is provided for the projected growth in student population
- Potential for meeting community design and image goals

CONS

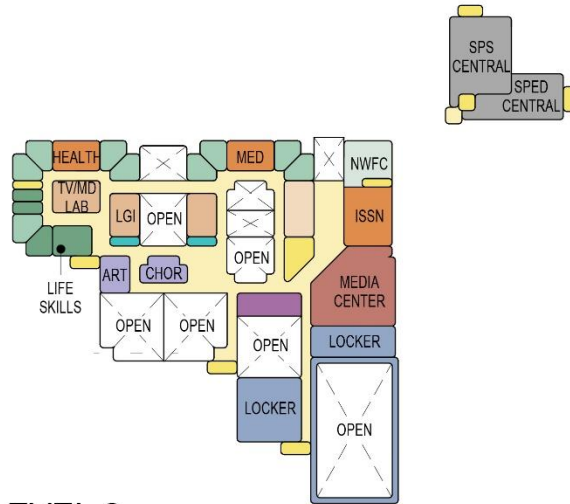
- Cost
- Complicated construction phasing
- Long construction duration
- Swing space is required
- External construction congestion
- No indoor track program given the new, smaller gymnasium size.

City of Somerville: Parcels Greater Than 10 Acres

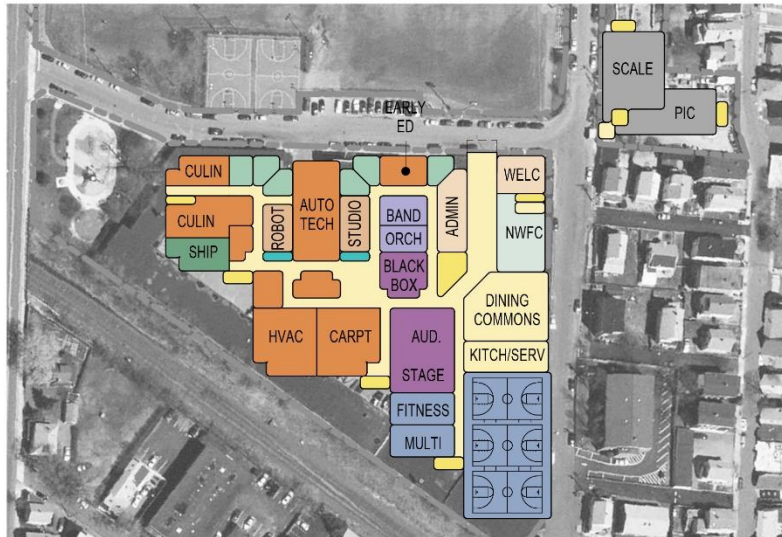
- Commonwealth Owned
- Privately Owned
- City Owned



6.6 Construction Alternates



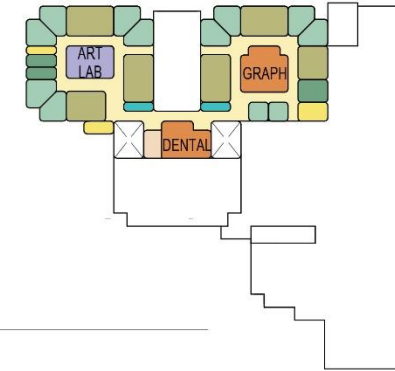
2 LEVEL 2
SCALE: 1" = 160'-0"



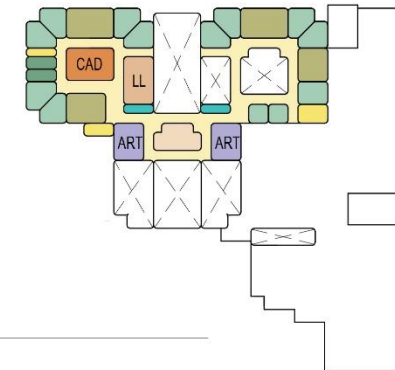
1 LEVEL 1
SCALE: 1" = 160'-0"

PROGRAM AREAS

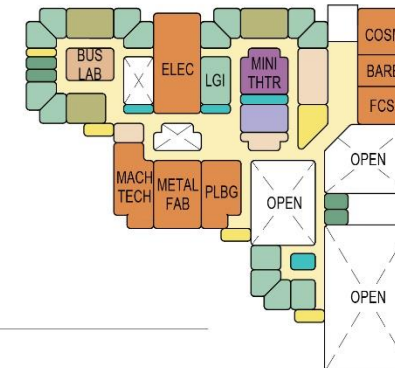
- ADMIN
- ARTS
- AUDITORIUM/DRAMA
- CH 74
- CIRCULATION
- CR
- HEALTH/PE
- MEDIA CENTER
- NWFC
- OFF-SITE AUXILIARY
- SCIENCE
- SPED
- STAIR/ELEV
- SUPPORT
- TECH



5 LEVEL 5
SCALE: 1" = 160'-0"



4 LEVEL 4
SCALE: 1" = 160'-0"



3 LEVEL 3
SCALE: 1" = 160'-0"

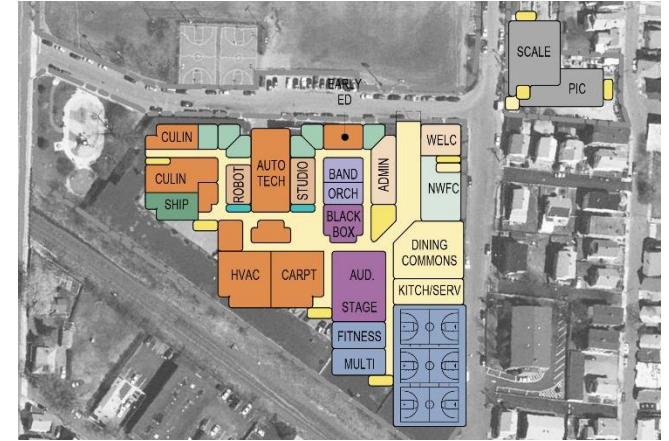
Alt 6

Alternative 6 – New Construction

Demolish DPW Structures and Build New at Franey Road Site



Alternate 6



PROS

- Completely new school
- Greatest potential energy conservation and lowest operating cost
- Response to current educational programming needs
- Full accommodation of current and future curriculum
- Space and flexibility is provided for the projected growth in student population
- Potential for meeting community design and image goals
- No swing space is required

CONS

- Cost
- Complicated construction involving underground parking garage below the entire footprint of the school
- Longest overall project schedule
- External construction congestion
- No indoor track program given the new, smaller gymnasium size



Thank you!

Building History of Construction

