Preferred Schematic Report

Lawrence Oliver Partnership Elementary School

183 Haverhill Street, Lawrence, MA

May 13, 2020

SMMA No. 19033.00

SMMA

SMMA

Preferred Schematic Report

Lawrence
Oliver Partnership
Elementary School
183 Haverhill Street, Lawrence MA

SMMA
1000 Massachusetts Avenue
Cambridge, MA 02138
www.smma.com

Table of Contents

Introduction

1.1 Overview of the Process Since PDP Submission

The existing Oliver Partnership School is located at 183 Haverhill Street, Lawrence, MA. The PDP identified 7 potential alternatives for the District. Alternate 2 was deemed undesirable because it would not provide the additional space currently needed by the school if it were to remain at grades 1-5. Alternate 6 was ruled out because full demolition of a historically significant building was undesirable by the City.

Since the PDP, Alternates 1, 3, 4, 4a, 5, and 7 were studied further. The investigations primarily focused on the Stone Mill and Gateway site because in the PDP, site contamination was identified on these two sites and further clarification was needed to help guide a more accurate project cost estimate.

Five alternatives were prepared for the committee's review and consideration. The alternatives included one Repair, three Renovation and Addition alternatives and one all New Construction plans on three sites.

Sites

Options	Oliver Partnership	Stone Mill	Gateway Parking	Population
	1.33 Acres* **0.97 Acres buildable**	**3.90 Acres *** **3.80 Acres buildable**	**2.25 Acres** **1.80 Acres buildable**	
1	**Code Upgrade Only** Existing GSF 81,791	No Change	No Change	375 Students
3	**Renovation & Addition** Approx. GSF 89,238	No Change	No Change	500 Students
4	**Renovation & Addition** Approx. GSF 158,247	No Change	No Change	736 Students
4a	**Renovation & Addition** Approx. GSF 159,986	No Change	No Change	1000 Students
5	Close/Reuse	**Renovation & Addition** 1000 Students Approx. GSF 180,424	No Change	1000 Students
7	Close/Reuse	No Change	**New Construction** Approx. GSF 172,211	1000 Students

* Additions may increase due to the existing building inefficiencies, additional SPED space, or unique site conditions

The committee performed a full evaluation of all these alternatives, significant discussion surrounded the desire to move to a K-8 grade configuration and in doing so the limited opportunities the existing Oliver Partnership site due to the nature of the smaller site occupied by a building listed on the State Register of Historic Places. However, the Stone Mill site and building were found to be too costly for the City and the existing site conditions were of concern.

Through this extensive and carefully considered process the OESBC and City of Lawrence have all unanimously endorsed Option 4a – Add/Reno Oliver Site as the Preferred Schematic plan.

A Project Notification form was submitted to Massachusetts Historic Commission (MHC) on November 25, 2019 that included both the Stone Mill Add/Reno and the Oliver Partnership Add/Reno and a response was received on December 23, 2019.

1.2 Summary of Updated Project Schedule

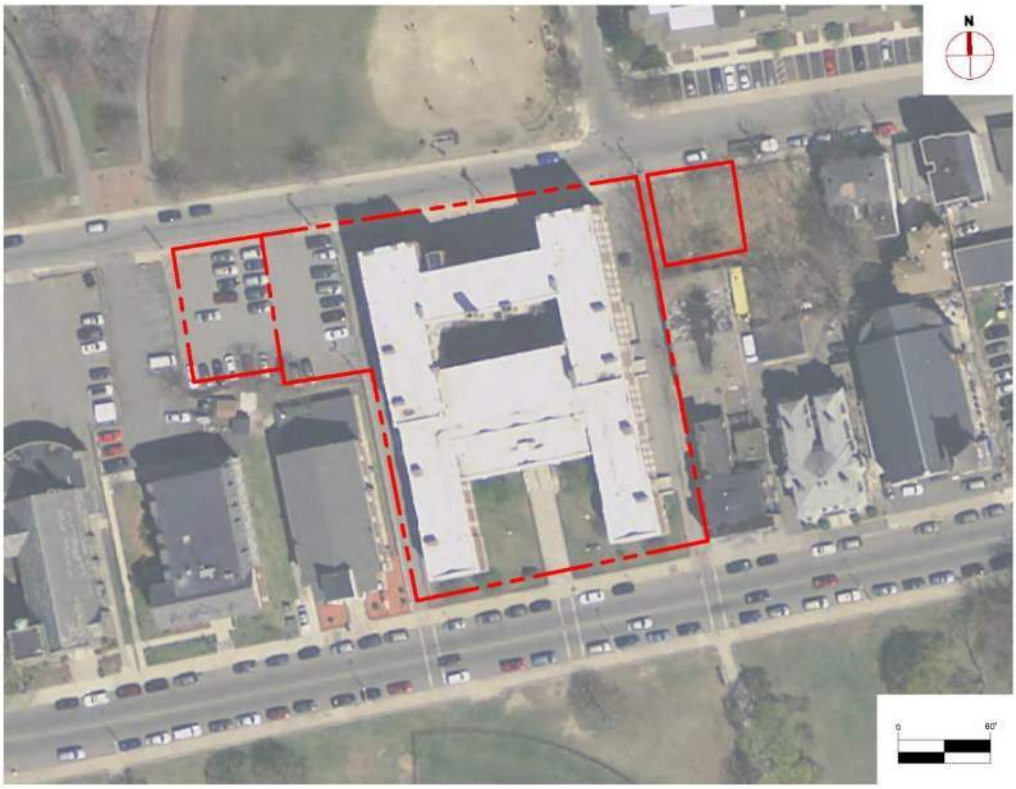
An updated project schedule is included at the end of this section. In summary:

- The current project schedule anticipates submission of the Project Scope and Budget Agreement for approval at the February 2021 MSBA Board of Directors Meeting.
- The project team will be providing updates to the City Council and anticipates City Council vote to approve the Project Scope and Budget Agreement in early March 2021.
- Design phases are expected to continue through early May 2022 at which point bidding will occur.
- Construction is anticipated to begin late June of 2022 once school has released for the summer, with potential for early bid package construction.
- Substantial Completion is currently anticipated for June 2024 followed by move-in for Fall 2024 occupancy.
- Full MSBA Project Completion is expected to occur Summer 2025

1.3 Summary of Final Evaluations of Existing Conditions

The existing conditions information developed for the PDP included detailed examinations of the existing school buildings and site for both the Oliver Partnership School and Stone Mill Building. Refer to Sections 4 of the PDP for a detailed existing condition analysis.

Following the submission of the PDP, a series of site reports were generated for the Stone Mill / Gateway Sites and the Oliver Site. These include a Geotech report, a Traffic Impact Study, a Phase 1 Environmental Site Assessment, and an Existing Conditions Survey for the Stone Mill site. Due to unanticipated COVID shutdowns however, the Phase 1 and Traffic Study have not yet been completed for the Oliver site. These will be delivered with the Schematic Design Report; all other investigations for the Oliver site have been included with this report.



Aerial of School and Adjacent City owned properties

1.4 Summary of Final Evaluation of Alternatives

Alternative 1 – Code Upgrade to Oliver Partnership School
375 Students Grades 1-5

The base repair and code upgrade alternative with no modification of existing spaces or their function does not address the current undersized spaces, nor does it meet the educational program. The existing building is approximately 81,791 gsf making it below the MSBA suggest size of 90,588 gsf. Beyond the overall shortage in gross square footage, all the spaces within the building are sized well below MSBA standards. This option will require significant ADA upgrades to the building and site. Due to the age of most of the Mechanical Systems in the building, they will need to be replaced, and a Dedicate Outdoor Air System (DOAS) would also need to be added. These mechanical upgrades will require upgrades to the Electrical Supply.

This alternative was considered unsupportable in the District since it does not provide the additional space the school currently lacks, nor does it align with the district's goal of a K-8 school and does not support the target enrollment.

Alternative 3 – Renovation/Addition to Oliver Partnership School
500 Students Grades 1-5

Alternative 3 proposes keeping grades 1-5 on the Oliver Partnership School site without introducing Kindergarten or grades 6, 7, and 8 to the program. A compacity of 500 students has been established for this scenario. The front of the building will be retained for historic preservation and a 5-story addition will replace the back of the building. Temporary swing Space would be required for the entirety of the project.

Significant site improvements would be required to make the main entrance ADA accessible. This Alternate assumes complete replaced of all building systems.

This alternative was considered unsupportable in the District since it does not align with the district's goal of a K-8 school.

Alternative 3 Renovation & Addition Oliver Partnership School 736 Students Grades 1-8

Alternative 4 – Renovation/Addition to Oliver Partnership School
736 Students Grades 1-8

Alternative 4 proposes grades 1-8 on the Oliver Partnership School with a population of 736 students. As in alternative 3, the front of the building will be retained for historic preservation and a 5-story addition will replace the back of the building. This alternative will also take advantage of more of the surrounding site. Temporary swing Space would be required for the entirety of the project.

This alternative was considered unsupportable in the District since it does not align with the district's goal of a 1000 student K-8 school.

Alternative 4a Renovation & Addition Oliver Partnership School 1000 Students Grades K-8

Alternative 4a – Renovation/Addition to Oliver Partnership School
1000 Students Grades K-8

Alternate 4a proposes grades K-8 on the Oliver Partnership School with a population of 1000 students. As in Alternate 4, the front of the building will be retained for historic preservation and a 4-story addition with additional lower and a basement levels will replace the back of the building. This alternate will also take advantage of more of the surrounding site. Temporary swing Space would be required for the entirety of the project.

This alternative was considered the preferred schematic by the District because it supports the district's goal of a 1000 student K-8 school and is property that is currently under the City's control after the consolidation of several independent but adjoined parcels occurs.

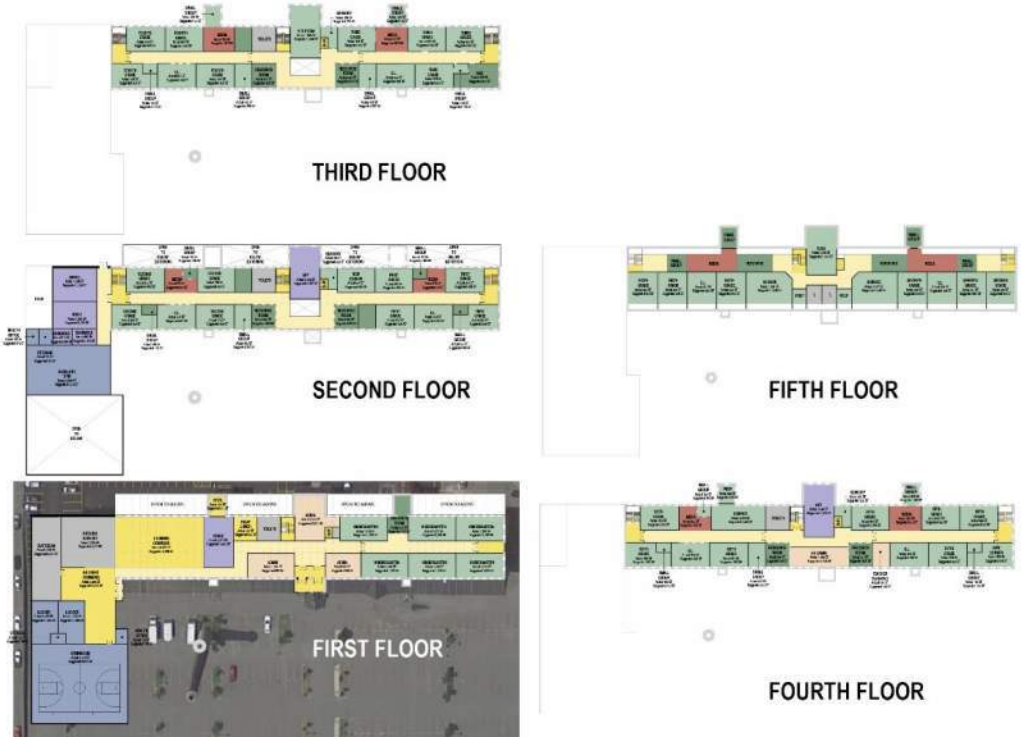
Alternative 4a: Addition Renovation of the Oliver Partnership Building – 1000 Students Grades K-8

Alternative 5 – Renovation/Addition at Stone Mill site
1000 Students Grades K-8

Alternate 5 proposes moving grades K-8 into an 1840's era, 5 story tall, Stone Mill building. The historic building will be completely renovated, and additions will be added to accommodate double height spaces and provide the needed square footage. This alternative will have the district's desired capacity of 1000 students. The building will satisfy all aspects of the district's educational plan.

The site contains contaminated soil that will need to be remediated. The lowest level of the building will be raised to place it above the existing floodplain. The facades will undergo a thorough renovation, and the roof will be replaced to match existing. All building systems will be entirely new. This option requires no swing space.

While this Alternate provides adequate space to accommodate the full 1000 Student K-8 school desired by the city, the remediation of the contaminated site materials paired with the structural complications required to update the historic building pushed cost beyond the project budget.



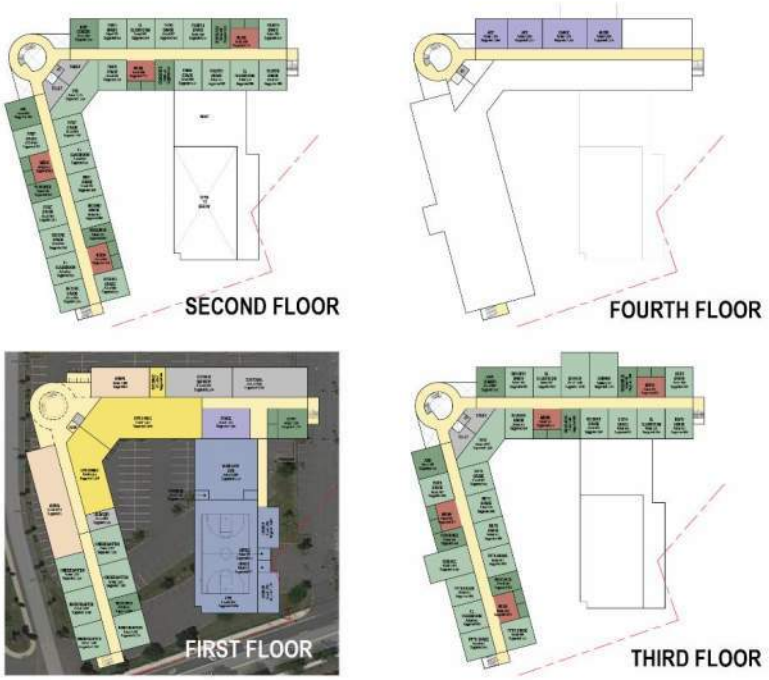
Alternative 5: Addition Renovation of Stone Mill Building – 1000 Students Grades K-8

Alternative 7 – New Construction at Lawrence Gateway Parking
1000 Students Grades K-8

Alternative 7 will be the construction of an entirely new building on a site that is currently a parking lot. The building will be 4 stories tall and will house the district's goal of grades K-8 with 1000 students. The building will satisfy all aspects of the district's educational plan.

The existing site contains contaminated soil that will need to be remediated. On site traffic patterns will be adjusted, and new utilities will be routed from local streets. No swing space will be required with this alternative.

This alternative was considered unsupportable in the District since because of the costs associate with remediation of the soil. The site's extensive history of industrial uses has left behind a contaminated site. No alternative sites, of adequate size or proper location within the district, for new construction were available.



1.5 Summary of District's Preferred Solution

Alternative 4a Renovation & Addition Oliver Site
1000 Students Grades K-8

Alternate 4a proposes consolidating grades K-8 onto the Oliver Partnership Site. This requires balancing the demolition of portions of the building to make room for a larger addition while respecting the building's historic presence via renovation. This alternative will have the district's desired capacity of 1000 students. The building will satisfy all aspects of the district's educational plan.

The addition will provide a new level lower than the existing lowest level and will add one more level to the overall height of the existing building. Program spaces have been arranged so that the addition does not become too tall and cross into High-rise construction.

This alternative was chosen as the preferred alternative by the District since it offered adequate space to accommodate the full 1000 Student K-8 school desired by the city. The opportunity to give new life to a historically significant building was also a positive outcome of this alternative.

Floor Plans

1.6 MSBA PDP Review and District Response

The City of Lawrence received preliminary design program (PDP) comments from the MSBA on November 27, 2019 and provided responses on December 17, 2019. The design team believes all issues raised within the PDP review have been addressed. Copies of MSBA comments and District's responses are included in Section 1.7 (attachments to the responses are included in the electronic version only).

1.7 Section One Attachments

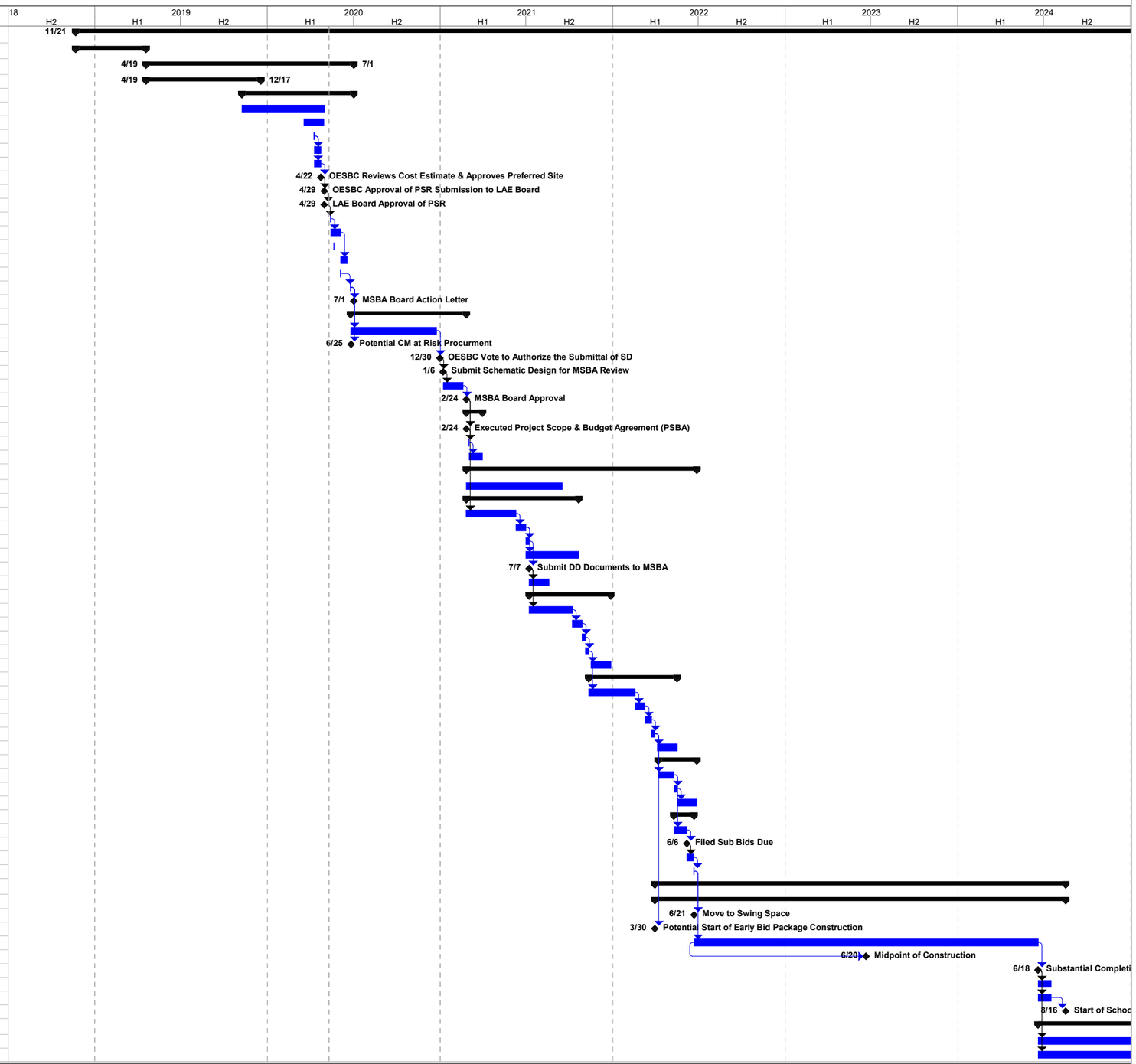
1.2 Project Schedule

Mon 5/11/20

Oliver Partnership School

PINCK & CO

ID	Task Name	Duration	Start	Finish	Predecessors
1	**Oliver Partnership School**	**339 wks**	**Wed 11/21/18**	**Tue 5/20/25**	
2	**Module 2: Designer Selection**	**21.4 wks**	**Wed 11/21/18**	**Fri 4/19/19**	
11	**Module 3: Feasibility Phase**	**62.8 wks**	**Fri 4/19/19**	**Wed 7/1/20**	
12	Preliminary Design Program (PDP)	34.6 wks	Fri 4/19/19	Tue 12/17/19	
18	Preferred Schematic Report (PSR)	33.8 wks	Fri 11/8/19	Wed 7/1/20	
19	Massachusetts Historical Commission: Submission & Review	25 wks	Fri 11/8/19	Thu 4/30/20	
20	Additional Site Investigations	6 wks	Wed 3/18/20	Tue 4/28/20	
21	OESBC Approves Updated Plan	1 day	Wed 4/8/20	Wed 4/8/20	
22	Revised Cost Estimates Draft & Reconciliation	2 wks	Thu 4/9/20	Wed 4/22/20	21
23	District to Update Ed Plan	2 wks	Thu 4/9/20	Wed 4/22/20	21
24	OESBC Reviews Cost Estimate & Approves Preferred Site	0 days	Wed 4/22/20	Wed 4/22/20	23
25	OESBC Approval of PSR Submission to LAE Board	0 days	Wed 4/29/20	Wed 4/29/20	24FS+5 days
26	LAE Board Approval of PSR	0 days	Wed 4/29/20	Wed 4/29/20	25
27	Submit PSR to MSBA	1 day	Wed 5/13/20	Wed 5/13/20	26FS+9 days
28	MSBA Review Period	15 days	Thu 5/14/20	Wed 6/3/20	27
30	Feasibility Assessment Subcommittee (FAS) Meeting #1	1 day	Wed 5/20/20	Wed 5/20/20	
29	District Respond to MSBA Comments	10 days	Thu 6/4/20	Wed 6/17/20	28
31	Feasibility Assessment Subcommittee (FAS) Meeting #2	1 day	Wed 6/3/20	Wed 6/3/20	
32	MSBA Board Approval to Proceed into Schematic Design	1 day	Wed 6/24/20	Wed 6/24/20	31FS+14 days
33	MSBA Board Action Letter	0 wks	Wed 7/1/20	Wed 7/1/20	32FS+5 days
34	**Module 4: Schematic Design (SD)**	**35 wks**	**Thu 6/25/20**	**Wed 2/24/21**	
35	Schematic Design Development	26 wks	Thu 6/25/20	Wed 12/23/20	32
36	Potential CM at Risk Procurment	0 days	Thu 6/25/20	Thu 6/25/20	32FS+1 day
37	OESBC Vote to Authorize the Submittal of SD	0 wks	Wed 12/30/20	Wed 12/30/20	35FS+5 days
38	Submit Schematic Design for MSBA Review	0 days	Wed 1/6/21	Wed 1/6/21	37FS+5 days
39	MSBA Review Period	30 days	Thu 1/7/21	Wed 2/17/21	38
40	MSBA Board Approval	0 wks	Wed 2/24/21	Wed 2/24/21	39FS+5 days
41	**Module 5: Funding the Project**	**4.8 wks**	**Wed 2/24/21**	**Tue 3/30/21**	
42	Executed Project Scope & Budget Agreement (PSBA)	0 wks	Wed 2/24/21	Wed 2/24/21	40
43	Tentative Local Approval (by City Council, 120 Days of MSBA Vote)	1 day	Tue 3/2/21	Tue 3/2/21	42FS+3 days
44	Execute Project Funding Agreement (PFA)	20 days	Wed 3/3/21	Tue 3/30/21	43
45	**Module 6: Detailed Design (DD - Bidding)**	**69.6 wks**	**Thu 2/25/21**	**Mon 6/27/22**	
59	Potential Release of Early Bid Packages	29 wks	Thu 2/25/21	Wed 9/15/21	
46	Design Development	34 wks	Thu 2/25/21	Wed 10/20/21	
47	Design Document Development	15 wks	Thu 2/25/21	Wed 6/9/21	40
48	DD Estimate & Reconciliation	3 wks	Thu 6/10/21	Wed 6/30/21	47
49	Value Engineer DD Documents	1 wk	Thu 7/1/21	Wed 7/7/21	48
52	Subcontractor Prequalification Process	16 wks	Thu 7/1/21	Wed 10/20/21	48
50	Submit DD Documents to MSBA	0 wks	Wed 7/7/21	Wed 7/7/21	49
51	MSBA Review of DD	30 days	Thu 7/8/21	Wed 8/18/21	50
53	60 % Construction Documents	24.6 wks	Thu 7/8/21	Mon 12/27/21	
54	60% Construction Document Development	13 wks	Thu 7/8/21	Wed 10/6/21	50
55	60% CD Estimate & Reconciliation	3 wks	Thu 10/7/21	Wed 10/27/21	54
56	Value Engineer 60% CD Documents	1 wk	Thu 10/28/21	Wed 11/3/21	55
57	Submit 60% CD to MSBA for Approval	1 wk	Thu 11/4/21	Wed 11/10/21	56
58	MSBA Review of 60% CDs	30 days	Tue 11/16/21	Mon 12/27/21	57FS+3 days
60	90% Construction Documents	26.6 wks	Thu 11/11/21	Mon 5/16/22	
61	90% Construction Documents Development	14 wks	Thu 11/11/21	Wed 2/16/22	57
62	90% Construction Documents Estimate & Reconciliation	3 wks	Thu 2/17/22	Wed 3/9/22	61
63	Value Engineer 90% CD Documents	2 wks	Thu 3/10/22	Wed 3/23/22	62
64	Submit 90% Construction Documents to MSBA for Review	1 wk	Thu 3/24/22	Wed 3/30/22	63
65	MSBA Review of 90% CDs	30 days	Tue 4/5/22	Mon 5/16/22	64FS+3 days
66	100% Construction Document Development	11.6 wks	Thu 4/7/22	Mon 6/27/22	
67	100% Construction Document Development	4.6 wks	Thu 4/7/22	Mon 5/9/22	64FS+5 days
68	Submit 100% Construction Documents to MSBA for Review	1 wk	Tue 5/10/22	Mon 5/16/22	67
69	MSBA Review of 100% CDs	30 days	Tue 5/17/22	Mon 6/27/22	68
70	Bidding & GMP	6.2 wks	Tue 5/10/22	Tue 6/21/22	
71	Advertisement	4 wks	Tue 5/10/22	Mon 6/6/22	67
72	Filed Sub Bids Due	0 wks	Mon 6/6/22	Mon 6/6/22	71
73	GMP Negotiation	2 wks	Tue 6/7/22	Mon 6/20/22	72
74	GMP Execution	1 day	Tue 6/21/22	Tue 6/21/22	73
75	**Module 7: Construction**	**124.4 wks**	**Wed 3/30/22**	**Fri 8/16/24**	
76	**Construction**	**124.4 wks**	**Wed 3/30/22**	**Fri 8/16/24**	
77	Move to Swing Space	0 wks	Tue 6/21/22	Tue 6/21/22	74
78	Potential Start of Early Bid Package Construction	0 wks	Wed 3/30/22	Wed 3/30/22	64
79	Construction	104 wks	Wed 6/22/22	Tue 6/18/24	74
80	Midpoint of Construction	0 wks	Tue 6/20/23	Tue 6/20/23	79SS+52 wks
81	Substantial Completion	0 wks	Tue 6/18/24	Tue 6/18/24	79
82	Move in	4 wks	Wed 6/19/24	Tue 7/16/24	81
83	Punch List	4 wks	Wed 6/19/24	Tue 7/16/24	81
84	Start of School Year in Completed Project	0 wks	Fri 8/16/24	Fri 8/16/24	83FS+23 days
85	**Module 8: Completion of the Project**	**48 wks**	**Wed 6/19/24**	**Tue 5/20/25**	
86	Commissioning Close Out	11 mons	Wed 6/19/24	Tue 4/22/25	81
87	MSBA Close Out	12 mons	Wed 6/19/24	Tue 5/20/25	81



Evaluation of Existing Conditions

2.1 Updates to the Evaluation of Existing Conditions

Since the submission of the preliminary Design Program (PDP), the District has selected the preferred site as the Oliver Partnership Site. Site Investigations on this property have been partially completed for this site as part of the Preferred Schematic Report process. The Phase I Site Assessment update and the Traffic Study have not been completed due to COVID-19 but will resume as soon as Town Offices are open again (Phase I) and the school returns to normal operations in the Fall (Traffic).

2.1.1 Stone Mill Site

Proposed Property

The existing Stone Mill building is located on a portion of land surrounded by General Street, Union Street, Canal Street, and the Spicket River. The Stone Mill building in located within the eastern portion of a parcel of land that abuts Union Street and extends approximately 300 feet to the east. The property includes 3 Parcels identified by the assessors as lots 86-62, 85-62-1 and 85-14, which are all currently owned by Everett Mills Real Estate LLC.

The proposed property for the school includes the Stone Mill Building, approximately 30 feet of land beyond the building to the north and west, approximately 90 feet to the south and approximately 150 - 200 feet to the east side of the building. In addition to this land, a small portion of land would extend to General Street which would provide frontage for the parcel.

The extension of the proposed property to the eastern side of the Stone Mill building includes a portion of land currently owned by Aerojet / Gen Corp Inc. The area of the proposed school lot is approximately 3.9 acres.

Stone Mill Proposed Property

Zoning

The site is in the Industrial 2 zoning district. School uses are permitted as right within this district. The Industrial 2 district has dimensional requirements only for yard setbacks:

Yards (Minimum)

Front 30’

Side 25’

Rear 25’

The minimum required off-street parking per zoning is: One parking space per 3 employees, plus bus and car drop-off parking areas, plus one space for every 4 seats of the total seating capacity of the auditorium or gymnasium, whichever is larger.

Environmental Resources

A portion of the proposed site is within the 100-year floodplain that extends from the Spicket River, which is located to the northeast side of the property. The existing lower level of the building is approximately 9” below the 100-year floodplain elevation.

Wetland resources have not been flagged and are assumed to be at the edge of banks of the Spicket River and North Canal. These resources would include a 200-foot riverfront area.

The Stone Mill property has an existing Activity Use Limitation (AUL) for an area under the existing building due to contaminated soil under the building and within an old raceway. The Aerojet / Gen Corp site is also known to be a contaminated site. See the attached Phase I Environmental Site Assessment Report.

Parking Areas and Utilities

The land within the proposed property other than the building is nearly entirely covered in asphalt paving and serves as a parking lot including drive aisles and loading spaces. The land is near level with the lowest floor on the east side of the building and near level with the second level on the west side. The topography transitions along the north and south sides of the building. The paved parking areas were re-paved within the last 10 years and are generally in good conditions. There are some areas near the Stone Mill building where the asphalt is in poor condition.

The utilities for the existing building including domestic water, sewer and electricity are in place and functioning. See Section 3.2.5 of this report for additional information on the source utilities.

A drainage system is also in place for the parking areas of the proposed property. The catch basin and manholes collect runoff, route it to the northeast where it is discharged into the Spicket River. The drainage system appears to be in fair condition.

It is anticipated that the condition of the utilities and drainage will be verified in the SD phase and likely portions of these systems would be replaced for the proposed project.

A topographic survey was conducted by Nistch Engineering and is included as an attached.

Geotechnical borings were performed by Nobis Engineering, Inc in November of 2019. Nobis Engineering's Preliminary Geotechnical Report dated December 5, 2019 is included as an attachment.

A Phase I Environmental Site Assessment Report was completed by Nobis Engineering in September of 2019. Nobis Engineering's report is included as an attachment.

Traffic Impact Study for 15 Union Street is included as an attachment.

2.1.2 Lawrence Gateway Parking Site

Proposed Property

The proposed property for the school includes approximately 2.2 acres in the southeast portion of the Aerojet / Gen Corp Inc. property, which is identified as Parcel ID 86-61, and known as 70 General Street. The overall parcel is 8.67 acres. This proposed property would gain its frontage along Canal Street.

Lawrence Gateway Proposed Property

Zoning

The site is in the Industrial 2 zoning district. School uses are permitted as right within this district. The Industrial 2 district has dimensional requirements only for yard setbacks:

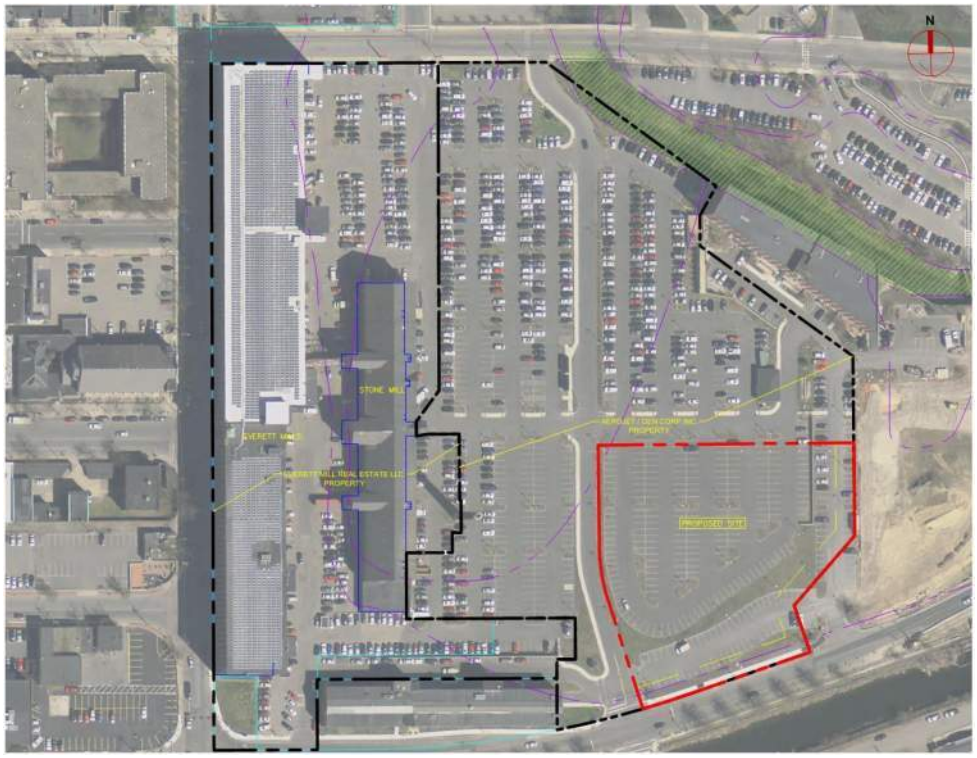
Yards (Minimum)

Front 30'

Side 25'

Rear 25'

The minimum required off-street parking per zoning is: One parking space per 3 employees, plus bus and car drop-off parking areas, plus one space for every 4 seats of the total seating capacity of the auditorium or gymnasium, whichever is larger.



Environmental Resources

Wetland resources have not been flagged and are assumed to be at the edge of banks of the Spicket River and North Canal. These resources would include a 200-foot riverfront area. Based on 2009 topographic plans, the proposed property is above the base floodplain elevation outside of the 100-year floodplain.

The Aerojet / Gen Corp site is known to be a contaminated site with on-going remediation efforts. A Phase I Environmental Site Assessment Report was not completed for this site, but Nobis Engineering's report on the Stone Mill property does contain some information on the Aerojet / Gen Corp site property.

Parking Areas and Utilities

The proposed property is nearly entirely covered in asphalt paving and serves as a parking lot including drive aisles. The topography slopes from Canal Street down towards the northwest corner of the proposed property. The parking areas were re-paved within the last 10 years and are generally in good conditions.

There are existing utilities including domestic water, sewer, and electricity within the overall parcel of land, and water and electricity appear to pass through this portion of the site. but no utilities are identified within this area of the site on the available plans. are in place and functioning. See Section 3.3.5 of this report for additional information on the source utilities.

A drainage system is also in place for the parking areas of the proposed property. The catch basin and manholes collect runoff, route it to the north where it is discharged into the Spicket River. The drainage system appears to be in fair condition.

It is anticipated that the condition of the utilities and drainage will be verified in the SD phase and likely portions of these systems would be replaced for the proposed project.

A topographic survey is included as an attachment.

Geotechnical borings were not performed on this site, but Nobis Engineering, Inc has reviewed previous boring logs within their Preliminary Geotechnical Report dated December 5, 2019, which is included as an attachment.

A Phase I Environmental Site Assessment Report was completed by Nobis Engineering in September of 2019 for the Stone Mill site and not for the Gateway site. The report for the Stone Mill does include some information on the Gateway site. It is included as an attachment.

Traffic Impact Study for 15 Union Street is included as an attachment.

2.1.3 Oliver Partnership Site

A topographic survey was performed of the Oliver site by Nitsch Engineering during the development of the PSR and is included as an attachment.

Geotechnical borings were performed by Nobis Engineering, Inc in March of 2020. Nobis Engineering's Preliminary Geotechnical Report dated April 13, 2020 is included as an attachment.

A Phase I Environmental Site Assessment Report was completed by Nobis Engineering in September of 2019. An update to that Phase I to include additional, adjacent City owned parcels to be added to the school property for the preferred schematic is forthcoming. The report will be finalized as soon as the City offices reopen and are able to provide the necessary information to complete the due diligence of the Phase I report.

A Hazmat evaluation and report were performed by Nobis Engineering, Inc in April 2020 and has been included as an attachment.

Traffic Impact Study for 183 Haverhill Street has not been performed due to the school being closed and traffic not being at normal levels. The team is standing by and ready to complete the survey at the earliest available opportunity.

2.2 Attachments

2.2.1 Stone Mill Site

Attachments

2.2.1a Stone Mill & Gateway Site Topographic Survey

2.2.1b Stone Mill & Gateway Site Geotechnical Report

2.2.1c Stone Mill Site Phase 1 Environmental Assessment

2.2.1d Stone Mill & Gateway Site Traffic Impact Study

2.2.2 Gateway Site

See Stone Mill attachments, 2.2.1.

2.2.3 Oliver Site

2.2.3a Oliver Site Topographic Survey

2.2.3b Oliver Site Geotechnical Report

2.2.3c Oliver Site Phase 1 Environmental Assessment

2.2.3d Oliver Site Hazmat Report

Final Evaluation of Alternatives

3.1 Alternative 1: Base Repair - Oliver Partnership School – 500 Students Grades 1-5

The base repair and code upgrade alternative with no modification of existing spaces or their function does not address the current undersized spaces, nor does it meet the educational program. The existing building is approximately 81,791 gsf making it below the MSBA suggest size of 90,588 gsf. Beyond the overall shortage in gross square footage, all the spaces within the building are sized well below MSBA standards.

This alternative would require modifications to meet the Americans with Disabilities Act. This would include replacing the current elevator, providing an exterior ramp or lift at the main entrance, and providing access to the lower portions of floors 1 and 2.

All interior finishes are beyond their useable life and require replacement. Abatement of hazardous materials is anticipated due to the era of construction. All interior doors will be replaced with doors containing code compliant glazing and hardware. All interior glazing will be replaced with code compliant glazing. Updates to the kitchen to achieve desperately needed functionality and code compliance are also necessary.

All exterior windows are at the end of their useable life and will be replaced with energy efficient units. The exterior masonry will be cleaned and repointed. A method of insulating the exterior masonry walls will be determined to bring their R value up to energy code standards.

3.1.1 Site Analysis

The existing Oliver Partnership Elementary School is located at 183 Haverhill Street in Lawrence, Massachusetts and is Parcel ID 127-22. An additional parcel (127-15) is owned by the city and is currently being used for parking by the school. The parcels are within the R-2 Two-Family Residential zoning district. The school properties are bound by a church and a YWCA lot to the west, a lot undergoing redevelopment and an empty lot owned by Lawrence Redevelopment Authority to the east, Haverhill Street to the south and Oak Street to the north. Campagnone Park is located across Haverhill Street to the south and O'Neil Park is located across Oak Street to the north.

The school site includes the entire existing building and two one-way drives that run along either side of the building and a small parking area. The drive on the east side of the building is shown as Cardillo Way on maps, and at one time may have been an extension of Short Street that is in line with it on the north side of Oak Street.

The school building footprint takes up the majority of the main lot with the building within 15' to 20' of all property lines. The lots' small extension to the west at the rear of the site, combined with parcel 127-15, are used for approximately 28 parking spaces. There is a fenced off landscaped front courtyard area on the Haverhill Street side. The site measures approximately 1.35 acres including both parcels. The site is relatively flat, and generally has slight slopes toward each street.

A review of Massachusetts Historical Commission online MACRIS confirmed that the school building is currently listed on the State Register of Historic Places.

Site work in this option is focused on meeting current accessible Codes. Existing non-compliant ramps, guardrails, and handrails would be repaired or modified. New ramps would be constructed at required building egress locations. Accessible parking space quantity and orientation would be modified to meet code. Code upgrades would not address pavement conditions in parking lot and access drive areas, except for the accessible parking and route to the building entrance.

3.1.2 Evaluation of Potential Student Impacts

This alternative would likely have to occur over several years during school vacations and summer breaks while students are not in attendance, especially regarding any required abatement and systems installation.

3.1.3 Conceptual Architectural and Site Drawings

Conceptual Site Drawings

The existing site layout would not be modified, except for modifications to accessible components including parking spaces and ramps to building egress doors for code compliance.

Alternative 1 – Exterior work limited to accessibility upgrades including ramps for egress

Conceptual Architectural Drawings

The existing floor plans would not be modified in the Base Repair and Code Upgrade Alternative 1. Refer to PDP Attachment 3.3a for existing plans.

3.1.4 Outline of Major Structural Systems Implications

The base repair and Code upgrade described for Alternative 1 should have a minimal structural impact. A column in the boiler room of the existing building has completely rusted through. An evaluation and repair of this condition would be required in a base repair. Exposed rebar was also noted in the elevated concrete slab of the boiler room. A base repair should repair the slab to prevent future deterioration and prolong the useful life of the structure. For Work that is classified as a Level 1 Alteration as outlined in Chapter 7 of IEBC 2015, any parapets that are constructed of unreinforced masonry must be braced to resist seismic forces. It appears that the parapets at the roof of the building may be subject to this requirement of the Code.

A base repair and Code upgrade are not likely to trigger any code mandated seismic upgrades to the existing structure. It is assumed that a voluntary seismic upgrade of the existing building is not included under the base repair and Code upgrade alternative. The existing Oliver School was constructed before seismic detailing requirements were incorporated into the building code in 1975. Without a seismic upgrade, the structure's reliability and performance during a seismic event is significantly lower than a new structure or if the existing structure underwent a seismic upgrade. Continuing to use the structure without a seismic upgrade presents an increased risk to the community when compared with utilizing a building with a modern seismic system.

3.1.5 Source, Capacities and Method of Obtaining Utilities

The base repair and Code upgrade described for Alternative 1 will not include utility upgrades, except for potentially upgrading the water service for Fire Protection upgrades. The existing building currently has services including water, sewer, gas & electric.

3.1.6 Narrative of Major MEPFP Systems

Mechanical Systems

Existing equipment is generally past life expectancy, less efficient, too loud for classrooms, lacking BMS controls, not working, or is based on gas heating.

For a code upgrade renovation some of this equipment could continue to be reused, but much of it would still need to be replaced to meet current codes and energy standards.

Heating would be provided with a new boiler system but reusing existing piping and terminal heating units. Most rooms have radiators, entry vestibules and stairwells will be provided with cabinet unit heaters if not existing. Pipes would need to be reinsulated.

Ventilation is currently provided by ventilation shafts and windows. To upgrade to code, we would add Dedicated Outdoor Air Systems (DOAS) units and ductwork to provide ventilation to the spaces. The DOAS units will be configured as energy recovery units with hot water heating and DX cooling with Variable Air Volume (VAV) distribution will provide ventilation to all rooms and other spaces with 100% outdoor air. Spaces will be zoned so that similar exposures and usages can share terminal boxes.

Currently there is no central cooling system. In a code upgrade this would remain the case.

The kitchen would be supplied with a Make-up air unit (MAU) with a single zone VAV distribution and associated demand control ventilation exhaust air system. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required.

For life safety motorized fire/smoke dampers and other accessories will be added to ductwork as needed.

Electrical Systems

The Oliver Partners School electrical service is provided by the local utility company, National Grid. The service initiates off the existing National Grid high voltage line, running overhead along the Oak Street. The service to school is 600A at 120/208V and is provided via a bank of (3) three pole-mounted stepdown transformers, owned and maintained by the National Grid. From the pole, the service wiring extends overhead towards the school rear side exterior wall, extends down the wall in (2) two 4" conduits, and enters the school "interior alley area" – a narrow unoccupied unheated passage running adjacent to school occupied spaces in basement. Currently, there is limited-to-none access ability into the alley space, and therefore the condition of traveling conduits is unknown. Further investigation is recommended to assure the proper and safe installation in compliance with Code.

There is minimal capacity to power additional mechanical units, a service upgrade to 1200A at 120/208V is required. The new service requires (3)4" conduits from the service disconnect to the utility interconnection point. Provided the existing (2)4" conduits mentioned previously are installed properly and safely, they can be re-used for the new service with the additional 4" conduit installed adjacent to the existing.

The main electrical 'service entrance' panelboard, panel 'DP' located in the Custodian/Tank room, has no Main Circuit Breaker ("MCB" panel type vs. "MLO" construction type), which could serve as an overcurrent protection device for incoming power feeder. In order to accommodate the upsized service, the existing DP shall be replaced with a 1200A, 120/208V Main Distribution Panel with a 1200A, GFI protected main circuit breaker. The existing loads on the existing DP should be re-fed from the new board.

The following new mechanical equipment needs to be wired to the existing electrical distribution system:

- Dedicated Outdoor Air Systems units (DOAS)
- Kitchen make-up air unit (MAU)
- Kitchen hood exhaust fans
- AC systems for Data Closets and Electrical rooms

If there is no sufficient spare capacity in the existing panels, the new units shall be wired to the new Main Distribution Panel.

A few panels are were observed as “older” and in unacceptable condition. A few panels are “residential” type Load Centers. Kitchen panels “A” and “B” were observed “blocked” by the kitchen equipment, which is violation of Code.

Emergency egress lighting is provided by emergency battery packs and remote light heads. Most of the battery packs are in fair operational condition, although some remote heads need to be adjusted or repaired to provide adequate emergency lighting illumination throughout all building areas and stairways. Kitchen and bathrooms were observed to be missing emergency lights. The “older” version of battery packs and remote heads, which appear to be beyond their useful life expectancy, need to be replaced throughout.

Existing exterior lighting is in poor condition, and as it exists now it is not adequate for proper and continuous illumination concept at all egress doors per Building Code. All exterior egress doors shall be provided with lights supported by emergency power back-up source.

Automatic fire detection (smoke and heat detectors) is installed throughout the school, however, a few smoke detectors were observed to be covered/taped, which is unacceptable. Smoke detectors shall be tested regularly, and those, identified as non-operational or “old” and beyond their useful life expectancy, shall be replaced.

In some areas the horn/strobe coverage appears to be not adequate. Classrooms, bathrooms, and elevator vestibules shall be equipped with horn/strobes or strobe only units, per current Building Code. A few horn/strobes appeared to are mounted higher than 90” above the finished floor, in violation of NFPA 72.

Connections to the new mechanical life safety motorized fire smoke dampers shall be wired from the existing electrical power and fire alarm systems.

Tel/Data & Security

The existing Tel/Data and Security systems shall remain as is with no upgrades.

Plumbing

Existing domestic cold, hot water piping, sanitary, waste and vent piping, natural gas piping, storm drainage piping, and kitchen waste piping are still operational but appear to be original and in poor condition. They have outlived/exceeded their useful life and are not expected to last more than a few years without exhibiting widespread problems and possible failure. Perform tests in each system to identify leaks or damages in the systems to be repaired, as necessary.

A new reduced pressure backflow preventer will be installed to the main domestic water supply to protect the service (per the DEP regulation 310 CMR 22). The majority of the existing cold-water piping distributed throughout the building will be replaced under this option. Domestic cold water inside the building will be "L" type copper tube with wrought or cast copper fittings. All cold-water piping will be insulated to prevent condensation.

The existing domestic hot water heater will be reused under this option. Hot water piping will be replaced with new piping. Domestic hot water will be distributed in "L" type copper tube with wrought or cast copper fittings. A new thermostatic mixing valve will be installed in the boiler room.

The roof drains all seem to be relatively in good condition. The drains consist of cast metal dome tops, flashing clamps/ gravel stops and cast-iron bodies. Most of the roof drains and piping will be reused. Underground storm piping will be video inspected for its condition and will be addressed accordingly.

The existing underground piping will be video inspected for its condition and, if functional, most of it will be reused. The existing sanitary waste piping will be modified to accommodate the repair work. The above-ground sanitary drainage and vent will be piped in cast iron with "no-hub" joints (3" or larger). Piping smaller than 3 inches will be piped in copper. Piping below the floor shall be weight cast iron hub and spigot.

No modification in existing gas piping is anticipated under this option.

The number of plumbing fixtures will be added in the facility to accommodate the population of male students and female students and shall be in accordance with 248 CMR Paragraph 10.10, Table 1.

Water closets and urinals will be commercial vitreous china, wall hung (ADA compliant). Lavatories will be self-rimming countertop mounted china. Each floor will include a janitor's closet with a corner mop service basin. Toilet cores on each floor will include alcove-recessed electric water coolers, in a high-low handicapped accessible configuration to meet MAAB requirement.

Fire Protection

The existing sprinkler system needs to be removed and replaced with an upgraded fire suppression per new architectural plans. The new system will consist of Automatic sprinklers and Standpipes per latest Massachusetts Building Code 780 CMR Chapter 9 and per NFPA standards. The existing 8" fire water service entrance can remain. A new Double check valve and alarm check valve will be needed.

All egress stairs will have standpipe system with 2 ½" hose valve. Additionally, standpipes will be located so that no part of the building is more than 200 feet from a standpipe valve. NFPA standard requires that all areas of the building shall be protected with wet fire suppression sprinklers. The building is divided into multiple fire zones per floor covering less than 52,000 sf per zone and the sprinkler system in each fire zone is fed by a separate zone control valve assembly. The unheated area will require a dry system.

All sprinkler control valves will be provided with tamper switches. Flow switches will be provided at the main riser and each floor control valve. Electric Bell will be mounted on the outside wall of

the building, near the service entrance. The tamper switches and water flow switches will be monitored by the building fire alarm system. Sprinkler heads in areas with finished ceilings will have concealed pendant type and in areas with no suspended ceilings will be upright sprinkler heads. All sprinklers will be quick response heads. Sprinkler heads in mechanical rooms and the Gymnasium will be provided with Wire guards.

The fire protection piping will be schedule 40 piping with threaded fittings for any piping sized 1½" and less. For sizes over 2", schedule 10 piping with roll grooved fittings and couplings will be used. All valves controlling the flow of water will be provided with supervisory devices that report to the Fire Alarm system.

Food Service

The deficiencies outlined in the existing conditions report may or may not be specific Code issues (most are by any interpretation), however; all are unacceptable in terms of sanitation, food safety and generally acceptable food service practice. The deficiencies and issues of food cross-contamination should be addressed now and in any future planning. Final determinations are subject to local authorities having jurisdiction.

By design/arrangement, the facility is operationally inefficient and labor intensive. The extremely congested and under-equipped arrangement of the kitchen poses a risk of operational safety to food service staff. It is our opinion that there is a considerable risk of cross-contamination, which jeopardizes the health, safety and well-being of students, staff, and faculty. The current conditions at the preparation and cooking areas including the lack of exhaust systems poses a risk of cross contamination and operational safety.

Required Action by Code

- Provide adequate janitorial and detergent storage space.
- Provide appropriate quantity of hand washing sinks throughout the preparation, cooking, serving, and ware washing areas.
- Provide double preparation sink with adequate drainboard.
- Replace all degraded tables and shelving constructed of inappropriate materials (galvanized steel, painted steel, and wood tops).
- Comply with handicap accessibility (i.e. work-stations and traffic aisles).
- Provide new appropriately sized exhaust hood that meet all current Codes and standards.
- Provide Code compliant serving line equipped with food temperature maintenance elements, food protection and hand sink.
- Provide adequate floor drainage and water capture.
- Provide dedicated handicap accessible staff toilet(s) and lockers.
- Repair/replace wall surfaces, ceilings and flooring that have severely degraded as required to meet the current standards for sanitation and safety compliance. Some floor areas are hazardous to foot traffic; liability issue.

Due to the low ceilings an exhaust hood for cooking cannot be provided. The existing conditions described in the report and some of the required actions noted above cannot be accomplished without extensive and costly renovations.

It is our professional opinion there be a total renovation of the existing food facility. Serious consideration should be given to converting the existing food facility from a self-sustaining kitchen to a warming kitchen. This would require an outside commissary prepare, cook, and deliver most foods that would be delivered ready for service.

3.1.7 Proposed Total Project Budget and Cost Estimate

The construction and project costs for Alternative 1 are estimated to be:

- Construction Cost (average): $ 33,410,038
- Project Cost (based on average): $ 42,662,548

The cost estimate and project budget are attached in Section 4.8.

3.1.8 Permitting Requirements

CITY OF LAWRENCE

Planning Board

Site Plan Review and Approval

A Site Plan Review Application may be required for the code upgrade improvements. If required, it will be filed with the City Planning Board, as required by the Zoning Bylaw for new school construction. The application package shall conform to the requirements and contents identified in the City Zoning Ordinance. Once the application is formally accepted, the Planning Board and other Boards and agencies will review and comment within 35 days followed by a Public Hearing. It is anticipated that approval from both the Planning Board and Zoning Board of Appeals is required due to increases to existing non-conforming buildings and potential variances. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Building Department

Building Permit

A building permit application will be submitted to the Lawrence Building Department prior to the start of construction. If the proposed work conforms to the requirements of the state building code and all pertinent laws under the building inspector's jurisdiction, it is expected that the building inspector will issue a permit within approximately 30 days of the filing date.

3.1.9 Proposed Schedule Including Phasing

Alternative 1 will likely be phased out into a series of repairs over a number of years. This work will be coordinated with the school's academic calendar to avoid the need for temporary swing space.

3.1.10 Attachments

Existing Building Floor Plans

Existing Site Plan

3.2 Alternative 3: Renovation & Addition Oliver Partnership School – 500 Students Grades 1-5

Alternative 3 proposes keeping grades 1-5 on the Oliver Partnership School site without introducing Kindergarten or grades 6, 7, and 8 to the program. A compacity of 500 students has been established for this scenario.

Due to the historic designation of the Oliver Partnership building, retaining the historic face of the building is desired. Alternate 3 calls for partial demolition of the existing Oliver Elementary school, replacing it with a 5-story addition, and a comprehensive renovation of the remaining building.

The existing facades on the southern end of the building as well as the entire length of the east and west facades will be renovated. Most of the interior of the building will be demolished. The Third Floor will be demolished entirely including the east and west facades at this level.

Approximately 51,275 gsf will be demolished with 25,787 gsf being renovated. This will require a minimum addition of 64,801 gsf. The overall footprint of the building will only grow slightly on the north end of the building.

The renovated portion of the building will be completely reconfigured to better suit the academic goals of the school. All finishes and fixtures will be replaced. All remaining existing windows will be replaced with energy efficient units. All masonry will be repointed, and cracks in existing masonry will be repaired. The remaining roof will be replaced in its entirety. Exterior doors and Storefront systems will be replaced with energy efficient units. Insulation will be provided on the interior side of the exterior masonry walls to increase the wall's R value. In doing so, special consideration will be paid to moisture mitigation as the added insulation could change the wall's dew point resulting in unwanted condensation within the wall.

The building will be 5 stories, with the finished floor of the "Basement" level located a half level below grade. The main entrance will be pushed down to the Basement Level so that accessible ramps leading to the main entrance may be incorporated into the landscape. A vestibule will be added at the new main entrance with the watchful eye of Administration flanking either side of the vestibule. Just beyond the entrance will be double height spaces such as the Gym, Dining, and Stage which will continue up through the First Floor. The first floor will hold First Grade, the second floor will hold Second and Third grade, the third floor will hold Fourth grade, and the fourth floor will hold Fifth grade. Each grade level will contain four classrooms plus and EL classroom and will be support by two small group rooms and a resource room. Each cohort will be centered around a grade specific media space.

3.2.1 Site Analysis

The development of this option reduces the on-site land available for site improvements. The enlarged footprint on the northern side of the site would limit site improvements to the perimeter of the building and within the existing Haverhill Street courtyard.

Code compliant accessible routes for pedestrians would be created from the adjacent public ways as well as from within the site. Site concrete and asphalt surfaces would be replaced including sidewalks along Oak Street and Haverhill Street. Most of the existing utilities will be replaced to service the new building additions and renovations.

The building foundations for the addition will require support of excavation around much of the perimeter due to the proximity of the property line to the building. See building floor plans and sections for extent of basement level.

The size of the site precludes having adequate play/athletic space on-site, but the school is adjacent to parks on both the north and south sides. Student arrivals and departures will be made from the city streets that will require improvements.

3.2.2 Evaluation of Potential Student Impacts

This alternate would require temporary swing space.

3.2.3 Conceptual Architectural and Site Drawings

Alternative 3 – Proposed Renovation/Addition Site Layout Plan

Conceptual Site Drawing

Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Lawrence Public Schools educational program.

Larger versions of the floor and site plans are included in Attachment Section 3.2.10

Alternative 3 – Floor Plans

3.2.4 Outline of Major Structural Systems

A detailed description is provided under Alternative 4. Alternative 3 would be extremely similar to Alternative 4 except in the fact that the new construction portion would have one less floor. This would result in marginal reduction of the structural work to be performed.

3.2.5 Source, Capacities and Method of Obtaining Utilities

The existing school is currently served by municipal water and sewer systems, and the storm drainage systems discharge to the systems in the adjacent streets, Oak Street and Haverhill Street

Most of the services for the renovated and building addition areas will be replaced or upgraded as described below.

Water Distribution System

Existing city plans show a 16” water main and a 12” high service fire main in Haverhill Street. There is a 6” water main in Oak Street and an 8” water line looped between the streets within the alley adjacent to the west side of the school. It is assumed that the current service is fed from the 8” within the site.

The looped water line in the alley will be replaced with a new water line connected in both Oak Street and the 16” Haverhill Street main. It will provide the domestic water connection to the building.

The new buildings fire protection service and a new hydrant will feed off the 12” high service pipe in Haverhill Street and will include a wall mounted indicator valve, as required by NFPA. All services will be coordinated with the Lawrence fire department and water department.

Sanitary Sewer System

The existing sewer connection is to a sewer manhole at the intersection of Oak and Short Street.

At least a portion of the existing service line will be removed, and a new line will be added in its place to connect the building to the manhole in Oak Street.

A new precast concrete grease trap will be installed to treat wastes generated from the kitchen in accordance with the Plumbing Code. Typical sewer manholes will consist of precast concrete and have exterior surfaces painted with two coats of bitumastic paint.

Storm Drain System

The limited existing site drainage will be removed. New drainage pipes catch basins and manhole structures will be added to the site to capture areas that do not drain directly to the adjacent streets. The proposed system will connect to the existing stormwater networks in Haverhill Street and Oak Street

Stormwater runoff collected from parking areas will be treated with new water quality units before flowing out to the existing municipal network. Treatment will be done in accordance with the Massachusetts Stormwater Management Handbook.

A portion of the roof runoff will be routed to subsurface groundwater recharge structures to infiltrate it back into the ground. The design will be based on detailed subsurface geotechnical investigations including the existing groundwater elevation and soil permeability.

Electrical

Existing electrical services will be removed, including primary and secondary underground services, portions of existing overhead wiring, and utility poles.

New underground primary and secondary electric services will be installed, as well as new telecommunication services. A new pad mounted transformer, new pad mounted emergency generator and new light poles with LED fixtures will also be installed. Refer to Electrical Systems description under MEPFP Systems sections.

3.2.6 Narrative of Major MEPFP Systems

Mechanical Systems

Existing equipment is generally past life expectancy, less efficient, too loud for classrooms, lacking BMS controls, or is based on gas heating and all should be removed.

A new Heating, Ventilating and Air Conditioning system will be provided to serve the various program spaces of the elementary school building to meet current codes and energy standards.

The new heating and cooling will be based on the use of high-efficiency heat pumps utilizing VRF technology. Generally, we will use one refrigerant circuit per floor with Air Conditioning Units (ACUs) in each room and condensing units (ACCUs) on grade or on the roof.

Dedicated Outdoor Air Systems (DOAS) with energy recovery will provide ventilation and exhaust. The DOAS units will be configured as energy recovery units with VRF heating and cooling and Variable Air Volume (VAV) distribution will provide ventilation to classrooms and other spaces with 100% outdoor air. Spaces will be zoned so that similar usages and exposures will be paired.

Classrooms, Small group, Media Center, Administration, and other educational spaces will be heated/cooled/ventilated with the VRF and DOAS systems. Setpoints will be set at the BMS with a DDC control system.

Ceiling fans will provide occupant comfort control in the gym/auditorium.

Zones will have ACUs for heating/cooling and VAV boxes controlling the ventilation airflow.

Entry vestibules and stairwells will be provided with electric cabinet unit heaters and electric baseboard.

A Make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required. Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and/or roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Consideration will be provided for powering selected systems from an emergency power source, as required for life safety, heating, and for standby operation of certain systems. This typically includes motorized fire/smoke dampers or the heating system and associated terminal equipment and controls.

Electrical

The Oliver Partners School' electrical service is provided by the local utility company, National Grid. The service initiates off the existing National Grid high voltage line, running overhead along the Oak Street. The service to school is provided via a bank of (3) three pole-mounted stepdown transformers, owned and maintained by the National Grid. Building electrical systems, including equipment and distribution power feeders and branch wiring, are mostly at or beyond their useful life expectancy. Code deficiencies exist throughout the facility. A service upgrade is recommended to a 2,500A (dependent on HVAC loads), 277/480V, 3-phase, 4 wire system, and a system of new panelboards separated by use; lighting, mechanical and general power will be provided in dedicated electrical rooms throughout the building to serve equipment, lighting and branch circuit loads.

The existing lighting to be upgraded to high efficiency LED lighting with integral dimming drivers and lighting controls with local vacancy sensors, occupancy sensors and daylight harvesting sensors will be installed in accordance with IECC 2018. Light fixtures and lighting controls are recommended to be replaced with new LED style fixtures which would provide more acceptable light output with increased energy efficiency.

There is currently no emergency generator at the premises. A new 100-150KW, 277/480V, 3-phase, 4 wire life-safety generator is recommended to provide power for the emergency egress lighting, fire alarm system and other code-required items.

The existing fire alarm system is a non-addressable zoned system. In general, the fire alarm system is a combination of equipment installed at different times and supplied by different vendors, in operational condition. The current code requires a voice evacuation system for 'E' use. In order to comply, an upgrade of the fire alarm system is required.

Tel/Data & Security

A new IESS "integrated electronic security system" which consists of 5 sub-systems Intrusion, CCTV, access control, visitor entry and active shooter/duress alert will be installed. The systems are integrated and viewed as one via a single security GUI "graphical user interface". The CCTV system will consist of computer servers with image software, computer monitors, and IP based closed circuit TV cameras. Additional CCTV cameras will be added to the system. The existing Hikvision cameras can be re-used and integrated to the new VMS system. The head end server shall be located in the head end MDF room and will be rack mounted. The locations of cameras generally will be on site lighting poles, on the exterior perimeter of the building, in corridors and in stairwells. The majority of the cameras will be multi-head type. The system shall fully integrate with the access control system to allow viewing of events from a single alarm viewer. Camera images and recorded video shall be linked to the access system to allow retrieval of video that is associated with an event. The IESS shall be accessible by all authorized district users via the fiber WAN.

The Active Shooter/Duress Alert system consists of a wireless control panel with wireless panic buttons, wireless receiver/transmitters, and wireless prism/strobe lights. The control panel is interfaced to an active shooter/duress alert network application installed on school designated networked computers and first responder dispatch and mobile data terminal computers. The wireless buttons and/or the network application system will be programmed to allow for notifications with the exact location of the alert to be received in less than 1 second when a request for help is initiated. The network application will be programmed for various incidents as

determined by the school such as medical, behavioral, and/or notification to first responders for emergency life threatening incidents. The system will be interfaced to various school-wide systems as determined by the school for audio and visual emergency notifications such as the PA, IPTV, and prism/strobe light systems. The system will be interfaced to the access control system for lockdown situations. The system will be interfaced to the CCTV system to activate cameras in the vicinity of the incident. The system will also have the capability of interfacing to school and/or first responder radios and to school and first responder computers for two-way communications during a life-threatening incident.

An Intrusion system will consist of security panel, keypads, motion/glass break detectors and door contacts. The system is designed so that each perimeter room on the ground level with exterior doors and/or windows will have motion/glass break detectors along the exterior wall, door contacts at each exterior door, and motion detectors in corridors of the upper levels. The system is addressable, so each device will be identified when an alarm occurs.

The Access Control system will consist of a card access controller, door controllers and proximity readers/keypads. Proximity readers will be located to allow access to authorized personnel, at all times. Each proximity reader will have a distinctive code to identify the user. The alarm condition shall also initiate real time recording on the integrated CCTV System that is included as part of this proposed system. The system is programmed with graphic maps allowing the end-user to quickly identify alarm conditions and lock/unlock doors. The system includes remote release buttons in offices that will allow the person to release the door locking mechanism at designated visitor door(s) from their desk.

A new Server/MDF room will be constructed and will distribute OM4 laser optimized 10gig fiber optic backbone cabling to IDF rooms located throughout the building. Temporary fiber cabling between wire closets will be required for continuation of services through all construction phases. The technology systems infrastructure will be upgraded to Cat 6A for tel/data locations throughout. Additional horizontal Cat 6 cabling may be required for swing spaces. The technology systems will include the infrastructure for the number of wireless access point locations required for WiFi coverage of the entire building including all classrooms, media spaces, common areas, administrative offices, and outdoor instructional spaces. The infrastructure will permit mobile carts housing student iPad and/or Chromebook devices to be located in each classroom.

An IPTV system consisting of head end equipment will be installed providing distribution of digital video over the data network to all networked devices including computers, Interactive Projectors and/or Interactive Flat Panel Displays, and digital signage monitors. The head end equipment shall reside in the Server/MDF room.

A new Master Clock system with wireless synchronized secondary clocks will be installed. The Master Clock shall be interfaced with the Public Address system for scheduled bell tones. A new Public-address system will be installed with speakers located throughout the building designed with the ability to page an individual room, or make an announcement to specific zones, or throughout the entire building. The Public Address system shall be interfaced to the phone system allowing for pages or announcements to be made from any phone handset by authorized users.

A wireless Sound Field system will be installed in all instructional areas providing assisted listening technology in each classroom for hearing impaired accessibility. Interactive video

projectors or interactive Flat Panel Displays will be installed in all classrooms and/or academic spaces. The interactive devices will be interfaced to the Sound Field systems.

A VoIP phone handset shall be installed in all classrooms, offices, and common areas. The existing district telephone system head end room will need to be protected and maintained throughout the renovation. A new Server/MDF room will be constructed and the existing district phone servers will be moved to the Server/MDF room in a manner that minimizes disruption of services.

Large Venue Live Sound Reinforcement systems with Assisted Listening will be installed for the Gymnasium and Cafeteria. A Large Venue Video Projection system shall be installed in school assembly spaces such as the Cafeteria /Stage and the Gymnasium.

Food Service

Refer to Alternate 4 for description.

3.2.7 Proposed Total Project Budget and Cost Estimate

The construction and project costs for Alternative 3 are estimated to be:

- Construction Cost (average): $ 63,054,231
- Project Cost (based on average): $ 79,717,789

The cost estimate and project budget are attached in Section 4.8.

3.2.8 Permitting Requirements

CITY OF LAWRENCE

Planning Board

Site Plan Review and Approval

A Site Plan Review and Approval application package will be filed with the City Planning Board, as required by the Zoning Bylaw for new school construction. The application package shall conform to the requirements and contents identified in the City Zoning Ordinance. Once the application is formally accepted, the Planning Board and other Boards and agencies will review and comment within 35 days followed by a Public Hearing. It is anticipated that approval from both the Planning Board and Zoning Board of Appeals is required due to increases to existing non-conforming buildings and potential variances. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Zoning Board of Appeals

Special Permit & Variances

It is anticipated that the proposed development will require dimensional variances from the zoning ordinance that would require a Special Permit with requests for variances. An application would be filed with the Zoning Board of Appeals (ZBA). The timing of the application, review period and Hearing would be coordinated with the Planning Boards Site Plan Review.

An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Building Department

Building Permit

A building permit application will be submitted to the Lawrence Building Department prior to the start of construction. If the proposed work conforms to the requirements of the state building code and all pertinent laws under the building inspector's jurisdiction, it is expected that the building inspector will issue a permit within approximately 30 days of the filing date.

Water & Sewer Department

Application for Water & Sewer Service

An application for new Water and Sewer Service connections will be submitted by the contractor to the city during construction.

Roadway Construction Permit

Haverhill Street and Oak Street are the abutting streets of the project site. Haverhill Street is Route 110 but is under the ownership of the City of Lawrence and not the State. For work within these street Right-of-ways, the project will need to have the design and improvements approved by the City departments through the Site Plan Review and ZBA processes. For construction, the project will need to secure an Obstruct/Excavate Petition Permit.

3.2.9 Proposed Schedule Including Phasing

Alternate 3 will require the students be moved into swing for the entirety of construction, resulting in no phasing. Construction is projected to begin September of 2021 and continue for approximately 2 years.

3.2.10 Attachments

Proposed Building Floor Plans

Proposed Site Plan

3.3 Alternative 4: Renovation & Addition Oliver – 760 Students Grades 1-8

Due to the historic designation of the Oliver Partnership building, retaining the historic face of the building is desired. Alternative 4 calls for partial demolition of the existing Oliver Elementary school, replacing it with a 6-story addition, and a comprehensive renovation of the remaining building.

The existing basement level is located a half level below grade, and because of this the new 6-story addition will be just under the 75' max height allowed by code before being designated High Rise Construction. Due to the tight site constraints, only grades 1- 8 are being considered

in this option. If Kindergarten were added, the building would require at least 1 more level pushing the building into high-rise construction.

Demolition will begin at the mid-building stair towers and continue all the way north to Oak Street. Because the middle portions of levels 1 and 2 are a few feet lower than the rest of their level, this area will also be demolished so they can be raised. Approximately 51,275 gsf will be demolished with 25,787 gsf being renovated. A minimum addition of 132,460 gsf will be required.

The renovated portion of the building will be completely reconfigured to better suit the academic goals of the school. All finishes and fixtures will be replaced. All remaining existing windows will be replaced with energy efficient units. All masonry will be repointed, and cracks in existing masonry will be repaired. The remaining roof will be replaced in its entirety. Exterior doors and Storefront systems will be replaced with energy efficient units. Insulation will be provided on the interior side of the exterior masonry walls to increase the wall's R value. In doing so, special consideration will be paid to moisture mitigation as the added insulation could change the wall's dew point resulting in unwanted condensation within the wall.

The main entrance to the building will be moved to the Basement Level so that a sunken courtyard can provide accessible ramps to the main entrance. Administration will flank either side of a locked vestibule so that staff can keep a constant eye on who is entering the building. Past administration, the space will open to a double height Dining Commons with a stage. The Gymnasium, also a double height space, will be just beyond Secondary exits/entrances will be provided from the Dining Commons and Gymnasium towards Oak Street. The kitchen, servery, and custodial spaces will also be on this level.

The proposed building does not contain any centralized media center but instead the designated square footage will be divided equally between each grade level and will serve as a central communal space.

All classroom "neighborhoods" will begin on the Second Floor. Each grade level from 1-5 will consist of 4 Classrooms and an English Learners Classroom. These spaces will be center around a grade specific media space and will be supported by a Resource Room and 2 Small Group rooms. Each level of the building containing classrooms will also contain a sensory room.

Each grade level 6-8 will consist of 3 Classrooms, an English Learners Classroom, and a Science Lab. As with the lower grades, these spaces will surround a grade specific media space, and will be supported by a Resource Room and 2 Small Group Rooms.

Because of the tight site, and a desire not to build a high-rise building, ideal adjacencies as well as desired square footages may not always be possible with this alternative.

3.3.1 Site Analysis

This alternative includes preserving the southern portion of the existing building facing Haverhill Street and removing the rear half of the building. A 6-story addition is proposed in the rear portion of the site that is fully connected to the existing front portion to remain. The addition widens out onto smaller adjacent parcels that are part of the project. Code compliant accessible routes for pedestrians would be created from the adjacent public ways as well as from within the site. Student arrivals and departures will be made from the city streets that will require improvements.

The remaining site area not occupied by the building footprint is limited. These areas include the southern “courtyard” between the existing building and Haverhill Street. This area currently contains a wide concrete sidewalk that extends from the Haverhill Street sidewalk to the front steps of the building at the main entrance. This walkway is flanked on both sides by fenced-off lawn areas. Both the walkway and lawns slope gently up from Haverhill Street to the building steps. The grade elevation at the building is in between the basement level and the 1st floor. In the proposed condition, the interior portion of this area will be lowered to match the basement grade creating an entrance at that level. The perimeter of the courtyard against the building will remain at its current elevation. The entire space will be designed as a usable outdoor space with hardscapes and plantings, seating areas, steps and retaining walls. The area will also include a small K-2 playground. The perimeter along Haverhill Street and the sides will include decorative fencing. An accessible slope from the street to the lower level entrance will be provided.

Other site areas within the parcel include narrow paths along the east and west side of the building that will be finished with pavement and include ramps for accessibility to the side entrances. A small parking lot will be designed for the most western parcel along Oak Street and include 10-15 parking spaces. The existing sidewalks along the entire frontage of Oak Street will be reconstructed with concrete pavement up to the proposed building. Roadway improvements will include bituminous paving repairs and a mill and overlay of Oak Street along the entire frontage. A raised tabletop crosswalk section will be included that extends across to O’Neill Park. Similarly, on the south side of the project the existing sidewalks along the entire frontage of Haverhill Street will be reconstructed with concrete pavement, and roadway improvements will include bituminous paving repairs and a mill and overlay of Haverhill Street along the entire frontage.

The street improvements on both Haverhill and Oak Streets will also include pavement markings and flashing warnings for the pedestrian crossings. A layby lane will be included along the school’s frontage with Haverhill Street.

The size of the site precludes having adequate play/athletic space on-site, but the school is adjacent to parks. The project also plans to upgrade a portion of either O’Neil or Campagnone Park for the schools use.

The building foundations for the addition will require support of excavation around the entire perimeter due to the proximity of the property line to the building. The addition will include a full height basement level, see building sections.

Drainage from the rooftops will be collected and routed to a groundwater recharge system and surface drainage will be captured and treated prior to discharge from the site.

Utilities for the school will be all new from the points of connection in the adjacent streets to the building including sewer, gas. domestic water, fire service water, electrical and telecom. See source utility information in Section 3.3.5.

3.3.2 Evaluation of Potential Student Impacts

Alternate 4 requires renting temporary swing space to house the entire population currently at Oliver, grades 1-5. Grades 6-8 can remain at their current location until construction is completed.

Due to the tight site constraints, only grades 1- 8 are being considered in this option. If Kindergarten were added, the building would require at least 1 more level pushing the building into high-rise construction.

3.3.3 Conceptual Architectural and Site Drawings

Conceptual Site Drawings

Alternative 4 – Proposed Renovation/Addition Site Layout Plan at Oliver School

Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Lawrence Public Schools educational program.

Larger versions of the floor and site plans are included in Attachment Section 3.3.10

Alternative 4 – Floor Plans

3.3.4 Outline of Major Structural Systems

The structural scope of work for Alternative 4, partial demolition, renovation, and construction of a new addition to the Oliver School can be broken into two portions, the addition portion, and the portion of the existing structure to remain.

Renovation

The partial demolition of the existing school as described for this Alternative would trigger the Level 3 Alteration Structural Provisions of the 2015 IEBC. The interior walls are load bearing masonry walls and reconfiguring the space to achieve the required architectural program would require demolition. The temporary support of the floor and roof may prove uneconomical when compared to the construction of a new superstructure. This would be especially true if the schedule of the project is a priority. A new superstructure would be engineered to the specific demands of modern code. It is suggested that the new floor and roof match the construction type of the superstructure of the new addition, either steel or concrete. If portions of the existing superstructure were elected to remain, these portions would require new lateral force resisting elements to provide sufficient bracing under seismic loads. These elements would consist of steel diagonal braced frames or masonry or concrete shear walls.

Existing foundation elements would have been constructed to carry the weight of load bearing walls. A new internal frame would transition the load bearing condition to be at discrete points rather than distributed as a line load, preventing the reuse of the existing foundation, and necessitating new foundation elements. The new foundation system should match that of the

new construction. With a new internal frame, the need for a seismic isolation joint between the existing structure and the addition is reduced.

The existing masonry walls to remain will be tied to the super structure to provide adequate bracing. The existing masonry walls were constructed before the modern Massachusetts State Building Code (780 CMR MSBC) went into effect in 1975. The prevailing Codes at that time did not require the structure to be designed or detailed with a deliberate seismic or other lateral force resisting system. The walls may offer some load carrying ability for lateral loads, but additional elements such as braced frames or shear walls will be required at or near the perimeter to resist wind and seismic loads.

Depending on the final architectural configuration permanent steel frames may need to be added to provide stability to the façade and to brace the façade' from out of plane wind and seismic loads.

Any replacement of existing utilities under the ground floor slab-on-grade will require cutting out the existing concrete slab, excavating out the old utilities, and replacing the slab after the utility work is complete. The new slabs will be bonded to the existing slabs by drilling into the existing concrete and installing epoxy dowels.

Additionally, the existing structure may require additional temporary shoring and bracing during construction to prevent damage to the structure.

Underpinning

The existing building foundation type and condition is unknown. No construction documents of the building from the time of original construction are known to exist. It is likely that the existing foundation consists of reinforced concrete strip footings under bearing walls with isolated spread footings at select locations. Alternatively, the structure could be founded on a deep foundation system such as timber piles. It is recommended that an investigation be performed to determine the existing foundation type and condition.

In Alternative 4, the existing basement will be extended and increased in area. Where the new foundation abuts the existing foundation, care should be exercised to prevent undermining of the existing foundation system. Selective underpinning may be required if the bearing condition of existing walls to remain in place have a foundation condition that is impacted by the new construction. Depending on the results of the geotechnical investigations, a deep foundation system such as Micropiles could be required to support the underpinned walls.

New Structure

The following recommendations are provided for the structural systems of the proposed addition:

Foundations

Seismic Considerations

The Preliminary Geotechnical report from Nobis dated April 13, 2020 indicates that the seismic site classification is site class F. A site-specific liquefaction study will need to be provided in

order to complete the structural design. The Preliminary Geotechnical report contains more information on the seismic site classification.

Support of Excavation

In order to perform the work associated with the foundations, temporary support of the excavation (SOE) may be required. The extents and amount of SOE will depend on the final foundation configuration, adjacency to lot lines, adjacency to existing structures, adjacency to roadways, and the location of utilities. It may be possible to incorporate elements of the SOE into the final foundation structure.

Conventional (Shallow) Foundation Option

The Preliminary Geotechnical report from Nobis dated April 13, 2020 indicates that shallow foundations may be suitable for the new construction. Shallow foundations are often more economical than deep foundations and should be utilized if feasible. The Preliminary Geotechnical report contains more information on the suitability of shallow foundations.

If a shallow foundation system for the new building is a feasible option, this system will consist of conventional reinforced concrete foundation walls at the perimeter of the better walls will need to be retaining walls at basement locations. All footings will rest on shallow undisturbed natural soils. New foundations will be tied to the existing foundations to minimize differential settlement of the two structures. A geotechnical report detailing the specific site conditions will need to be provided for the structural design. The new ground floor level will likely be a conventional 5” slab on grade. Elevator pits will consist of 10” thick reinforced concrete foundation walls supported on a continuous 12" thick reinforced concrete mat foundation.

Deep Foundation Options

The Preliminary Geotechnical report from Nobis dated April 13, 2020 indicates that several factors including the structural loads, new foundation elevations relative to existing foundation elevations, soil bearing capacity, soil susceptibility to liquefaction and estimated settlement may necessitate the use of deep foundation or ground improvement methods. The Geotechnical Engineer has requested refined structural loads and column locations to assist them in making a determination if deep foundations are required.

Alternatives to conventional spread footings are a mat foundation, spread footings on ram aggregate piers (RAP) or rigid inclusions (RI), drilled micro pile (DMP), or ductile iron pipe (DIP). The Geotechnical report provides further information on these foundation systems. It may be possible to use a combination of systems, such as DMPs immediately adjacent to the existing structure to prevent damage to the structure during installation, and RAPs afield where their installation is less likely to negatively impact the existing structure. A deep foundation would likely require a reinforced structural slab as opposed to a conventional slab on grade for the lowest floor level.

Superstructure

Concrete Frame Option

Due to concerns about the existing floor to floor heights of the existing structure and of keeping the overall height of the structure below the high-rise construction limit, a concrete framed

superstructure may be a suitable option for this project. Concrete framed construction generally results in a lower structural depth within the floor assembly.

Structural floor and roof systems for the new construction would consist of a two-way post-tensioned flat plate structural slab with drop panels. This system is economical with a column configuration that results in bays that are 35’ or less and with a bay ratio of 2:1 max. Columns would consist of rectangular or round reinforced concrete sections.

The lateral force resisting system would consist of strategically located reinforced concrete shear walls. These shear walls would need to extend the full height of the structure.

Concrete Frames generally result in a higher dead load than equivalent steel frame structures. This increased dead load would increase the necessity of deep foundations as the column loads will be larger.

Steel Frame Option

Structural Steel may prove to be an economical option for the new construction. The following recommendations are provided for a structural steel framed addition.

Structural floor framing systems for new construction would consist of composite steel beams and girders framed into wide flange steel or tubular shaped steel columns. These members will support a 2"x 20 gage galvanized composite steel deck with 3 1/4" of lightweight concrete topping (5 ¼” total thickness) reinforced with welded wire fabric. All steel beams and girders will be spray fireproofed. The metal floor deck will not need to be fireproofed.

New roof framing will consist of wide flange steel beams and girders supported on wide flange or tubular steel columns. The roof framing will be decked with a 1.5” deep wide rib metal roof deck.

Diagonal braced frames, composed of HSS tubular steel sections, will be incorporated into the steel framing at the demising walls of the new construction for lateral force resistance.

The roof framing under the new rooftop mechanical units will consist of composite steel beams and girders supporting a 2" galvanized composite deck with 4" of normal weight) concrete topping (6” total thickness) reinforced with welded wire fabric. The concrete pads under the units will extend at least 5’ beyond the footprint of the unit on all sides.

3.3.5 Source, Capacities and Method of Obtaining Utilities

The existing school is currently served by municipal water and sewer systems, and the storm drainage systems discharge to the systems in the adjacent streets, Oak Street and Haverhill Street. Most of the services for the renovated and building addition areas will be replaced or upgraded as described below.

Water Distribution System

Existing city plans show a 16” water main and a 12” high service fire main in Haverhill Street. There is a 6” water main in Oak Street and an 8” water line looped between the streets within the alley adjacent to the west side of the school. It is assumed that the current service is fed from the 8” within the site.

The looped water line in the alley will be replaced with a new water line connected in both Oak Street and the 16" Haverhill Street main. It will provide the domestic water connection to the building.

The new buildings fire protection service and a new hydrant will feed off the 12" high service pipe in Haverhill Street and will include a wall mounted indicator valve, as required by NFPA. All services will be coordinated with the Lawrence fire department and water department.

Sanitary Sewer System

The existing sewer connection is to a sewer manhole at the intersection of Oak and Short Street.

At least a portion of the existing service line will be removed, and a new line will be added in its place to connect the building to the manhole in Oak Street.

A new precast concrete grease trap will be installed to treat wastes generated from the kitchen in accordance with the Plumbing Code. Typical sewer manholes will consist of precast concrete and have exterior surfaces painted with two coats of bitumastic paint.

Storm Drain System

The limited existing site drainage will be removed. New drainage pipes catch basins and manhole structures will be added to the site to capture areas that do not drain directly to the adjacent streets. The proposed system will connect to the existing stormwater networks in Haverhill Street and Oak Street

Stormwater runoff collected from parking areas will be treated with new water quality units before flowing out to the existing municipal network. Treatment will be done in accordance with the Massachusetts Stormwater Management Handbook.

A portion of the roof runoff will be routed to subsurface groundwater recharge structures to infiltrate it back into the ground. The design will be based on detailed subsurface geotechnical investigations including the existing groundwater elevation and soil permeability.

Electrical

Existing electrical services will be removed, including primary and secondary underground services, portions of existing overhead wiring, and utility poles.

New underground primary and secondary electric services will be installed, as well as new telecommunication services. A new pad mounted transformer, new pad mounted emergency generator and new light poles with LED fixtures will also be installed. Refer to Electrical Systems description under MEPFP Systems sections.

3.3.6 Narrative of Major MEPFP Systems

Mechanical Systems

Existing equipment is generally past life expectancy, less efficient, too loud for classrooms, lacking BMS controls, or is based on gas heating and all should be removed.

A new Heating, Ventilating and Air Conditioning system will be provided to serve the various program spaces of the elementary school building to meet current codes and energy standards.

The new heating and cooling will be based on the use of high-efficiency heat pumps utilizing VRF technology. Generally, we will use one refrigerant circuit per floor with Air Conditioning Units (ACUs) in each room and condensing units (ACCUs) on grade or on the roof.

Dedicated Outdoor Air Systems (DOAS) with energy recovery will provide ventilation and exhaust. The DOAS units will be configured as energy recovery units with VRF heating and cooling and Variable Air Volume (VAV) distribution will provide ventilation to classrooms and other spaces with 100% outdoor air. Spaces will be zoned so that similar usages and exposures will be paired.

Classrooms, Small group, Media Center, Administration, and other educational spaces will be heated/cooled/ventilated with the VRF and DOAS systems. Setpoints will be set at the BMS with a DDC control system.

Ceiling fans will provide occupant comfort control in the gym/auditorium.

Zones will have ACUs for heating/cooling and VAV boxes controlling the ventilation airflow.

Entry vestibules and stairwells will be provided with electric cabinet unit heaters and electric baseboard.

A Make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and/or roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Consideration will be provided for powering selected systems from an emergency power source, as required for life safety, heating, and for standby operation of certain systems. This typically

includes motorized fire/smoke dampers or the heating system and associated terminal equipment and controls.

An alternate Mechanical system with Gas heat

The new heating will be based on the use of three (3) high-efficiency Boilers and a primary/secondary pumping arrangement to provide heating to the entire building.

Dedicated Outdoor Air Systems (DOAS) with energy recovery will provide ventilation and exhaust. The DOAS units will be configured as energy recovery units with hot water heating and DX cooling and Variable Air Volume (VAV) distribution will provide ventilation to classrooms and other spaces with 100% outdoor air. Spaces will be zoned so that similar usages and exposures will be paired.

Classrooms, Small group, Media Center, and other educational spaces will be heated with radiant panels and partially cooled with the ventilation from the DOAS systems. Setpoints will be set at the BMS with a DDC control system. Classrooms will additionally have ceiling fans to provide additional occupant control.

Ceiling fans along with ventilation will provide occupant comfort control in the gym/auditorium.

Administration will use the DOAS for ventilation and have a Variable Refrigerant Flow (VRF) System to provide heating and cooling.

Entry vestibules and stairwells will be provided with cabinet unit heaters and Fin Tube Radiation as needed.

A gas fired Make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and/or roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Electrical:

The Oliver Partners School' electrical service is provided by the local utility company, National Grid. The service initiates off the existing National Grid high voltage line, running overhead along the Oak Street. The service to school is provided via a bank of (3) three pole-mounted stepdown transformers, owned and maintained by the National Grid. Building electrical systems, including equipment and distribution power feeders and branch wiring, are mostly at or beyond their

useful life expectancy. Code deficiencies exist throughout the facility. A service upgrade is recommended to a 2,500A (dependent on HVAC loads), 277/480V, 3-phase, 4 wire system, and a system of new panelboards separated by use; lighting, mechanical and general power will be provided in dedicated electrical rooms throughout the building to serve equipment, lighting and branch circuit loads.

The existing lighting to be upgraded to high efficiency LED lighting with integral dimming drivers and lighting controls with local vacancy sensors, occupancy sensors and daylight harvesting sensors will be installed in accordance with IECC 2018. Light fixtures and lighting controls are recommended to be replaced with new LED style fixtures which would provide more acceptable light output with increased energy efficiency.

There is currently no emergency generator at the premises. A new 300KW, 277/480V, 3-phase, 4 wire life-safety generator is recommended to provide power for the emergency egress lighting, fire alarm system and other code-required items. Even though the building is technically not high-rise construction, the elevator and fire pump will be wired to the emergency generator.

The existing fire alarm system is a non-addressable zoned system. In general, the fire alarm system is a combination of equipment installed at different times and supplied by different vendors, in operational condition. The current code requires a voice evacuation system for ‘E’ use group. In order to comply, an upgrade of the fire alarm system is required.

Tel/Data & Security

A new IESS “integrated electronic security system” which consists of 5 sub-systems Intrusion, CCTV, access control, visitor entry and active shooter/duress alert will be installed. The systems are integrated and viewed as one via a single security GUI “graphical user interface”. The CCTV system will consist of computer servers with image software, computer monitors, and IP based closed circuit TV cameras. Additional CCTV cameras will be added to the system. The existing Hikvision cameras can be re-used and integrated to the new VMS system. The head end server shall be located in the head end MDF room and will be rack mounted. The locations of cameras generally will be on site lighting poles, on the exterior perimeter of the building, in corridors and in stairwells. The majority of the cameras will be multi-head type. The system shall fully integrate with the access control system to allow viewing of events from a single alarm viewer. Camera images and recorded video shall be linked to the access system to allow retrieval of video that is associated with an event. The IESS shall be accessible by all authorized district users via the fiber WAN.

The Active Shooter/Duress Alert system consists of a wireless control panel with wireless panic buttons, wireless receiver/transmitters, and wireless prism/strobe lights. The control panel is interfaced to an active shooter/duress alert network application installed on school designated networked computers and first responder dispatch and mobile data terminal computers. The wireless buttons and/or the network application system will be programmed to allow for notifications with the exact location of the alert to be received in less than 1 second when a request for help is initiated. The network application will be programmed for various incidents as determined by the school such as medical, behavioral, and/or notification to first responders for emergency life threatening incidents. The system will be interfaced to various school-wide systems as determined by the school for audio and visual emergency notifications such as the PA, IPTV, and prism/strobe light systems. The system will be interfaced to the access control system for lockdown situations. The system will be interfaced to the CCTV system to activate cameras in the vicinity of the incident. The system will also have the capability of interfacing to

school and/or first responder radios and to school and first responder computers for two-way communications during a life-threatening incident.

An Intrusion system will consist of security panel, keypads, motion/glass break detectors and door contacts. The system is designed so that each perimeter room on the ground level with exterior doors and/or windows will have motion/glass break detectors along the exterior wall, door contacts at each exterior door, and motion detectors in corridors of the upper levels. The system is addressable, so each device will be identified when an alarm occurs.

The Access Control system will consist of a card access controller, door controllers and proximity readers/keypads. Proximity readers will be located to allow access to authorized personnel, at all times. Each proximity reader will have a distinctive code to identify the user. The alarm condition shall also initiate real time recording on the integrated CCTV System that is included as part of this proposed system. The system is programmed with graphic maps allowing the end-user to quickly identify alarm conditions and lock/unlock doors. The system includes remote release buttons in offices that will allow the person to release the door locking mechanism at designated visitor door(s) from their desk.

A new Server/MDF room will be constructed and will distribute OM4 laser optimized 10gig fiber optic backbone cabling to IDF rooms located throughout the building. Temporary fiber cabling between wire closets will be required for continuation of services through all construction phases. The technology systems infrastructure will be upgraded to Cat 6A for tel/data locations throughout. Additional horizontal Cat 6 cabling may be required for swing spaces. The technology systems will include the infrastructure for the number of wireless access point locations required for WiFi coverage of the entire building including all classrooms, media spaces, common areas, administrative offices, and outdoor instructional spaces. The infrastructure will permit mobile carts housing student iPad and/or Chromebook devices to be located in each classroom.

An IPTV system consisting of head end equipment will be installed providing distribution of digital video over the data network to all networked devices including computers, Interactive Projectors and/or Interactive Flat Panel Displays, and digital signage monitors. The head end equipment shall reside in the Server/MDF room.

A new Master Clock system with wireless synchronized secondary clocks will be installed. The Master Clock shall be interfaced with the Public Address system for scheduled bell tones. A new Public-address system will be installed with speakers located throughout the building designed with the ability to page an individual room, or make an announcement to specific zones, or throughout the entire building. The Public Address system shall be interfaced to the phone system allowing for pages or announcements to be made from any phone handset by authorized users.

A wireless Sound Field system will be installed in all instructional areas providing assisted listening technology in each classroom for hearing impaired accessibility. Interactive video projectors or interactive Flat Panel Displays will be installed in all classrooms and/or academic spaces. The interactive devices will be interfaced to the Sound Field systems.

A VoIP phone handset shall be installed in all classrooms, offices, and common areas. The existing district telephone system head end room will need to be protected and maintained throughout the renovation. A new Server/MDF room will be constructed and the existing district

phone servers will be moved to the Server/MDF room in a manner that minimizes disruption of services.

Large Venue Live Sound Reinforcement systems with Assisted Listening will be installed for the Gymnasium and Cafeteria. A Large Venue Video Projection system shall be installed in school assembly spaces such as the Cafeteria /Stage and the Gymnasium.

Plumbing

While the 1923 building is being renovated in this alternative, all plumbing systems within that building will be removed. The new plumbing system will be designed in accordance with the 9th Edition of the Commonwealth of Massachusetts Building Code, 248 CMR Fuel Gas and Plumbing Code, Latest addition of National Fuel Gas Code NFPA 54.

The building will have new 6" domestic water supply and will enter into the facility through boiler room. Reduced Pressure Backflow Preventer will be provided to the main domestic water supply to protect the service (per the DEP regulation 310 CMR 22). Potable water will meet both the NSF 61 and NSF 372 standards for lead free safe drinking water Act. Boiler water feed and make-up, and any other mechanical take-Offs will branch off through a reduced pressure-principle backflow preventer. Domestic cold water inside the building will be "L" type copper tube with wrought or cast copper fittings. All cold-water piping will be insulated to prevent condensation.

Domestic hot water supply will be provided from instantaneous electrical water heaters located at four strategic locations of the building. Each location will house two 30 KW instantaneous electrical hot water will be manifolded together to generate 14 gpm flow at 60 °F rise. The Kitchen area will house its own electrical hot water heater for kitchen appliance. Water heater will be modulating type and will be available on demand basis. The domestic hot water distribution piping will have self-regulating electric heat tracing cable for temperature maintenance. The product shall be equal to Stiebel Eltron Model CE 27.

The domestic hot water distribution will have dual temperature hot water supply / recirculation systems in the building. One system will operate at 140°F and will serve the kitchen dishwasher and 3-Compartment sink. The other system will operate at 120°F and will serve the other kitchen appliances, custodian room sinks, locker room, lavatories, and classroom sinks. All lavatory faucets will have thermostatic mixing valves to temper water supply. Domestic hot water will be distributed in "L" type copper tube with wrought or cast copper fittings. The hot water (HW) and re-circulating (HWC) piping will be insulated per IECC 2012.

The surface of the roof deck will be drained with dual level promenade drains with the lower drain bodies flashed into the waterproofing membrane. Roof with parapet wall will have overflow drains. Overflow drains will be extended to exterior wall with nozzle. The rain water system will be sized to handle a rainfall rate of 4 inches per hour, with a total runoff from the main roof and the roof deck of just under 1 cubic foot per second. The storm system will be installed in cast iron piping with all horizontal piping insulated to prevent condensation. The storm system will exit at various location of the building and connect to the site storm water collection system.

The sanitary waste system will drain by gravity and will run to exit the building and connect to the sewer system at the site. A dedicated grease waste line will be installed to collect grease laden waste water from the Kitchen appliances and fixtures. The grease line will exit the building adjacent to the Sanitary Sewer and will be connected to an exterior grease trap outside the

building. Grease traps will be provided at the source for any prep sinks. A new 8,000-gallon capacity outdoor grease interceptor will be placed on the site to intercept grease laden waste prior connection to site sewer system. Art room sinks will be provided with solid interceptors. Chamber vents from the interceptor will be routed to the roof independent from the rest of the sanitary waste. The above ground sanitary drainage and vent will be piped in cast iron with "no-hub" joints (3" or larger). Piping smaller than 3-inch will be piped in copper. Piping below floor shall be weight cast iron hub and spigot. All floor drains will have wet trap primer connection with electronic trap primer.

Number of plumbing fixtures will be added in the facility to accommodate population of male students and female students and shall be in accordance with 248 CMR Paragraph 10.10, Table 1. Plumbing fixtures will be equipped with the following water conserving features (for 30% indoor water use reduction-LEED-V4, Credit 2).

Water Closet	Urinals	Lavatory
Toilet flush valve to be water sense labeled, Manual 1.1 gpf flushometer. Equal to American Standard 6047.111.002	The Flush valve to be water sense labeled, Manual operated at 0.125 gpf equal to American Standard 6045.013.002.	Deck Mounted 4" fixed centers Metering Faucet, (lead free), 0.35 gpm aerator. Faucet to be equal to Chicago Faucets Model 3500-4E39PABCP.

Water closets and urinals will be commercial vitreous china, wall hung (ADA compliant). Lavatories will be self-rimming counter top mounted china. Each floor will include a janitor's closet with a corner mop service basin. Toilet cores on each floor will include alcove-recessed electric water cooler with bottle filling station and, in a high-low handicapped accessible configuration to meet MAAB requirement. All toilet and mechanical rooms will have floor drains complete with trap primers. All art rooms will have self-rimming stainless-steel sink with gooseneck type faucets (Chicago#786-GN). Boiler room will include service sink and eyewash station. Plumbing roughing connections and faucets will be provided to each kitchen appliances requiring plumbing work. Non-freeze wall hydrants will be provided along the exterior wall of school building.

Fire Protection

The entire building shall be protected throughout with a wet automatic fire suppression system. A fire department Siamese pumper connection will be provided at the exterior wall, near a site fire hydrant. The FDC will either be wall-mount or free-standing, depending on the final details and the preference of the Fire Department AHJ.

The system will be designed in accordance with NFPA Standard 13, 2013, the latest Massachusetts State Building Code and local jurisdiction. A new 8" fire service line from the street will be installed to a dedicated fire pump room. The fire pump room shall be 2 hour rated construction with direct exterior access. The room will have a supervised double check valve assembly backflow preventer feeding a 750 GPM, 60 PSI, 40HP fire pump and wet alarm check valve. From there, the fire protection pipe will run to each stairway, and up through the stairways as standpipes.

Sprinklers will be supplied from the standpipes in the stairs. Floor control valve stations, consisting of a monitored shut-off valve, flow switch and an Inspector's test valve and sight glass, will be provided at multiple stairs at each floor, taken off from the standpipe system. Light hazard areas include classrooms, corridors, cafeteria, rest rooms, offices, etc. Ordinary hazard group-1 areas of the building include kitchen, mechanical rooms, electrical rooms, etc.

Standpipes will be supplied in all required egress stairs. Standpipes would be designed in accordance with NFPA Standard 14, 2013, and local Fire Department requirements. Standpipes will be located in each required egress stairway, and adjacent to the Stage. Additionally, standpipes will be located so that no part of the building is more than 200 feet from a standpipe valve. Each standpipe will be equipped with a 2 1/2" fire department hose valve with 1 1/2" reducer at the stair floor landing. Because the building is not a high rise, there is no minimum pressure requirement for the standpipes.

Sprinkler heads in areas with finished ceilings will be concealed pendant type and in areas with no suspended ceilings will be upright sprinkler heads. All sprinklers will be quick response heads. Sprinkler heads in mechanical rooms will be provided with wire guards.

The fire protection piping will be schedule 40 piping with threaded fittings for any piping sized 1½" and less. For sizes over 2", schedule 10 piping with roll grooved fittings and couplings will be used. All valves controlling the flow of water will be equipped with supervisory devices that report to the Fire Alarm system.

Food Service

The food facility described herein will be designed to provide quality food service to students and faculty. The facility will be totally self-sustaining without dependence upon outside commissary operations. Most food products are to be prepare on site.

General Description of the Areas and Functions

Receiving Area: This area shall be located within proximity to the receiving facility and will include space for staging. Storage areas, office(s) and staff toilets and lockers shall be located in close proximity to this area. To the greatest extent possible, a separate soiled/trash area will be provided. The separation of clean and soiled activities will greatly reduce the risk of cross-contamination. All soiled activities will utilize this area. In close proximity to this area and will include ware washing, can washing room, janitor's closet, recycle holding, clothes washer/dryer, garbage can washer and can crusher.

Janitor's Closet: This area and will include recycle holding, garbage can washer, janitor's sink, cart washing and can drying racks. Garbage cans will be washed here before returning to service in the food production and waste collection areas. A hose reel assembly will be provided within the can washing room to facilitate housekeeping.

Food Service Office: The food service office shall be sized to accommodate at staff of two (2) and shall include a computer workstation along with multiples of required work items including file cabinets. Space for a Food Service Planning area will be incorporated to provide for menu planning, staff training and code compliance documentation. Office will be glazed to the greatest degree possible.

Food Service Staff Toilets & Lockers: Staff toilets and lockers will be appropriately sized to accommodate a staff of approximately eight (8); one (1) Head Cook and seven (7) Lunch Aides. All areas will be handicap accessible. Locker size requirements will be determined during the design phase.

Refrigerator & Freezer Storage: The refrigerator & freezer storage spaces will be designed to provide storage space for perishable goods for approximately five (5) days inventory. This area will be divided into walk-in compartments: refrigerator(s) and freezers. Walk-in units will be of the prefabricated type. Floors may be depressed into the building slab rendering these floors the same level and finish as adjacent kitchen floor. Each compartment will be fitted with an audio-visual temperature alarm system. The alarm system will be installed at the front door section of each compartment and be inter-wired to an alert system at the building “monitoring system”. Included at each walk-in door, there will be a localized audible panic alarm. Doors to be fitted with vision panels. Emergency generator power is required for all walk-in refrigerators and freezers. All shelving will be modular in size and mobile. A separate commodities freezer is required.

Dry Food & Paper Storage: The dry and paper storage areas will be designed to accommodate approximately five (5) days inventory in ambient temperature-controlled spaces. All shelving will be modular in size and shall be mobile. Mobile can storage racks are required.

Preparation / Cooking: The food production area will be designed to minimize labor and reduce traffic. The arrangement and selection of types of equipment will be such as to allow a maximum ease of operation, and to promote an exceptionally high degree of sanitation. All kitchen exhaust elements (over cooking equipment) will be of the high velocity type fitted with grease extractor cores. In addition, these units will be complete with wet chemical fire extinguishing systems, interconnected to automatic cooking equipment power shut down devices. A “Demand Ventilation Control Package” where the system modulates the speed of the exhaust and makeup air fan motors in response to appliance cooking activity may be considered here. All cooking equipment and food processing machinery intended for use here will be electrically operated and of the competitive manufacture and will bear applicable seals of approval by NSF, U.L., A.S.M.E., etc.

Utility Distribution System: A mechanical raceway will be installed behind the cooking equipment. This system, which is free standing, contains the final point of mechanical connections for all adjacent items of equipment. The use of this "mechanical raceway" allows electrical, gas and water services to be brought in within vertical columnar elements to single points of connection. Quick disconnect devices for all services are located at each piece of equipment allowing ease of service, maintenance, and replacement if necessary. The cost of this Utility Distribution System is offset by a savings in primary utility service installation, final equipment connection and maintenance costs. This unit will also greatly enhance sanitation allowing ease of access for housekeeping.

Ware Washing: The ware washing facility will be designed to accommodate all kitchen wares such as 18" x 26" sheet pans and 12" x 20" cafeteria pans. The ware washing machine will be fitted with integral prewash, wash and final rinse (sanitizing) hot water booster. The soiled accumulation and scrapping areas will be designed to provide for use of the ware washing machinery at maximum capacity. No soiled deposit window is required since all service ware will continue to be disposable. Several modular mobile shelving units will be furnished for the storage of clean kitchen wares and for the transport of soiled wares.

Pot Washing: This area will include a soiled pot table with soak, rinse, and sanitizing compartments; drain boards will be adequate in size. Several stainless steel modular mobile shelving units will be furnished for the storage of clean pots and pans and for the transport of soiled wares. Each sink compartment will measure 27" x 27" x 16" deep. Final sanitizing will be by Owner's chemicals.

Serving Area: The food facility will be designed for a total student population of 736. Lunch will be served in three (3) lunch waves of approximately 250 per wave including some faculty participation. Breakfast will continue to be delivered to classrooms. The Servery will be comprised of two (2) traditional straight serving lines. The lines will be designed for maximum menu flexibility. Staff will assembly and pass completed trays to students. All salads shall be pre-wrapped. Equipment and arrangement of will provide total menu flexibility/mobility and exceptional access for housekeeping, serviceability, and maintenance. Cashiers will be located at the exit from the Servery leading into the Cafeteria. Cashiers station will require accommodations for computer network data lines to be routed to the Food Service Office. Pre-packaged condiments will be offered at the serving lines and a mobile condiment station will be located in the Cafeteria for supplemental items.

Cafeteria & Storage Areas: The Cafeteria shall be located adjacent to the Servery. Size, seating, storage, and design requirements for this space shall be determined by the Architect.

Faculty Dining: The Faculty Dining room that shall be separate; with no connection to the Kitchen. This space shall be located in close proximity to the Servery. Size and design requirements for this room shall be determined by the Architect.

Sustainable Food Service Design: The following items should be considered for inclusion here;

- Water Conservation: Ware washing machines, air-cooled systems for ice machine and out-door compressor, low flow spray valves and aerators.
- Provide High Efficiency Energy Star Label Equipment & Lighting.
- Exhaust Hood: Demand Ventilation Control Package - System modulates the speed of the exhaust and makeup air fan motors in response to appliance cooking activity.
- Waste Reduction System – Substantially reduce the volume and weight of food service waste, while reducing hauling costs and improving sanitation.
- Incorporate temperature maintenance, water filtration and sanitation to promote food safety.

Recommended Space Analysis:

- Total Student Population – 736
- Meals/transactions per day – 750 including some faculty participation
- Three (3) lunch waves of 250

Area	Add/Reno Food Facility NSF
Receiving/Staging Area (Interior)	100
Can Wash/Janitor's Closet, Recycle Holding & Det. Storage	80
Food Service Washer & Dryer	80
Food Service Staff Toilets & Lockers -Staff of eight (8)	300
Food Service Office - Staff of two (2)	150
Dry Food Storage - (Five (5) days inventory)	100
Paper & Non- Food Storage (Five (5) days inventory)	100
Refrigerators & Freezer Storage (Five (5) days inventory)	280
Commodities Freezer Storage	120
Preparation & Cooking (includes Breakfast staging)	1,020
Ware Washing & Pot Washing	300
Serving Area - Two (2) traditional straight lines	1,000
TOTAL FOOD SERVICE NSF	3,630
Cafeteria Dining Room & Storage	Architect
Faculty Dining Room	Architect

Food Service Equipment Estimate: Based on the design narrative outlined herein, the "magnitude of cost" for the Food Service Equipment is $685,000.00 delivered and set in place.

This estimate includes:

- All kitchen equipment delivered and set-in-place, ready for final utility connections.
- Food Service Equipment Contractor's profit.
- All new walk-in freezer and related refrigeration system.
- Food service exhaust ventilator(s) with Demand Control Ventilation (DCV) and fire suppression systems.
- Utility distribution system to provide utility connections to cooking equipment.

This estimate does not include:

- Existing equipment to be selected for re-use and relocation.
- General construction of any kind.
- Plumbing, electrical and HVAC services and final connections to equipment.
- General Contractor's mark-up/contingencies.
- Small wares, pots, pans, service ware, tables, chairs, etc.
- Escalation beyond October 2020.
- Applicable taxes.

3.3.7 Proposed Total Project Budget and Cost Estimate

The construction and project costs for Alternative 4 are estimated to be:

- Construction Cost (average): $ 99,930,268
- Project Cost (based on average): $ 125,812,835

The cost estimate and project budget are attached in Section 4.8.

3.3.8 Permitting Requirements

CITY OF LAWRENCE

Planning Board

Site Plan Review and Approval

A Site Plan Review and Approval application package will be filed with the City Planning Board, as required by the Zoning Bylaw for new school construction. The application package shall conform to the requirements and contents identified in the City Zoning Ordinance. Once the application is formally accepted, the Planning Board and other Boards and agencies will review and comment within 35 days followed by a Public Hearing. It is anticipated that approval from both the Planning Board and Zoning Board of Appeals is required due to increases to existing non-conforming buildings and potential variances. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Zoning Board of Appeals

Special Permit & Variances

It is anticipated that the proposed development will require dimensional variances from the zoning ordinance that would require a Special Permit with requests for variances. An application would be filed with the Zoning Board of Appeals (ZBA). The timing of the application, review period and Hearing would be coordinated with the Planning Boards Site Plan Review. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Building Department

Building Permit

A building permit application will be submitted to the Lawrence Building Department prior to the start of construction. If the proposed work conforms to the requirements of the state building code and all pertinent laws under the building inspector's jurisdiction, it is expected that the building inspector will issue a permit within approximately 30 days of the filing date.

Water & Sewer Department

Application for Water & Sewer Service

An application for new Water and Sewer Service connections will be submitted by the contractor to the city during construction.

Roadway Construction Permit

Haverhill Street and Oak Street are the abutting streets of the project site. Haverhill Street is Route 110 but is under the ownership of the City of Lawrence and not the State. For work within these street Right-of-ways, the project will need to have the design and improvements approved by the City departments through the Site Plan Review and ZBA processes. For construction, the project will need to secure an Obstruct/Excavate Petition Permit.

3.3.9 Proposed Schedule Including Phasing

Alternate 4 will require the students be moved into swing for the entirety of construction, resulting in no phasing. Construction is projected to begin September of 2021 and continue for approximately 2.5 years.

3.3.10 Attachments

Proposed Building Floor Plans

Proposed Site Plan

Geo-Environmental

A Phase 1 Environmental Site Assessment was performed on the Oliver School site by Nobis Group. Their report is attached to this report.

3.4 Alternative 4a: Addition/Renovation Oliver – grades K-8 est. 1000 students

Alternative 4a consists of the partial demolition of the existing Oliver Partnership Elementary School, the complete renovation of the remaining portion, and an addition replacing the demolished portions. The completed building will house grades K-8 with a projected enrollment of 1,000 students. The new addition will introduce a new basement level, lower than the existing one, and will add one additional level to the top of the building. Special consideration has been paid to the overall height of the addition so that it does not become a "high-rise construction" as defined by code, and so that it does not overwhelm the historic portions of the building and surrounding neighborhood.

In total, 42,906 gsf of existing building will be demolished, 34,783 gsf will be renovated, and a 125,203 gsf addition will be added, resulting in an approximate 159,986 gsf building.

Demolition will start at, and include, the stairs located mid-way between the front and back of the existing building and continue all the way north to Oak street. The existing gymnasium space, including its northern most wall, will not be demolished. Note that all floorplates in the entire existing building will be demolished. The main entrance exterior stair will be reconfigured into an emergency exit only, with the main entrance moving down to the existing basement level.

Alternative 4a – Demolition vs. Renovation

For the Renovation, all interior walls and stairs will be removed so that the spaces may be reconfigured. All interior finishes and fixtures will be replaced. All remaining exterior windows and doors will be replaced with energy efficient units. The remaining roof will be completely replaced. All exterior brick, granite, and concrete will be cleaned, repointed, and completely refurbished.

The Oliver Partnership building is located on a dense urban block which offers limited options for expanding the building's footprint. The Addition takes advantage of small parcels to the east and west of the building along Oak Street, as well as holding a zero-lot-line setback along Oak street. A new Basement level will be located a story lower than the existing basement level and

will sit below the entire Addition as well as below the existing gymnasium space. A new gymnasium, full kitchen/servery, and dining area will inhabit the addition portions of this level. An exterior skylight located at grade along Oak Street will let light pour down into the dining space. Music, Dance, and both Art rooms will comprise an arts suite of spaces which will occur beneath, and on either side, of the existing gymnasium space at this level. Clearstory windows will let light fill the Art Rooms and Gymnasium.

The next level up is the Lower Level, which is split between two elevations. The renovated portion of the building will remain at the existing basement elevation, while the addition portion is raised to grade allowing for level access to the exterior at Oak Street. A secondary entrance is provided next to administration space for constant supervision. To provide an ADA accessible entrance at the front of the building, facing Haverhill Street, an exterior courtyard will be carved down to align with the existing basement level. A new Main entry will be provided here with administration flanking it on both sides. The addition will house a second servery and dining commons with an open grand stair connecting it to the dining commons of the level below. Custodial spaces are located on the northeast corner of this level and will provide an internal receiving area / loading dock accessible from Oak Street.

Above the Lower level, the First Floor elevation will match the existing upper first floor elevation throughout the entire floor plate, meaning the middle portion of the renovated building including the existing gym will be built up to match the higher first floor elevation. The existing gym space will be renovated into an auxiliary gym space with a small stage. Four Kindergarten classrooms will occupy this level as well as space for OT/PT and a Newcomers Classroom for OPS. A portion of UAO administration will occupy the north side of the of the plan.

The Second Floor will contain First, Second, and Third Grades. The Third Floor will contain Fourth and Fifth Grades. The Fourth Floor will contain Six, Seventh, and Eighth Grades. Some UAO administration will also be on the Fourth Floor so that they are directly accessible to the students.

Classroom “neighborhoods” are created where possible. Each neighborhood for grades One through Five consists of 4 typical classrooms, 1 EL Classroom, and are supported by a grade level media space. Grades Six Seven and Eight, consist of 3 typical Classrooms, 1 Science Classrooms, 1 EL Classroom and are supported by a grade level media space. Since the site does not offer many opportunities for students to get outside of the building, portions of the roof on the Third and Fourth Floors will be constructed for outdoor learning spaces.

3.4.1 Site Analysis

This alternative includes preserving the southern portion of the existing building facing Haverhill Street and removing the rear half of the building. A 6-story addition is proposed in the rear portion of the site that is fully connected to the existing front portion to remain. The addition widens out onto smaller adjacent parcels that are part of the project and extends close to the Oak Street property line. Code compliant accessible routes for pedestrians would be created from the adjacent public ways as well as from within the site. Student arrivals and departures will be made from the city streets that will require improvements.

The remaining site area not occupied by the building footprint is limited. These areas include the southern “courtyard” between the existing building and Haverhill Street. This area currently contains a wide concrete sidewalk that extends from the Haverhill Street sidewalk to the front steps of the building at the main entrance. This walkway is flanked on both sides by fenced-off

lawn areas. Both the walkway and lawns slope gently up from Haverhill Street to the building steps. The grade elevation at the building is in between the basement level and the 1st floor. In the proposed condition, the interior portion of this area will be lowered to match the basement grade creating an entrance at that level. The perimeter of the courtyard against the building will remain at its current elevation. The entire space will be designed as a usable outdoor space with hardscapes and plantings, seating areas, steps and retaining walls. The area will also include a small K-2 playground. The perimeter along Haverhill Street and the sides will include decorative fencing. An accessible slope from the street to the lower level entrance will be provided.

Other site areas within the parcel include narrow paths along the east and west side of the building that will be finished with pavement and include ramps for accessibility to the side entrances. A small parking lot will be designed for the most western parcel along Oak Street and include 10-15 parking spaces. The existing sidewalks along the entire frontage of Oak Street will be reconstructed with concrete pavement up to the proposed building. Roadway improvements will include bituminous paving repairs and a mill and overlay of Oak Street along the entire frontage. A raised tabletop crosswalk section will be included that extends across to O'Neill Park. Similarly, on the south side of the project the existing sidewalks along the entire frontage of Haverhill Street will be reconstructed with concrete pavement, and roadway improvements will include bituminous paving repairs and a mill and overlay of Haverhill Street along the entire frontage.

The street improvements on both Haverhill and Oak Streets will also include pavement markings and flashing warnings for the pedestrian crossings. A layby lane will be included along the school's frontage with Haverhill Street.

The size of the site precludes having adequate play/athletic space on-site, but the school is adjacent to parks. The project also plans to upgrade a portion of either O'Neil or Campagnone Park for the schools use.

The building foundations for the addition will require support of excavation around the entire perimeter due to the proximity of the property line to the building. The addition will include a full height basement level, see building sections.

Drainage from the rooftops will be collected and routed to a groundwater recharge system and surface drainage will be captured and treated prior to discharge from the site.

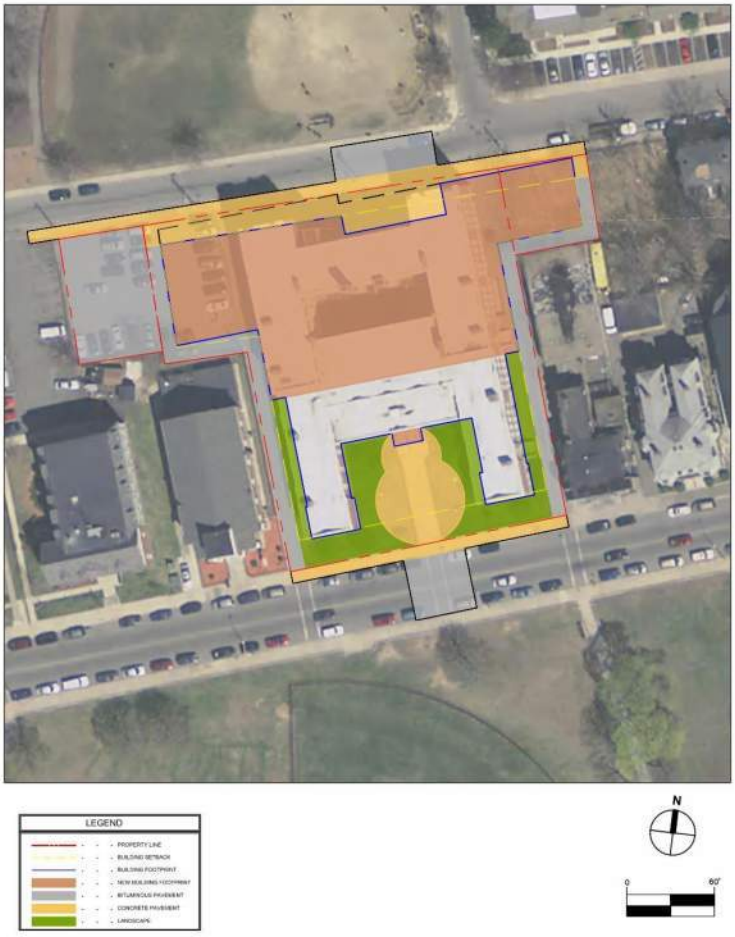
Utilities for the school will be all new from the points of connection in the adjacent streets to the building including sewer, gas. domestic water, fire service water, electrical and telecom. See source utility information in Section 3.4.5.

3.4.2 Evaluation of Potential Student Impacts

Alternative 4a requires renting temporary swing space to house the entire population currently at Oliver, grades 1-5. Kindergarten and Grades 6-8 can remain at their current location until construction is completed.

3.4.3 Conceptual Architectural and Site Drawings

Conceptual Site Drawings



Alternative 4a – Proposed Renovation/Addition Site Layout Plan at Oli School

Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Lawrence Public Schools educational program.

Larger versions of the floor and site plans are included in Attachment Section 3.4.10

Alternative 4 – Floor Plans

3.4.4 Outline of Major Structural Systems

The structural systems for Alternative 4a are similar to Alternative 4, with the following modifications and additions. Please see Alternative 4 for additional recommendations.

Underpinning

In Alternative 4a, a new basement level below the existing basement level is to be constructed. This will likely require underpinning of the existing foundations along the length of where the new addition and existing structure meet. The underpinning would need to extend the bearing elevation of the existing foundation down to a level similar to that of the new construction. Depending on the results of the geotechnical investigations, a deep foundation system such as Micropiles could be required to support the underpinned walls.

After underpinning, a new retaining wall that resists the lateral thrust of the earth pressure will need to be constructed along the perimeter of the new basement. This wall could consist of a reinforced concrete retaining wall.

Temporary Structural Support

If the interior walls are to be demolished and it is determined that a new floor and roof system are to be added, exterior walls will require temporary bracing in order to remain stable.

In the current design, the northern gymnasium wall is proposed to remain. This wall is within the area of the proposed new basement at an elevation lower than the existing basement. It is likely that the bearing support of this wall is above the proposed finished floor elevation. Therefore, a new foundation wall that extends bearing elevation below the new finished floor will be required. Temporary support of the existing masonry wall would likely be required. Additionally, the

detailing of this wall would need to provide flexural continuity between the existing masonry wall and the new foundation wall. One way that this could be accomplished is by creating a concrete wall that cradles the masonry wall above. This would provide a similar condition as to when the wall had soil pressure on either side of it and was braced by the existing floor slab that is proposed to be demolished. A new floor would need to be constructed where the existing slab on grade was below the existing gymnasium.

Seismic Bracing

The façade walls are multi-wythe brick masonry walls. Given the age of construction, it is unlikely that the walls contain steel reinforcement. Removing the load bearing aspect of these walls and leaving them in place removes the stabilizing compression force within the wall. An analysis of the wall under out of plane seismic loading is recommended. Depending on the results of this analysis, supplementary bracing of the walls may be required.

New Structure

The recommendations for the new structure are similar to those presented for Alternative 4. Additional work for Alternative 4a includes increased areas of floor framing, increased retaining wall heights, and potentially increased Support of Excavation. Since Alternative 4a has more occupied floors, it is anticipated the column loads would be higher than in Alternative 4. This would increase the likelihood that deep foundations are required.

The services 3.4.5 Source, Capacities and Method of Obtaining Utilities

The existing school is currently served by municipal water and sewer systems, and the storm drainage systems discharge to the systems in the adjacent streets, Oak Street and Haverhill Street

The services for the renovated and building addition areas will be replaced or upgraded as described below.

Water Distribution System

Existing city plans show a 16” water main and a 12” high service fire main in Haverhill Street. There is a 6” water main in Oak Street and an 8” water line looped between the streets within the alley adjacent to the west side of the school. It is assumed that the current service is fed from the 8” within the site.

The looped water line in the alley will be replaced with a new water line connected in both Oak Street and the 16” Haverhill Street main. It will provide the domestic water connection to the building.

The new buildings fire protection service and a new hydrant will feed off the 12” high service pipe in Haverhill Street and will include a wall mounted indicator valve, as required by NFPA. All services will be coordinated with the Lawrence fire department and water department.

Sanitary Sewer System

The existing sewer connection is to a sewer manhole at the intersection of Oak and Short Street.

At least a portion of the existing service line will be removed, and a new line will be added in its place to connect the building to the manhole in Oak Street.

A new precast concrete grease trap will be installed to treat wastes generated from the kitchen in accordance with the Plumbing Code. Typical sewer manholes will consist of precast concrete and have exterior surfaces painted with two coats of bitumastic paint.

Storm Drain System

The limited existing site drainage structures and piping will be removed. New drainage pipes catch basins and manhole structures will be added to the site to capture areas that do not drain directly to the adjacent streets. The proposed system will connect to the existing stormwater networks in Haverhill Street and Oak Street

Stormwater runoff collected from parking areas will be treated with new water quality units before flowing out to the existing municipal network. Treatment will be done in accordance with the Massachusetts Stormwater Management Handbook.

A portion of the roof runoff will be routed to subsurface groundwater recharge structures to infiltrate it back into the ground. The design will be based on detailed subsurface geotechnical investigations including the existing groundwater elevation and soil permeability. The anticipated location for the ground recharge system is under the parking lot.

Electrical

Existing electrical services will be removed, including primary and secondary underground services, portions of existing overhead wiring, and utility poles.

New underground primary and secondary electric services will be installed, as well as new telecommunication services. A new pad mounted transformer, new pad mounted emergency generator and new light poles with LED fixtures will also be installed. Refer to Electrical Systems description under MEPFP Systems sections.

3.4.6 Narrative of Major MEPFP Systems

Mechanical Systems

Existing equipment is generally past life expectancy, less efficient, too loud for classrooms, lacking BMS controls, or is based on gas heating and all should be removed.

A new Heating, Ventilating and Air Conditioning system will be provided to serve the various program spaces of the elementary school building to meet current codes and energy standards.

The new heating and cooling will be based on the use of high-efficiency heat pumps utilizing VRF technology. Generally, we will use one refrigerant circuit per floor with Air Conditioning Units (ACUs) in each room and condensing units (ACCUs) on grade or on the roof.

Dedicated Outdoor Air Systems (DOAS) with energy recovery will provide ventilation and exhaust. The DOAS units will be configured as energy recovery units with VRF heating and cooling and Variable Air Volume (VAV) distribution will provide ventilation to classrooms and other spaces with 100% outdoor air. Spaces will be zoned so that similar usages and exposures will be paired.

Classrooms, Small group, Media Center, Administration, and other educational spaces will be heated/cooled/ventilated with the VRF and DOAS systems. Setpoints will be set at the BMS with a DDC control system.

Ceiling fans along with ventilation will provide occupant comfort control in the gym/auditorium.

Zones will have ACUs for heating/cooling and VAV boxes controlling the ventilation airflow.

Entry vestibules and stairwells will be provided with electric cabinet unit heaters and electric baseboard.

A Make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and/or roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Consideration will be provided for powering selected systems from an emergency power source, as required for life safety, heating, and for standby operation of certain systems. This typically includes motorized fire/smoke dampers or the heating system and associated terminal equipment and controls.

An alternate Mechanical system with Gas heat

The new heating will be based on the use of three (3) high-efficiency Boilers and a primary/secondary pumping arrangement to provide heating to the entire building.

Dedicated Outdoor Air Systems (DOAS) with energy recovery will provide ventilation and exhaust. The DOAS units will be configured as energy recovery units with hot water heating and DX cooling and Variable Air Volume (VAV) distribution will provide ventilation to classrooms and other spaces with 100% outdoor air. Spaces will be zoned so that similar usages and exposures will be paired.

Classrooms, Small group, Media Center, and other educational spaces will be heated with radiant panels and partially cooled with the ventilation from the DOAS systems. Setpoints will be set at the BMS with a DDC control system. Classrooms will additionally have ceiling fans to provide additional occupant control.

Ceiling fans along with ventilation will provide occupant comfort control in the gym/auditorium.

Administration will use the DOAS for ventilation and have a Variable Refrigerant Flow (VRF) System to provide heating and cooling.

Entry vestibules and stairwells will be provided with cabinet unit heaters and Fin Tube Radiation as needed.

A gas fired Make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and/or roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Electrical:

The Oliver Partners School' electrical service is provided by the local utility company, National Grid. The service initiates off the existing National Grid high voltage line, running overhead along the Oak Street. The service to school is provided via a bank of (3) three pole-mounted stepdown transformers, owned and maintained by the National Grid. Building electrical systems, including equipment and distribution power feeders and branch wiring, are mostly at or beyond their useful life expectancy. Code deficiencies exist throughout the facility. A service upgrade is recommended to a 2,500A (dependent on HVAC loads), 277/480V, 3-phase, 4 wire system, and a system of new panelboards separated by use; lighting, mechanical and general power will be provided in dedicated electrical rooms throughout the building to serve equipment, lighting and branch circuit loads.

The existing lighting to be upgraded to high efficiency LED lighting with integral dimming drivers and lighting controls with local vacancy sensors, occupancy sensors and daylight harvesting sensors will be installed in accordance with IECC 2018. Light fixtures and lighting controls are recommended to be replaced with new LED style fixtures which would provide more acceptable light output with increased energy efficiency.

There is currently no emergency generator at the premises. A new 300KW, 277/480V, 3-phase, 4 wire life-safety generator is recommended to provide power for the emergency egress lighting,

fire alarm system and other code-required items. Even though the building is technically not high-rise construction, the elevator and fire pump will be wired to the emergency generator.

The existing fire alarm system is a non-addressable zoned system. In general, the fire alarm system is a combination of equipment installed at different times and supplied by different vendors, in operational condition. The current code requires a voice evacuation system for 'E' use group. In order to comply, an upgrade of the fire alarm system is required.

Tel/Data & Security

A new IESS "integrated electronic security system" which consists of 5 sub-systems Intrusion, CCTV, access control, visitor entry and active shooter/duress alert will be installed. The systems are integrated and viewed as one via a single security GUI "graphical user interface". The CCTV system will consist of computer servers with image software, computer monitors, and IP based closed circuit TV cameras. Additional CCTV cameras will be added to the system. The existing Hikvision cameras can be re-used and integrated to the new VMS system. The head end server shall be located in the head end MDF room and will be rack mounted. The locations of cameras generally will be on site lighting poles, on the exterior perimeter of the building, in corridors and in stairwells. The majority of the cameras will be multi-head type. The system shall fully integrate with the access control system to allow viewing of events from a single alarm viewer. Camera images and recorded video shall be linked to the access system to allow retrieval of video that is associated with an event. The IESS shall be accessible by all authorized district users via the fiber WAN.

The Active Shooter/Duress Alert system consists of a wireless control panel with wireless panic buttons, wireless receiver/transmitters, and wireless prism/strobe lights. The control panel is interfaced to an active shooter/duress alert network application installed on school designated networked computers and first responder dispatch and mobile data terminal computers. The wireless buttons and/or the network application system will be programmed to allow for notifications with the exact location of the alert to be received in less than 1 second when a request for help is initiated. The network application will be programmed for various incidents as determined by the school such as medical, behavioral, and/or notification to first responders for emergency life threatening incidents. The system will be interfaced to various school-wide systems as determined by the school for audio and visual emergency notifications such as the PA, IPTV, and prism/strobe light systems. The system will be interfaced to the access control system for lockdown situations. The system will be interfaced to the CCTV system to activate cameras in the vicinity of the incident. The system will also have the capability of interfacing to school and/or first responder radios and to school and first responder computers for two-way communications during a life-threatening incident.

An Intrusion system will consist of security panel, keypads, motion/glass break detectors and door contacts. The system is designed so that each perimeter room on the ground level with exterior doors and/or windows will have motion/glass break detectors along the exterior wall, door contacts at each exterior door, and motion detectors in corridors of the upper levels. The system is addressable, so each device will be identified when an alarm occurs.

The Access Control system will consist of a card access controller, door controllers and proximity readers/keypads. Proximity readers will be located to allow access to authorized personnel, at all times. Each proximity reader will have a distinctive code to identify the user. The alarm condition shall also initiate real time recording on the integrated CCTV System that is included as part of this proposed system. The system is programmed with graphic maps

allowing the end-user to quickly identify alarm conditions and lock/unlock doors. The system includes remote release buttons in offices that will allow the person to release the door locking mechanism at designated visitor door(s) from their desk.

A new Server/MDF room will be constructed and will distribute OM4 laser optimized 10gig fiber optic backbone cabling to IDF rooms located throughout the building. Temporary fiber cabling between wire closets will be required for continuation of services through all construction phases. The technology systems infrastructure will be upgraded to Cat 6A for tel/data locations throughout. Additional horizontal Cat 6 cabling may be required for swing spaces. The technology systems will include the infrastructure for the number of wireless access point locations required for WiFi coverage of the entire building including all classrooms, media spaces, common areas, administrative offices, and outdoor instructional spaces. The infrastructure will permit mobile carts housing student iPad and/or Chromebook devices to be located in each classroom.

An IPTV system consisting of head end equipment will be installed providing distribution of digital video over the data network to all networked devices including computers, Interactive Projectors and/or Interactive Flat Panel Displays, and digital signage monitors. The head end equipment shall reside in the Server/MDF room.

A new Master Clock system with wireless synchronized secondary clocks will be installed. The Master Clock shall be interfaced with the Public Address system for scheduled bell tones. A new Public-address system will be installed with speakers located throughout the building designed with the ability to page an individual room, or make an announcement to specific zones, or throughout the entire building. The Public Address system shall be interfaced to the phone system allowing for pages or announcements to be made from any phone handset by authorized users.

A wireless Sound Field system will be installed in all instructional areas providing assisted listening technology in each classroom for hearing impaired accessibility. Interactive video projectors or interactive Flat Panel Displays will be installed in all classrooms and/or academic spaces. The interactive devices will be interfaced to the Sound Field systems.

A VoIP phone handset shall be installed in all classrooms, offices, and common areas. The existing district telephone system head end room will need to be protected and maintained throughout the renovation. A new Server/MDF room will be constructed and the existing district phone servers will be moved to the Server/MDF room in a manner that minimizes disruption of services.

Large Venue Live Sound Reinforcement systems with Assisted Listening will be installed for the Gymnasium and Cafeteria. A Large Venue Video Projection system shall be installed in school assembly spaces such as the Cafeteria /Stage and the Gymnasium.

Plumbing

While the 1923 building is being renovated in this alternative, all plumbing systems within that building will be removed. The new plumbing system will be designed in accordance with the 9th Edition of the Commonwealth of Massachusetts Building Code, 248 CMR Fuel Gas and Plumbing Code, Latest addition of National Fuel Gas Code NFPA 54.

The building will have new 6" domestic water supply and will enter into the facility through boiler room. Reduced Pressure Backflow Preventer will be provided to the main domestic water supply to protect the service (per the DEP regulation 310 CMR 22). Potable water will meet both the NSF 61 and NSF 372 standards for lead free safe drinking water Act. Boiler water feed and make-up, and any other mechanical take-Offs will branch off through a reduced pressure-principle backflow preventer. Domestic cold water inside the building will be "L" type copper tube with wrought or cast copper fittings. All cold-water piping will be insulated to prevent condensation.

Domestic hot water supply will be provided from instantaneous electrical water heaters located at five strategic locations of the building. Each location will house two 35 KW instantaneous electrical hot water will be manifolded together to generate 14 gpm flow at 60 °F rise. The Kitchen area will house its own electrical hot water heater for kitchen appliance. Water heater will be modulating type and will be available on demand basis. The domestic hot water distribution piping will have self-regulating electric heat tracing cable for temperature maintenance. The product shall be equal to Stiebel Eltron Model CE 27.

The domestic hot water distribution will have dual temperature hot water supply / recirculation systems in the building. One system will operate at 140°F and will serve the kitchen dishwasher and 3-Compartment sink. The other system will operate at 120°F and will serve the other kitchen appliances, custodian room sinks, locker room, lavatories, and classroom sinks. All lavatory faucets will have thermostatic mixing valves to temper water supply. Domestic hot water will be distributed in "L" type copper tube with wrought or cast copper fittings. The hot water (HW) and re-circulating (HWC) piping will be insulated per IECC 2015.

The surface of the roof deck will be drained with dual level promenade drains with the lower drain bodies flashed into the waterproofing membrane. Roof with parapet wall will have overflow drains. Overflow drains will be extended to exterior wall with nozzle. The rainwater system will be sized to handle a rainfall rate of 4 inches per hour, with a total runoff from the main roof and the roof deck of just under 1 cubic foot per second. The storm system will be installed in cast iron piping with all horizontal piping insulated to prevent condensation. The storm system will exit at various location of the building and connect to the site storm water collection system.

The sanitary waste system will drain by gravity and will run to exit the building and connect to the sewer system at the site. A dedicated grease waste line will be installed to collect grease laden wastewater from the Kitchen appliances and fixtures. The grease line will exit the building adjacent to the Sanitary Sewer and will be connected to an exterior grease trap outside the building. Grease traps will be provided at the source for any prep sinks. A new 8,000-gallon capacity outdoor grease interceptor will be placed on the site to intercept grease laden waste prior connection to site sewer system. Art room sinks will be provided with solid interceptors. Chamber vents from the interceptor will be routed to the roof independent from the rest of the sanitary waste. The above ground sanitary drainage and vent will be piped in cast iron with "no-hub" joints (3" or larger). Piping smaller than 3-inch will be piped in copper. Piping below floor shall be weight cast iron hub and spigot. All floor drains will have wet trap primer connection with electronic trap primer.

Number of plumbing fixtures will be added in the facility to accommodate population of male students and female students and shall be in accordance with 248 CMR Paragraph 10.10, Table 1. Plumbing fixtures will be equipped with the following water conserving features (for 30% indoor water use reduction-LEED-V4, Credit 2).

Water Closet	Urinals	Lavatory
Toilet flush valve to be water sense labeled, Manual 1.1 gpf flushometer. Equal to American Standard 6047.111.002	The Flush valve to be water sense labeled, Manual operated at 0.125 gpf equal to American Standard 6045.013.002.	Deck Mounted 4" fixed centers Metering Faucet, (lead free), 0.35 gpm aerator. Faucet to be equal to Chicago Faucets Model 3500-4E39PABCP.

Water closets and urinals will be commercial vitreous china, wall hung (ADA compliant). Lavatories will be self-rimming countertop mounted china. Each floor will include a janitor's closet with a corner mop service basin. Toilet cores on each floor will include alcove-recessed electric water cooler with bottle filling station and, in a high-low handicapped accessible configuration to meet MAAB requirement. All toilet and mechanical rooms will have floor drains complete with trap primers. All art rooms will have self-rimming stainless-steel sink with gooseneck type faucets (Chicago#786-GN). Boiler room will include service sink and eyewash station. Plumbing roughing connections and faucets will be provided to each kitchen appliances requiring plumbing work. Non-freeze wall hydrants will be provided along the exterior wall of school building.

Fire Protection

The entire building shall be protected throughout with a wet automatic fire suppression system. A fire department Siamese pumper connection will be provided at the exterior wall, near a site fire hydrant. The FDC will either be wall-mount or free-standing, depending on the final details and the preference of the Fire Department AHJ.

The system will be designed in accordance with NFPA Standard 13, 2013, the latest Massachusetts State Building Code and local jurisdiction. A new 8" fire service line from the street will be installed to a dedicated fire pump room. The fire pump room shall be 2 hour rated construction with direct exterior access. The room will have a supervised double check valve assembly backflow preventer feeding a 750 GPM, 60 PSI, 40HP fire pump and wet alarm check valve. From there, the fire protection pipe will run to each stairway, and up through the stairways as standpipes.

Sprinklers will be supplied from the standpipes in the stairs. Floor control valve stations, consisting of a monitored shut-off valve, flow switch and an Inspector's test valve and sight glass, will be provided at multiple stairs at each floor, taken off from the standpipe system. Light hazard areas include classrooms, corridors, cafeteria, rest rooms, offices, etc. Ordinary hazard group-1 areas of the building include kitchen, mechanical rooms, electrical rooms, etc.

Standpipes will be supplied in all required egress stairs. Standpipes would be designed in accordance with NFPA Standard 14, 2013, and local Fire Department requirements. Standpipes

will be located in each required egress stairway, and adjacent to the Stage. Additionally, standpipes will be located so that no part of the building is more than 200 feet from a standpipe valve. Each standpipe will be equipped with a 2 1/2" fire department hose valve with 1 1/2" reducer at the stair floor landing. Because the building is not a high rise, there is no minimum pressure requirement for the standpipes.

Sprinkler heads in areas with finished ceilings will be concealed pendant type and in areas with no suspended ceilings will be upright sprinkler heads. All sprinklers will be quick response heads. Sprinkler heads in mechanical rooms will be provided with wire guards.

The fire protection piping will be schedule 40 piping with threaded fittings for any piping sized 1½" and less. For sizes over 2", schedule 10 piping with roll grooved fittings and couplings will be used. All valves controlling the flow of water will be equipped with supervisory devices that report to the Fire Alarm system.

Food Service

The food facility described herein will be designed to provide quality food service to students and faculty. The facility will be totally self-sustaining without dependence upon outside commissary operations. Most food products are to be prepare on site.

This Alternative #4a is similar to Alternative #5 in that this site will also have two (2) separate Serving Areas. One (1) Servery will be located adjacent to the kitchen on the basement level, servicing grades K-5 and one (1) Servery located on the lower level, serving grades 6-8.

The general description of the areas and functions that are affected are as follows;

Food Service Staff Toilets & Lockers: Staff toilets and lockers will be appropriately sized to accommodate a staff of approximately twelve (12) in lieu of eight (8).

Serving Areas: Breakfast will continue to be delivered to classrooms. The Serveries will be comprised of traditional straight serving line(s). The lines will be designed for maximum menu flexibility. Staff will assembly and pass completed trays to students. All salads shall be pre-wrapped. Equipment and arrangement of will provide total menu flexibility/mobility and exceptional access for housekeeping, serviceability, and maintenance. Cashiers will be located at the exit from the Serveries leading into the Cafeterias. Cashiers station will require accommodations for computer network data lines to be routed to the Food Service Office. Pre-packaged condiments will be offered at the serving lines and mobile condiment station will be located in each of the Cafeterias for supplemental items.

Basement Level Servery: This Servery will be designed for a student population of approximately 655, grades K-5. Lunch will be served in three (3) lunch waves of approximately 223 per wave including some faculty participation. The Servery will be comprised of two (2) traditional straight serving lines.

Lower Level Servery: This Servery will be designed for a student population of 335, grades 6-8. Lunch will be served in three (3) lunch waves of approximately 110 per wave. Breakfast will continue to be delivered to classrooms. The Servery will be comprised of one (1) traditional straight serving line.

A warming kitchen/pantry is required here. An oven will be provided to retherm any foods that may have lost proper temperature during transit from the main kitchen, as well as staging space for delivery carts, worktable(s), localized pot washing, refrigerator & paper storage, and a janitorial area.

Cafeteria & Storage Areas: The Cafeterias shall be located adjacent to each Servery. Size, seating, storage, and design requirements for this space shall be determined by the Architect.

Faculty Dining: The Faculty Dining room that shall be separate; with no connection to the Kitchen. This space shall be located in close proximity to the Main Level Servery. Size and design requirements for this room shall be determined by the Architect.

Recommended Space Analysis:

- Total Student Population – 1,000
- Meals/transactions per day – 1,015 including some faculty participation
- Basement Level Servery: Three (3) lunch waves of 223
- Lower Level Servery: Three (3) lunch waves of 110

Area	Add/Reno Food Facility NSF
Receiving/Staging Area (Interior)	100
Can Wash/Janitor's Closet, Recycle Holding & Det. Storage	80
Food Service Washer & Dryer	80
Food Service Staff Toilets & Lockers -Staff of twelve (12)	400
Food Service Office - Staff of two (2)	175
Dry Food Storage - (Five (5) days inventory)	100
Paper & Non- Food Storage (Five (5) days inventory)	100
Refrigerators & Freezer Storage (Five (5) days inventory)	280
Commodities Freezer Storage	120
Preparation & Cooking (includes Breakfast staging)	1,120
Ware Washing & Pot Washing	300
Basement Level Serving Area - Two (2) traditional straight lines	1,000

Lower Level Serving Area – One (1) traditional straight line	500
5th Floor Warming Kitchen/Pantry	500
TOTAL FOOD SERVICE NSF	4,855
Cafeteria Dining Rooms & Storages	Architect
Faculty Dining Room	Architect

Food Service Equipment Estimate: Based on the design narrative outlined herein, the "magnitude of cost" for the Food Service Equipment is $825,200.00 delivered and set in place.

This estimate includes:

- All kitchen equipment delivered and set-in-place, ready for final utility connections.
- Food Service Equipment Contractor's profit.
- All new walk-in freezer and related refrigeration system.
- Food service exhaust ventilator(s) with Demand Control Ventilation (DCV) and fire suppression systems.
- Utility distribution system to provide utility connections to cooking equipment.

This estimate does not include:

- Existing equipment to be selected for re-use and relocation.
- General construction of any kind.
- Plumbing, electrical and HVAC services and final connections to equipment.
- General Contractor's mark-up/contingencies.
- Small wares, pots, pans, service ware, tables, chairs, etc.
- Escalation beyond October 2020.
- Applicable taxes.

3.4.7 Proposed Total Project Budget and Cost Estimate

The construction and project costs for Alternative 4a are estimated to be:

- Construction Cost (average): $ 104,706,912
- Project Cost (based on average): $ 131,783,639

The cost estimate and project budget are attached in Section 4.8.

3.4.8 Permitting Requirements

CITY OF LAWRENCE

Planning Board

Site Plan Review and Approval

A Site Plan Review and Approval application package will be filed with the City Planning Board, as required by the Zoning Bylaw for new school construction. The application package shall conform to the requirements and contents identified in the City Zoning Ordinance. Once the application is formally accepted, the Planning Board and other Boards and agencies will review and comment within 35 days followed by a Public Hearing. It is anticipated that approval from both the Planning Board and Zoning Board of Appeals is required due to increases to existing non-conforming buildings and potential variances. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Zoning Board of Appeals

Special Permit & Variances

The proposed development will require dimensional variances from the zoning ordinance that will require a Special Permit with requests for variances. An application would be filed with the Zoning Board of Appeals (ZBA). The timing of the application, review period and Hearing would be coordinated with the Planning Boards Site Plan Review. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Building Department

Building Permit

A building permit application will be submitted to the Lawrence Building Department prior to the start of construction. If the proposed work conforms to the requirements of the state building code and all pertinent laws under the building inspector's jurisdiction, it is expected that the building inspector will issue a permit within approximately 30 days of the filing date.

Water & Sewer Department

Application for Water & Sewer Service

An application for new Water and Sewer Service connections will be submitted by the contractor to the city during construction.

Roadway Construction Permit

Haverhill Street and Oak Street are the abutting streets of the project site. Haverhill Street is Route 110 but is under the ownership of the City of Lawrence and not the State. For work within these street Right-of-ways, the project will need to have the design and improvements approved by the City departments through the Site Plan Review and ZBA processes. For construction, the project will need to secure an Obstruct/Excavate Petition Permit.

3.4.9 Proposed Schedule Including Phasing

Alternate 4a will require the students be moved into swing for the entirety of construction, resulting in no phasing. Construction is projected to begin June of 2022 and continue for approximately 2 years.

3.4.10 Attachments

Proposed Building Floor Plans

Proposed Site Plan

Geo-Environmental

A Phase 1 Environmental Site Assessment was performed on the Oliver School site by Nobis Group. Due to COVID-19, Nobis had limited access to the public records required to complete the full scope of a Phase I Site Assessment. The Draft included with this report covers the extent of information that was made available to them. As soon as City resources become available again, the data gaps will be filled, and a Final report will be issued. At this time, we cannot estimate the submission date of that Final version.

Traffic

A Traffic Impact Study has not been performed at this time or included in this report. The counts were scheduled to occur in March but had to be cancelled when LPS closed the schools due to COVID-19. Coordination with the Traffic consultants has been on-going in an attempt to anticipate and project needs related to traffic in the area of Alternative 4a.

Geotechnical

Preliminary geotechnical investigations were performed at the site by Nobis Group. Their report is included with this PSR submission.

3.5 Alternative 5: Renovation & Addition Stone Mill – 1000 Students Grades K-8

Alternative 5 will first require the City to acquire the Stone Mill building and portions of surrounding sites. Due to the building's historic designation, preserving as much of the building as possible is desired.

Since the Stone Mill is a new site not currently being used by the school district, the students can all remain at their existing locations, and no swing space will be needed.

The existing Stone Mill building is 152,283 gsf. This Alternative proposes demolishing the two-story portion off the southern end of the building, 5,670 gsf, renovating the remaining 146,613 gsf, and building 39,280 gsf of addition.

In addition to surrounding site contamination, some contaminated soil has been identified within the decommissioned turbine room below the building. This soil will either be removed or capped to prevent occupants from coming into contact with these contaminates. All paints and finishes in the building will be tested for hazardous material and will be properly abated if necessary.

Renovation

All exterior repairs and replacements will work towards preserving the existing aesthetic of the Stone Mill Building.

The existing slate roof will be completely replaced, including the sub-roof and all flashing. All gutters and downspouts will also be replaced. The gable ends of the top floor will be structural reinforced to accommodate lateral loads. All skylights will be replaced with energy efficient units.

Any portions of the exterior stone masonry wall that have been replaced with CMU, will be re-replaced with stone masonry to match existing. The all exterior walls will be insulated to meet energy performance requirements. In doing so, moisture mitigation will be studied and measures to prevent condensation within the wall will be taken. All exterior walls will be repointed. All existing windows will be replaced with energy efficient units. All exterior doors will be replaced by either energy efficient doors or storefront systems.

The western edge of the lowest level in the building will be excavated and windows will be added to allow daylight into the building along that edge.

To provide adequate egress from the building, some new exterior openings will need to be provided.

Any existing interior walls, finishes, fixtures, and systems will be completely removed from the building and an entire new interior will be provided.

Addition

A new entry vestibule will be provided on eastern side of the building at the lowest level and will be immediately flanked by the watchful eye of administration. An elevator will be provided near the main entrance connecting all five floors of the building.

The first floor of the addition will also house the kitchen, servery, custodial spaces, and a portion of the dining commons. A secondary events entrance will be provided at the addition. The addition will also house other shared spaces such as the gymnasium with associated spaces and the auxiliary gymnasium. A second elevator will be provided connecting the 2 levels of the addition.

3.5.1 Site Analysis

The proposed site allows for a building addition on the south side of the Stone Mill building and its expansion to the east. The remaining portion of the site will include parking, driveways and exterior play and pedestrian areas mainly on hardscape.

Site vehicular circulation would extend from General Street to the east side of the building and would allow for a through connection to Canal Street. The site would contain approximately 150 parking spaces. Code compliant accessible routes for pedestrians would also be included. Most of the existing utilities will be replaced to service the building.

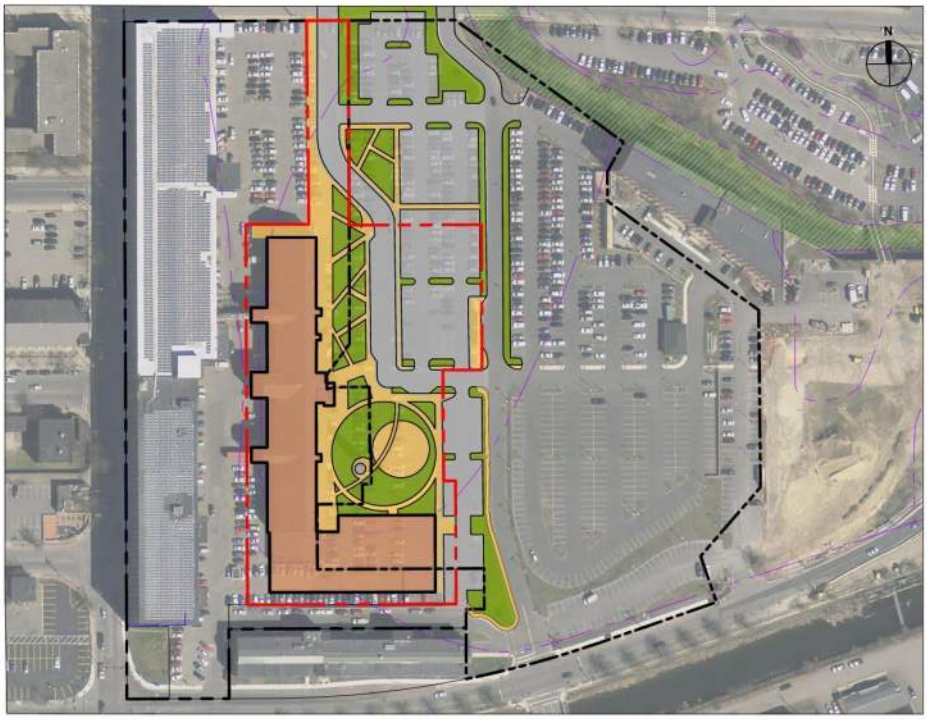
Much of the proposed site will be within the floodplain, but the buildings lower level will be raised to be above the floodplain. The Spicket River and North Canal are near the site and proposed property, but their riverfront areas will likely not encroach on the proposed development.

3.5.2 Evaluation of Potential Student Impacts

Alternative 5 would have no impact on students during construction. After construction is complete, students will be required to travel to a new site with a different proximity to where they reside. This will have a varying effect on the students' commute.

3.5.3 Conceptual Architectural and Site Drawings

Conceptual Site Drawings

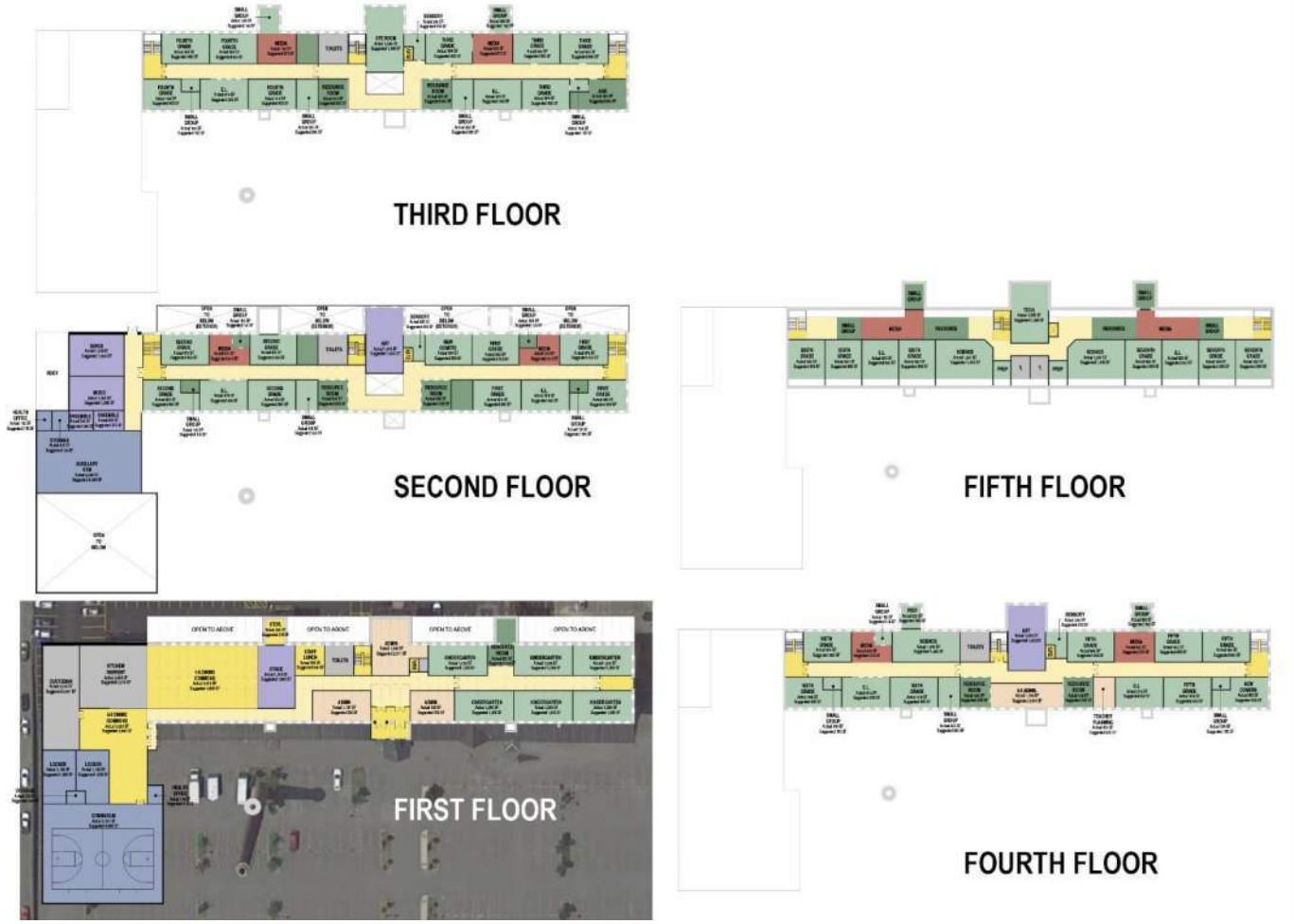


Alternative 5 – Proposed Renovation/Addition Site Layout Plan at Stone Mill

Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Lawrence Public Schools educational program.

Larger versions of the floor and site plans are included in Attachment Section 3.4.10



Alternative 5 – Floor Plans

3.5.4 Outline of Major Structural Systems

The structural scope of work for Alternative 5, partial demolition, renovation, and addition to the Stone Mill can be broken into two portions, the addition portion and remaining existing building portion. The addition will be new construction and it is recommended that the addition and remaining portion of the existing structure be structurally isolated from one another. The existing structure is planned to be demolished except for the existing masonry walls. A new structural steel frame will then be provided within the masonry walls. The existing masonry walls will require temporary bracing during the demolition and construction of the new floor and roof framing within these perimeter walls.

The following recommendations are provided for the new structure:

New foundations are recommended to be a deep foundation system based on the Preliminary Geotechnical Engineering Report provided by Nobis Group on December 5th, 2019. Nobis Group's preferred recommendation is for ground improvement through the use of Rammed Aggregate Piers (RAPs). Due to the intense levels of vibration and disturbance the installation of RAPs would cause, SMMA recommends the use of Drilled Micro Piles (DMPs) to minimize the potential of damage to the Stone Mill Masonry walls and the surrounding existing structures.

Drilled Micro piles will result in spoils that will need to be disposed of. The feasibility of RAPs will be revisited at a later stage of the design.

The new structure may have open air parking at the first level. Columns for the open-air parking at the first level would need to be resistant to corrosion and impact from vehicles. Cast in place concrete columns or heavy structural steel sections with a protective coating would be required for an open-air parking space. The ground level could be a slab on grade or a structured slab on grade depending on whether deep foundations are required.

Structural floor framing systems for new construction will consist of composite steel beams and girders framed into wide flange steel or tubular shaped steel columns. These members will support will a 2" deep x 20 gage galvanized composite steel deck with 3 1/4" of lightweight concrete topping reinforced with welded wire fabric. All steel beams and girders will be spray fireproofed. The metal floor deck will not need to be fireproofed.

New roof framing will consist of wide flange steel beams and girders supported on wide flange or tubular steel columns. Due to the presence of the rooftop play area and mechanical penthouse, it is suggested that the roof be constructed of a concrete deck. For this deck, roof members will support will a 2" deep x 20 gage galvanized composite steel deck with 3 1/4" of lightweight concrete topping reinforced with welded wire fabric. The roof of the penthouse will be framed with steel wide flange shapes and support 1 ½” x 20 gage galvanized metal roof decking.

Diagonal braced frames, composed of HSS tubular steel sections, will be incorporated into the steel framing at the demising walls of the new construction for lateral force resistance.

For the existing Stone Mill structure, the existing foundations of the masonry walls will need to be reinforced. Foundations for the new structural steel will need to be deep foundations (DMPs) based on specific site conditions, to prevent disturbance to the existing masonry wall foundations, and to prevent disturbance to elements buried under the existing structure. The existing masonry wall foundations would likely be best reinforced through DMPs as well. The finish floor elevation of the ground floor is currently below the flood plain. The new ground floor will therefore need to be constructed above the current ground floor and crawlspace. A new structured concrete slab supported by walls and concrete columns would likely be the most economical and practical way to realize the proposed raised ground floor elevation.

The structural floors for the Stone Mill portion will be the same construction as the new addition.

The structural roof of the Stone Mill will consist of bent W-Shape beams to properly frame the geometry of the ridge. The roof deck will be 1 ½” galvanized steel deck attached to the beams. For the historic preservation of the existing structure, it is likely that the roofing material will need to be slate. A slate roof is heavier than most roofs and this will impact the roof structural system.

Diagonal braced frames, composed of HSS tubular steel sections, will be incorporated into the steel framing at the demising walls of the new construction for lateral force resistance. Additional diagonal steel braced frames will be required at the perimeter of the building to stabilize the masonry walls under seismic loading.

The existing masonry walls will require special attachment to the steel frame to ensure stability during a seismic event. This will likely involve anchoring the walls to the steel frame with epoxy

injected anchors. The wall segments between windows may also need to be stabilized with a similar system, which would require vertical structural members spanning floor to floor for the anchors to attach to. The gable ends of the building will need to be stabilized in a similar manner. Testing of the existing masonry walls may be required in order to determine the condition and strength of the walls.

The existing chimney represents a hazard to the building and the site under an extreme event such as hurricane or seismic event. It is recommended that the chimney be demolished, or that an engineering evaluation and retrofit of the chimney be performed to reduce the hazard imposed by its presence.

Special attention will need to be given to the renovation process of the Stone Mill during construction. The assumption for Alternative 5 is that all interior floor framing will be replaced with new floor framing. Demolition of the existing framing will need to be done with extreme care. Without interior framing, the masonry walls will be unbraced and therefore less stable. Extensive temporary shoring and support is likely required until new interior framing is installed and properly attached to the masonry. A portion of the masonry wall collapsed during a previous construction project at the site, which highlights the sensitivity of the masonry walls. If no part of the existing masonry wall is permitted to be demolished for historic reasons, all access to the interior for removal of demolished items and installation of new material may require access through the open roof and therefore require a crane. It is recommended that a thorough analysis of the construction process be performed.

3.5.5 Source, Capacities and Method of Obtaining Utilities

The Stone Mill is currently leasing a portion of space on the first and second levels of the building and the utilities are in operation.

Water Distribution System

Existing city plans show a 6” PW (Potable Water) main and a 10” high service fire main in General Street.

Existing plans of the site also indicate the 6” and 10” pipes in General Street, as well as a 6” PW main in Canal Street. They also indicate on-site water mains on both the east and west sides of the building. It appears that a 12” water line exists on the east side of the building. Hydrant Flow Tests will be performed on the existing pipe networks to verify flow and pressure in the systems.

A new domestic water main will be installed, feeding from the existing main services on-site or extending back to General Street.

A new fire protection service line for the building will be installed and likely fed directly off the 10” fire main in General Street. New hydrants will be provided on-site to provide adequate coverage for the building. Services will be coordinated with the Lawrence Fire and Water Departments.

Sanitary Sewer System

Existing sewer mains are present on the Everett Mill and Aerojet/Gen Corp sites. A 72” sewer main abuts the site along the Spicket River on the Greater Lawrence Sanitary District Sewer Easement. There are two sewer connections from the site that connect directly to the 72” main within the easement.

The new school's sewer discharge will connect to the on-site piping, which then is routed to the 72" sewer main. The condition of the existing piping will be inspected prior to reuse.

A new precast concrete grease trap will be installed to treat wastes generated from the kitchen in accordance with the Plumbing Code. An oil/grit separator will be installed to treat runoff from the loading dock area. Typical sewer manholes will consist of precast concrete and have exterior surfaces painted with two coats of bitumastic paint.

Storm Drain System

An existing extensive manhole and catch basin network is present on-site. The network consists of catch basins and manhole, but no water quality units. Multiple outfalls from this network are present on the northeastern side of the side that open into the Spicket River. The entire existing system will remain provided that pipes are in good condition.

The proposed drainage system will tie into the existing system. Stormwater runoff will be collected from paved areas and be treated with new water quality units before being discharged into the Spicket River. Treatment will be done in accordance with the Massachusetts Stormwater Management Handbook.

There will be no infiltration or recharge as part of the proposed design due to the on-site soil conditions.

Electrical

Existing electrical services will be removed, including primary and secondary underground services, portions of existing overhead wiring, and utility poles. New underground primary and secondary electric services will be installed, as well as new telecommunication services. A new pad mounted transformer, new pad mounted emergency generator and new light poles with LED fixtures will also be installed. Refer to Electrical Systems description under MEPFP Systems sections.

3.5.6 Narrative of Major MEPFP Systems

Mechanical Systems

This space is largely a shell and there is not any existing equipment that can be reused for a school application.

A new Heating, Ventilating and Air Conditioning system will be provided to serve the various program spaces of the elementary school building to meet current codes and energy standards.

The new heating and cooling will be based on the use of high-efficiency heat pumps utilizing VRF technology.

The new heating and cooling will be based on the use of high-efficiency heat pumps utilizing VRF technology. Generally, we will use one refrigerant circuit per floor with Air Conditioning Units (ACUs) in each room and condensing units (ACCUs) on grade or on the roof.

Dedicated Outdoor Air Systems (DOAS) with energy recovery will provide ventilation and exhaust. The DOAS units will be configured as energy recovery units with VRF heating and cooling and Variable Air Volume (VAV) distribution will provide ventilation to classrooms and

other spaces with 100% outdoor air. Spaces will be zoned so that similar exposure and occupancy will be paired.

Ceiling fans will provide occupant comfort control in the gym/auditorium.

Zones will have ACUs for heating/cooling and VAV boxes controlling the ventilation airflow.

Entry vestibules and stairwells will be provided with electric cabinet unit heaters and electric baseboard.

A Make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and/or roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Consideration will be provided for powering selected systems from an emergency power source, as required for life safety, heating, and for standby operation of certain systems. This typically includes motorized fire/smoke dampers or the heating system and associated terminal equipment and controls.

Electrical

To meet the demands of the new school program, a service upgrade to a 2,500A (dependent on HVAC loads), 277/480V, 3-phase, 4 wire system is recommended. A system of new panelboards separated by use; lighting, mechanical and general power will be provided in dedicated electrical rooms throughout the building to serve equipment, lighting, and branch circuit loads.

New high efficiency LED lighting with integral dimming drivers and lighting controls with local vacancy sensors, occupancy sensors and daylight harvesting sensors will be installed in accordance with IECC 2018.

A new 100-150KW, 277/480V, 3-phase, 4 wire life safety generator is recommended. The generator will provide power to new life safety loads, which include egress lighting and fire alarm.

A new addressable, voice evacuation fire alarm system will be provided. The system will include a master-box connection to the local fire department. In addition, a bi-directional antenna (BDA) system will also be provided.

Tel/Data & Security

A new IESS “integrated electronic security system” which consists of 5 sub-systems Intrusion, CCTV, access control, visitor entry and active shooter/duress alert will be installed. The systems are integrated and viewed as one via a single security GUI “graphical user interface”. The CCTV system will consist of computer servers with image software, computer monitors, and IP based closed circuit TV cameras. Additional CCTV cameras will be added to the system. The existing Hikvision cameras can be re-used and integrated to the new VMS system. The head end server shall be located in the head end MDF room and will be rack mounted. The locations of cameras generally will be on site lighting poles, on the exterior perimeter of the building, in corridors and in stairwells. The majority of the cameras will be multi-head type. The system shall fully integrate with the access control system to allow viewing of events from a single alarm viewer. Camera images and recorded video shall be linked to the access system to allow retrieval of video that is associated with an event. The IESS shall be accessible by all authorized district users via the fiber WAN.

The Active Shooter/Duress Alert system consists of a wireless control panel with wireless panic buttons, wireless receiver/transmitters, and wireless prism/strobe lights. The control panel is interfaced to an active shooter/duress alert network application installed on school designated networked computers and first responder dispatch and mobile data terminal computers. The wireless buttons and/or the network application system will be programmed to allow for notifications with the exact location of the alert to be received in less than 1 second when a request for help is initiated. The network application will be programmed for various incidents as determined by the school such as medical, behavioral, and/or notification to first responders for emergency life threatening incidents. The system will be interfaced to various school-wide systems as determined by the school for audio and visual emergency notifications such as the PA, IPTV, and prism/strobe light systems. The system will be interfaced to the access control system for lockdown situations. The system will be interfaced to the CCTV system to activate cameras in the vicinity of the incident. The system will also have the capability of interfacing to school and/or first responder radios and to school and first responder computers for two-way communications during a life-threatening incident.

An Intrusion system will consist of security panel, keypads, motion/glass break detectors and door contacts. The system is designed so that each perimeter room on the ground level with exterior doors and/or windows will have motion/glass break detectors along the exterior wall, door contacts at each exterior door, and motion detectors in corridors of the upper levels. The system is addressable, so each device will be identified when an alarm occurs.

The Access Control system will consist of a card access controller, door controllers and proximity readers/keypads. Proximity readers will be located to allow access to authorized personnel, at all times. Each proximity reader will have a distinctive code to identify the user. The alarm condition shall also initiate real time recording on the integrated CCTV System that is included as part of this proposed system. The system is programmed with graphic maps allowing the end-user to quickly identify alarm conditions and lock/unlock doors. The system includes remote release buttons in offices that will allow the person to release the door locking mechanism at designated visitor door(s) from their desk.

A Server/MDF room will distribute OM4 laser optimized 10gig fiber optic backbone cabling to IDF rooms located throughout the building. The technology systems infrastructure will be Cat 6A for tel/data locations throughout. The technology systems will include the infrastructure for the number of wireless access point locations required for WiFi coverage of the entire building

including all classrooms, media spaces, common areas, administrative offices, and outdoor instructional spaces. The infrastructure will permit mobile carts housing student iPad and/or Chromebook devices to be located in each classroom.

An IPTV system consisting of head end equipment will be installed providing distribution of digital video over the data network to all networked devices including computers, Interactive Projectors and/or Interactive Flat Panel Displays, and digital signage monitors. The head end equipment shall reside in the Server/MDF room.

A new Master Clock system with wireless synchronized secondary clocks will be installed. The Master Clock shall be interfaced with the Public Address system for scheduled bell tones. A new Public-address system will be installed with speakers located throughout the building designed with the ability to page an individual room, or make an announcement to specific zones, or throughout the entire building. The Public Address system shall be interfaced to the phone system allowing for pages or announcements to be made from any phone handset by authorized users.

A wireless Sound Field system will be installed in all instructional areas providing assisted listening technology in each classroom for hearing impaired accessibility. Interactive video projectors or interactive Flat Panel Displays will be installed in all classrooms and/or academic spaces. The interactive devices will be interfaced to the Sound Field systems.

A VoIP phone handset shall be installed in all classrooms, offices, and common areas. The existing phone handsets and district phone servers will be moved to the Server/MDF room in a manner that minimizes disruption of services.

Large Venue Live Sound Reinforcement systems with Assisted Listening will be installed for the Gymnasium, Auxiliary Gym, and both Dining Commons (Cafeterias). A Large Venue Video Projection system shall be installed in school assembly spaces such as the Dining Commons/Stage and the Gymnasium.

Plumbing

The new plumbing system will be designed in accordance with the 9th Edition of the Commonwealth of Massachusetts Building Code, 248 CMR Fuel Gas and Plumbing Code, Latest addition of National Fuel Gas Code NFPA 54.

The building will have new 6” domestic water supply and will enter into the facility through boiler room. Reduced Pressure Backflow Preventer will be provided to the main domestic water supply to protect the service (per the DEP regulation 310 CMR 22). Potable water will meet both the NSF 61 and NSF 372 standards for lead free safe drinking water Act. Boiler water feed and make-up, and any other mechanical take-Offs will branch off through a reduced pressure-principle backflow preventer. Domestic cold water inside the building will be “L” type copper tube with wrought or cast copper fittings. All cold-water piping will be insulated to prevent condensation.

Domestic hot water supply will be provided from instantaneous electrical water heaters located at four strategic locations of the building. Each location will house two 30 KW instantaneous electrical hot water will be manifolded together to generate 14 gpm flow at 60 °F rise. The Kitchen area will house its own electrical hot water heater for kitchen appliance. Water heater will be modulating type and will be available on demand basis. The domestic hot water

distribution piping will have self-regulating electric heat tracing cable for temperature maintenance. The product shall be equal to Stiebel Eltron CE 27 model.

The domestic hot water distribution will have dual temperature hot water supply / recirculation systems in the building. One system will operate at 140°F and will serve the kitchen dishwasher and 3-Compartment sink. The other system will operate at 120°F and will serve the other kitchen appliances, custodian room sinks, locker room, lavatories, and classroom sinks. All lavatory faucets will have thermostatic mixing valves to temper water supply. Domestic hot water will be distributed in "L" type copper tube with wrought or cast copper fittings. The hot water (HW) and re-circulating (HWC) piping will be insulated per IECC 2012.

The surface of the roof deck will be drained with dual level promenade drains with the lower drain bodies flashed into the waterproofing membrane. Roof with parapet wall will have overflow drains. Overflow drains will be extended to exterior wall with nozzle. The rain water system will be sized to handle a rainfall rate of 4 inches per hour, with a total runoff from the main roof and the roof deck of just under 1 cubic foot per second. The storm system will be installed in cast iron piping with all horizontal piping insulated to prevent condensation. The storm system will exit at various location of the building and connect to the site storm water collection system.

The sanitary waste system will drain by gravity and will run to exit the building and connect to the sewer system at the site. A dedicated grease waste line will be installed to collect grease laden waste water from the Kitchen appliances and fixtures. The grease line will exit the building adjacent to the Sanitary Sewer and will be connected to an exterior grease trap outside the building. Grease traps will be provided at the source for any prep sinks. A new 8,000-gallon capacity outdoor grease interceptor will be placed on the site to intercept grease laden waste prior connection to site sewer system. Art room sinks will be provided with solid interceptors. Chamber vents from the interceptor will be routed to the roof independent from the rest of the sanitary waste. The above ground sanitary drainage and vent will be piped in cast iron with "no-hub" joints (3" or larger). Piping smaller than 3-inch will be piped in copper. Piping below floor shall be weight cast iron hub and spigot. All floor drains will have wet trap primer connection with electronic trap primer.

Number of plumbing fixtures will be added in the facility to accommodate population of male students and female students and shall be in accordance with 248 CMR Paragraph 10.10, Table 1. Plumbing fixtures will be equipped with the following water conserving features (for 30% indoor water use reduction-LEED-V4, Credit 2).

Water Closet	**Urinals**	**Lavatory**
Toilet flush valve to be water sense labeled, Manual 1.1 gpf flushometer. Equal to American Standard 6047.111.002	The Flush valve to be water sense labeled, Manual operated at 0.125 gpf equal to American Standard 6045.013.002.	Deck Mounted 4" fixed centers Metering Faucet, (lead free), 0.35 gpm aerator. Faucet to be equal to Chicago Faucets Model 3500-4E39PABCP.

Water closets and urinals will be commercial vitreous china, wall hung (ADA compliant). Lavatories will be self-rimming counter top mounted china. Each floor will include a janitor's closet with a corner mop service basin. Toilet cores on each floor will include alcove-recessed electric water cooler with bottle filling station and, in a high-low handicapped accessible configuration to meet MAAB requirement. All toilet and mechanical rooms will have floor drains complete with trap primers. All art rooms will have self-rimming stainless-steel sink with gooseneck type faucets (Chicago#786-GN). Boiler room will include service sink and eyewash station. Plumbing roughing connections and faucets will be provided to each kitchen appliances requiring plumbing work. Non-freeze wall hydrants will be provided along the exterior wall of school building.

Fire Protection

The entire building shall be protected throughout with a wet automatic fire suppression system. A fire department Siamese pumper connection will be provided at the exterior wall, near a site fire hydrant. The FDC will either be wall-mount or free-standing, depending on the final details and the preference of the Fire Department AHJ.

The system will be designed in accordance with NFPA Standard 13, 2013, the latest Massachusetts State Building Code and local jurisdiction. A new 8" fire service line from the street will be installed to a dedicated fire pump room. The fire pump room shall be 2 hour rated construction with direct exterior access. The room will have a supervised double check valve assembly backflow preventer feeding a 750 GPM, 60 PSI, 40HP fire pump and wet alarm check valve. From there, the fire protection pipe will run to each stairway, and up through the stairways as standpipes.

Sprinklers will be supplied from the standpipes in the stairs. Floor control valve stations, consisting of a monitored shut-off valve, flow switch and an Inspector's test valve and sight glass, will be provided at multiple stairs at each floor, taken off from the standpipe system. Light hazard areas include classrooms, corridors, cafeteria, rest rooms, offices, etc. Ordinary hazard group-1 areas of the building include kitchen, mechanical rooms, electrical rooms, etc.

Standpipes will be supplied in all required egress stairs. Standpipes would be designed in accordance with NFPA Standard 14, 2013, and local Fire Department requirements. Standpipes will be located in each required egress stairway, and adjacent to the Stage. Additionally, standpipes will be located so that no part of the building is more than 200 feet from a standpipe valve. Each standpipe will be equipped with a 2 1/2" fire department hose valve with 1 1/2" reducer at the stair floor landing. Because the building is not a high rise, there is no minimum pressure requirement for the standpipes.

Sprinkler heads in areas with finished ceilings will be concealed pendant type and in areas with no suspended ceilings will be upright sprinkler heads. All sprinklers will be quick response heads. Sprinkler heads in mechanical rooms will be provided with wire guards.

The fire protection piping will be schedule 40 piping with threaded fittings for any piping sized 1½" and less. For sizes over 2", schedule 10 piping with roll grooved fittings and couplings will be used. All valves controlling the flow of water will be equipped with supervisory devices that report to the Fire Alarm system.

Food Service

The food facility described herein will be designed to provide quality food service to students and faculty. The facility will be totally self-sustaining without dependence upon outside commissary operations. Most food products are to be prepare on site.

This Alternative #5 is similar to Alternative #4 with the exception that this site will have two (2) separate Serving Areas. One (1) Servery will be located adjacent to the kitchen on the main level, servicing grades K-5 and one (1) Servery located on the 5th Floor, serving grades 6-8.

The general description of the areas and functions that are affected are as follows;

Food Service Staff Toilets & Lockers: Staff toilets and lockers will be appropriately sized to accommodate a staff of approximately twelve (12) in lieu of eight (8).

Serving Areas: Breakfast will continue to be delivered to classrooms. The Serveries will be comprised of traditional straight serving line(s). The lines will be designed for maximum menu flexibility. Staff will assembly and pass completed trays to students. All salads shall be pre-wrapped. Equipment and arrangement of will provide total menu flexibility/mobility and exceptional access for housekeeping, serviceability, and maintenance. Cashiers will be located at the exit from the Serveries leading into the Cafeterias. Cashiers station will require accommodations for computer network data lines to be routed to the Food Service Office. Pre-packaged condiments will be offered at the serving lines and mobile condiment station will be located in each of the Cafeterias for supplemental items.

Main Level Servery: This Servery will be designed for a student population of approximately 666, grades K-5. Lunch will be served in three (3) lunch waves of approximately 227 per wave including some faculty participation. The Servery will be comprised of two (2) traditional straight serving lines.

5th Floor Servery: This Servery will be designed for a student population of 334, grades 6-8. Lunch will be served in two (2) lunch waves of approximately 167 per wave. Breakfast will continue to be delivered to classrooms. The Servery will be comprised of one (1) traditional straight serving line.

A warming kitchen/pantry is required here. An oven will be provided to retherm any foods that may have lost proper temperature during transit from the main kitchen, as well as staging space for delivery carts, worktable(s), localized pot washing, refrigerator & paper storage, and a janitorial area.

Cafeteria & Storage Areas: The Cafeterias shall be located adjacent to each Servery. Size, seating, storage, and design requirements for this space shall be determined by the Architect.

Faculty Dining: The Faculty Dining room that shall be separate; with no connection to the Kitchen. This space shall be located in close proximity to the Main Level Servery. Size and design requirements for this room shall be determined by the Architect.

Recommended Space Analysis:

- Total Student Population – 1,000
- Meals/transactions per day – 1,015 including some faculty participation
- Main Level Servery: Three (3) lunch waves of 227
- 5th Floor Servery: Two (2) lunch waves of 167

Area	Add/Reno Food Facility NSF
Receiving/Staging Area (Interior)	100
Can Wash/Janitor's Closet, Recycle Holding & Det. Storage	80
Food Service Washer & Dryer	80
Food Service Staff Toilets & Lockers -Staff of twelve (12)	400
Food Service Office - Staff of two (2)	175
Dry Food Storage - (Five (5) days inventory)	100
Paper & Non- Food Storage (Five (5) days inventory)	100
Refrigerators & Freezer Storage (Five (5) days inventory)	280
Commodities Freezer Storage	120
Preparation & Cooking (includes Breakfast staging)	1,120
Ware Washing & Pot Washing	300
Main Level Serving Area - Two (2) traditional straight lines	1,000
5th Floor Serving Area – One (1) traditional straight line	500
5th Floor Warming Kitchen/Pantry	500
TOTAL FOOD SERVICE NSF	4,855
Cafeteria Dining Rooms & Storages	Architect
Faculty Dining Room	Architect

Food Service Equipment Estimate: Based on the design narrative outlined herein, the "magnitude of cost" for the Food Service Equipment is $825,200.00 delivered and set in place.

This estimate includes:

- All kitchen equipment delivered and set-in-place, ready for final utility connections.
- Food Service Equipment Contractor's profit.
- All new walk-in freezer and related refrigeration system.
- Food service exhaust ventilator(s) with Demand Control Ventilation (DCV) and fire suppression systems.
- Utility distribution system to provide utility connections to cooking equipment.

This estimate does not include:

- Existing equipment to be selected for re-use and relocation.
- General construction of any kind.
- Plumbing, electrical and HVAC services and final connections to equipment.
- General Contractor's mark-up/contingencies.
- Small wares, pots, pans, service ware, tables, chairs, etc.
- Escalation beyond October 2020.
- Applicable taxes.

3.5.7 Proposed Total Project Budget and Cost Estimate

The construction and project costs for Alternative 5 are estimated to be:

- Construction Cost (average): $ 140,330,206
- Project Cost (based on average): $ 176,787,758

The cost estimate and project budget are attached in Section 4.8.

3.5.8 Permitting Requirements

CITY OF LAWRENCE

Planning Board

Site Plan Review and Approval

A Site Plan Review and Approval application package will be filed with the City Planning Board, as required by the Zoning Bylaw for new school construction. The application package shall conform to the requirements and contents identified in the City Zoning Ordinance. Once the application is formally accepted, the Planning Board and other Boards and agencies will review and comment within 35 days followed by a Public Hearing. It is anticipated that approval from both the Planning Board and Zoning Board of Appeals is required due to increases to existing non-conforming buildings and potential variances. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Zoning Board of Appeals

Special Permit & Variances

It is not anticipated that the proposed development will require dimensional variances from the zoning ordinance that would require a Zoning Board of Appeals application. If necessary, application would be filed with the Zoning Board of Appeals (ZBA). The timing of the application, review period and Hearing would be coordinated with the Planning Boards Site Plan Review. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Conservation Commission

RDA or Notice of Intent

A Request for Determination of Applicability (RDA) or a Notice of Intent (NOI) Application will be filed with the Lawrence Conservation Commission due to the presence of wetland resource buffer areas of the North Canal and Spicket River within the proximity of the project disturbance limits. The application package will be submitted during the Design Development phase. The Commission shall hold a public hearing within 21 days of receipt of the filing. A decision will be rendered within 21 days of the close of the hearing. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision.

Inspectional Services

Building Permit

A building permit application will be submitted to the Lawrence Inspectional Services Department prior to the start of construction. If the proposed work conforms to the requirements of the state building code and all pertinent laws under the building inspector's jurisdiction, it is expected that the building inspector will issue a permit within approximately 30 days of the filing date.

Water & Sewer Department

Application for Water & Sewer Service

An application for new Water and Sewer Service connections will be submitted by the contractor to the city during construction.

STATE OF MASSACHUSETTS

Massachusetts Department of Environmental Management

RDA or Notice of Intent

The RDA or Notice of Intent application filed with the Lawrence Conservation Commission will also be submitted to the Massachusetts Department of Environmental Management (MA DEP) for their review and comment.

Federal

Environmental Protection Agency (EPA)

NPDES Construction General Permit

Construction activities which disturb an acre or more of land are regulated under the National Pollutant Discharge Elimination System (NPDES) administered by the Environmental Protection Agency (EPA). Most of these activities are regulated under the Construction General Permit, which outlines provisions that construction operators must follow to comply with the NPDES storm water regulations. A Notice of Intent (NOI) must be filed with the EPA for projects seeking coverage under the Construction General Permit. The NPDES permit is filed approximately one month prior to construction and will take one week to complete.

3.5.9 Proposed Schedule Including Phasing

Alternative 5 will allow the students to remain at their existing locations for the duration of the project. No swing space or phasing will be required. Construction is projected to begin September of 2021 and carry through April of 2024. This alternative is expected to be completed by early 2025.

3.5.10 Attachments

Proposed Building Floor Plans

Proposed Site Plan

Traffic

A Traffic Impact Study for the property at 15 Union Street was performed by Brennan Consulting and is attached to this report.

Geotechnical

Preliminary geotechnical investigations were performed on the Stone Mill site by Nobis Group. Their report included reviewing record documents of past geotechnical investigations at the site. Their report is attached to this report.

Geo-Environmental & Hazardous Material Assessment

A Phase 1 Environmental Site Assessment was performed on the Stone Mill site by Nobis Group. Their investigations also included a Limited Visual Hazardous Material Assessment. Their report is attached to this report.

3.6 Alternative 7: New Construction Gateway – 1000 Students Grades K-8

Alternate 7 involves the new construction of a 4-story building on a new site. The new building will be approximately 172,211 gsf. It will contain grades Kindergarten through 8th with a capacity of 1000 students. The existing school spaces will be vacated, and could potential be used for future district swing space.

Public spaces such as the gymnasium and dining commons will be located on the first floor at grade. Kindergarten will also be located on this level. Administration will The Second and Third floors will each contain four grade levels. Each grade will have 4 Classrooms plus 1 EL Classroom. These spaces will be centered around a grade specific media space, and each grade will be supported by a dedicated resource room and 2 small group rooms. The OPS STE space and UAO Tech space will be at the heart of the Second and Third floor, respectively. The Fourth floor will contain shared spaces such as Art, Music, and Dance.

The building will cradle a courtyard on three sides providing easy access from the dining commons and gymnasium spaces. Outdoor learning will take place in this protected green space.

3.6.1 Site Analysis

The proposed site is currently a parking lot and includes minimal above grade constraints. The site will include the proposed building, parking, driveways and exterior play and pedestrian areas mainly on hardscape.

Site vehicular circulation would extend from General Street to the building area and would allow for a through connection to Canal Street. Code compliant accessible routes for pedestrians would also be included. The utilities will be routed to service the building from the local streets.

The Spicket River and North Canal are near the site and proposed property, the North Canal riverfront areas will encroach on the proposed development and impose some restrictions on development.

3.6.2 Evaluation of Potential Student Impacts

Alternate 7 would be constructed on new site which contains no buildings. Students will be able to remain at their current locations until the completion of construction. No swing space will be necessary.

3.6.3 Conceptual Architectural and Site Drawings

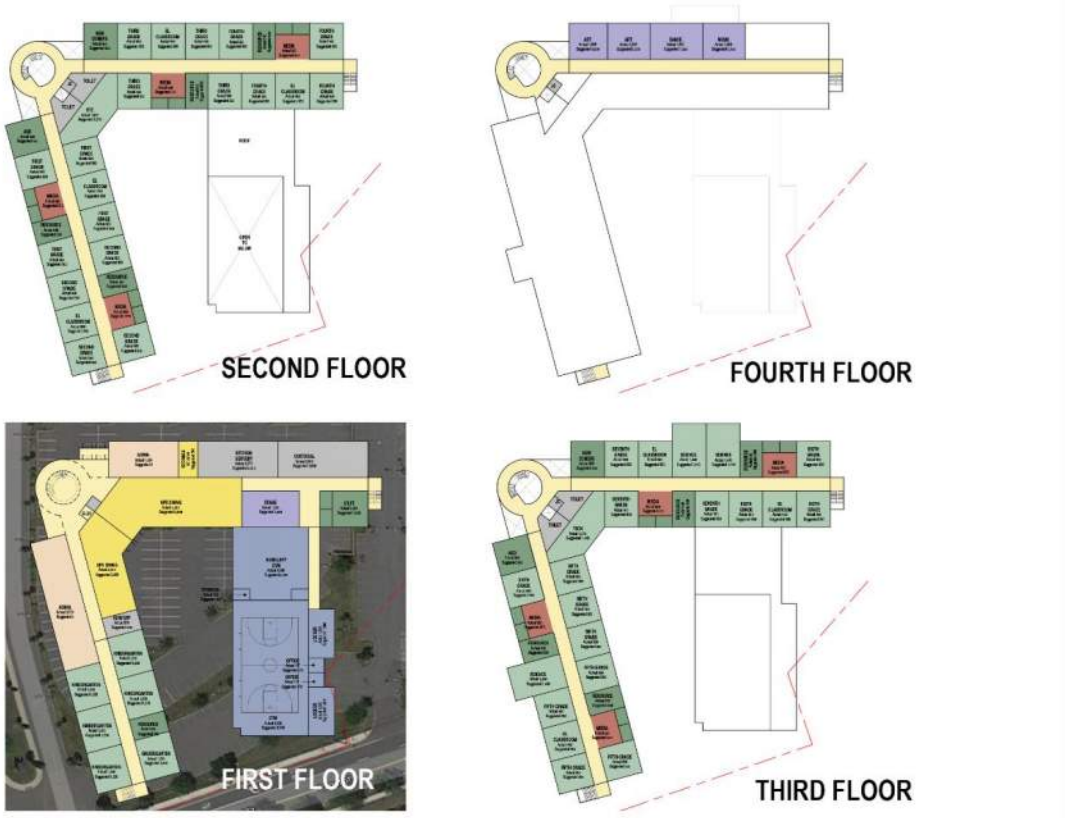
Conceptual Site Drawings

Alternative 7 – Proposed New Construction Site Layout Plan at Gateway Lawrence

Conceptual Architectural Drawings

The floor plans represent the realignment of the academic program to meet the goals of the Lawrence Public Schools educational program.

Larger versions of the floor and site plans are included in Attachment Section 3.5.10



Alternative 7 – Floor Plans

3.6.4 Outline of Major Structural Systems

The following recommendations are provided for a new structure as outlined in Alternative 7:

New foundations are recommended to be a deep foundation system based on the Preliminary Geotechnical Engineering Report provided by Nobis Group on December 5th, 2019. Nobis Group's preferred recommendation is for ground improvement through the use of Rammed Aggregate Piers and SMMA agrees with this recommendation.

Structural floor framing systems for new construction will consist of composite steel beams and girders framed into wide flange steel or tubular shaped steel columns. These members will support will a 2" deep x 20 gage galvanized composite steel deck with 3 1/4" of lightweight concrete topping reinforced with welded wire fabric. All steel beams and girders will be spray fireproofed. The metal floor deck will not need to be fireproofed.

New roof framing will consist of wide flange steel beams and girders supported on wide flange or tubular steel columns. The roof framing will be decked with a 1.5" deep wide rib metal roof deck.

Diagonal braced frames, composed of HSS tubular steel sections, will be incorporated into the steel framing at the demising walls of the new construction for lateral force resistance.

The roof framing under the new rooftop mechanical units will consist of composite steel beams and girders supporting a 2" galvanized composite deck with 4" of normal weight concrete topping (6” total thickness) reinforced with welded wire fabric. The concrete pads under the roof top units will extend at least 5’ beyond the footprint of unit on all sides.

3.6.5 Source, Capacities and Method of Obtaining Utilities

The Lawrence Gateway site is currently a parking lot with no buildings. The portion of the site for this option in in the southeast quadrant of the site.

Water Distribution System

Existing city plans show a 6” PW (Potable Water) main and a 10” high service fire main in General Street.

Existing plans of the site also indicate the 6” and 10” pipes in General Street and a 6” PW main in Canal Street. They also indicate on-site water mains on both the east and west sides of the Stone Mill building, but they do not extend towards the southeast portion of the property. Hydrant Flow Tests will be performed on the existing pipe networks to verify flow and pressure in the systems.

A new domestic water main will be installed, feeding from the existing main in Canal Street.

A new fire protection service line for the building will be installed and likely fed directly off the 10” fire main in General Street. New hydrants will be provided on-site to provide adequate coverage for the building. Services will be coordinated with the Lawrence Fire and Water Departments

Sanitary Sewer System

Existing sewer mains are present on the Everett Mill and Aerojet/Gen Corp sites. A 72” sewer main abuts the site along the Spicket River on the Greater Lawrence Sanitary District Sewer Easement. There are two sewer connections from the site that connect directly to the 72” main within the easement.

The new school’s sewer discharge will connect to the on-site piping, which then is routed to the 72” sewer main. The condition of the existing piping will be inspected prior to reuse.

A new precast concrete grease trap will be installed to treat wastes generated from the kitchen in accordance with the Plumbing Code. An oil/grit separator will be installed to treat runoff from the loading dock area. Typical sewer manholes will consist of precast concrete and have exterior surfaces painted with two coats of bitumastic paint.

Storm Drain System

An existing extensive manhole and catch basin network is present on-site. The network consists of catch basins and manhole, but no water quality units. Multiple outfalls from this network are present on the northeastern side of the side that open into the Spicket River. The entire existing system will remain provided that pipes are in good condition.

The proposed drainage system will tie into the existing system. Stormwater runoff will be collected from paved areas and be treated with new water quality units before being discharged

into the Spicket River. Treatment will be done in accordance with the Massachusetts Stormwater Management Handbook.

There will be no infiltration or recharge as part of the proposed design due to the on-site soil conditions.

Electrical

New underground primary and secondary electric services will be installed, as well as new telecommunication services. A new pad mounted transformer, new pad mounted emergency generator and new light poles with LED fixtures will also be installed. Refer to Electrical Systems description under MEPFP Systems sections.

3.6.6 Narrative of Major MEPFP Systems

Mechanical Systems

As this is a new building there are no existing conditions.

A new Heating, Ventilating and Air Conditioning system will be provided to serve the various program spaces of the elementary school building to meet current codes and energy standards.

The new heating and cooling will be based on the use of high-efficiency heat pumps utilizing VRF technology.

The new heating and cooling will be based on the use of high-efficiency heat pumps utilizing VRF technology. Generally, we will use one refrigerant circuit per floor with Air Conditioning Units (ACUs) in each room and condensing units (ACCUs) on grade or on the roof.

Dedicated Outdoor Air Systems (DOAS) with energy recovery will provide ventilation and exhaust. The DOAS units will be configured as energy recovery units with VRF heating and cooling and Variable Air Volume (VAV) distribution will provide ventilation to classrooms and other spaces with 100% outdoor air. Spaces will be zoned so that similar exposure and occupancy will be paired.

Ceiling fans will provide occupant comfort control in the gym/auditorium.

Zones will have ACUs for heating/cooling and VAV boxes controlling the ventilation airflow.

Entry vestibules and stairwells will be provided with electric cabinet unit heaters and electric baseboard.

A Make-up air unit with a single zone VAV distribution and associated demand control ventilation exhaust air system will be provided for Kitchen. New VAV kitchen hood exhaust fans will be provided for the kitchen systems. The makeup air and exhaust will be controlled by a Demand Control Ventilation system to vary the amount of kitchen exhaust airflow as required for the cooking demand.

Wall mounted air conditioning systems or transfer fans will be provided for server rooms, Data Closets, and Electrical rooms, as required.

Acoustic attenuation and vibration control will be provided to minimize noise and vibration transmission to occupied spaces in the form of in-duct attenuators, duct lagging, vibration isolators and/or roof-level slabs beneath HVAC equipment.

The facility will be provided with a web-accessible, microprocessor-based, direct digital control (DDC) building automation system (BAS) for control of HVAC systems and equipment and for monitoring of selected other systems.

Consideration will be provided for powering selected systems from an emergency power source, as required for life safety, heating, and for standby operation of certain systems. This typically includes motorized fire/smoke dampers or the heating system and associated terminal equipment and controls.

Electrical Systems

A new 2500A (dependent on HVAC loads), 277/480V, 3-phase, 4 wire electrical service is recommended. A system of new panelboards separated by use; lighting, mechanical and general power will be provided in dedicated electrical rooms throughout the building to serve equipment, lighting, and branch circuit loads.

New high efficiency LED lighting with integral dimming drivers and lighting controls with local vacancy sensors, occupancy sensors and daylight harvesting sensors will be installed in accordance with IECC 2018.

A new 300KW, 277/480V, 3-phase, 4 wire life safety generator is recommended. The generator will provide power to new life safety loads, which include egress lighting and fire alarm. In addition, the fire pump, elevator, and select HVAC systems will also be wired to the emergency generator.

A new addressable, voice evacuation fire alarm system will be provided. The system will include a master-box connection to the local fire department. In addition, a bi-directional antenna (BDA) system will also be provided.

Tel/Data & Security

A new IESS “integrated electronic security system” which consists of 5 sub-systems Intrusion, CCTV, access control, visitor entry and active shooter/duress alert will be installed. The systems are integrated and viewed as one via a single security GUI “graphical user interface”. The CCTV system will consist of computer servers with image software, computer monitors, and IP based closed circuit TV cameras. Additional CCTV cameras will be added to the system. The existing Hikvision cameras can be re-used and integrated to the new VMS system. The head end server shall be located in the head end MDF room and will be rack mounted. The locations of cameras generally will be on site lighting poles, on the exterior perimeter of the building, in corridors and in stairwells. The majority of the cameras will be multi-head type. The system shall fully integrate with the access control system to allow viewing of events from a single alarm viewer. Camera images and recorded video shall be linked to the access system to allow retrieval of video that is associated with an event. The IESS shall be accessible by all authorized district users via the fiber WAN.

The Active Shooter/Duress Alert system consists of a wireless control panel with wireless panic buttons, wireless receiver/transmitters, and wireless prism/strobe lights. The control panel is

interfaced to an active shooter/duress alert network application installed on school designated networked computers and first responder dispatch and mobile data terminal computers. The wireless buttons and/or the network application system will be programmed to allow for notifications with the exact location of the alert to be received in less than 1 second when a request for help is initiated. The network application will be programmed for various incidents as determined by the school such as medical, behavioral, and/or notification to first responders for emergency life threatening incidents. The system will be interfaced to various school-wide systems as determined by the school for audio and visual emergency notifications such as the PA, IPTV, and prism/strobe light systems. The system will be interfaced to the access control system for lockdown situations. The system will be interfaced to the CCTV system to activate cameras in the vicinity of the incident. The system will also have the capability of interfacing to school and/or first responder radios and to school and first responder computers for two-way communications during a life-threatening incident.

An Intrusion system will consist of security panel, keypads, motion/glass break detectors and door contacts. The system is designed so that each perimeter room on the ground level with exterior doors and/or windows will have motion/glass break detectors along the exterior wall, door contacts at each exterior door, and motion detectors in corridors of the upper levels. The system is addressable, so each device will be identified when an alarm occurs.

The Access Control system will consist of a card access controller, door controllers and proximity readers/keypads. Proximity readers will be located to allow access to authorized personnel, at all times. Each proximity reader will have a distinctive code to identify the user. The alarm condition shall also initiate real time recording on the integrated CCTV System that is included as part of this proposed system. The system is programmed with graphic maps allowing the end-user to quickly identify alarm conditions and lock/unlock doors. The system includes remote release buttons in offices that will allow the person to release the door locking mechanism at designated visitor door(s) from their desk.

A Server/MDF room will distribute OM4 laser optimized 10gig fiber optic backbone cabling to IDF rooms located throughout the building. The technology systems infrastructure will be Cat 6A for tel/data locations throughout. The technology systems will include the infrastructure for the number of wireless access point locations required for WiFi coverage of the entire building including all classrooms, media spaces, common areas, administrative offices, and outdoor instructional spaces. The infrastructure will permit mobile carts housing student iPad and/or Chromebook devices to be located in each classroom.

An IPTV system consisting of head end equipment will be installed providing distribution of digital video over the data network to all networked devices including computers, Interactive Projectors and/or Interactive Flat Panel Displays, and digital signage monitors. The head end equipment shall reside in the Server/MDF room.

A new Master Clock system with wireless synchronized secondary clocks will be installed. The Master Clock shall be interfaced with the Public Address system for scheduled bell tones. A new Public-address system will be installed with speakers located throughout the building designed with the ability to page an individual room, or make an announcement to specific zones, or throughout the entire building. The Public Address system shall be interfaced to the phone system allowing for pages or announcements to be made from any phone handset by authorized users.

A wireless Sound Field system will be installed in all instructional areas providing assisted listening technology in each classroom for hearing impaired accessibility. Interactive video projectors and/or interactive Flat Panel Displays will be installed in all classrooms and/or academic spaces. The interactive devices will be interfaced to the Sound Field systems.

A VoIP phone handset shall be installed in all classrooms, offices, and common areas. The existing phone handsets and district phone servers will be moved to the Server/MDF room in a manner that minimizes disruption of services.

Large Venue Live Sound Reinforcement systems with Assisted Listening will be installed for the Gymnasium, Auxiliary Gym, and both Dining Commons (Cafeterias). A Large Venue Video Projection system shall be installed in school assembly spaces such as the Dining Commons/Stage and the Gymnasium.

Plumbing Systems

The building will have new 6" domestic water supply and will enter into the facility through boiler room. Reduced Pressure Backflow Preventer will be provided to the main domestic water supply to protect the service (per the DEP regulation 310 CMR 22). Potable water will meet both the NSF 61 and NSF 372 standards for lead free safe drinking water Act. Boiler water feed and make-up, and any other mechanical take-Offs will branch off through a reduced pressure-principle backflow preventer. Domestic cold water inside the building will be "L" type copper tube with wrought or cast copper fittings. All cold-water piping will be insulated to prevent condensation.

Domestic hot water supply will be provided from instantaneous electrical water heaters located at four strategic locations of the building. Each location will house two 30 KW instantaneous electrical hot water will be manifolded together to generate 14 gpm flow at 60 °F rise. The Kitchen area will house its own electrical hot water heater for kitchen appliance. Water heater will be modulating type and will be available on demand basis. The domestic hot water distribution piping will have self-regulating electric heat tracing cable for temperature maintenance. The product shall be equal to Stiebel Eltron CE 27 model.

The domestic hot water distribution will have dual temperature hot water supply / recirculation systems in the building. One system will operate at 140°F and will serve the kitchen dishwasher and 3-Compartment sink. The other system will operate at 120°F and will serve the other kitchen appliances, custodian room sinks, locker room, lavatories, and classroom sinks. All lavatory faucets will have thermostatic mixing valves to temper water supply. Domestic hot water will be distributed in "L" type copper tube with wrought or cast copper fittings. The hot water (HW) and re-circulating (HWC) piping will be insulated per IECC 2012.

The surface of the roof deck will be drained with dual level promenade drains with the lower drain bodies flashed into the waterproofing membrane. Roof with parapet wall will have overflow drains. Overflow drains will be extended to exterior wall with nozzle. The rain water system will be sized to handle a rainfall rate of 4 inches per hour, with a total runoff from the main roof and the roof deck of just under 1 cubic foot per second. The storm system will be installed in cast iron piping with all horizontal piping insulated to prevent condensation. The storm system will exit at various location of the building and connect to the site storm water collection system.

The sanitary waste system will drain by gravity and will run to exit the building and connect to the sewer system at the site. A dedicated grease waste line will be installed to collect grease

laden waste water from the Kitchen appliances and fixtures. The grease line will exit the building adjacent to the Sanitary Sewer and will be connected to an exterior grease trap outside the building. Grease traps will be provided at the source for any prep sinks. A new 8,000-gallon capacity outdoor grease interceptor will be placed on the site to intercept grease laden waste prior connection to site sewer system. Art room sinks will be provided with solid interceptors. Chamber vents from the interceptor will be routed to the roof independent from the rest of the sanitary waste. The above ground sanitary drainage and vent will be piped in cast iron with "no-hub" joints (3" or larger). Piping smaller than 3-inch will be piped in copper. Piping below floor shall be weight cast iron hub and spigot. All floor drains will have wet trap primer connection with electronic trap primer.

Number of plumbing fixtures will be added in the facility to accommodate population of male students and female students and shall be in accordance with 248 CMR Paragraph 10.10, Table 1. Plumbing fixtures will be equipped with the following water conserving features (for 30% indoor water use reduction-LEED-V4, Credit 2).

Water Closet	Urinals	Lavatory
Toilet flush valve to be water sense labeled, Manual 1.1 gpf flushometer. Equal to American Standard 6047.111.002	The Flush valve to be water sense labeled, Manual operated at 0.125 gpf equal to American Standard 6045.013.002.	Deck Mounted 4" fixed centers Metering Faucet, (lead free), 0.35 gpm aerator. Faucet to be equal to Chicago Faucets Model 3500-4E39PABCP.

Water closets and urinals will be commercial vitreous china, wall hung (ADA compliant). Lavatories will be self-rimming countertop mounted china. Each floor will include a janitor's closet with a corner mop service basin. Toilet cores on each floor will include alcove-recessed electric water cooler with bottle filling station and, in a high-low handicapped accessible configuration to meet MAAB requirement. All toilet and mechanical rooms will have floor drains complete with trap primers. All art rooms will have self-rimming stainless-steel sink with gooseneck type faucets (Chicago#786-GN). Boiler room will include service sink and eyewash station. Plumbing roughing connections and faucets will be provided to each kitchen appliances requiring plumbing work. Non-freeze wall hydrants will be provided along the exterior wall of school building.

Fire Protection

The entire building shall be protected throughout with a wet automatic fire suppression system. A fire department Siamese pumper connection will be provided at the exterior wall, near a site fire hydrant. The FDC will either be wall-mount or free-standing, depending on the final details and the preference of the Fire Department AHJ.

The system will be designed in accordance with NFPA Standard 13, 2013, the latest Massachusetts State Building Code and local jurisdiction. A new 8" fire service line from the street will be installed to a dedicated fire pump room. The fire pump room shall be 2 hour rated construction with direct exterior access. The room will have a supervised double check valve assembly backflow preventer feeding a 750 GPM, 60 PSI, 40HP fire pump and wet alarm check valve. From there, the fire protection pipe will run to each stairway, and up through the stairways as standpipes.

Sprinklers will be supplied from the standpipes in the stairs. Floor control valve stations, consisting of a monitored shut-off valve, flow switch and an Inspector's test valve and sight glass, will be provided at multiple stairs at each floor, taken off from the standpipe system. Light hazard areas include classrooms, corridors, cafeteria, rest rooms, offices, etc. Ordinary hazard group-1 areas of the building include kitchen, mechanical rooms, electrical rooms, etc.

Standpipes will be supplied in all required egress stairs. Standpipes would be designed in accordance with NFPA Standard 14, 2013, and local Fire Department requirements. Standpipes will be located in each required egress stairway, and adjacent to the Stage. Additionally, standpipes will be located so that no part of the building is more than 200 feet from a standpipe valve. Each standpipe will be equipped with a 2 1/2" fire department hose valve with 1 1/2" reducer at the stair floor landing. Because the building is not a high rise, there is no minimum pressure requirement for the standpipes.

Sprinkler heads in areas with finished ceilings will be concealed pendant type and in areas with no suspended ceilings will be upright sprinkler heads. All sprinklers will be quick response heads. Sprinkler heads in mechanical rooms will be provided with wire guards.

The fire protection piping will be schedule 40 piping with threaded fittings for any piping sized 1½" and less. For sizes over 2", schedule 10 piping with roll grooved fittings and couplings will be used. All valves controlling the flow of water will be equipped with supervisory devices that report to the Fire Alarm system.

Food Service

The food facility described herein will be designed to provide quality food service to students and faculty. The facility will be totally self-sustaining without dependence upon outside commissary operations. Most food products are to be prepare on site.

This Alternative #7 is similar to Alternative #4 with the exception that this will be all new construction and the food facility will serve a student population of 1,000, grades K-8.

The general description of the areas and functions that are affected are as follows;

Food Service Staff Toilets & Lockers: Staff toilets and lockers will be appropriately sized to accommodate a staff of approximately ten (10) in lieu of eight (8).

Recommended Space Analysis:

- Total Student Population – 1,000
- Meals/transactions per day – 1,015 including some faculty participation
- Three (3) lunch waves of 338

Area	Add/Reno Food Facility NSF
Receiving/Staging Area (Interior)	100
Can Wash/Janitor's Closet, Recycle Holding & Det. Storage	80
Food Service Washer & Dryer	80
Food Service Staff Toilets & Lockers -Staff of twelve (12)	300
Food Service Office - Staff of two (2)	150
Dry Food Storage - (Five (5) days inventory)	100
Paper & Non- Food Storage (Five (5) days inventory)	100
Refrigerators & Freezer Storage (Five (5) days inventory)	280
Commodities Freezer Storage	120
Preparation & Cooking (includes Breakfast staging)	1,020
Ware Washing & Pot Washing	300
Serving Area - Two (2) traditional straight lines	1,000
TOTAL FOOD SERVICE NSF	3,630
Cafeteria Dining Rooms & Storages	Architect
Faculty Dining Room	Architect

Food Service Equipment Estimate: Based on the design narrative outlined herein, the "magnitude of cost" for the Food Service Equipment is $685,200.00 delivered and set in place.

This estimate includes:

- All kitchen equipment delivered and set-in-place, ready for final utility connections.
- Food Service Equipment Contractor's profit.
- All new walk-in freezer and related refrigeration system.
- Food service exhaust ventilator(s) with Demand Control Ventilation (DCV) and fire suppression systems.
- Utility distribution system to provide utility connections to cooking equipment.

This estimate does not include:

- Existing equipment to be selected for re-use and relocation.
- General construction of any kind.
- Plumbing, electrical and HVAC services and final connections to equipment.
- General Contractor's mark-up/contingencies.
- Small wares, pots, pans, service ware, tables, chairs, etc.
- Escalation beyond October 2020.
- Applicable taxes.

3.6.7 Proposed Total Project Budget and Cost Estimate

The construction and project costs for Alternative 7 are estimated to be:

- Construction Cost (average): $ 114,108,297
- Project Cost (based on average): $ 142,635,371

The cost estimate and project budget are attached in Section 4.8.

3.6.8 Permitting Requirements

City of Lawrence

Planning Board

Site Plan Review and Approval

A Site Plan Review and Approval application package will be filed with the City Planning Board, as required by the Zoning Bylaw for new school construction. The application package shall conform to the requirements and contents identified in the City Zoning Ordinance. Once the application is formally accepted, the Planning Board and other Boards and agencies will review and comment within 35 days followed by a Public Hearing. It is anticipated that approval from both the Planning Board and Zoning Board of Appeals is required due to increases to existing non-conforming buildings and potential variances. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Zoning Board of Appeals

Special Permit & Variances

It is not anticipated that the proposed development will require dimensional variances from the zoning ordinance that would require a Zoning Board of Appeals application. If necessary, application would be filed with the Zoning Board of Appeals (ZBA). The timing of the application, review period and Hearing would be coordinated with the Planning Boards Site Plan Review. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision. A Building Permit can be applied for at the conclusion of the appeal period, assuming other permits have been obtained.

Conservation Commission

Notice of Intent

A Notice of Intent (NOI) Application will be filed with the Lawrence Conservation Commission due to the presence of wetland resource buffer areas of the North Canal and Spicket River within the proximity of the project disturbance limits. The application package will be submitted during the Design Development phase. The Commission shall hold a public hearing within 21 days of receipt of the filing. A decision will be rendered within 21 days of the close of the hearing. An aggrieved person may file an appeal to the Town Board of Appeals within 30 days of the date of the decision.

Inspectional Services

Building Permit

A building permit application will be submitted to the Lawrence Inspectional Services Department prior to the start of construction. If the proposed work conforms to the requirements of the state building code and all pertinent laws under the building inspector's jurisdiction, it is expected that the building inspector will issue a permit within approximately 30 days of the filing date.

Water & Sewer Department

Application for Water & Sewer Service

An application for new Water and Sewer Service connections will be submitted by the contractor to the city during construction.

STATE OF MASSACHUSETTS

Massachusetts Department of Environmental Management

Notice of Intent

The Notice of Intent application filed with the Lawrence Conservation Commission will also be submitted to the Massachusetts Department of Environmental Management (MA DEP) for their review and comment.

Federal

Environmental Protection Agency (EPA)

NPDES Construction General Permit

Construction activities which disturb an acre or more of land are regulated under the National Pollutant Discharge Elimination System (NPDES) administered by the Environmental Protection Agency (EPA). Most of these activities are regulated under the Construction General Permit, which outlines provisions that construction operators must follow to comply with the NPDES storm water regulations. A Notice of Intent (NOI) must be filed with the EPA for projects seeking coverage under the Construction General Permit. The NPDES permit is filed approximately one month prior to construction and will take one week to complete.

3.6.9 Proposed Schedule Including Phasing

Alternative 7 will allow the students to remain at their existing locations for the duration of the project. No swing space or phasing will be required. Construction is projected to begin September of 2021 and continue for approximately 3 years.

3.6.10 Attachments

Proposed Building Floor Plans

Proposed Site Plan

Traffic

A Traffic Impact Study for the property at 15 Union Street which is applicable to this location as well. The access to this site from the public streets is the same as the Stone Mill property. The Study was performed by Brennan Consulting and is attached to this report.

Geotechnical

Preliminary geotechnical investigations were performed on the adjacent Stone Mill site by Nobis Group. Their report included reviewing record documents of past geotechnical investigations at the Gateway Lawrence site. Their report is attached to this report.

Geo-Environmental

A Phase 1 Environmental Site Assessment was performed on the adjacent Stone Mill site by Nobis Group. Their report included information regarding the Lawrence Gateway property, but it is not a Phase 1 assessment of the Lawrence Gateway site. Their report is attached to this report.

3.7 Comparison of Options

Table 1 – Summary of Preliminary Design Pricing is attached to the end of this section.

3.7 Comparison Table

Henry K. Oliver School
Lawrence, MA

Preliminary Design Pricing Table

= Formula do not edit

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space ($*/SF)	Square Feet of New Construction ($*/SF)	Site, Building Takedown, Haz Mat Etc. ($*)	Estimated Total Construction** ($*)	Estimated Total Project Costs ($)
Option 1	81,791 sf	81,791 sf	- sf	2,124,975	33,410,038	42,662,548
(Code Upgrades)		$ 382.50 $/sf	$ - $/sf		$ 408.48 $/sf	
Option 3	90,588 sf	25,787 sf	64,801 sf	5,924,274	63,054,231	79,717,789
(Add/Reno Oliver 500)		$ 625.40 $/sf	$ 632.75 $/sf		$ 696.06 $/sf	
Option 4	160,917 sf	25,757 sf	135,160 sf	6,609,674	99,930,268	125,812,835
(Add/Reno Oliver 736)		$ 621.37 $/sf	$ 572.03 $/sf		$ 621.01 $/sf	
Option 4a* **	**160,081 sf**	**34,783 sf**	**125,298 sf**	**5,680,605**	**104,706,912**	**131,783,639**
(Add/Reno Oliver 1,000)		**$ 580.64 $/sf**	**$ 629.14 $/sf**		**$ 654.09 $/sf**	
Option 5	180,424 sf	146,613 sf	33,811 sf	22,674,646	140,330,206	176,787,758
(Add/Reno Stone Mill 1,000)		$ 621.49 $/sf	$ 784.87 $/sf		$ 777.78 $/sf	
Option 7	174,911 sf	- sf	174,911 sf	18,426,263	114,108,297	142,635,371
(New 1,000)		$ - $/sf	$ 547.03 $/sf		$ 652.38 $/sf	

* Marked Up Construction Costs

** Does not include Construction Contingency

*** **District's Preferred Solution**

Preferred Solution

4.1 Summary of Preferred Solution

Alternative 4a

The preferred option, Alternative 4a, has been selected because it solves many of the District's needs while giving new life to a historically significant building in Lawrence. Working with the Lawrence School District, a balance between what will fit on the limited site available and what is required to meet the needs of the District's educational program and projected student population has been identified.

The preferred option, Addition Renovation on the Oliver Partnership site, will provide adequate square footage to accommodate grades Kindergarten through Eight, with a student population of 1,000. Architecturally, the addition will work to compliment the historic Oliver Partnership building without trying to directly match the existing aesthetic. The completed building will be fully compliant with all applicable building and accessibility codes. During construction, the limited lot size means lay space for the contractors will need to be identified offsite but still site-adjacent. The renovated historical exterior of the building will be refurbished to match the original aesthetic. Alterations to the main entry of the existing building are required so that an entrance that is accessible for persons with disabilities can be provided. This will include moving the main entrance down to the existing basement level.

The Basement Level and Lower Level will contain shared spaces that will be used by both the Elementary School grades and Middle School grades, as well as by the public on occasion. The First Floor Level will be primarily dedicated to Kindergarten. The Second Floor will be dedicated to grades First through Third. The Third Floor will be dedicated to Fourth and Fifth grades, as well as few spaces for grades Sixth Seventh and Eighth. The Fourth Floor is dedicated to Sixth Seventh and Eighth grades.

This option requires swing space for the grades 1-5 for the duration of the project. Kindergarten and grades 6-8 can remain at their existing locations until the construction is complete.

The addition renovation will be approximately 160,081 gross square feet and an estimated project cost of $131,783,63.

All other alternatives fall short in the various ways. A code upgrade does not provide enough square footage to meet the goals of the Educational Program and student population. Complete demolition of the existing building on the Oliver site and providing new construction has been ruled out due to the existing building's historic designation. An addition renovation project at the Stone Mill site is plagued by a significantly contaminated site. Escalated costs associated with the complicated retrofitting of the old Stone Mill building also raises concerns. An all new building on the Gateway site suffers from high remediation costs associated with a significantly contaminated site, caused by decades of industrial activity that occurred there.

4.2 Educational Program - Lawrence Public Schools

Introduction and Strategic Plan

General

Lawrence Public Schools serves roughly 13,900 students across the entire District in schools of various grade configurations including: four early childhood schools, one K-8 school, 10 elementary and middle schools served in 5 Educational Complexes, two high schools, and two substantially separate schools.

Migration, Immigration and Economic Strain

Incorporated in 1847, the City of Lawrence was established as a textile manufacturing hub, drawing waves of immigrant populations from across Europe eager to gain employment in the mills. Even as the city's main economic driver dried up mid-century, Lawrence saw a shift in immigration patterns, with a largely LatinX population settling in Lawrence, starting in the 1950's and '60s. Today, the city is predominantly made up of families migrating from Puerto Rico, and immigrating from the Dominican Republic, and most recently from parts of Central America. Language is often a barrier for employment in most job fields, fueling the socio-economic strains felt by many of our families. Further compounding the issue is that academic degrees and professional licenses/credentials from other parts of the world are often not transferable, ultimately forcing skilled and experienced professionals to take low wage positions in and around our community. Many of our families must work multiple jobs to make ends meet, especially since the cost of rent or to buy property in Lawrence remains high. Lawrence's affordable housing rates are tied to its more affluent neighbors, including Andover and North Andover, which keeps even the most affordable options out of reach for many. Rather, new Lawrenciens find themselves doubling up with relatives, or renting in substandard buildings as a way to balance their budgets.

History of Lawrence Public Schools

During the latter part of the nineteenth century, several school buildings were constructed in Lawrence. The first grammar school opened in 1848, in the Henry K. Oliver School building. That building was subsequently replaced by the current Oliver School building in 1917.

More than 160 years after the Lawrence Public Schools (LPS) system was established, the district is in the midst of a historic transformation to better serve our students. In November 2011, LPS was designated as a "Level 5" or "chronically underperforming" district by the Massachusetts Department of Elementary & Secondary Education. In May 2012, Commissioner Mitchell Chester and then newly-appointed state Receiver and Superintendent Jeffrey C. Riley announced a turnaround plan for district improvement.

Phase One of Receivership: The Turnaround Plan and Open Architecture

The turnaround plan established a bold mission: to create a new district model—later named "open architecture"— that provided individual schools with the freedom to direct their own improvement, with customized district support based on school needs. Key features of the plan

include shifting more resources and autonomy to the school level; creating a leaner, more responsive central office; ensuring all schools have great leaders and teachers; harnessing the talents of partner organizations; expanding the school day and adding learning time for students; and increasing student engagement through enrichment opportunities.

An additional, significant component of this turnaround plan was upgrading and addressing the many deficiencies in school facilities. This included the creation of a Family Resource Center to address student/family needs, improving school culture, as well as upgrading school safety communication devices and cameras.

Under this new "open architecture" model, the district has cleared out bureaucratic, one-size-fits-all policies in favor of giving schools an unprecedented level of autonomy over educational decisions. Principals and teacher leadership teams design school programs to best meet their students' needs. Each school team sets its own curriculum, calendar, and professional development, while school leaders have full budget and hiring autonomy. Central office assumes a support role managing operational tasks so school leaders can focus on teaching and learning.

All K-8 schools extended learning time beginning in 2013-14, with every student now attending school for 200-300 additional hours. With support from the National Center for Time and Learning, schools independently planned their schedules and use of time around key shared elements to ensure every added moment was a moment used well. This includes dramatically expanded arts and enrichment, often provided through on- and off-site partnerships with numerous local city organizations and agencies.

Since 2012, LPS has seen significant gains in student growth and proficiency in the Massachusetts Comprehensive Assessment System (MCAS), leading to the addition of newly designated "Level 1" schools each year of the turnaround effort. High school graduation rates are up, and dropout rates are down. We continue to work toward the goal of providing all students with a rich, high-quality education that closes the achievement gap and prepares our students for college and career pathways.

Our commitment to providing every student with a great education is grounded in Lawrence's rich history of marshalling the resources and supports necessary to serve our community's children. LPS takes great pride in our school system's history as we continue to lead the district forward.

Phase Two of Receivership: the Lawrence Alliance for Education

Today, Lawrence Public Schools is transitioning to the next phase of State Receivership. A receivership board, the Lawrence Alliance for Education (LAE), is responsible for the governance of the school district and selected a new Superintendent, Cynthia Paris. The City is committed to ensuring that our students are provided with a high-quality education and positive learning environment, supported by appropriate safety strategies.

Quick Facts: Lawrence Public Schools	
65%	families economically disadvantaged
85%	High Needs (DESE)
20%	with disabilities
95%	Hispanic
71%	first language is not English
36%	English learners

Lawrence in Numbers

Our total student population is determined to be approximately 85% High Needs, according to the state Department of Elementary and Secondary Education (DESE), with approximately 65% of the student population categorized as Economically Disadvantaged. The district's population is 94% Hispanic, with approximately 71% of our students reporting that English is not their first language. Our English Learner population is among the highest in the state at 36%. Our Students with Disabilities population is also above the state average, at 19.2%. Another challenge for the Lawrence community is its population density, with approximately 80,162 residents in roughly six square miles. Located 35 miles north of Boston, Lawrence has long been a city of immigrants since its founding as a center of the textile manufacturing industry in the 19th century. Today our immigrants arrive from the Caribbean, Central and South America, and Southeast Asia. Despite a strong regional economy, Lawrence remains among the United States' poorest communities with a current unemployment rate of 6.4%, compared to statewide rate of 3.52% (Commonwealth of Massachusetts, Division of Employment and Training).

Quick Facts: Oliver Partnership	
14%	with disabilities
96%	Hispanic
72%	first language is not English
44%	English learners

The **Oliver Partnership School's** population is 96% Hispanic, with roughly 72% of students reporting that English is not their first language and 44% classified as English Learners (EL). **The EL population is almost 10% higher than the district average**, which as stated previously among the highest in the State. The Students with Disabilities population is 14%.

Quick Facts: UP Academy Oliver	
17%	with disabilities
97%	Hispanic
74%	first language is not English
29%	English learners

The **UP Academy Oliver's** population is 97% Hispanic, with roughly 74% of students reporting that English is not their first language and 30% classified as English Learners. The Students with Disabilities population is 17%.

Strategic Plan

At LPS, our ultimate goal is to provide all students with a rich, high-quality education that mirrors the suburban experience and closes the achievement gap between our students and their suburban peers. We seek to achieve this through a common vision for high-quality instruction, a re-imagined urban school system, and collaboration with the Lawrence community.

Our schools support students to successfully graduate from college or enter the workforce, guided throughout by the District's Four Pillars:

1. Rigorous Standards. Rigorous, common-core aligned curriculum standards to ensure our students are learning appropriate content to stay on track at their grade level.
2. High-quality enrichment. Access to rich programs such as the arts, musical theatre, step dancing, and robotics. These activities increase student engagement and impart critical social and life skills.
3. Effort / Mindset. Demonstrating to students that hard work matters, and that effort directly translates into increased proficiency.
4. Critical Thinking. Working to improve the quality and rigor of classroom lessons, moving beyond textbook teaching to higher-order activities and lessons that engage students at a deeper level.

he open architecture approach allows for a variety of school types within the district. While most of the district's schools are traditional schools, several have adopted an innovative model or are managed by non-profit organizations. All of the district's schools—including schools managed by charter operators—are American Federation of Teachers (AFT) unionized, neighborhood-based, and follow a common set of policies to ensure a fair, supportive system for LPS students, families, and staff. There are no "carve outs"—all schools play by the same rules on a level playing field.

District and union leadership have embraced this model, where principals and teacher leadership teams design school programs to best meet their students' needs. Each school team sets its own curriculum, calendar, and professional development, while school leaders have full budget and hiring autonomy. Central office assumes a support role, managing operational tasks so school leaders can focus on teaching and learning.

Fundamental to all this work is a bedrock belief in enlisting people in the process of improvement. The district has pursued system changes in partnership with local leaders and stakeholders – including families, teachers, students, businesses, and non-profits. The Superintendent meets regularly with the parent teacher organization presidents' council, a roundtable of local non-profits, the school committee, and the mayor. Community organizations work closely with our schools in a variety of capacities, including as key expanded learning time partners. After negotiating an innovative contract, LPS leadership and the Lawrence Teachers Union are working in partnership on efforts to increase teacher voice and raise student achievement. Individual teachers continue to play a crucial role, including on the teacher leadership teams at each school. Student voice in decision-making is being prioritized at every level of education, and formal representation is ensured through student government, the Superintendent's Student Cabinet, and representation on the district's governing body.

Educational Facility History and Goals

Educational Facility History

During the latter part of the nineteenth century and early part of the twentieth century, several school buildings were constructed with amenities to properly educate the city's growing immigrant population. The first grammar school opened in 1848, in the original Henry K. Oliver School building. The late 1800's through the early 1900's saw a surge in school construction, including seven new grammar or middle schools and a high school.

Over the 70 years, many changes took place to both the demographics of the city and to the schools serving its children. Economic declines led to the closing and consolidating of schools and shifts in desirable and affordable areas of the city led to expansion and renovation of some buildings, and even two new school buildings at the far ends of the city. The expansion of schools culminated in Fall 2007, with a $110 million, 42-acre high school campus opened in South Lawrence. However, several schools operate in original buildings dating back more than 100 years.

Educational Facility Goals

Since 2007, Lawrence has been working to replace their individual elementary and middle schools with co-located elementary and middle schools which are known as Educational Complexes in the District. The following schools are already operating under this model:

- South Lawrence East Elementary/SPARK Academy
- Frost Elementary/Frost Middle
- Parthum Elementary/Parthum Middle,
- Guilmette Elementary/Guilmette Middle
- Community Day Arlington/Arlington Middle

LPS has found the Educational Complex model to be successful because, in contrast to a K-8 where the school administration for the Elementary and Middle is combined, the separate administrations that are part of an Educational Complex allow for LPS to continue operating under the very successful Open Architecture principles of autonomy for all schools while also capitalizing on the efficiency of operating a single larger school building, replacing two existing buildings that are beyond their useful life, and maintaining the neighborhood school model as well. Advantages of this model are described in more detail in the grade configuration section below.

After the completion of the Oliver School project, there will be six Elementary-Middle Educational Complexes in the District. The Leahy Elementary School Project, which Lawrence Public Schools is also partnering with MSBA on, intends to consider this model as well.

Design Team Response: The Oliver K-8 School will follow the Lawrence model of the "Educational Complex". The Preferred Alternative 4a reflects this model.

Educational Use of Vacated Schools

Should an alternative be selected that results in the Oliver Partnership School being vacated, it is anticipated that this building's most immediate use would be to serve as swing space for other capital projects such as the Leahy Project. Relocating UP Academy Oliver's (UAO) Grades 6-8 into the renovated Oliver building or an alternative building or site will also allow the District to repurpose the current UAO space, potentially providing much needed classroom space to address overcrowding in some other area schools and help us to consider how to build out additional feeders.

Grade and School Configuration Policies

Current grade configurations

The unusual composition of grade configurations for our schools is largely attributed to the size and age of many of our buildings. For example, our newer buildings are designed to educate roughly 1,000 students, with an elementary and middle school feeder sharing the building. These are our desired model: the Educational Complex. In another more recent renovation exists our sole K-8 school building (the Wetherbee). Meanwhile, some schools have too few classrooms to provide for even a complete, traditional elementary school. For example, the Lawlor building houses only nine classrooms and is currently used as a kindergarten feeder to three Grade 1-5 schools.

The district's preferred grade configuration is a blend of K-8 schools together with elementary and middle school Educational Complexes. This configuration minimizes transitions for students and allows families to keep siblings together, enrolled in one building. Further, the configuration increases capacity for collaboration and preparation across grades and lends itself well to the district's neighborhood school enrollment policy.

The two schools that this project proposes to co-locate are the grades 1-5 Oliver Partnership School and the grades 6-8 UP Academy Oliver. The Oliver Partnership School has had a Kindergarten program in the past but does not currently.

Proposed Grade Configurations

The proposed grade configuration for the Oliver School is Kindergarten through Eighth Grade, in two co-located schools, serving 1,000 students. This configuration would allow us to co-locate two currently separate schools (Grades 1-5 and Grades 6-8), as well as add a Kindergarten program to the lower school. This feeder pattern is based on current models in the District, including:

- South Lawrence East Elementary/SPARK Academy
- Frost Elementary/Frost Middle
- Parthum Elementary/Parthum Middle,
- Guilmette Elementary/Guilmette Middle
- Community Day Arlington/Arlington Middle

Design Team Response: The Preferred Alternative 4a adds the Kindergartens to the Oliver Partnership School and brings together the Oliver Partnership School and the Up Academy Oliver School.

Use of Vacated UAO space:

Vacated UAO space will provide the SES and International High Schools the opportunity to expand. Both these schools are co-located in the same facility and have been unable to house the ideal number of students due to space constraints.

In addition, Lawrence High School's enrollment continues to outpace its capacity. Increased space at SES/HIS will help alleviate over enrollment at the LHS campus.

Advantages of Proposed Grade Configuration

Expanding to a K-8 educational complex model will ensure the educational continuum is consistent for our students and within our district. We will increase the staffing to support the addition of Kindergarten and Grades 6-8. This is a model currently successfully exists in five of our current educational complexes housing 10 individual schools within the complexes. These educational complexes house two smaller schools within one school complex. This provides shared space, kitchen, gym, community space, health suite, etc. for both school while maintaining the benefits of small school environment. This approach also limits transition for our students. Both schools would maintain a separate administration, guidance, and student support staffs. While this model requires additional administration space, we have found it invaluable to support student focused programs and services. A description of the proposed administration has been provided in the next section.

As referenced above, hosting grades K-8 under one roof supports our goals of minimizing transitions for students, keeping siblings together, and promoting collaboration and planning across nine years of a student's educational journey. We believe this type of consistency and proactive planning best supports student's high school readiness. It also encourages families to build relationships with educators, given their longevity in the building.

Class Size Policies

District policies, targets, and guidelines

Lawrence Public Schools' assignment policy is centered around neighborhood schools. A student's address dictates which school s/he will be assigned to, with exception of any IEP considerations. This policy encourages family engagement, strong attendance and reduced tardy rates. However, it also can lead to overcrowding in some schools. To address this concern, the District places caps, determined annually, on grades in our schools. While no class size policy currently exists (by school committee or union contract), our practice is to support schools with paraprofessionals when class sizes go beyond set caps. Please note, however, that three years ago we needed to expand caps and that this larger cap has remained in place each year since that time.

	Former Caps	Current Caps
Kindergarten and Grade 1	22	25
Grade 2 - 5	25	27
Grade 6-8	25	29

Current average class sizes by grade

Average District class sizes by grade are as follows:

	District Average Class Size
Kindergarten	23
Grade 1	24
Grade 2	23
Grade 3	24
Grade 4	26
Grade 5	24
Grade 6	25
Grade 7	24
Grade 8	26

Proposed changes and why or statement that no changes are proposed

The above table provides the average across the District, by grade. It should be noted that class sizes can range from as small as 15 to as large as 32 in individual spaces. Factors contributing to this range include, size of classrooms (some older buildings have very small classrooms or school leaders have created classrooms in spaces not designed to be classrooms), location in the city (our city center schools are typically the most overcrowded), programmatic decisions (such as English Learners Classrooms), how many strands of classes we have per grade level, and so forth.

The District agrees that current class sizes work against the requirements of project-based learning and flexible grouping. The proposed increased enrollment and new school facility will allow the District the ability to implement the MSBA recommended class sizes.

Our goal is to build, over time, a more appropriate configuration across the City so that class sizes may be more uniform - thus providing similar learning environments for all of our students. It is not an equitable experience to have 30 students in one classroom while another classroom has 23. It is also not equitable to be using a space for a classroom that was not designed as a classroom, even if it hosts significantly less students. As part of our goal to achieve equitable learning environments, we strive to configure spaces in ways that allow us to return to previous caps, or even reduce those caps further for all of our classrooms.

It should be further noted that the central part of our city, where the Oliver schools are located is experiencing massive residential growth, with many new apartments and condominiums, currently in various stages of development. With this in mind, we are proposing:

Grade	Current Number of Homerooms	Proposed Number of Homerooms*	Current AVERAGE Number of Students per Homeroom	Planned Students per Homeroom
Kindergarten	0	4	0	20
Grade 1	4	5	25	23
Grade 2	5	5	24	23
Grade 3	4	5	24	23
Grade 4	4	5	25	23
Grade 5	4	5	26	23
Grade 6	4	5	28	25
Grade 7	4	5	29	25
Grade 8	4	5	30	25

* For grades K-5, Proposed number of classrooms include 4 standard and one EL. For grades 6-8, proposed number include 3 standard, 1 EL and 1 Science lab

Districtwide English Learner Education Overview

English Learner (EL) enrollment in Lawrence has grown steadily over the past 10 years and continues to grow. In 2009, the EL population in LPS was 22.8%, in 2019 the EL population is at 35.9%. Our EL enrollment percentage is the second highest in the state behind Chelsea Public Schools. The high EL population in Lawrence is significant and thus requires a high number of staff; a significant amount of teaming and the ability for flexible and large classroom spaces for ESL instruction to take place. All ELs in Lawrence receive instruction through the Sheltered

English Immersion (SEI) model which consists of Sheltered Content Instruction taught by SEI-endorsed core-academic teachers and direct English as a Second Language (ESL) instruction taught by licensed ESL teachers. Direct ESL services are provided in one of four ways: push-in ESL, pull-out ESL, self-contained ESL program.

The UP Academy Oliver and Oliver Partnership School provide direct ESL services in the following ways:

I. **Push-In ESL**

The Oliver Partnership School has 1 ESL coach and 5 ESL teachers, and the UP Academy Oliver has 4 ESL teachers who do a combination of push-in and pull-out support during the day. These teachers are scheduled for push in instruction in three blocks a day and assist 100% of our EL students in each of those scheduled periods.

Design Team Response: The Preferred Alternative 4a has classrooms of appropriate size to accommodate Push-in activities

II. **Pull-Out ESL**

Students are pulled out in group sizes of anywhere from 8-12 students by a licensed ESL teacher. Space and accessibility constraints inhibit our ability to offer effective pull out assistance to students. Often, these pull-out groups are in direct competition or sharing spaces with special education pull-out groups and are not able to reliably pull out in the blocks that they need to. Because EL services need to be highly tailored to students' English language proficiency levels, it is essential that we are able to flexibly group with our pull-out and have adequate space to pull out groups, as necessary.

Design Team Response: The Preferred Alternative 4a has an EL classroom at each grade level and Small Group Rooms of various sizes to support this program

III. **English Learners Program**

Because we have a large cohort of newcomers to the country at both the Oliver Partnership and UP Academy Oliver, it is essential that we have strong wraparound programming to support these students both in language acquisition and social orienting to a new city and country. We space to work with ESL students that are new to the country and to prepare them academically and socially for the rest of their academic experience at school.

Design Team Response: *The Preferred Alternative 4a has an EL classroom at each grade level to support this program*

The program and delivery will be the same for the Oliver Partnership and Up Academy Oliver schools. These two schools have higher percentages of ELL and poverty than the overall community.

Districtwide Special Education Overview

Lawrence Public Schools (LPS) has a population of roughly 13,900 students (2018-19) of which 2,623 students are supported with special education services (19.2%). This is higher than the state average of 18.1%. At present, 113 of our special education students (4%) attend out of

district facilities (collaboratives, private day schools or residential schools) for their instructional needs. In addition, 120 students identified with significant emotional and/or global intellectual delays are served by two therapeutic day schools: the School for Exceptional Studies (Emotional Disabilities) and the School for Exceptional Studies Annex (Global Disabilities associated with Autism Spectrum Disorder). LPS also effectively meets the individual needs of all students through a broad continuum of services including specialized, sub-separate programs established in several of our schools.

Special education law mandates that students be educated in the least restrictive environment. Two research-based methods of instruction that support least restrictive environment are Universal Design for Learning (UDL) and Response to Instruction and Intervention (RtII). UDL is an instructional method that involves creating lessons and classroom materials differentiated enough to accommodate a variety of learning styles in the inclusive classroom. This is most effectively supported in a co-teaching format, whereby two teachers share an instructional space that offers opportunities for varied instructional support groupings throughout the day. It relies heavily on technology to support different learning needs and challenges. RtII is a general education approach intended to provide early identification of students' learning problems paired with the use of focused lessons and interventions to address student learning challenges. It requires the ability to progress monitor students frequently and to adjust instructional groups several times throughout a school year.

Best practices in special education focus on specialized instruction and accommodations that allow students the opportunity to be included in the life of the school as much as possible regardless of the severity of their disability. LPS stresses the importance of learning from developing peers, accommodations that allow students to access all areas of the school and curriculum, the ability to move between specialized services and regular education classes, and access to many forms of assistive technology.

While much of the Special Education student services will be provided in an inclusionary (classroom) setting, some pull out is required. This is best accomplished in close proximity to the students' classroom. Numerous, small group rooms are proposed in order to best serve students. These spaces are better categorized as "pull-over" rooms rather than pull-out rooms.

All learning spaces need to support students with a wide range of needs. This includes students with mobility challenges, vision and hearing impairments, sensory regulation challenges, social emotional disabilities, and students with learning disabilities.

Special education services are delivered in small groups and remedial instructional groups, within the regular education classroom, in technology rich environments, in alternative curriculum learning environments and in therapy and counseling sessions.

These pull-over rooms will serve:

- Small therapy rooms for individual and small group speech, occupational, and physical therapy sessions
- Counseling areas
- Sensory areas to provide opportunities for students experiencing sensory overload
- Calming areas for de-escalating students experiencing dysregulation and behavior challenges
- Small group teaching areas
- Individual teaching areas
- Areas to assess students for special education services
- Areas for having meetings with parents and teams

Our current school buildings limit access to special education services. In addition to lacking Occupational Therapy (OT) and Physical Therapy (PT) equipment for example, currently there are no specially designed spaces for these services to be delivered. Students with social emotional or special education needs would benefit from a new building that contains specially designed learning and counseling spaces. In many schools, the counseling spaces are inadequate and limit the number of students receiving services at one time. The proposed school should include a small gymnasium where OT/PT equipment can be kept, and an OT/PT program can be staffed and delivered. The District has seen a similar model successfully incorporated at the Gates Middle School in Scituate.

Inclusion

Inclusion is a core belief and practice in LPS. This educational model challenges schools to meet the needs of all students by educating students with disabilities alongside their non-disabled peers. An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community. Ensuring that the classrooms are equipped with assistive technology for students with specialized needs is essential. Such technology should include access for hearing and/or visually impaired students as well as students with significant communication disorders.

Design Team Response: The Preferred Alternative 4a includes Small Group rooms spread throughout the grade levels

Substantially Separate Programs (District)

At present, only some of our schools are servicing students requiring a substantially separate program. Space and accessibility restraints prevent LPS from including an adequate continuum of specialized service in each neighborhood school. As such, many students are transported across neighborhood zones to comply with the mandates of Individual Education Plans. These students lack opportunities to learn and engage with peers who live in their neighborhood.

Of fifteen schools serving students in grade configurations from PK-5, only seven are currently serving the needs of students assigned to Primary Learning Centers (PLCs). For nine middle schools with grade assignments from 5-8, only four are able to offer Intermediate Learning Centers (ILCs). The Oliver Partnership School is one of the schools not equipped to serve this

need. By providing adequate space and accessible configurations, many more students will be served in their neighborhood school.

Each of our seven elementary schools house a specialized substantially-separate special education program. As an example, the Guilmette Elementary School (Grades 1-4) has two classrooms identified as Primary Learning Centers (PLCs) and one classroom to meet the needs of students diagnosed with Autism Spectrum Disorder (ASD). One PLC serves students with developmental delays and the other is designed for students who are profoundly medically fragile. The ASD inclusion program offers students previously assigned to a therapeutic day school the opportunity to learn alongside grade appropriate peers. There is a disproportionately large number of students requiring sensory and physical development services in the Oliver Partnership elementary school, therefore sensory and physical development space remains at a premium. Providing adequate space for both instruction and therapy is in demand. A similar configuration exists at Guilmette Middle School (Grades 5-8).

Services provided at the Oliver Partnership School presently include direct instruction in a separate setting or in a general education setting. Teachers “push- in” or, work with students in an inclusion general education classroom, or “pull- out” and work with students in a separate controlled setting.

Educational Complexes, inclusive of both an elementary and middle school, provide additional opportunities to locate substantially separate programs in same or close neighborhoods. They also provide increased opportunities to offer a continuum of services and therapy to our students requiring the most intensive support. As a result, the new Oliver Partnership and UP Academy Oliver educational complex would be more inclusive as students with a variety of learning differences would be included within the school culture.

Student services are defined as evaluation team facilitators, school psychologists, inclusion facilitators, learning center teachers, social workers, speech and language pathologists, occupational therapists, physical therapists, counselors, and nurses. LPS also provides teachers for students with visual impairments and tutors for students who are deaf or hard of hearing. In many cases, student service positions are shared among more than one school, but together they represent a team-based approach to supporting students and families in need at the elementary and middle level in Lawrence. In most cases, these related service providers are sharing office and treatment space in many of our schools.

In addition, the District is serving the needs of 250-300 students annually who are referred for special education evaluation from the early intervention program. These students may be referred beginning at age two years and nine months. At age three, eligible students must be assigned to one of our four early childhood locations. The Early Intervention Evaluation Team (EIST) is housed in one of the oldest buildings in the District. The 150-year-old Rollins School assigns this team to the basement of the school in repurposed space formerly used for storage. While a small elevator was installed, most parents and young children must navigate stairs and a basement labyrinth as their introduction to LPS. The inclusion of adequate evaluation space for EIST in the new Educational Complex would be ideal. It is acknowledged that while the MSBA does not object to the District including this space in the proposed project, any space intended for District-wide use will be considered ineligible for reimbursement. The current location for this program is in the basement of one of the district’s oldest school buildings. Very young children, many with significant learning or medical needs, must visit the assessment location with families. Access is limited due to the inconsistent operation of the elevator.

Design Team Response: The Preferred Alternative 4a includes multiple dedicated spaces for the Autism Spectrum Disorder (ASD) program including Life Skills.

Coordinated Program Review

All Massachusetts school districts' Special Education Programs are evaluated by the Massachusetts Department of Elementary and Secondary Education (DESE) every six years, followed by a mid-cycle special education follow-up visit three years after the coordinated program review. A rubric consisting of 59 criteria elements are used to evaluate district compliance with the federal and state regulations which have been formulated to promote student achievement and high standards for all students.

Lawrence Public Schools (LPS) participated in a comprehensive Special Education Program review in March 2019. LPS was fully compliant with 57 of the rubric elements. One element – SE Criterion 40 – Instructional grouping requirements for students aged five and older - was rated as partially implemented due to inconsistent instructional grouping requirements. This inconsistency was noted in 15 classrooms located across eight schools. Non-complaint instructional grouping was documented at both UP Academy Oliver (1 class) and Oliver Partnership School (4 classes). LPS strives to ensure compliance with mandates for instructional grouping compliance. Space limitations in many schools, including the Oliver Partnership and UP Academy Oliver schools, contribute to higher than desired groupings in some cases. LPS is currently working to address SE Criterion 40.

One other indicator – *SE Criterion 25 Parent Consent* – was also rated as only partially implemented. In three cases, documentation of a signed IEP within 60 days of development was not recorded in the District's special education portal. The finding referenced the need to notify Bureau of Special Education Appeals (BSEA) for any IEP evidencing an unresolved dispute when the IEP remains unsigned for 60 or more days. In these cases of the identified IEPs, evidence was provided to support the District's compliance with this mandate. Further safeguards and training will be established to ensure timely recording of signed IEPs to the management database.

LPS anticipates exemplary ratings and notice of full compliance in all 59 special education criterion elements when the all corrective actions are completed by November 2019. The completion of this school building project will help our District ensure all staff and students have equitable space and resources.

World Languages

No World Languages program is offered.

The District has a very high percentage of students who are coming from families where English is the second language. This demographic accounts for a majority of our households. Accelerating English proficiency for these students is a District priority. Lawrence Public Schools is a sheltered immersion instruction (SEI) district, where all content teachers are highly qualified and SEI endorsed. Additionally, High School students have access to AP Spanish and are encouraged to graduate with the State Seal of Bi-literacy. This Seal requires students to attain a high functional and academic levels of proficiency in a foreign language.

Co-Teaching Model for English Learners and Students on IEPs

Another change in the teaching methodology that is proposed in this education plan is to strengthen the co-teacher model for our students on Individual Education Plans (IEPs) and our English Language Learners by shifting services from traditional “resources rooms” or “pull out” models to a more inclusive co-teaching model. This represents a major change in the teaching methodology of the schools. Space located within each grade-level hub would be necessary to accommodate this methodology of teaching. Due to the EL class sizes, larger general education classroom space would be necessary in addition to smaller connecting spaces to create collaboration and flexibility for grouping of students.

Transportation Polices

General Education Transportation

Students in the Lawrence Public Schools are eligible for transportation if they are in grades K-12 and live more than two miles from their attending school. The exception is high school students attending the campus who live on the north side of the Merrimack River.

Families are notified about children’s school assignments, which indicates if a child is eligible for transportation. In late August, if a child is eligible, the family will receive a notice with the bus stop location, time of pick-up and drop-off and bus numbers.

Kindergarten and elementary school students are picked up and dropped off at a corner stop near home. Bus drivers will drop off students, including kindergartners, at the bus stop even when the parent is not there.

Special Transportation Situations

Lawrence Public Schools provides transportation service for students with disabilities in accordance with their Individualized Education Program (IEP) or Section 504 Individual Accommodation Plan (IAP). Some students receive door-to-door service. For students who may have medical or physical conditions that prevent them from walking to school or to the corner bus stop, the District may provide door-to-door medical transportation; however, these are rare cases. Medical documentation is required to be considered for this special service.

Design Team Response: The Preferred Alternative 4a will allow for door to door services from Oak Street, low volume street with the closest access to the elevator.

Private Transportation Services

Some families arrange to have their children driven to and from school by a private transportation service or individual. This type of private transportation is typically a mini-bus or van. While Lawrence Public Schools is not responsible for this transportation, we address logistics with these providers to manage dismissal time and to maintain student safety. At the elementary school, there may be up to 20 private transportation service providers in any given year at the Oliver Partnership School. With lack of bus loop, this becomes a challenge for both the Oliver Partnership School and the UP Oliver School.

It is our strong desire to address the traffic patterns and lack of dedicated drop off and pick up zones for the future to ensure student safety.

Design Team Response: The Preferred Alternative 4a will have dedicated drop off / pick up zones for private mini-busses and vans on both Haverhill and Oak Streets.

Security Issues / Requirements

Currently, our school safety department comprises34 School Safety Officers supported by an MOU (Memorandum of Understanding) with the Lawrence Police Department, which accounts for three dedicated School Resource Officers and a Lieutenant. Lawrence Public Schools is committed to providing the highest quality school safety and violence prevention programs to support individual schools across the District. It is our desire to provide for and promote student safety and security throughout the school district and community at large, including the upgrade of school safety communication devices and cameras. We utilize a single point of entry system at all our schools. Implementation of staff crisis response protocols would be enhanced with the use of updated security systems and technology throughout the school setting.

Lawrence Public Schools, like other urban school districts, has to respond to a myriad needs and challenges faced by students. Poverty, transience, homelessness, language barriers, substance abuse, domestic and community violence and resultant trauma are all barriers to education. However, reactionary practices to behavioral infractions have become institutionalized; suspension and expulsion are used as the answer to problem behavior on a regular basis. These practices do not solve the problems and can create a climate of distrust and lead to failure and drop out. These consequences affect our society as a whole.

"The question of safety in schools is not just about preventing extreme forms of violence, fights or bullying. It is also about shrinking the achievement gap since the way a school disciplines the students will either help or hurt academic achievement. Suspensions and expulsions are time spent out of the classroom."
Nancy Riestenberg, School Climate Specialist

We believe a positive school climate is critical in fostering a successful learning experience, and, without training, school safety improvements can be ineffective. We have begun the use of the researched-based initiative known as "restorative justice practices." With adequately sized classrooms, we can improve school culture and proactively prevent school violence. We seek to improve student outcomes by building a restorative school community as part of our Social Emotional Learning.

Functional and Spatial Relationships and Adjacencies

Surrounding Sites

A short walk across the Commons from City Hall, Oliver Partnership School is located near the city center. As housing is developed and the planning of future units continues rapidly in this area of the city, we expect the size of our student population to grow at an equally rapid pace. The school is adjacent to two large public parks, O'Neil Park, and the city commons, which provides ample (though not secured) green space for recess and physical education. These programs would be unable to continue without access to the parks due to the lack of indoor activity space in the current building and lack of any outdoor space on the school's site itself. OPS partners with the nearby YMCA, YWCA, and Lawrence Public Library for necessary after school childcare and weekly enrichment class programs.

Oliver Partnership School currently partners with enrichment programs at the YMCA and YWCA via annual contract at a cost. This is currently due to the lack of space at the school to provide this in house. A new building will allow us to provide our enrichment program in the school, increasing student funding availability, student time on task, student safety and decreased transition times. We will provide funding to advance other programs and offer a wider variety of enrichment options. The Lawrence Public Library is utilized by students after school as they participate in the Library's formal programs. Our partnership is to outreach to families informing them of the opportunities available at the library.

Design Team Response: The Preferred Alternative 4a will include spaces for programs that are currently housed at the YMCA and YWCA. Those off-site venues will no longer be needed. The Lawrence Public Library (located on the same block as the Oliver School) will likely continue to be used for after school library programs.

Final Statement of Intention

At LPS, our ultimate goal is to provide all students with a rich, high-quality education that mirrors the suburban experience and closes the achievement gap between our students and their suburban peers. We seek to achieve this through a common vision for high-quality instruction, a re-imagined urban school system, and collaboration with the Lawrence community.

Expanding to an educational complex model will ensure the educational continuum is consistent for our students.

Introduction to Schools

This project proposes to join students from multiple existing schools into a single school building. The narratives below address the many elements of each school separately as they will continue to operate and deliver education separately consistent with the Open Architecture model that Lawrence Public Schools has adopted as part of their Turnaround Plan.

Oliver Partnership School (Grades K-5)

Oliver Partnership Elementary School serves approximately 500 students in a building that opened in 1917. The school provides children with a supportive learning environment and educational experiences that enable them to achieve academic success, gain knowledge in core subject areas, and develop personal responsibility and integrity. Combining academics with a strong sense of community, we help children to become global citizens, problem solvers, and lifelong learners.

At the Oliver Partnership School, we expose students to a high quality curriculum that is rigorous and aligned with the Common Core State standards.

- Teachers continuously assess and differentiate instruction based on student needs; progress and achievement towards academic performance goals.
- All staff encourage positive, supportive, and nurturing relationships with students. We incorporate social and conflict resolution lessons through Positive Behavioral Interventions and Supports (PBIS). The PBIS framework supports students with an expected set of behaviors that is reinforced in a positive environment.
- Celebration of learning is important to OPS. Teachers make learning visible to peers, parents, and school community using wall displays, portfolios, newsletters, Smart TV capturing student learning, ClassDojo, special events, Art Exhibit, and Musical Performances.
- Parent Engagement/Community Partnerships are important to OPS. We recognize that students are most successful when their education happens in collaboration with their families. We host many parent events at our school: PTA, Family Literacy Nights, Open Houses, Family Game Night, Family Movie Night, Talent Show and Choir Performances to name a few.
- Teachers can access technology as a tool to facilitate and enhance learning. Our current technological tools are interactive whiteboards, digital cameras, tablets, Chromebooks, and a computer lab.

The Design Team Response by space has been provided at the end of the Oliver Partnership School section.

School Scheduling Method

The Oliver Partnership does not schedule in uniform blocks. The duration of instruction varies based on the curriculum being offered. Details have been provided in the sections below, the overview is as follows:

Grades 1-3 SKILLS and Listening & Learning, in 60 minute blocks, twice daily

Grades 4-5 SKILLS and Listening & Learning, in one 90 minute block, once daily

Grades 1-5 Math, in one 90 minute block, once daily

- Science in one 40 minute block, once daily
- Specials, in one 60-minute block, once daily

The lack of an appropriate cafeteria space negatively impacts the Oliver Partnership School in every aspect of scheduling. We have a five-lunch period rotation to accommodate a one grade

level sized cafeteria, while also managing recess. Due to lack of space, paraprofessionals and some instructional staff are diverted from instructional time to cover lunches and recess which poses a challenge in providing classroom support.

Our school has a high-quality program of academic "specials": visual arts, music, physical education, and technology using the ST Math program. Due five-lunch program, there is no room in the schedule to offer additional programs. This also limits our "enrichment program", which includes taekwondo, boy scouts, dance, and academic enrichment including STEM.

Each teacher has a daily preparation period while their students are at specials. This time is used for teachers planning and common planning for grade level teams. One Common Planning Time period (CPT) each week is devoted to grade level team meetings which include classroom teachers, special education and ELL teachers, instructional coaches, and co-leaders for the purpose of improving teaching and learning. At the present time, we do not have appropriate rooms or spaces at the Oliver Partnership School to meet the needs of our instructional team. There is no space to hold staff wide professional development and meetings.

Teaching Methodology and Structure

The Oliver Partnership School general education teachers work closely with their grade level Special Education and ELL teachers. Small group instruction is provided daily, based on individual student needs in the general education classroom. Tier 2 and Tier 3 instruction is provided in a pullout setting by Special Education and ELL teachers, along with support staff. The Special Education Teacher along with the ELL Teacher in grades 1 and 2 have a shared learning space. There are approximately 48% of students that require services in each grade level. The one classroom is a shared space to work with the Special Education and EL students, however two services are being implemented at the same time. One focusing on language development and the other individual education goals. Some students receive instruction in hallways and other shared spaces throughout the building when appropriate space is not available.

Proposed changes and why or statement that no changes are proposed

Classrooms should be organized by grade level clusters with all classrooms grouped together off a single, open, flexible shared space. Efficient design layout for a clustered approach is classrooms surrounding collaborative space for teacher planning and development. Completing the cluster could be Special Education and ESL classrooms allowing students who need additional attention to be instructed within their classroom but still be integrated with mainstream students. All learning spaces should accommodate a variety of instructional strategies and student-grouping approaches. This concept provides a learning environment that is characterized by flexibility, a sense of community for the students and teachers, and a safe, well-supervised environment. Learning spaces should allow students to work independently and collaboratively, give or receive tutoring, and accept instruction.

Culture is a complex element within our school. We as a school, have adopted Positive Behavioral Interventions and Supports (PBIS) and professionally developed our staff around social emotional learning and student trauma. Announcements each day revolve around student behavioral expectations, positive affirmation to help build self-esteem and strategies to help students remain focused and calm. In the classroom, teachers conduct daily morning meetings

to remove anxieties about the day ahead and set emotional and academic goals for the day. All members of our staff play an important role in the success of all students. Within the classroom, if strategies are unsuccessful, support staff is contacted, which includes administration, counselors, school safety, nurse, and special education teachers. The challenge we face is lack of proper space to provide de-escalation for students in need. To better serve our school needs, we envision an administrative suite which would include the nurse, counselors, parent liaison, school safety and administration. This suite will need to be within close proximity to all grade level suites.

The curriculum coach's suite should be in a centrally located area that is accessible to all instructional staff. This suite should include three offices to accommodate our English Language Arts (ELA), ELL and Math instructional coach and should be large enough to conduct small group meetings and large enough for whole school professional development. Coaches will need three storage areas within the suite to house materials. Other staff resources desired include toilet rooms, a small kitchenette and teacher work area that would house a copy machine, laminator, and other resources to support teacher planning.

Administrative and Academic Organization/Structure

Oliver Partnership is a community school and the new facility will need to establish a recognizable identity that will continue to instill pride in its students and community. Areas within the school should be developed to have a clear organization. The facility should inspire the students, making them feel that their space is special and thereby that each individual is special. The school should resemble a place for academic success, high self-esteem, social interaction, and physical safety.

The front entry lobby will be the first experience a visitor will have to the new facility. The administration and safety reception/waiting area should be located near the main entry and adjacent to the lobby space. It should be welcoming and secure.

Administrative Suite

The administrative suite will provide the organizational and instructional leadership needed to create an atmosphere that is conducive for teaching and learning. The space should be flexible, warm, and inviting not only to the staff who work there, but also to all students and parents, thereby increasing their engagement with our school community. Consideration should be given to combining this area with student support services and that both be located central to the academic clusters.

Current Administrative Staff

- **Co-Leaders (principals)** (2) - 1 Office required [450sf] 1 office space is required for the co-leaders who are responsible for the day to day operations of the school, ensuring safety, managing faculty and staff, and ensuring academic success for all students. The Co-leader office should have enough space for two desks, chairs, and a table to host or meet with teams of people.
- **Assistant Co-Leader** (1) - 1 Office [127sf]-The role of the Assistant Co-Leader is to handle school management, student activities and services. This person will assist the Co-Leaders in defining and reinforcing school policies and guidelines for students, staff, and faculty. The Assistant Co-Leader oversees the management of the counselors and support staff. The office should be in

proximity to the Co-leaders' office and include a space and furniture for meetings.

- **Office Clerk and Parent Liaison** - General Office/Waiting Area; [639sf] The Office Clerk is responsible for running the day to day operations of the school including answering phones and greeting visitors. The office clerk's workplace is within the main office with the parent liaison and should include room for file cabinets and a copy machine. The PL serves as a liaison between teachers, parents, students and support students regarding educational programs, services, various student issue and communication between school and families. Another responsibility is to perform clerical task related to maintaining attendance records at the school. The general office will have enough space for two desks and waiting area for parents to wait for meetings. A small conference room [272sf] will be in the general vicinity for parents to meet privately with parent liaison, administration, or teachers.
- **Counselors/Guidance** (3) - The school counselors' primary role is to provide IEP and 504 mandated counseling supports, as well as coordinating wraparound services at the school and provide as – needed responsive counseling services daily. Each counselor requires a desk, chair, and small table with 4-6 chairs for running counseling groups and services. This office should be located centrally in the school and proximity to classroom spaces.
- **Instructional Coaches** (3) - [300sf] The role of the instructional coaches is to support all teachers and provide personalized professional development, coaching, and work as a resource. They are teacher leaders who bring evidence-based practices into classrooms by working with teachers and school leaders. This office should be in proximity to the teacher work room [635sf] where the instructional coaches will lead professional development, data meetings, common planning, grade level meetings, and vertical planning meetings. This space should include 3 desks, chairs and tables for professional development, and file cabinets and books shelves for professional resources.
- **Evaluation Team Facilitator** - [125sf] The Evaluation Team Facilitator (ETF) is responsible for ensuring the Special Education Program at the Oliver Partnership School is compliant with the state and federal Special Education laws. The ETF manages the IEP meetings, reports, records, and collaborates with leadership, teachers, parents, and students. A confidential workspace with desk, chair, and access to a private conference room to host IEP meetings is needed.
- **Psychologist** (1) - psychologists' office required. The school psychologist both provides IEP and 504 mandated counseling supports as well as conducting all testing for IEPs and 504s through the evaluation and reevaluation process. The psychologist needs a desk and chair as well as a small table with 2-3 chairs. Additionally, the school psychologist needs storage for testing materials and secure testing files. This office should be located near the school counseling offices.
- **Speech Therapist** - [200sf] The speech therapist work to prevent, assess, diagnose, and treat speech, language, and social communication disorders in students. The speech therapist will need a desk and chair as well as a small table with 2-3 chairs. The office should be located near the ETF and Psychologist offices.
- **Union Office** - [125sf] Because the Oliver Partnership School is a partnership between Lawrence Public Schools and the American Federation of Teachers, a small office should be available for the Local Union Officials to meet with the

teachers. This office should have enough space for a table with four or five chairs to host a meeting.

Community Use Areas

OPS as a designated community school currently has strong relationships with its surrounding community and these partnerships will continue to grow and strengthen while new partnerships are developed. The new facility should build upon the idea that the school is a community landmark that provides an instructional center for students as well as a user-friendly center for the community. The new facility will need to provide programs and access to resources for adults, businesses, nearby colleges, and community organizations. The joint use of the school will reinforce OPS' community engagement; instilling a sense of participation, ownership and pride. Careful consideration must be given to the location of community accessible portions of the facility so that these areas permit the remainder of the facility to be secure before, during and after school hours. Community/school partnerships are playing an increasing role in providing students with expanded learning, professional development opportunities for staff and a venue for community activities.

Curriculum Delivery Methods and Practice

English Language Arts

ELA schedules for Grades 1-3 reflect two daily blocks: SKILLS block 60 minutes and Listening Learning Block 60 minutes. Grades 4 and 5 have a combined SKILLS and Listening Learning block that is 90 minutes.

Our current schoolwide curriculum is Core Knowledge Language Arts (CKLA). It is a comprehensive program for teaching skills in reading, writing, listening, and speaking. CKLA also builds students' knowledge and vocabulary in literature, geography, history, and science.

For grades K-3, CKLA is organized into two strands: Skills and Listening & Learning.

Skills: The Skills strand teaches reading and writing in tandem.

In Grades 1-2 students practice blending (reading) and segmenting (spelling) using the sound spellings they have learned. The Skills strand also addresses handwriting, spelling, and the writing process. In grade 3, the focus of the Skills strand shifts from decoding to grammar, spelling, and writing.

Listening & Learning: The Listening &Learning strand focuses on their listening comprehension. Listening & Learning lessons include teacher read-aloud, classroom discussions, vocabulary work, and extension activities.

For grades 4 and 5, CKLA materials are in rich in history, science, and literature, designed to both deepen and broaden students. In grades 4 and 5, students are increasingly able to tackle complex written text with rich academic content.

Mathematics

Math is taught daily in 90-minute blocks in grades 1-5.

Engage New York, a common core-aligned curriculum that equates mathematical concepts to stories, with the aim of developing conceptual understanding. Like Common Core, it encourages students to use various mental strategies to solve problems, and to focus on the process instead of the answer.

Science

Science is taught daily in 40 minute blocks in grades 1-5. This block of time includes set-up and break-down for hands-on projects.

Know Atom's our hands-on science curriculum is aligned to the Next Generation Science Standards. Lessons build upon big-picture narratives of what science and engineering is; uses storylines to bring the content to life in scenarios. Through investigating phenomena and designing solutions to problems students are able to discuss real life situations and access the curriculum through Socratic dialogue.

Currently, the Oliver Partnership School does not have a dedicated STEAM space. Based on our current curriculum, educational goals, scheduling method, and staffing model, one dedicated STEAM room would serve the grades 1-5 students and should be provided in the new or renovated school. Additionally, it is acknowledged that the MSBA will support the provision of this space for students in grades 3-5 but encourages the District to deliver grades K-2 STEM and STE learning in the general classrooms. A rotation schedule would be put into place so that each day the STEAM room would be utilize by a specific grade level to complete their experiments and hands-on projects or advanced learning opportunities.

Social Studies

Social studies curriculum is incorporated within the ELA curriculum. Oliver Partnership School ELA/Social Studies block is 90 minutes long. This provides time for hands-on learning and allows adequate time for set-up and clean-up projects. This time will allow for the use of experiential/integrated approaches for classroom, learning commons, including use of break-out spaces, common area.

Academic Support Programming Spaces

Our English Learner Program provides services to students whose primary language is not English and who are not yet proficient in English, which comprises 48% of the Oliver Partnership School. At the Oliver Partnership School, we have one ESL teacher for each grade level. The ESL teachers uses two methods to provide services to our EL students each day. The ESL teachers push into the mainstream classroom to provide instructional support alongside the general education teacher. The ESL teacher will co-teach lessons or provide small group or individual support to EL students while pushing into the classroom. The ESL teachers also pull-out EL students to provide instruction that is rich in language. The ESL teachers will need a language lab space which should be located in the general vicinity of the grade level clusters to allow for more fluid grouping and easy access to collaborative activities between teachers and classes based on content. Additionally, copious wall space and storage is also important, given the use of visuals and the need for storage of the general education program materials made

available to the teachers and students in the EL classrooms. Ideally, EL classrooms will mirror the setup and expectations we have of our other learning spaces - well-equipped with technology, set up for collaboration, flexible and accessible.

Kindergarten and grade 1 would share a space that will be utilized for small group pull out language development. Grades 2 through 5 each have a dedicated English Language classroom. These rooms are used for pullout groups of students for language development, content specific needs and interventions.

Currently, grades 3, 4 and 5 have a two-phase English Learner pullout out, direct instruction program. The newcomer phase provides students with proficiency specific instruction and will eventually phase back to full day inclusion. These groups tend to be large and need their own space for instruction. The second phase space at each grade level is used for multiple groups that get additional support in language development.

Intervention Programs

Imagine Learning

Imagine Learning and Language Live, students receive explicit, targeted instruction within an individualized learning path that continually adjusts to their needs. Instructional time for grade 1 through 5 is 60 minutes per week, which is implemented daily for 20 minutes. The activities teach critical language and literacy concepts such as reading and listening comprehension, basic vocabulary, academic language, grammar, phonological awareness, phonics, and fluency.

Imagine Learning Math is also a program in which students receive explicit, targeted instruction within an individualized learning path that continually adjusts to their needs. The instructional times for grades 3 through 5 are 60 minutes. This is currently planned as two days per week for 30 minutes each session.

ST Math

ST Math is a visual instructional program that builds a deep conceptual understanding of math through rigorous learning and creative problem solving. This is a computer-based program that is being taught during specials for all students. ST Math is also utilized in our classrooms during our math curriculum in station format. Students in grade 1 are expected to use ST Math in school for 60 minutes per week and grades 2-5 are expected to use ST Math for 90 minutes per week.

Student Guidance and Support Services

The Oliver Partnership School's Counseling Team, which consists of three full-time counselors, works with staff to ensure all students experience success at school. The school counselors are an important part of the educational leadership team at Oliver Partnership School and provide valuable assistance to students and families. The counselors support our students with their social emotional and intellectual growth. They offer individual, small group and classroom lessons for students regarding social, emotional, personal, family, behavioral or conflict resolution. The team leads the community in the implementation of the Positive Behavior and Intervention Supports (PBIS) framework and Response to Intervention (RTI). They also assist

teachers and students receiving special education through the formulation of student's Individual Education Plan (IEP) and coordinate counseling services.

The Student Support Services Suite needs to be in a central location of the building so that faculty, staff, students have access. There will need to be enough space for three counselors to work with individual students or a group of students which includes a sensory and de-escalation room.

Family/Parent Engagement

A dedicated space for parent engagement would reinforce the message that our school community values parents as partners. Currently, Parent Teacher Organization (PTO) meetings take place in a variety of areas, depending on our schedule – including the cafeteria, the gym, or a classroom. A space dedicated for parents would provide dedicated space for regular PTO meetings for both schools, as well as other types of parent gatherings, as needed (such as parent workshops, School Leadership Team meetings, workgroup meetings, etc.). Dedicated space would include locked storage so that PTO members can store items related to activities and events. These materials range from supplies for annual festivals to fundraiser merchandise to nonperishable snacks for meetings. This space should include access to a number of computers, available to parents during set times to support their individual or group needs. This can range from taking meeting minutes to creating fliers, to support for accessing the Parent Portal of the Student Information System. It is important that this space includes an area for informational resources for families, including information on homework help, enrichment programs, summer activities, family support programs and more.

Catie's Closet

To support our students, whose demographics were outlined earlier in this document, the District has begun to invest in a strategy that provides at-risk students with free of charge, on demand, clothing basics and personal hygiene products. Our strategy for this is to partner with Catie's Closet, a nonprofit who helps schools buildout storefronts in their buildings and then keep them stocked with supplies. Schools provide volunteer staff to support the store, and students and families may visit the school-based entity as they wish, to request uniforms, other garments, or footwear, along with personal hygiene items. UP Academy Oliver will be adding a Closet to their current location - and both schools' demographics indicate that a Closet in the redesign would benefit their collective school populations.

Teacher Planning

Existing Teacher Planning Spaces

Teacher planning at OPS is currently limited to a small conference room in the Co-Leaders office, teacher classrooms or the Assembly Hall which is used for Physical Education. Due to limited space and technology issues with some spaces, whole staff professional development or meetings are held at the Public Library when available. Common planning time occurs each day. During this time, grade level teams meet together. The purpose of common planning time is to bring teachers together to learn from one another and collaborate on projects that will lead to improvement of lesson quality, instructional effectiveness, and student achievement

Proposed Changes to Planning Time and Number of Spaces

There is currently no space for teachers to collaborate, develop curriculum, analyze student work, and work to align and share best instructional practices. At this time common planning takes place in a small conference room with no technology or in a grade level classroom. We envision a teacher work area with 21st century technology, and a space for collaboration that is separate from student areas.

Due to the size of the cafeteria, OPS can only fit one grade level at a time for lunch and recess. This lack of space impacts our school because our lunch schedule dictates our instructional, specialist and common planning schedules, and instructional support staff schedules each day. In a new building with a larger cafeteria we will have the flexibility and the extra staff to overlap preparation periods to support interdisciplinary learning, horizontal alignment among teachers while continuing to have common planning periods.

Current Professional Development Practices

Professional development is currently held in classrooms, Assembly Hall, or Public Library. We see this area as stated above within the coach's suite.

Kindergarten

Kindergarten is currently not offered at Oliver Partnership School. As noted previously, the current building configuration does not allow for the inclusion of kindergarten. Rather, a small school building located close by offers only kindergarten and feeds three schools, including the Oliver Partnership School. This configuration, in which children attend one year of kindergarten in one location before transitioning to another school for Grade 1 is an inadequate practice and one we desire to address through this redesign process. Students succeed when they build strong relationships; spending only one school year in a community is counterproductive to this reality.

Proposed changes and why, or statement that no changes are proposed

Kindergarten is a year of active learning during which students engage in rich curriculum units that will integrate skills from all content areas. Social learning will be a strong component of the Kindergarten year at Oliver Partnership School. Students will work and play collaboratively, developing their organizational skills, language skills and logical thinking. There will be daily opportunities to explore, communicate and explain their thinking. Teachers will work with students in large, small, and individual settings to ensure that learning styles are met, and individual strengths and needs are addressed. Children and teachers will work together to promote a solid reading and writing foundation. The Kindergarten curriculum will be aligned to the standards in the Massachusetts Curriculum Frameworks and research regarding instruction that is both rigorous and developmentally appropriate. The standards provide a foundation for integration thematic approaches and the most recent research assists practitioners as they create safe learning spaces for all children. A continuum of learning experiences will be provided to address the diverse needs of all students, with keen attention to social emotional skills and language development. A wide range of instructional approaches will be used to deliver instruction: flexible grouping, learning centers, child-initiated activities, social emotional curriculum. The room will require break-out spaces for learning centers, common areas, adequate storage, cubbies, bathroom, cabinets, places to display a variety of visuals and work

materials for dramatic play, exploratory learning, and flexible seating. Our district values access to technology as an instructional tool as well as a for hands-on learning, so our educators and students would need access to reliable wireless internet, classroom projectors, desktop computers with child-sized mice, and a chart of shared individual technologies (example, laptops, Chromebook, tablets). Early intervention strategies are an important tool in kindergarten. Teachers and support staff will carefully analyze any learning difficulties that may surface and provide differentiated instruction. A concluding goal of Kindergarten at OPS will be that all children will be engaged in the joy of learning and will be equipped with the confidence, enthusiasm and skills needed for a positive school experience.

Our proposal includes four sections of K, which is a sufficient number to address the needs of the community and will provide a baseline for the projected influx of students who enter OPS at Grade 1

Lunch Programs

The Nutrition Services Department has a simple mission statement: to cultivate a climate of healthy lifelong nutritional habits while supporting students, staff, and administrators with reliable information, providing quality meals and responsive services, enhancing nutrition education, and encouraging teamwork throughout Lawrence Public Schools.

This self-sufficient operation supports principals with the daily operation of the meals program in their individual schools. We offer breakfast, lunch, and snack programs in all schools in the District at no cost to students utilizing the Community Eligibility Program. Our breakfast participation is at 88.5% serving breakfast in the classroom. Our lunch participation at this site is 75.4%.

The nutrition program is committed to support the research that provides evidence that well-nourished children focus better in class by providing students with well-balanced meals and multiple food options.

Our meals are funded by the federal government through the National School Lunch Program (NSLP). Our school receives these benefits by serving meals that meet requirements regarding nutrient content and portion sizes.

Our breakfast and snacks are delivered to the classroom by the food service staff via elevator. The breakfast is handed to each child in their classroom.

Currently, the Oliver Partnership School site houses the kitchen and lunch seating area in the basement. It is an inadequate space for food preparation and a student seating area.

Each grade level has a set time for lunch. Students line up in the hallway until their turn to go through the serving line for their meal. In order for the school to claim a reimbursable meal, the Point of Sale (POS) has to be at the end of the serving line, so that the food service employee can check each students' lunch for all components that are required by NSLP. Once food service employee determines that it is a reimbursable meal, then an ID is scanned to count the lunch.

The kitchen at OPS is not fully equipped and the service area is a small counter that is located in a hallway. The hallway is used for the milk cooler, serving line and point of sales.

Lunch challenges or barriers due to lack of proper space:

- Lacks the appropriate space to accommodate a large number of students at once
- Long and slow lunch lines
- Inadequate point of sales due to lack of access by students
- Not enough cafeteria space and seating
- Student behavior-space: the volume in the cafeteria is counteractive to the social skills and volume control that we incorporate into our school-wide behavior expectations
- Students do not have enough time to eat due to congested line

Proposed changes and why, or statement that no changes are proposed

The ideal situation would be one full-service kitchen with separate serving lines and two seating areas to accommodate both the elementary and middle school to minimize early or late lunch schedules.

A fully equipped kitchen is needed to be able to provide students with a variety of food choices. The cafeteria needs to accommodate multiple grade levels at once and be able to host family events where refreshments or food can be served. The cafeteria should have a secondary entrance that is separate and direct to the exterior so that it can be used after hours by the community without providing full access to the learning areas of the school.

It should be co-located with the gymnasium so that community and school use of the gymnasium can be supported by food services.

Technology Instruction Policies and Program Requirements

All of our schools have a blend of technology available in their schools to support instructional delivery, assessment requirements, and instructional planning work. The majority of our classrooms have a teacher desktop computer and four student computers, along with a starboard or Mimeo system. In addition, most schools have one to two computer labs and a mobile cart that can accommodate up to 30 tablets/laptops for classroom use. Printer availability varies by building with school networking printers for teacher access. Some teachers may have smaller printers in targeted classroom areas or teacher workrooms. All schools have WiFi access through the LAN/WAN network. We continue to increase the wireless points. However, access is not consistent within all school and within all classrooms.

There is considerable use of the Mobile Carts and 30 iPads/Chromebooks. There is a need to strengthen WiFi connectivity to ensure greater reliability during high use periods for appropriate internet speed. Additional relevant instructional technology should be planned for as it becomes available during the design process.

Description of existing educational technology, how it is managed by the district, how it is used in the classroom, and overview of professional support and training offered to staff.

Oliver Partnership School has the following technology available in all classrooms:

- A ceiling mounted projector
- A document camera

- Smart TV's in each classroom
- 9 Chromebooks carts with 30 computers that is shared by all teachers.

Daily technology:

- Smart TV's in classrooms
- Communication between parents and teachers through DOJO application
- Google Classroom
- Technology to differentiate instruction
- Tier 1 and Tier 2 Interventions: Imagine Learning and Language Live
- Virtual manipulatives
- Learning stations using ST Math and Keyboarding Without Tears
- Increase student engagement through the use of technology
- Using lesson videos and clips
- Collection data through exit tickets, online tests
- MCAS testing
- Benchmark testing: Achievement Network standard testing and Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) testing

Professional Development is provided to teachers though

- Achievement Network (20 Professional Development sessions per year)
- ST Math (4 Professional Development sessions per year)
- Imagine Learning (2 Professional Development Sessions per year)
- Google Drive (given by Teacher Leader)

Proposed educational objectives being pursued as part of potential project, description of how updated equipment and systems would be managed and maintained by the district, how the equipment and systems would be used in the school, and plans for professional development, or a statement that proposed equipment and systems align with current equipment, systems, and practices which are to be continued

The district would continue to manage, maintain, and update the technology equipment centrally. The district will facilitate teacher training on the use of new technology prior to the opening of the school and is considering pursuing professional development on 21st century teaching and learning for their teachers and staff in advance of the new school opening. This professional development will include training on best practices for using technology and flexible learning environments for education.

Media Center/Library

Currently, OPS have a small office which has been converted to a library although it performs more like a book storage room. The teacher will visit the library to gather books that will be needed in their classroom. Students do not have access to the library. OPS is located on the same city block as the Lawrence Public Library. Teachers will take students on a walking field

trip to the library for extended research projects or collaboration. Field trips to the Public Library take time, pose a security risk, and detract from time learning.

Proposed changes and why, or statement that no changes are proposed

A library is a good environment for collaboration and knowledge co-construction. The design and implementation of the library should be to foster learning and communication, collaboration, and acquisition of content from various sources. Printed books still play a critical role in supporting learning, but digital technology offers additional pathways to learning. In order to meet these needs of the teachers and learners, a flexible space or multiple spaces will need to be constructed with writable walls and moveable chairs, desks and tables, and bookshelves. Small rooms that can be opened to allow for group projects and collaboration should be available. The space should include physical books, physical artifacts, and digital content. The library should provide a common space that encourages exploration, creation and collaboration between student, teacher, and the community. In order to provide more access and independence to library content, Lawrence Public Schools is interested in a distributed library model. There would be a staff member assigned to the management of the content and there would be a central location for check-out. In this model, books would be located on several floors near grade-level clusters. The staff member that we would seek to hire would likely be (pending hiring availability) a trained librarian. This staff member would be responsible for monitoring the library during school hours but also before or after school depending on the rotating schedule for students during this time as well as interest from students. The librarian could have teaching duties for students as enrichment or as part of regularly scheduled specials programming depending on the availability of space and class scheduling policies.

Visual Arts Programs

How curriculum is delivered, number of periods per academic cycle, and the number of students participating in art programs

Art

The focus of the Art curriculum in Grade 1 is on: Line, Shape, Color, Space, Value, Form and Texture. Grades 2 and 3 shifts the focus to Pattern, Balance and Contrast and Grades 4 and 5 on Pattern, Balance, Contrast, Movement, Emphasis, Rhythm, and Unity. All grades focus on the Elements of Art and Principal of Design.

At the present time art classes are being provided to students on a 4-week rotating basis. We have a strong art program, but the art room is an inadequate lacks size for storage, student work areas and space to display student artwork. The existing art room space is so limited that painting cannot be taught to multiple home rooms concurrently because there is not enough space to hang the drying artwork.

Proposed changes and why, or statement that no changes are proposed

A thoughtful design to grow the art program would include larger areas for students to work; storage; displays within the room as well as throughout the school; areas for student art clean up; an area for instruction, a kiln room with kiln.

Performing Arts Programs

OPS' well-balanced music curriculum meets the needs of all our students. Music class is an integral part of the general curriculum because the music curriculum addresses all aspects and methods of learning. Research indicates learning in the arts, and specifically music, enhances the ability to process information and understand concepts which are applied in other subject areas.

How curriculum is delivered, number of periods per academic cycle, and number of students participating in music programs.

Currently students receive instruction in music on a 4-week rotating basis. We have a strong music program but the space lacks size to expand to other performing arts. The space also does not have appropriate acoustics for performance. There is limited storage to house music instruments and other performing arts props. OPS would not need any additional spaces or staff within the proposed project. We would utilize the proposed spaces and existing staff in order to meet student needs.

Music

The music curriculum comprises a balanced and sequential program of singing, playing instruments, listening to music, improvising, and composing music, and moving to music. Also included are learning experiences that are designed to develop the ability for students to read music, use notation and terminology of music, analyze and describe music, make informed evaluations concerning music, and understand music and music practices in relation to history and culture and to other disciplines in the curriculum. Class Size is generally 28-30 students and Grade level concerts size are 100-120 students. Class Types include general-song, instrumental and modern band.

List of current instruments:

- Hand Drums (20)
- Xylophones (20)
- Glockenspiels (25)
- Various bells/hand percussion instruments (25)
- Ukulele (120)
- Acoustic Guitars (6)
- Electric Guitars (3)
- Electric Bass (3)
- Trumpets (3)
- Trombones (3)
- Electric Drum Kit (1)

The school will be acquiring more acoustic guitars, electric guitars, amplifiers for electric instruments, drum kits, stereo built in with Bluetooth along with CD and Phono abilities.

Skills and Techniques

- The student sings, alone and with others, a varied repertoire of music
- The student performs on instruments, alone and with others, a varied repertoire of music
- The student reads and notates music

Creation and Communication

- The student improvises melodies, variations, and accompaniments.
- The student composes and arranges music within specific guidelines

Cultural and Historical Connections

- The student understands music in relation to culture and history

Aesthetic and Critical Analysis

- The student listens to, analyzes, and describes music
- The student evaluates music and music performance

Applications

- The student understands the relationship between music, the other arts, and discipline outside the arts
- The student understands the relationship between music and the world beyond the school setting.

Through the music program, OPS is able to provide opportunities for students' performances within the school day, concerts, and community events. The music teacher plans multiple events for student performances each year. These performances provide the students with an opportunity to demonstrate what has been achieved as a result of classroom lessons and to learn the skills necessary for performance in a public setting.

Proposed changes and why, or statement that no changes are proposed

A suitable room that is designated for teaching, learning, and performing music. The room should be large enough to accommodate the largest group taught and to provide ample space for physical movement. The instructor and students will need room to demonstrate, observe and perform. It should have appropriate acoustical properties such as a quiet environment and adequate lighting. Room should have enough storage space for classroom materials, instruments, equipment, and instructional materials.

Physical Education Programs

LPS' physical education program goal is to provide-lifelong sports and health habits, cooperative education and sportsmanship.

The focus of the Physical Education curriculum is on

- fundamental motor skills and selected
- combinations of skills;
- use basic movement concepts in dance, gymnastics, and small-sided practice tasks;
- identifying basic health-related fitness concepts;
- exhibiting acceptance of self and others in physical activities;
- and identifying the benefits of a physically active lifestyle.

The current space used for physical education is often used for other schoolwide events which impedes consistent physical education instruction. Appropriate outside instruction is currently performed in public park space on the north or side sides of the school. Use of the public park poses numerous safety concerns for students. Before the class is brought outside, staff inspect the area to make sure it is safe and clear of trash. The youngest students are brought into a fenced ballfield for control and safety. This area is frequently used by dog walkers who do not pick up after their pets.

The size and location of the space also limits the types of activities that can be performed during instruction. The space used for physical education is not only located at the front entrance of the school but because of the poor acoustics of the building the noise echoes throughout the school. At times, this impacts instruction schoolwide. It is dangerous to access due to the need to cross a busy public street. There is no storage for athletic equipment.

Proposed changes and why, or statement that no changes are proposed

The school should have an indoor and outdoor space that is used strictly for physical education instruction and recess. This should include a playground which the physical education teacher is able to access. Currently, the playground that is used is a public space that is not always available for class. Adequate storage should be available for all equipment. The gymnasium should be located with ease of access to the exterior to enhance the connection to the playing fields and to give outdoor play areas access to restrooms. The school would benefit greatly from the use of two gym spaces that can be shared by the two schools. With two spaces, the smaller gymnasium would be able to accommodate essential OT/PT programs and house OT/PT equipment.

Enrichment Program

All students at Oliver Partnership School participate in our enrichment program. Our enrichment program shows gains in areas of academics, social and emotional development, prevention of behaviors, and health and wellness. We incorporate sports and games, art and music, health and wellness, science, technology, engineering, and math activities twice per month. Currently, in order to offer enrichment opportunities for our students during the school day we have to utilize the YMCA and YWCA.

Challenges:

- Cost: The contract with YMCA/YWCA, which includes use of building, staffing including education director and nurse, is costly.
- Safety: Walking 300 students to and from YMCA/YWCA in all weather conditions, with traffic and staffing is a safety concern. A School Safety Officer is needed at school and YMCA/YWCA.
- Staffing: a large amount of staffing is needed from the school and YMCA/YWCA to support the program.

Outdoor Learning Spaces

An outdoor learning space would allow us to challenge, engage and extend learning opportunities for our students. An outdoor learning space will encourage movement and offer as many opportunities as possible for children to connect, discover, explore, and immerse in a sensory-rich environment. The possible location for outdoor learning spaces includes rooftops or terraces, or secure areas at the ground level immediately adjacent to indoor learning spaces. All outdoor learning spaces will be designed to be fully ADA compliant.

Desired characteristics of innovative outdoor learning spaces:

- Flexible space that can easily adjust to meet learning activities
- Allow for movement
- Allow for various groupings
- Allow for hands-on exploring, making, and building
- Allow for curriculum integration, including the arts
- Support social interaction and development
- Support cognitive skills and development
- Support the integration of technology
- Provide opportunities for students to learn through examples
- Design area for gardens and mini-ecosystems for science learning
- Performance area in designated learning space
- Playground

Special Education Programs

All students are valued for their unique abilities and included as essential members of the community. We are committed to inclusive services for our students. All teachers (general education and special education) are assigned to grade-level teams.

Oliver Partnership School provides a continuum of services to support students with special education needs. Services include academic support provided by special education teachers, general education teachers who provide inclusion support and small group instruction. In addition to specialized academic instruction there are related services that are provided including speech and language therapy, occupational therapy, social, emotional, and behavioral therapy as well as counseling services.

The level of services is determined through the Oliver Partnership Special Education Team process and developed with parents, special education and general education teachers, psychologists, nurse, administration, counselors, and specialists based on current, relevant data and assessments.

The services that a child receives is based on the individual student's ability to access curriculum and necessary supports to aid the students in meeting their goals.

Each grade level has their own special education teacher. A classroom for each special education teacher would be needed in order to support teaching as well as learning for each grade level. Students with a wide range of needs strive in a dedicated environment that understands and adapts to their needs (i.e. mobility challenges, social emotional disabilities, behavior, learning disabilities). In addition to grade level Special Educators and Counselors the District provides OPS with specialized support such as speech and language therapists, psychologists, occupational therapists, and behavioral therapist. All of these specialists perform assessments, pull small groups, or meet individually with students to provide their services. Proper space is important for them to meet the individual goals for all children they service.

Currently, the staff provide support to multiple schools in the district. Each year, the therapist and specialist that support our Special Education students will spend the amount of time that is necessary to meet the individual students' goals and objectives documented in their IEP and on the service grid. The specialist may be full- time at OPS or shared with other schools depending on the current student needs. We currently have office spaces for a speech therapist, psychologist, and ETF who are spending more than 50% of their time working at OPS. Currently, an Occupational Therapist, Speech Pathologist, Board, Certified Behavior Analyst spend less than 50% of their time at OPS and support other schools in the district. The percentage of time the therapist and specialists support OPS will fluctuate from year to year and is determined by the caseload of students and individual needs at our school. We need to have individual rooms allocated for these staff members yearly to ensure the privacy and confidentiality of their work with students and families.

We recently hired a full-time Board-Certified Behavior Analyst due to the increased number of students who are receiving supports through the Multi-tiered Systems of Supports (Tiers 2 and Tier 3). This BCBA is working with our youngest students who are coming in with intense social emotional needs to support prior to those students being identified as special education students. We also have a crisis aid that spends 100% of her time in our school, working with students who need support with regulation. We also have a newly established sensory room as a space for de-escalation that is staffed as needed. With the new legislation at the State level, we anticipate funds that will allow for staffing increases in SPED directly at the school level. With this increased funding we will increase our full time, OPS dedicated specialist and support staff and thus will need adequate space for them to provide services as indicated above, particularly in the areas of counseling services, SPED, and BCBA services.

We have two sub-separate classrooms dedicated to Autism Spectrum Disorder (ASD) students. Students receive most of their academics and social skills in ASD program's classrooms. Students will participate in general education classrooms for some of the day depending on their individual academic, behavioral and social plan. Our current ASD team consists of two special education teachers and multiple paraprofessionals. The number of students enrolled in our ASD program will vary from year to year dependent upon the individual education plans for each

student. These ASD rooms are critical to the school's ability to continue to adequately service students' multiple tiers of needs.

Special Education teachers should have the flexibility to work in the classroom as partners with general education teachers or if it is necessary to work with students outside of the general education classroom. Each grade-level suite should have a space dedicated to special education. This is important for communication, collaboration, flexible grouping, and teaming. All specialized therapists (speech language, occupational therapists, and behavioral therapist) should have space that is centrally located to accommodate all students in all grade levels.

Functional and Spatial Relationships and Adjacencies

Surrounding Sites

A short walk across the Commons from City Hall, Oliver Partnership School is located near the city center. As housing is developed and the planning of future units continues rapidly in this area of the city, we expect the size of our student population to grow at an equally rapid pace. The school is adjacent to two large public parks, O'Neil Park, and the city commons, which provides ample (though not secured) green space for recess and physical education. These programs would be unable to continue without access to the parks due to the lack of indoor activity space in the current building and lack of any outdoor space on the school's site itself. OPS partners with the nearby YMCA, YWCA, and Lawrence Public Library for necessary after school childcare and weekly enrichment class programs.

Within the Building

Functional and spatial relationships and adjacencies are the key to the successful design of our new school. Oliver Partnership depends on adjacencies for communication, collaboration, flexible groupings, and learning. Classrooms should be organized by grade level clusters with all classrooms grouped together off a single, open, flexible shared space. Efficient design layout for this clustered approach is considered to be classrooms surrounding collaborative space. Completing the cluster could be Special Education and ESL classrooms allowing students who need additional attention to be instructed within their classroom but still be integrated with mainstream students. All learning spaces should accommodate a variety of instructional strategies and student-grouping approaches. This concept provides a learning environment that is characterized by flexibility, a sense of community for the students and teachers and a safe, well-supervised environment. Learning spaces should allow students to work independently and collaboratively, give or receive tutoring, and accept instruction.

Design Team Response:

School Scheduling Method

The Preferred Alternative 4a will include appropriately sized cafeterias that will allow for improved class scheduling

Teaching Methodology and Structure

The Preferred Alternative 4a will include dedicated Special Education spaces and dedicated EL spaces at each of the grade levels.

Administrative and Academic Organization/Structure

The preferred Alternative 4a can meet the specific needs identified in the Education Plan

Administrative Suite

The preferred Alternative 4a can meet the specific needs identified for the OPS administration in the Education Plan

Curriculum Delivery Methods and Practice

Science

All classrooms will meet the appointments identified by the MSBA STE Initiatives

A STE room will serve / support the science and related programs

Academic Support Programming Spaces

The Preferred Alternative 4a has an EL classroom at each grade level and Small Group Rooms of various sizes to support this program

Student Guidance and Support Services

The preferred Alternative 4a can meet the specific needs identified in the Education Plan

Family/Parent Engagement

The preferred Alternative 4a includes a dedicated Family Resource Room to serve PTO members for working and storage. This is a shared space with the UAO middle school.

Catie's Closet

The preferred Alternative 4a includes a Catie's Closet room to support at-risk students This is a shared space with the UAO middle school.

Teacher Planning

Existing Teacher Planning Spaces

The proposed cafeteria will allow for an improved class schedule providing opportunities for common planning time.

Kindergarten

The preferred Alternative 4a includes four kindergarten classrooms with toilet and appropriate support spaces

Lunch Programs

The preferred Alternative 4a includes a full-service kitchen that will serve both schools. Each school will have a servery and cafeteria.

Technology Instruction Policies and Program Requirement

The preferred Alternative 4a can meet the specific needs identified in the Education Plan

Media Center/Library

The preferred Alternative 4a includes distributed "Media" spaces within the grade level clusters that meet the needs as identified in the Education Plan.

Visual Arts Programs

Art

The preferred Alternative 4a includes an art room that will include storage, a kiln and display for student art. Student display areas will be included elsewhere in the school. The single art room is sufficient to deliver Oliver's 4 week rotation of art instruction.

Performing Arts Programs

Music

The preferred Alternative 4a can meet the specific needs identified in the Education Plan. The single music room is sufficient to deliver Oliver's 4-week rotation of music instruction.

Physical Education Programs

The Physical Education Program is hampered by a lack of dedicated outdoor PE space. Students need to cross city streets: Haverhill Street in front of the school or Oak Street behind the school to access open field and play spaces. The slightly larger gym is needed to supplement the lack of outdoor space and to accommodate the enrichment programs that are current run out of the nearby YMCA and YWCA.

The second small gym is needed for as gross motor space for the very high percentage of special needs students in the school.

Both gym spaces are shared facilities with the UAO middle School.

Enrichment Program

The preferred Alternative 4a eliminates the need for students to travel to the YMCA or YWCA.

Outdoor Learning Spaces

The preferred Alternative 4a includes one large outdoor learning roof-top space on the third floor and two small outdoor learning roof-top space on the fourth floor. All spaces meet the criteria outlined in the Education Plan.

Special Education Programs

The Preferred Alternative 4a has classrooms of appropriate size to accommodate Push-in activities

The Preferred Alternative 4a includes Resource Rooms, Sensory rooms and Small Group rooms spread throughout the grade levels

The Preferred Alternative 4a includes multiple dedicated spaces for the Autism Spectrum Disorder (ASD) program including Life Skills

Functional and Spatial Relationships and Adjacencies

Within the Building

Typical classrooms are arranged in grade level clusters that include typical classrooms; EL classroom, a de-centralized Media area open to the cluster, resource and small group rooms

All learning spaces are supported by lightweight, ergonomic, and flexible furniture

Each grade level cluster is will engender a sense of community for the students and teachers and a safe, well-supervised environment. Learning spaces should allow students to work independently and collaboratively, give or receive tutoring, and accept instruction.

Up Academy Oliver (Grades 6-8)

UP Academy Oliver (UAO) is a grade 6-8 school in a building that was the former Lawrence High School and is now the North Common Educational Complex, housing three other schools in Lawrence Public Schools. Serving more than 360 students since 2013, 83% of whom are designated high needs according to DESE, UP Academy Oliver is a mission-driven community of passionate and dedicated educators. Our school community is built on the core values of Resilience, Integrity, Scholarship, Empathy and Community [RISE UP]. UAO provides our students with a rigorous and supportive academic learning environment that sets students up to pursue their passions and achieve high school, college, and career success in the future.

At UAO, we expose students to a high-quality curriculum that is rigorous and aligned with the Common Core state standards. Additionally, we have time every day for student joy and celebration; we strive to create a student-centered culture where kids are encouraged to be kids—we love to celebrate our students and plan joyful school events like Pep Rallies, academic celebrations and more.

The Design Team Response for each space is provided at the end of the UP Academy Oliver Section.

School Scheduling Method

UP Academy Oliver Middle School currently follows a fairly traditional middle school schedule, with the addition of extra professional development time for teachers on a weekly basis. Four days per week (Monday-Thursday) the student schedule runs from 7:30am-3:20pm (in SY20 it will be 3:30pm). Within that time, students have (six) 50-minute core instructional blocks (two math, two ELA, one science and one history), as well as one forty-minute intervention block. They also participate in lunch, recess, advisory and study hall. On Fridays, students follow a shortened schedule (7:30am-1:20pm) and only have (3) 50-minute core instructional blocks (math, ELA, and either history or science on a rotating basis) as well as intervention and a closing period called Enrichment where students can choose between a variety of teacher, staff and outside provider led activities and programs such as sports, technology or arts.

As a shared building (in the North Common Educational Complex with three other schools), we are limited in our use of common spaces such as the gymnasium, the auditorium, and the cafeteria. This limits our ability to freely schedule. In the future, we would benefit greatly from a reconfigured shared space that would allow us to schedule more time in common spaces bringing larger groups in our school together.

Teaching Methodology and Structure

Administrative and Academic Organization/Structure

Currently, UP Academy Oliver Administrative teams share two small offices so that we can devote more of our spaces to instructional use. This requires administration to find any usable space for meetings, limiting our ability to be running simultaneous meetings with outside providers, staff, and students throughout the day. Ideally, in a new building, we will have the ability for our administrative teams to be interconnected in a single suite or pod area that more closely aligns with the primary functions of our role and allows us each to run flexible meetings

such as confidential 1:1s or larger workshops/team meetings of up to twelve people at a time (the average size of one of our grade level teams).

Current Administrative Staff

- **Principal** (1) - Responsible for UP Academy Oliver grades 6-8 schooling. 1 office required with meeting space for 8 [450 sf] Additionally, Principal will share office space with Director of Operations (co-leader of the school) who is responsible for managing day to day operations and systems of the school, including managing the office manager and special projects coordinator, as well as attendance and staffing for the school. We will need two desks as well as meeting space for up to 8 to accommodate larger meetings.
- **Assistant Principals** (2) - 1 office required [250 sf]. Assistant principals are responsible for the instructional coaching and staff management for all instructional staff in the building, as well as management of the student support team (counselors, psychologist, etc.) Assistant principal's office needs space for two desks as well as a small meeting space for up to 4. Assistant principal's office should be located near Principal's office.
- **Office Manager** (1) - responsible for running day to day operations of the school, including answering phones, greeting visitors. Office manager's workspace is within general office [623 sf]. The general office should be near the reception or welcoming area of the school complex and would need to include chairs and tables for parents and families and guests (meeting space for 6), as well as two desks – one for security officer and one for office manager.
- **Special Projects Coordinator** (1) - The special projects coordinator is a member of the operations team at the school and manages grading and family events at the school. This role requires a small office with room for one desk and chair as well as a meeting space for 2-3. This office should be located near the general office.
- **School Counselors** (2) - 2 guidance offices required. The school counselors' primary role is to provide IEP and 504 mandated counseling supports, as well as coordinating wraparound services at the school and provide as – needed responsive counseling services on a daily basis. Each counselor requires a desk and chair as well as a couch and small table with 4-6 chairs for running counseling groups and services. This office should be located centrally in the school and close proximity to classroom spaces.
- **School Psychologist** (1) - 1 psychologists' office required. The school psychologist both provides IEP and 504 mandated counseling supports as well as conducting all testing for IEPs and 504s through the evaluation and reevaluation process. The psychologist needs a desk and chair as well as a small table with 2-3 chairs. Additionally, the school psychologist needs storage for testing materials and secure testing files. This office should be located near the school counseling offices.
- **School Culture** (1) - 1 office required [300sf]. UP Academy Oliver has three school culture managers, each of whom is responsible for setting and maintaining school culture through work with teachers and with students. They are a part of the broader student support team. The school culture managers need room for three desks as well as meeting space for 5-8 because they are also meeting with families and outside providers. They also require a classroom referral space [600sf], which is a responsive social-emotional space where students can reset and process when they are struggling in class. They work with the school culture managers to do this via therapeutic talk and

responsive counseling work. We also use this space for in school suspension and to run detention, and thus require room for up to 20 student desks and 1 adult desk.

Curriculum Delivery Methods and Practices

UP Academy Oliver delivers an academic program that is designed to prepare our students for high school, college and/or career. Students in our school cultivate sharp minds, share their kind hearts, and explore their path and potential. UAO graduates succeed on the path to college and pursue their passions. Currently, our curriculum is designed around the core academic classes of English, Mathematics, Science and History, but we continually seek ways to provide students with additional academic and social-emotional experiences that will help them develop passions and skills in diverse contents. We continue to be limited by a building with inflexible and traditional classroom arrangements and facilities that prevent learning from taking place. In a new setting, students would ideally be able to participate in more 21st century learning modalities such as flexible groupings, shared collaborative spaces that would allow teachers to easily pull small groups of students or supervise student group work on passion projects of their choosing. Additionally, we greatly desire STEM and Arts spaces that would enable students to participate in real labs and other hands-on learning experiences, which we currently struggle to do in a building with only one room with a sink and lab tables for our 360 students.

Additionally, as we seek to improve in our ability to cultivate students' passions, we would greatly benefit from spaces that would allow a single teacher to take on more than one subject area - one as a core responsibility (e.g. math) but then a single block supervising an enrichment activity such as robotics, engineering, or other.

UP Academy Oliver Curriculum Info

Subject	Curriculum	Frequency
ELA	Achievement First ELA curriculum (reading & writing)	8 50-minute blocks a week (2x daily for 3 days, 1x daily other 2 days)
Math	Illustrative Math Exploratory/Constructivist with practice in application	8 50-minute blocks a week (2x daily for 3 days, 1x daily other 2 days)
Science	KnowAtom in 6/7 Achievement First in 8	4 50-min blocks a week, 1 additional 50-minute block every other week
History	Teacher Created for now off of Achievement First, iCivics	4x 50-minute blocks a week, 1 additional 50minute block every other week
PE	Standards based created by our PE teacher	1x 50-minute block weekly
Dance	Movement/dance program created by our Dance teacher	1x 50-minute block weekly

Intervention	Tier 1: DEAR/Common Lit [online reading comp program] alternating with DreamBox Math Tier 2: Leveled Literacy Intervention Wilson Words	5x 40-minute blocks weekly
Advisory	Restorative and Community Building Circles	1x daily for 30 minutes [Monday community building in class, T-Fri in small single gender groups]
Study Hall	Tutoring, time for students to do HW	1x daily for 30 minutes
Enrichment	Varies because teacher created: School video news Yearbook Sports (basketball, baseball, swimming, soccer, volleyball) Art Board Games Coding/computer	1x weekly for 75 minutes
Social Studies		1x daily for 50 minutes

In general, in a new or newly renovated building, there will be a significant advantage to have classrooms organized by grade level clusters, with all sixth-grade classrooms grouped together and located off of a single, open, and flexible shared space. This type of organization would strongly encourage collaboration, flexible grouping, communication across teams and 21st century learning. At UP Academy Oliver, teachers work collaboratively already, teaching the same groups of students throughout the day and meeting weekly in grade level adult teams. Having spaces conducive to this type of collaboration, with a teacher meeting space embedded in and central to each grade level, would deepen our ability to best serve our students in teams.

At UP Academy Oliver in future years, we imagine that classrooms would be designed and configured with project-based and personalized learning in mind. Furniture can be easily moved to create configurations from large groups to smaller groups, and to facilitate discussions as easily as it can facilitate independent work. Adequate storage within each classroom for project-based learning will be key for hands-on and differentiated learning. Ideally, in all cases where collaborative learning occurs, spaces are set up so that teachers can combine classrooms or expand into hallways and small group rooms to create the space needed for this interactive, responsive, and differentiated learning.

Additionally, one area that our current space is limiting in terms of our ability to provide high quality education is within the science department. Currently, UP Academy Oliver has no functioning science lab with access to sinks or safe chemical storage. We practice a hands-on, exploratory curriculum that allows students to make meaning of science and connect the three dimensions (content, scientific and engineering practices), but our spaces do not enable us to do this with appropriate fidelity.

In the future building, teachers will need to be able to implement hands-on, inquiry-based science and engineering curriculum that requires flexible space. This approach is recommended by the national Next Generation Science Standards (NGSS). The spaces – indoor and outdoor – need to allow for and promote creativity and innovation. Labs need to be well provisioned in order for students to investigate a line of inquiry, make meaning of the world around them, and design and test solutions to real-world problems. Science labs need ample space for students to work and for the safe storage of science materials and supplies. Specific needs of a science lab are in addition to the general design and development of other contemporary teaching spaces – wall space for visuals, projection area(s), natural light, technologically versatile, flexible furniture and grouping abilities, etc. Overall, the new building needs to bring the science lab spaces up to the standards of UP Academy Oliver's current and desired science program.

We currently have three science labs: one per grade (6, 7, 8) - and three full time, dedicated certified science teachers - but no science labs are equipped in the ways that we know they need to be as indicated above. In order to support science skills acquisition, we have to bring our facilities up to the standards.

Finally, our long-term planning process for future curriculum adjustments includes a plan to increase the number of diverse academic electives to which students have access throughout the course of the year. At UP Academy Oliver, our mission is to enable students to explore their path and potential - which we take to mean giving students exposure and access to curricular opportunities outside of the traditional core curricula. We envision that teachers will be the primary driver of these opportunities and thus teacher classrooms need to be flexible to allow for multiple types of elective offerings: e.g. have flexible furniture, plenty of access to technology, and have adequate storage for, for instance, a math teacher to be able to store robotics equipment during the course of the day for use during a single block in the afternoon. It is essential that a new building be set up to allow our school to make these changes to be able to more fully meet the vision set by our mission.

Science and Engineering

How curriculum is delivered, number of periods per academic cycle, and number of students participating in science programs

Our current science and engineering program are a core content class that students attend daily coupled with an optional enrichment period. All 360 students at UP Academy Oliver receive one 50-minute block of science instruction daily, with a small subset of students also participating in a 50-minute STEM themed enrichment block weekly on Fridays. A few examples of STEM enrichment are computer coding, photoshop skills, and robotics. Yearly offerings depend on teaching staff availability and comfort level with the content.

Proposed changes and why, or statement that no changes are proposed

In order to make learning more rich and meaningful for students UP Academy Oliver teachers practice a hands-on, exploratory curriculum that allows students to make meaning of science and connect the three dimensions (content, scientific and engineering practices), but our spaces do not enable us to do this with appropriate fidelity. Currently, UP Academy Oliver has no functioning science lab with access to sinks or safe chemical storage.

In the future building, teachers will need to be able to implement hands-on, inquiry-based science and engineering curriculum that requires flexible space. This approach is recommended by the national Next Generation Science Standards (NGSS). The spaces – indoor and outdoor – need to allow for and promote creativity and innovation. Labs need to be well provisioned in order for students to investigate a line of inquiry, make meaning of the world around them, and design and test solutions to real-world problems. Science labs need ample space for students to work and for the safe storage of science materials and supplies. Specific needs of a science lab are in addition to the general design and development of other contemporary teaching spaces – wall space for visuals, projection area(s), natural light, technologically versatile, flexible furniture and grouping abilities, etc. Overall, the new building needs to bring the science lab spaces up to the standards of UP Academy Oliver's current and desired science program.

Academic Support Programming Spaces

At UP Academy Oliver, being located in Lawrence, with its significant immigrant population, has a great impact on the number of English Learners that we are responsible for providing strong education to. Our English Learner program provides services to students whose primary language is not English and who are not yet proficient in English, which comprises approximately 30% of our school. The EL population in Lawrence is significant and thus requires a high number of staff, lots of teaming and the ability for flexible and large classroom spaces for ESL instruction to take place. At UP Academy Oliver, we have four ESL teachers across our three grades, allowing for a comprehensive EL curriculum as well as support for classroom teachers who are working to include EL students in all aspects of the curriculum regardless of their level of proficiency in English. ESL classes range in the number of students served at one time but can get up to 20 or so students depending on the number of students we have at each level of English Language proficiency. The EL program serves students both in and outside of the classroom and therefore needs its own space. Like special education, housing the EL programs in the general vicinity of the grade level clusters is desirable because it allows for more fluid grouping and easy access to collaborative activities between teachers and classes based on content and day, and are run as separate classes. Additionally, copious wall space and storage is also important, given the use of visuals and the need for storage of the general education program materials made available to the teachers and students in the EL classrooms. Ideally, EL classrooms in any building will mirror the setup and expectations we have of our other learning spaces - well- provisioned, set up for collaboration, flexible and accessible. The above program description and educational delivery model requires one, full size, dedicated EL classroom per grade level.

Student Guidance and Support Services

We are fortunate to have a robust student support team, comprised of two full time counselors, a school psychologist, a Dean of Students and three School Culture Managers, which is necessary to support the variety of student needs in our building, in a community that often has limited access to outside providers and support networks for families. However, our current student support team is limited in the spaces that it can work with students, often resorting to holding counseling or intervention sessions in hallways or other non-private spaces due to space constraints. Ideally, in our new space we would have a centralized student (and family) support area, central to all three grades, that would have a pod-like organization allowing for small group

intervention work, family meetings, proactive and reactive individual sessions, and collaboration between staff across teaching, administration and student support.

Additionally, our advisory program is a core part of our model at UP Academy Oliver. We believe in the use of a Values-based social emotional learning curriculum that is embedded as part of a student's daily schedule, and our advisory program requires that students meet with a teacher each morning in a small group of up to 15 students and participate in a discussion based circles curriculum. Currently, even using all available spaces, we have advisories that must share spaces, thus limiting their ability to fully lean into the curriculum and relationship work that is integral to advisory. Having flexible, open classrooms that can be combined or closed off to form smaller spaces would allow our advisory program to flourish and spaces to be used both to bring a whole grade level of students together for community building or for advisories to meet privately to dig into challenging social-emotional learning topics.

Another support that we provide for our students is support with uniform and other necessary items related to safety, health, and ability to be present at school through an organization called Catie's Closet. This organization works with our school to identify high-needs students and runs a "store" for them for all necessary items within the building. This is specifically designed to be a wraparound service for high-needs students, including homeless and impoverished students.

Family/Parent Engagement

Dedicated space would reinforce the message that our school community values parents as partners. Currently PTO meetings take place in a variety of areas, depending on our schedule – including the cafeteria, the gym, or a classroom. This room would provide dedicated space for regular PTO meetings for both schools, as well as other types of parent gatherings, as needed (such as parent workshops, School Leadership Team meetings, workgroup meetings, etc.) Dedicated space would include locked storage so that PTO members can store items related to activities and events. These materials range from supplies for annual festivals to fundraiser merchandise to nonperishable snacks for meetings. Dedicated space would include access to several computers, available to parents during set times to support their individual or group needs. This can range from taking meeting minutes to creating fliers, to support for accessing the Parent Portal of the Student Information System. Dedicated space would include a space for informational resources for families, including information on homework help, enrichment programs, summer activities, family support programs and more.

Teacher Planning

Existing Teacher Planning Spaces

Because we prioritize teaming across the grade level, we currently have three spaces that are available daily for teacher planning and collaboration. One of these spaces is large enough to accommodate the entire staff at one time, and we use it every Friday for collaboration and other professional development spaces.

Our teachers have two common planning blocks each day across grade level content area because we know how essential it is for teachers to be aligned and collaborating on student achievement. For instance, our sixth-grade math team plus specialists (SPED teacher, ESL teacher) have two 50 minute blocks each day where they can co-plan, debrief lessons and look at student work and data.

Proposed Changes to Planning Time and Number of Spaces

In a new building, we would ideally have a core teacher planning space per grade level to allow for regular, easy team grouping and development. This space would be used for teachers, support team members and administration to meet on a daily and weekly basis, encouraging robust communication. As indicated above, we have a good deal of shared planning time in our schedule - 100 minutes per teacher out of the 300 instructional minutes across six core classes - and simply require spaces to continue to encourage the collaborative rather than isolated use of that time.

Current Professional Development Practices

Each Friday, UP Academy Oliver staff has two hours together for whole group or differentiated planning and development. We plan to keep this as a core part of our model, which relies on strong teacher development programming. In order to continue this, we require regular access to a large teacher space with flexible seating arrangements to have teachers and staff be able to engage in flexible learning opportunities such as those available to our students, rife with practice, technology-based, personalized and small group learning opportunities.

Proposed Changes to Professional Development Practices

As aforementioned, we do not plan to shift our professional development practices. However, we could benefit from more spaces that allow larger and/or smaller groups to come together on a regular basis, especially as we shift into building interconnected 21st Century learning opportunities - we will need to be able to make this same transition as a staff and therefore will need to be able to flexibly group, team and collaborate.

Lunch Programs

How program is delivered

Currently, the UP Oliver school site houses the large kitchen and seating area in the basement. This space is adequate to serve the needs of the students and allow for greater options that their counterpart at the Oliver Partnership School which is less than ideal space for food preparation and student seating area. Our breakfast participation is at 97%, serving breakfast in the classroom. Our lunch participation at this site is 80%.

We are a host school for the Summer Eats- the Massachusetts Summer Food Service Program provides free breakfast and lunch to children and teens during the summer months. This program is important to the Lawrence community it allows for the school district to feed children meals that otherwise may go without during the summer months.

We provide breakfast and lunch free to our students each day. Our meals are funded by the federal government through the National School Lunch Program (NSLP). Our school is able to receive these benefits by serving meals that meet requirements regarding nutrient content and portion sizes. Our breakfast is delivered to the classrooms by cafeteria staff via elevator. The breakfast is handed to each child in their classroom.

Lunch is served to 360 students daily in our shared cafeteria space. Due to scheduling constraints with the rest of the building, we have two lunch blocks - one from 11:30 am-11:55 am and one from 11:55 am-12:20 pm. We split by grade level, combining 6th and 7th grades.

Proposed changes and why, or statement that no changes are proposed

In a newly renovated or constructed building, we would ideally be able to have one lunch per grade so that we may better differentiate our schedule and ensure that students can eat and collaborate within a single lunch block. A fully equipped kitchen is needed to provide students with a variety of food choices. The cafeteria needs to accommodate multiple grade levels at once and be able to host family events where refreshments or food can be served.

Because of the co-location of our schools and differing grade levels at each school, it will be essential for the dining facilities to have easy methods for separating the cafeteria, for instance, so that OPS and UAO can eat at the same time but maintain integrity of their programs.

Technology Instruction Policies and Program Requirements

Description of existing educational technology, how it is managed by the district, how it is used in the classroom, and overview of professional support and training offered to staff

Currently, UP Academy Oliver has the following technology available in every core classroom (12 core classrooms):

- A ceiling mounted projector
- A document camera
- 30-32 Chromebooks per classroom (1 per student)

Our pullout spaces have portable projectors but not all of them have wall or ceiling mounted projectors due to cost limitations and installment challenges.

We use the technology daily, from everything from our intervention block, which at Tier 1 is a series of computer-based programs such as Dreambox math and CommonLit ELA, to general class instruction and assessment via web-based science platforms and assessment tools such as Edulastic. Technology is a core part of our programming. We offer some training on it and professional support via our coaching and Director of Operations roles, and plan to continue to acquire technology as funds and spaces become available and as we continue to push to 21st century learning in every classroom.

In a new building, it will be essential that we have this same access to technology and more, from interactive white boards to easy storage facilities for our Chromebooks and iPads. This will enable our learning environment to continue to progress towards personalized and 21st Century learning goals and allow technology to become truly embedded at UP Academy Oliver.

Media Center/Library

Current programming and how it is delivered

Currently, UP Academy Oliver has only a small library that is accessible to all of our students and houses books and tables for collaboration. Each of our classrooms has a bookshelf with a satellite library for students to choose books from, and students are given the opportunity to travel together to the larger shared library with teacher to select new books intermittently.

Proposed changes and why, or statement that no changes are proposed

In a new building, our vision for a media center/library is that the overall dedicated square footage should be sufficient for the student population, technology should be incorporated, and there should be diverse spaces for reading quietly or collaborating in small groups. Spaces should be flexible to support student collaboration, personalization of learning, development of higher-order thinking skills, school-wide programming, school- wide information dissemination and the display of student projects. Specialized equipment needed includes wireless access for electronic devices, infrastructure support, sufficient bandwidth, and smart technology such as interactive whiteboards and large display screens for classroom use.

A portion of grade level books and other reading materials are proposed to be distributed in each of the grade level ELA rooms and across the common spaces at grade level book rooms. This will enable teachers to assist students with targeted book selections. This will benefit students by providing reading materials that are appropriate to their specific learning goals and needs. This storage and access plan will reduce the Media Center net area accordingly.

UP Academy Oliver envisions media center/library spaces as a hub of teaching and learning in the school. The spaces should be considered as primary public "gathering spaces." During the school day, media center spaces should be bustling with activity, with classes cycling in and out as needed. In addition, the media center spaces could and should be used for staff professional development as well as serve as a venue for public events. A media center/library should be technology rich, contain flexible modular furniture and should be bright, warm, and inviting for students and staff.

In order to provide more access and independence to library content, Lawrence Public Schools is interested in a distributed library model. There would be a staff member assigned to the management of the content and there would be a central location for check-out. In this model, books would be located on several floors near grade-level clusters.

Visual Arts Programs

How curriculum is delivered, number of periods per academic cycle, and the number of students participating in art programs

Currently, UP Academy Oliver has no visual arts program outside of rotating enrichment opportunities. This is due both to staffing and spatial constraints.

Proposed changes and why, or statement that no changes are proposed

In future years, we would like to add another specialist to our team so that we can hold regular visual arts programming. This will require a dedicated arts room as well as the addition of another staff member to support more opportunities for specials and enrichment for students. Ideally, the arts room will have flexible grouping tables as well as technology and other access to allow students to participate in arts programming of various modalities.

Performing Arts Programs

How curriculum is delivered, number of periods per academic cycle, and number of students participating in music programs

Our current performing arts program is a dance program. All 360 students at UP Academy Oliver receive one 50-minute block of dance instruction weekly, with a small subset of students also participating in extracurricular dance.

Proposed changes and why, or statement that no changes are proposed

One limitation of our dance program is an adequate space. Due to sound limitations (e.g. no technology and no sound proofing) we cannot really use a classroom for dance. However, our schools' current auditorium space is shared and thus unavailable for class much of the time. Ideally, in a new building we would have a separate dance and/or physical fitness space that has adequate sound proofing to be able to provide class and is also flexible enough for students to be able to watch videos, practice in small groups, hear the music they are dancing to, and perform all together. We would also like to leave space for our programming to be flexible in case we shift to a music or art program instead of a dance curriculum, as we seek to better service our students and their various enrichment activity. The addition of an Art room is desired and Up Academy Oliver would plan to hire one additional arts instruction.

We want the dance space to be a "black box" space that can be used flexibly for performances of different types. We have a strong enrichment program where we use spaces to support additional types of arts, including theater and dance and cheerleading, and others, and therefore do not want the space to include a spring floor.

Physical Education Programs

How curriculum is delivered

All 360 students at UP Academy Oliver receive one fifty-minute block of fitness instruction weekly, with a small subset of students also participating in extracurricular sports. We would love to expand the program and give our students more gym time, but we cannot at this point because we are a co-located school. We currently utilize two main spaces for physical fitness: the gym (shared between the four schools located in our building) and a park across from our school, which students access by crossing a four lane road. We have no private outdoor space, which can pose a real challenge. Because the park is a city park, we cannot control who uses it and will often plan to be outside for an organized sport only to discover that the baseball field is in use, or that there is no space because another school in the District or another program is using the space.

Proposed changes and why, or statement that no changes are proposed

UP Academy Oliver would benefit greatly from the use of two gym spaces that can be shared between the two schools, as well as a private, enclosed and safe outdoor space for students to have class and also to enjoy during recess and other free times (e.g. before or after school). Because we are a middle school, our students greatly desire space to play games and sports and to do so safely and amongst their peers. Additionally, our physical education teacher teaches a full course load and would love to be able to increase the access of our students to programming within PE, but we are currently limited by spaces. With a new, dedicated space, we could run additional physical education electives and opportunities such as yoga, workout programs, and sports training. Access to two gymnasium spaces is critical to the continuation of UP Academy Oliver's weekly enrichment program which provides students with a variety of sports and activity selections that they opt into each week. Currently the school rents gym space at the nearby YMCA and YWCA to fulfil this need. Access to multiple gym space would dovetail with our desired elective programming and enable us to better meet student needs

comprehensively. In addition, two spaces would allow for essential OT/PT programs and housing of OT/PT equipment.

The District acknowledges that the proposed square footage in the Health and Physical Education category exceeds the MSBA guidelines. This is a model which we currently employ at the South Lawrence East Complex, which has a large gymnasium and a smaller gymnasium. This is a very effective use of space for Health and Physical Education.

Special Education Programs

Special Education

In 2018-2019 16% of UP Academy Oliver students had special needs. This includes both students from the UP Academy Oliver zone, as well as students from across the District who are placed in the district-wide Autism Inclusion Program (ASD) at UP Academy Oliver.

Inclusion for all students is a core belief and practice at UP Academy Oliver. This educational model challenges schools to meet the needs of all students by educating learners with disabilities alongside their non-disabled peers. The environment necessary to nurture and foster inclusion is built upon a shared belief system between general and special education, and a willingness to merge the talents and resources of teachers across core content teachers and specialists.

This special education program provides the following services as deemed necessary by each individual student's IEP, both across our whole program and in our ASD specific classrooms.

- Direct instruction in a separate setting or in a general education setting
- Support in general education
- Continuum of services from fully included to direct instruction in a separate setting
- Adaptations of the educational environment
- Positive behavior intervention plans
- Counseling

The ASD program provides a variety of additional educational supports, such as: reduced student to teacher ratio; full time paraprofessionals for both pullout and while included in general education classes, and weekly lessons targeting social skills and social thinking.

UP Academy Oliver provides instructional spaces for pullout small group and individual instruction, as well as a wide array of student support services. Student Services are defined as school psychologists, school counselors, school culture managers, speech/language pathologists, occupational therapists, physical therapists, and nurses. A wide range of services is provided to meet the individual needs of students, from academic intervention to related services in areas such as speech therapy, occupational therapy, and physical therapy. We prioritize our students' social emotional health and wellbeing as well as their academic service delivery grid.

The physical structure of the school building can detract from or promote these feelings. In a new building, our building plan provides both breakout rooms for privacy and open spaces for groups to gather, with clear lines of sight. Special education classrooms need to be flexible and

easily reconfigured, given that different students are served in the same space at different times and given the need to ensure that students feel included as part of the general education population. It is essential that special education learning spaces are spread among general education classrooms. The location of the classrooms allows staff to communicate and collaborate fluidly throughout the day on student needs and programming and be responsive to what needs we are seeing come up on a responsive basis. The number of students in these classrooms is monitored to ensure a smaller class size is maintained to allow the flexible learning requirements of the students. The three Resource Classrooms, and one specialized ASD classroom, require adequate space, resembling a small classroom that can house 12-15 students. In this space, the special educator will conduct small group instruction, social skills groups and collaborate with other related service providers to provide services to students. The six small group rooms resource rooms (two per grade level) resemble large office spaces, for 1:1 or small group instruction. The existence of a dedicated ASD classroom is critical to the school's ability to adequately service student needs. Because UP Academy Oliver is a hub for students requiring these specific academic supports from across the District, the number of students requiring such supports is highly variable year to year. It is important that every student has an authentic sense of belonging and feels safe in their school. Clustering grade levels, spreading special education teachers and spaces throughout the school, and providing services to students in classrooms with close proximity to their peers are examples of how the design plan of the future co-located school would be supporting the academic and social emotional learning goals for UP Academy Oliver students with special needs.

Social Emotional Learning

It is essential that our schools are safe, welcoming, respectful, and nurturing, and create environments that are crafted from high expectations and high support. Such a culture is created when everyone in the school is aligned to beliefs, values, and behaviors. Our students need to learn these beliefs, values and behaviors, and adults need to model, guide, and explicitly teach them to children using intentional strategies in order to establish a culture conducive to learning. For that reason, UP Academy Oliver embeds within its programming a strong advisory curriculum and program that explicitly teaches social emotional skills and fosters community at UAO. Each core content classroom should be set up to be able to conduct small group and large group advisory sessions, and to have furniture that can easily be rearranged to be in a circular formation for our advisory circles. Finally, we require the use of a sensory room to be able to provide our students a space where they can practice their de-escalation techniques and prepare to get the emotional support that they need to be able to participate as a full member of UAO's community.

Overall, the school needs to provide gathering spaces to promote a strong community building atmosphere and social engagement among students and adults. The new UP Academy Oliver School will facilitate and encourage connections among grade levels and across the disciplines, be welcoming by design, and show evidence of collaboration, high expectations, and high expectations with student work and student photographs prominently displayed throughout the school.

Within the Building

The EL program serves students both in and outside of the classroom and therefore needs its own space. Like special education, housing the EL programs in the general vicinity of the grade level clusters is desirable because it allows for more fluid grouping and easy access to collaborative activities between teachers and classes based on content and day, and are run as separate classes. Additionally, copious wall space and storage is also important, given the use of visuals and the need for storage of the general education program materials made available to the teachers and students in the EL classrooms. Ideally, EL classrooms in any building will mirror the setup and expectations we have of our other learning spaces - well- provisioned, set up for collaboration, flexible and accessible. The above program description and educational delivery model requires one, full size, dedicated EL classroom per grade level.

UP Academy Oliver provides instructional spaces for pullout small group and individual instruction, as well as a wide array of student support services. Student Services are defined as school psychologists, school counselors, school culture managers, speech/language pathologists, occupational therapists, physical therapists, and nurses. A wide range of services is provided to meet the individual needs of students, from academic intervention to related services in areas such as speech therapy, occupational therapy, and physical therapy. We prioritize our students' social emotional health and wellbeing as well as their academic service delivery grid.

Design Team Response:

School Scheduling Method

The Preferred Alternative 4a will include appropriately sized cafeterias that will allow for improved class scheduling

Teaching Methodology and Structure

Administrative and Academic Organization/Structure

The preferred Alternative 4a can meet the specific needs identified for the UAO administration in the Education Plan

Curriculum Delivery Methods and Practices

The preferred Alternative 4a will provide grade level clusters of rooms but within the structures, will be flexible with shared collaborative spaces that would allow teachers to easily pull small groups of students or supervise student group work on passion projects of their choosing.

UP Academy Oliver Curriculum Info

The preferred Alternative 4a classrooms will be designed and configured with project-based and personalized learning in mind. Furniture can be easily moved to create configurations from large groups to smaller groups, and to facilitate discussions as easily as it can facilitate independent work. Adequate storage within each classroom for project-based learning will be key for hands-on and differentiated learning

Science and Engineering

The preferred Alternative 4a includes a science lab for each of the middle school grades: 6 – 8. In addition, an Engineering / Technology lab will serve the

middle school grades. The Technology room includes an overhead door to a rooftop outdoor learning area.

Academic Support Programming Spaces

The Preferred Alternative 4a has an EL classroom at each grade level and Small Group Rooms of various sizes to support this program

Student Guidance and Support Services

The Preferred Alternative 4a includes offices for a Dean of Students
And three School Culture Managers. These are centrally located on the 4th floor amongst the grade level clusters.

Family/Parent Engagement

The preferred Alternative 4a includes a dedicated Family Resource Room to serve PTO members for working and storage. This is a shared space with the UAO middle school.

Teacher Planning

The preferred Alternative 4a includes a Teachers Planning Room located on the first floor with some of the UAO administrative offices.

Current Professional Development Practices

The preferred Alternative 4a includes a Teachers Planning Room located on the first floor with some of the UAO administrative offices.

Lunch Programs

The preferred Alternative 4a includes a full-service kitchen that will serve both schools. Each school will have a servery and cafeteria

Technology Instruction Policies and Program Requirements

The preferred Alternative 4a can meet the specific needs identified in the Education Plan

Media Center/Library

The preferred Alternative 4a includes distributed "Media" spaces within the grade level clusters that meet the needs as identified in the Education Plan.

Visual Arts Programs

The preferred Alternative 4a includes an art room and can meet the specific needs identified in the Education Plan.

Performing Arts Programs

The preferred Alternative 4a includes a large Dance Room which is currently the Performing Arts curriculum. This room will be designed with flexibility to accommodate the potential of curriculum changes in the future.

Physical Education Programs

The Physical Education Program is hampered by a lack of dedicated outdoor PE space. Students need to cross city streets: Haverhill Street in front of the school or Oak Street behind the school to access open field and play spaces. The slightly larger gym is needed to supplement the lack of outdoor space and to accommodate the enrichment programs that are current run out of the nearby YMCA and YWCA.

The second small gym is needed for as gross motor space for the very high percentage of special needs students in the school.

Both gym spaces are shared facilities with the OPS elementary school.

Special Education Programs

Special Education

The Preferred Alternative 4a has classrooms of appropriate size to accommodate Push-in activities

The Preferred Alternative 4a includes Resource Rooms, Sensory rooms and Small Group rooms spread throughout the grade levels

The Preferred Alternative 4a includes multiple dedicated spaces for the Autism Spectrum Disorder (ASD) program including Life Skills

Social Emotional Learning

Color will be used in multiple ways throughout the school, e.g. 1. for student wayfinding, 2. as a neutral backdrop that allows student work to be displayed, 3. as accents in certain locations that bring interest to the interior environments.

Through the design process, teachers will be consulted on furniture choices that will promote student teamwork while other furnishings encourage independence.

The combination of classrooms, breakout (pull-over) and grade level Media Centers will provide multiple opportunities for small, medium, and large group instruction at all grade levels.

The concept of grade level Media Centers inherently supports multiple learning modalities including collaboration.

Within the Building

Typical classrooms are arranged in grade level clusters that include: typical classrooms; EL classroom, a de-centralized Media area open to the cluster, resource and small group rooms

All learning spaces are supported by lightweight, ergonomic, and flexible furniture

Each grade level cluster is will engender a sense of community for the students and teachers and a safe, well-supervised environment. Learning spaces should allow students to work independently and collaboratively, give or receive tutoring, and accept instruction.

4.3 Preferred Solution Space Summary

The Space Summary for the Preferred Alternative 4a is an updated version of the addition renovation, grade K-8 summary, previously submitted in the PDP. This revised Space Summary was developed as a result of ongoing discussions between the District, the OESBC and the Superintendent. The goal was to capture all of the program space required to meet the educational vision and planning conducted over the course of the feasibility phase. The district is committed to delivering high quality educational spaces for all of the programs listed in the Space Summary while also working to be as close as possible to a 1.5 net to gross multiplier. Responses to the MSBA PDP review are attached in Section 1.7

The Preferred Alternative 4a as attached was approved by the Building Committee on April 28th, 2020 and affirmed by the LAE Board on April 29th, 2020. A summary of the changes from PDP to PSR are outlined below.

4.4 Variations from PDP initial space summary MSBA review comments

Core Academic Spaces

The number of Kindergarten classrooms has been reduced from 6 to 4. Areas for General Classrooms and EL Classrooms for all grades were increased from 900 sf to 950 sf each. The overall number of General Classrooms for 1-6 was reduced from 24 to 23, and for grades 7-8 from 7 to 6. These reductions assume the Science Classrooms provide for grades 6, 7, and 8 will act as the 4th classroom for those grades, respectively. The Science Classrooms themselves have been reduced in size from 1,440 sf to 1,200 sf. It was decided that Central Chemical Storage was not needed. Lastly, the decision was made to remove New Comers Classrooms from the program for all schemes. Overall, the NSF for Core Academic in the Addition Renovation was reduced from 48,730 sf to 45,350 sf.

Special Education:

The Auxiliary Gym space was relocated from Health and Physical Education to Special Education with the intent that this space would serve as gross motor skills space, while OT/PT will serve fine motor skills space.

Providing access to a diverse selection of Special Education support spaces which are directly adjacent to each classroom neighborhood is the primary concern. With that said, the physical constraints of the buildable space have limited the size or number of some support spaces. Three of the six, 600 sf Resource Rooms for K-5, have been reduced to 350 sf each. For grades 6-8, the number of Resource Rooms has been reduced to 2 with one being reduced in size to 350 sf. The number of Small Group Rooms have also been reduced to accommodate the available space. This reduced the overall area of Special Education from 13,720 nsf to 15,310 nsf.

Art and Music:

The number of Ensemble rooms has been reduced from 2 to 1. This reduces the overall area of Art and Music from 5,925 nsf to 5,725 nsf.

Media Center:

The decision was made to have a dispersed Media Center in lieu of a singular central Media Center. Grades 1 through 8 will each contain a portion of the media center square footage so that the total area matches the MSBA recommended area.

Health and Physical Education:

The Gymnasium spaces have been reduced from 8,000 nsf at PDP to 7,000 nsf. This number is still 1,000 sf higher than the MSBA recommended 6,000 nsf. Locker Rooms have been reduced from 1,000 nsf to 700 nsf per room and are being treated more like “team rooms” and shower facilities are not being provided. As noted in the previous Special Education portion of this section, the Auxiliary Gym space has been moved there. This reduced the overall area of Health and Physical Education from 14,646 nsf to 8,896 nsf.

Total Building Gross Floor Area

For an optimized layout, achievable only with new construction, the overall gross floor area shifted from 176,184 sf at PDP to 172,211 sf. Due to the inefficiencies associated with fitting new program into an existing building and to the limitations of the tight site, alternative 4a total gross floor area is 160,081 gsf.

4.5 Sustainability Documents

The Oliver Partnership School will be designed and constructed in accordance with the principles and criteria of the LEED V4.0 for BD+C for Schools: New Construction and Major Renovations for Schools, published by the U.S. Green Building Council. The project will strive to meet the threshold of 40-49 points, equivalent to a Certified rating.

A preliminary LEED scorecard is attached at the end of this section for the Oliver School site option. The scorecard identifies the project design criteria and associated credits which are under consideration for this project.

Specifications will include instructions to Contractor regarding waste management and waste diversion goals (95%), sustainable material procurement goals, and construction indoor air quality goals.

This is an acknowledgement that the Oliver Partnership School District has identified a goal of 2% additional reimbursement from the MSBA High Efficiency Green School Program. The facility’s designed energy performance will seek 10%+ beyond the Massachusetts Energy Code to be in effect in August 2020 (IECC 2018 with MA Amendments).

The scope of work for this project will include the construction elements and performance tasks to achieve that goal, and all subsequent documents, including but not limited to, specifications, drawings, cost estimates will match the scope of work indicated in the submitted scorecard and energy performance goal.

4.6 Building Plans

Reference the Drawings for Alternative 4a included in this Section.

4.7 Site Plans

Reference the Drawings for Alternative 4a included in this Section.

4.8 Budget

4.8.1 Estimated Total Construction Cost

See attached Miyakoda Consulting and AM Fogarty Associates, Inc. Construction Cost Estimates at the end of this Section.

4.8.2 Estimated Total Project Cost

See Preferred Schematic Design Pricing Table attached at the end of this Section.

4.8.3 Estimated Funding Capacity

The City of Lawrence is in good financial health having made significant improvements to its overall operations and financial condition. The City's reserves have increased significantly resulting in multiple bond rating upgrades. The state recently returned the City to local control eliminating state oversight after nearly ten years.

Based on the Preferred Schematic Report Estimates, the estimated Total Project Cost (TPC) for the various alternatives currently range between $42.7 million for Option 1 Base Repair Project at the existing Oliver Partnership Elementary School to $176.8 million for Option 5 Addition/Renovation of the Stone Mill Building. The current projected preliminary TPC for the preferred Option 4a Addition/ Renovation of the existing Oliver Partnership Elementary School for 1,000 student enrollment is in the range of $131.8 million, which would be appropriate for a project of this magnitude to fully satisfy the Oliver Partnership School project Educational Program.

The District acknowledges the estimated potential TPC for the Oliver Partnership School project options noted above. The City of Lawrence will review the funding requirements of the preferred 1,000 student Option 4a Addition/Renovation of the existing Lawrence Oliver Partnership School in the context of its overall capital plan and make recommendations to the City Council regarding funding the proposed project. Although unanticipated, the project may have an impact on municipal services.

4.8.4 List of Other Municipal Projects Currently Planned or in Progress

The City of Lawrence has the following building projects in process or planned at this time:

- Leahy School
- FY20 Capital improvement program – various projects
- Museum Square parking garage reconstruction and repairs
- Street light project

4.8.5 District's Not-to-Exceed Total Project Budget

Estimated Construction Cost (ECC) was independently calculated by a cost estimator used by the project architect, SMMA, and a cost estimator used by the City's OPM,

Pinck & Co., Inc. (PCI). The independent cost estimates were reconciled in a collaborative effort, and the District is using an average of the two reconciled estimates as the ECC for each option. SMMA and PCI assisted the District with estimating costs to be carried outside of the ECC (soft costs, such as furniture and consultant fees, and owner contingencies to carry for potential changes) to develop estimated Total Project Cost (TPC) for each option. The TPC is an "order of magnitude" amount and is not intended to represent the approved total project budget, as several of the assumptions used in the estimates will need to be reviewed and finalized as the project develops.

The process described above has resulted in an estimated TPC of $131.8 million for the preferred 1,000 student Option 4a Addition/Renovation of the existing Lawrence Oliver Partnership School, which includes an ECC of $104.7 million and an estimate for soft costs (including required swing space) and owner's contingencies of $27.1 million.

The 2018 grant reimbursement share for this project from the MSBA is 80% on reimbursable and eligible project costs. As the MSBA regulations currently stand, the project will not be eligible for additional incentive points. The remaining 20% of reimbursable costs and the full value of any ineligible costs would be locally funded. Key points to note:

- The MSBA's current cap on construction cost is $333/square foot. Based on this cap, a significant portion of the proposed project will be excluded from MSBA grant reimbursement.
- Based on historical data from past MSBA projects, the City of Lawrence understands the value of project costs ineligible for grant reimbursement could push local funding to more than 40% of the final TPC.
- For the preferred 1,000 student Option 4a Addition/Renovation of the existing Oliver Partnership School, 40% or more of the current estimated TPC that would potentially need to be locally funded translates to $52.7 million or more.

The District and project team will continue to refine the project scope, design and project cost during the Schematic Design Phase in order to establish the final TPC, and further will work with the MSBA to establish the eligible costs under the MSBA's grant requirements and procedures leading into the Project Scope and Budget Agreement.

4.8.6 Description of the Local Process for Authorization and Funding

Funding for the Oliver Partnership School project will follow the normal loan authorization process in the City. The Chief Administrative and Finance Officer will be required to provide a certification that the city's financial resources and revenues are, and will continue to be, adequate to support the proposed borrowing without a detrimental impact on the continuous provision of the existing level of municipal services. Although unanticipated, the project may have an impact on municipal services. The Mayor will propose a loan order to the City to the City Council for approval by a two-thirds vote.

The City acknowledges that the District must appropriate and authorize the full amount of the approved Total Project Cost.

4.9 Budget Statement

See attached Budget Statement.

4.10 Project Schedule

See attached Project Schedule.

4.11 Attachments

4.3 Space Summary Alt 4a

Proposed Space Summary- K - 8 Schools

Add / Reno

Date: 5/13/2020 Preferred Schematic Report

Oliver Partnership School Grades K-8 (1000 students)	Existing Conditions			PROPOSED: Existing to Remain/Renovated			PROPOSED: New			PROPOSED: Total			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			**30,696**			**0**		**49**	**45,350**		**49**	**45,350**		**52**	**48,180**	
(List classrooms of different sizes separately)																
Pre-Kindergarten w/ toilet	0	0	0	0	0	0	0	0	0	0	0	0	1,200		-	1,100 SF min - 1,300 SF max
Kindergarten w/ toilet	0	0	0	0	0	0	1,200	4	4,800	4	4	4,800	1,200	6	7,200	1,100 SF min - 1,300 SF max; 2 sinks min. req
General Classrooms - Grades 1-6	varies	25	17,923	0	0	0	950	23	21,850	23	23	21,850	950	29	27,550	900 SF min - 1,000 SF max; 2 sinks min. req
STE Room- Grades 3-6 (3-5)	0	0	0	0	0	0	1,080	1	1,080	1,080	1	1,080	1,080	2	2,160	Refer to STE Guidelines for Addition
STE Storage	0	0	0	0	0	0	120	1	120	120	1	120	120	2	240	Refer to STE Guidelines for Addition
General Classrooms - Grades 7-8	varies	6	2,204	0	0	0	950	6	5,700	950	6	5,700	950	8	7,600	850 SF min - 950 SF max
Science Classroom / Lab- Grades 7-8 (6-8)	varies	2	1,598	0	0	0	1,200	3	3,600	1,200	3	3,600	1,440	2	2,880	1 period / day / student
Prep room	0	0	0	0	0	0	200	3	600	200	3	600	200	2	400	
Central Chemical Storage Rm	0	0	0	0	0	0	150	0	0	0	0	0	150	1	150	
EL Classroom - Grades 1-5	varies	5	3,541	0	0	0	950	5	4,750	950	5	4,750				
EL Classroom - Grades 6-8	varies	8	5,430	0	0	0	950	3	2,850	950	3	2,850				
SPECIAL EDUCATION			**5,525**			**0**			**15,310**		**35**	**15,310**			**16,120**	
(List rooms of different sizes separately)																
Self-Contained SPED - Grades K-5, toilet, ASD/Life Skills - OPS		1	788	0	0	0	1,020	1	1,020	1,020	1	1,020	950	6	5,700	900-1,300 SF equal to surrounding classrooms
Self-Contained SPED - Grades 6-8 toilet, ASD / Life Skills - UAO		1	506	0	0	0	1,020	1	1,020	1,020	1	1,020	950	6	5,700	850-950 SF equal to surrounding classrooms
Self-Contained SPED - Grades K-6 toilet	varies	3	2,121	0	0	0	60	1	60	60	1	60	60	6	360	
Self-Contained SPED - Grades 7-8 toilet		2	1,196	0	0	0	60	1	60	60	1	60	60	6	360	
Resource Room - Grades K-5, OPS	0	0	0	0	0	0	600	3	1,800	600	3	1,800	500	4	2,000	
Resource Room - Grades K-5, OPS				0	0	0	350	3	1,050	350	3	1,050				
Resource Room - Grades 6-8, UAO		1	292	0	0	0	600	1	600	600	1	600	500	1	500	
Resource Room - Grades 6-8, UAO				0	0	0	350	1	350	350	1	350				
Small Group Room / Reading, Grades K-5, OPS	0	0	0	0	0	0	150	8	1,200	150	8	1,200	500	3	1,500	1/2 size Genl. Clrm.
Small Group Room / Reading, Grades K-5, OPS	0	0	0	0	0	0	350	2	700	350	2	700				
Small Group Room / Reading, Grades 6-8, UAO	0	0	0	0	0	0	150	4	600	150	4	600				
Small Group Room / Reading, Grades 6-8, UAO	0	0	0	0	0	0	350	0	0	350	0	0				
Sensory Room - OPS	0	0	0	0	0	0	250	3	750	250	3	750				
Sensory Room - UAO	0	0	0	0	0	0	250	2	500	250	2	500				
OT / PT *(Fine Motor)*	0	0	0	0	0	0	1,000	1	1,000	1,000	1	1,000				
Auxiliary Gym *(Gross Motor)*	0	0	0	0	0	0	4,000	1	4,000	4,000	1	4,000				OTPT Gross Motor
IEP Chairperson (EFT) Shared		1	330	0	0	0	125	1	125	125	1	125				
Speech & Language Pathologist		1	292	0	0	0	125	1	125	125	1	125				
Special Education Conference Room				0	0	0	350	1	350	350	1	350				
ART & MUSIC			**4,335**			**0**			**5,725**		**7**	**5,725**			**8,125**	
OPS-Art Classroom - Grades K-6 (K-5)		1	1,407	0	0	0	1,000	1	1,000		1	1,000	1,000	2	2,000	assumed schedule 2 times / week / student
UAO-Art Classroom - Grades 7-8 (6-8)	0	0	0	0	0	0	1,200	1	1,200		1	1,200	1,200	1	1,200	assumed use - 50% population 2 times / week
Art Storage / Kiln	0	0	0	0	0	0	225	2	450		2	450	150	3	450	
Band / Chorus - 100 seats	0	0	0	0	0	0	0	0	0		0	0	1,500	1	1,500	
OPS-Music Classroom / Large Group - 25-50 seats		1	1,426	0	0	0	1,200	1	1,200		1	1,200	1,200	2	2,400	assumed schedule 2 times / week / student
OPS-Music Practice / Ensemble - Grades K-6	0	0	0	0	0	0	375	1	375		1	375	75	5	375	
Music Practice / Ensemble - Grades 7-8	0	0	0	0	0	0	200	0	0		0	0	200	1	200	
UAO-Dance (multi-purpose)	varies	2	1,502	0	0	0	1,500	1	1,500		1	1,500				
VOCATIONS & TECHNOLOGY			**17,405**			**0**			**1,440**		**1**	**1,440**			**1,440**	
Technology/Engineering Rooms	0	0	0	0	0	0	1,440	1	1,440		1	1,440	1,440	1	1,440	Assumed use - 50% Population - 5 times/week; 850 SF - 2,000 SF; Based on Grades 7-8
HEALTH & PHYSICAL EDUCATION			**17,405**			**0**			**8,896**		**6**	**8,896**			**8,322**	Excess PE Spaces Policy
Gymnasium	varies	2	16,782	0	0	0	7,000	1	7,000		1	7,000	6,000	1	6,000	6000 SF Min. Size
Gym Storeroom		1	623	0	0	0	150	1	150		1	150	150	1	150	
Health Instructor's Office w/ Shower & Toilet	0	0	0	0	0	0	173	2	346		2	346	172	1	172	
(Team Rooms) Locker Rooms - Boys / Girls w/ Toilets	0	0	0	0	0	0	700	2	1,400		2	1,400	1,000	2	2,000	
MEDIA CENTER			**8,264**			**0**			**5,714**		**7**	**5,714**			**5,383**	
Media Center/Reading Room *(Grade Level 1-8)*	varies	2	8,264	0	0	0	Varies	7	5,714		7	5,714	5,383	1	5,383	
DINING & FOOD SERVICE			**13,775**			**0**			**11,933**		**8**	**11,933**			**12,283**	
Cafeteria / Dining - Elementary School		1	1,301	0	0	0	5,000	1	5,000		1	5,000	7,500	1	7,500	2 seatings - 15SF per seat
Cafeteria / Dining - Middle School		1	7,231	0	0	0	2,500	1	2,500		1	2,500				
Kitchen & Serverey - Elementary School		1	1,216	0	0	0	2,300	1	2,300		1	2,300	2,300	1	2,300	1600 SF for first 300 + 1 SF/student Add'l
Remote Servery - Middle School		1	3,421	0	0	0	500	1	500		1	500				
Chair / Table / Equipment Storage - ES		0	0	0	0	0	333	1	333		1	333	533	1	533	200 SF for first 300 + .333 SF/student Add'l
Chair / Table / Equipment Storage - MS		0	0	0	0	0	200	1	200		1	200				
Staff Lunch Room		1	606	0	0	0	350	1	350		1	350	350	1	350	200 SF for first 400 + .25 SF/student Add'l
Stage	varies	2		0	0	0	750	1	750		1	750	1,600	1	1,600	
MEDICAL			**556**			**0**			**1,080**		**7**	**1,080**			**710**	
Medical Suite Toilet				0	0	0	60	2	120		2	120	60	1	60	
Nurses' Office / Waiting Room				0	0	0	400	1	400		1	400	250	1	250	2 FT nurses
Examination Room / Resting				0	0	0	100	2	200		2	200	100	4	400	exam only, one for each school
Resting				0	0	0	300	1	300		1	300				resting only
Storage				0	0	0	60	1	60		1	60				
ADMINISTRATION & GUIDANCE			**5,349**			**0**			**7,537**		**29**	**7,537**			**3,469**	
OPS - Elementary			2,511													
Principal's Office w/ Conference Area				0	0	0	450	1	450		1	450	375	1	375	Co-Leaders
~~Principal's Secretary / Waiting~~				0	0	0	0	0	0		0	0	125	0	-	
Assistant Principal's Office - AP1				0	0	0	127	1	127		1	127	127	1	127	
~~Assistant Principal's Office - AP2~~				0	0	0	0	0	0		0	0	127	0	-	
General Office / Waiting Room / Toilet				0	0	0	639	1	639		1	639	639	1	639	includes clerk and mailroom
Conference room				0	0	0	272	1	272		1	272	272	1	272	
Teachers' Mail and Time Room (storage)				0	0	0	100	1	100		1	100	100	1	100	
~~Duplicating Room~~				0	0	0	0	0	0		0	0	161	1	161	in teachers work room
Records Room				0	0	0	130	1	130		1	130	130	1	130	Admin & Guidance shared
Supervisory / Spare Office (Safety Officer)				0	0	0	127	1	127		1	127	127	1	127	shared between schools
~~General Waiting Room~~				0	0	0	0	0	0		0	0	100	1	100	
Guidance Office				0	0	0	150	3	450		3	450	150	5	750	
Guidance Office - Inclusion team				0	0	0	200	1	200		1	200				shared by 2 people
Guidance Office - evaluation team facilitator				0	0	0	125	1	125		1	125				
Guidance Office - speech				0	0	0	200	1	200		1	200				shared by 2 people
Guidance Storeroom				0	0	0	38	1	38		1	38	38	1	38	
Teachers' Work Room (Planning)				0	0	0	635	1	635		1	635	650	1	650	
Instructional Coaches				0	0	0	300	1	300		1	300				shared by 3 people
Union office				0	0	0	125	1	125		1	125				
UAO - Middle			2,838													
Principal's Officew/conference				0	0	0	450	1	450		1	450				shared with Director of Operations (admin conference)
Assistant Principal's Office - (2 AP's)				0	0	0	250	1	250		1	250				sgared
General Office / Waiting Room / Toilet				0	0	0	623	1	623		1	623				
Special Projects Coordinator				0	0	0	125	1	125		1	125				
Guidance Office (School Counselor)				0	0	0	150	2	300		2	300				
School Psychologist				0	0	0	125	1	125		1	125				shared by 2 schools
Guidance Conference				0	0	0	273	1	273		1	273				
School Culture (Behavior)				0	0	0	300	1	300		1	300				shared by 3 people
Classroom Deferral room				0	0	0	500	1	500		1	500				
Guidance Storeroom				0	0	0	38	1	38		1	38				
Teachers' Work Room (Planning)				0	0	0	635	1	635		1	635				
CUSTODIAL & MAINTENANCE			**2,814**			**0**			**2,572**		**7**	**2,572**			**2,572**	
Custodian's Office				0	0	0	150	1	150		1	150	150	1	150	
Custodian's Workshop				0	0	0	347	1	347		1	347	347	1	347	
Custodian's Storage				0	0	0	375	1	375		1	375	375	1	375	
Storeroom				0	0	0	667	1	667		1	667	667	1	667	
Recycling Room / Trash				0	0	0	400	1	400		1	400	400	1	400	
Receiving and General Supply				0	0	0	433	1	433		1	433	433	1	433	
Network / Telecom Room				0	0	0	200	1	200		1	200	200	1	200	
OTHER			**0**			**0**			**1,100**		**2**	**1,100**			**0**	
Other *(specify)*																
Catie's Closet				0	0	0	400	1	400		1	400				
Family Resource Center				0	0	0	700	1	700		1	700				
Total Building Net Floor Area (NFA)			**106,124**			**0**			**106,657**		**158**	**106,657**			**106,605**	53
Proposed Student Capacity / Enrollment															**1000**	Enter grade enrollments below
													K-6	78%	**333**	Lower Elementary; Grades K-2
															445	Upper Elemntary; Grades 3-6
													7-8	22%	**222**	Middle/Jr. High; Grades 7-8
NON-PROGRAMMED SPACES					% of GFA	**0**		% of GFA	**54,424**		% of GFA	**54,424**				
Other Occupied Rooms (list separately)					#DIV/0!			0%			0%					Non-Programmed space areas are
					#DIV/0!			0%			0%					required to be included in the
					#DIV/0!			0%			0%					following submittals:
					#DIV/0!			0%			0%					Schematic Design Submittal
Unoccupied MEP/FP Spaces					#DIV/0!			0%			0%					Design Development Submittal
Unoccupied Closets, Supply Rooms & Storage Rooms					#DIV/0!			0%			0%					60% Construction Documents
Toilet Rooms					#DIV/0!			0%			0%					90% Construction Documents
Circulation (corridors, stairs, ramps & elevators)					#DIV/0!			0%			0%					Final Construction Documents
Remaining[3]					#DIV/0!	**0**		34%	**54,424**		34%	**54,424**				
Total Building Gross Floor Area (GFA)[2]			172,336			**0**			**161,081**			**161,081**			**159,907**	1,174
Grossing factor (GFA/NFA)			**1.62**			**#DIV/0!**			**1.51**			**1.51**			**1.50**	

[1] **Individual Room Net Floor Area (NFA)** Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

[2] **Total Building Gross Floor Area (GFA)** Includes the entire building gross square footage measured from the outside face of exterior walls

[3] **Remaining** Includes exterior walls, interior partitions, chases, and other areas not listed above. Do not calculate this area, it is assumed to equal the difference between the Total Building Gross Floor Area and area not accounted for above.

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architect Firm: SMMA

Name of Principal Architect: Alex Pitkin

Signature of Principal Architect: Alex P. Pitkin

Date: 5/13/2020

4.5 LEEDv4 - Oliver Site

LEED v4 for BD+C: Schools
Project Checklist

DRAFT

Project Name: **Lawrence Oliver Partnership Elementary School**
Date: April 29 2020

OLIVER SITE

THE CREDITS INDICATED BY "YES" TO BE INCLUDED IN PSR DESIGN BUDGET

Y	?	N			
		1	Credit	Integrative Process	1

5	5	#	**Location and Transportation**	**Preliminary**	15
		15	Credit	LEED for Neighborhood Development Location	15
1			Credit	Sensitive Land Protection	1
	1	1	Credit	High Priority Site	2
2	1	2	Credit	Surrounding Density and Diverse Uses	5
	1	3	Credit	Access to Quality Transit	4
	1		Credit	Bicycle Facilities	1
1	1		Credit	Reduced Parking Footprint	1
1			Credit	Green Vehicles	1

4	6	2	**Sustainable Sites**	**Preliminary**	12
Y			Prereq	Construction Activity Pollution Prevention	Required
Y			Prereq	Environmental Site Assessment	Required
1			Credit	Site Assessment	1
	2		Credit	Site Development - Protect or Restore Habitat	2
		1	Credit	Open Space	1
	2	1	Credit	Rainwater Management	3
1	1		Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1
	1		Credit	Site Master Plan	1
1			Credit	Joint Use of Facilities	1

5	2	5	**Water Efficiency**	**Preliminary**	12
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
1	1		Credit	Outdoor Water Use Reduction - no irrigation	2
3	1	3	Credit	Indoor Water Use Reduction - 30% goal	7
		2	Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

16	7	6	**Energy and Atmosphere**	**Preliminary**	31
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
5	1		Credit	Enhanced Commissioning	6
9	2	3	Credit	Optimize Energy Performance	16
1			Credit	Advanced Energy Metering	1
1	1		Credit	Demand Response	2
	2	1	Credit	Renewable Energy Production - TBD 10 yrs min. PPA contract	3
	1		Credit	Enhanced Refrigerant Management	1
		2	Credit	Green Power and Carbon Offsets	2

6	3	2	**Materials and Resources**	**Preliminary**	13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
1	2	2	Credit	Building Life-Cycle Impact Reduction - v4.1 version	5
1			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1	1		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1			Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

7	9	0	**Indoor Environmental Quality**	**Preliminary**	16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
Y			Prereq	Minimum Acoustic Performance	Required
2			Credit	Enhanced Indoor Air Quality Strategies	2
1	2		Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
1	1		Credit	Indoor Air Quality Assessment	2
	1		Credit	Thermal Comfort	1
1	1		Credit	Interior Lighting	2
1	2		Credit	Daylight	3
	1		Credit	Quality Views	1
	1		Credit	Acoustic Performance	1

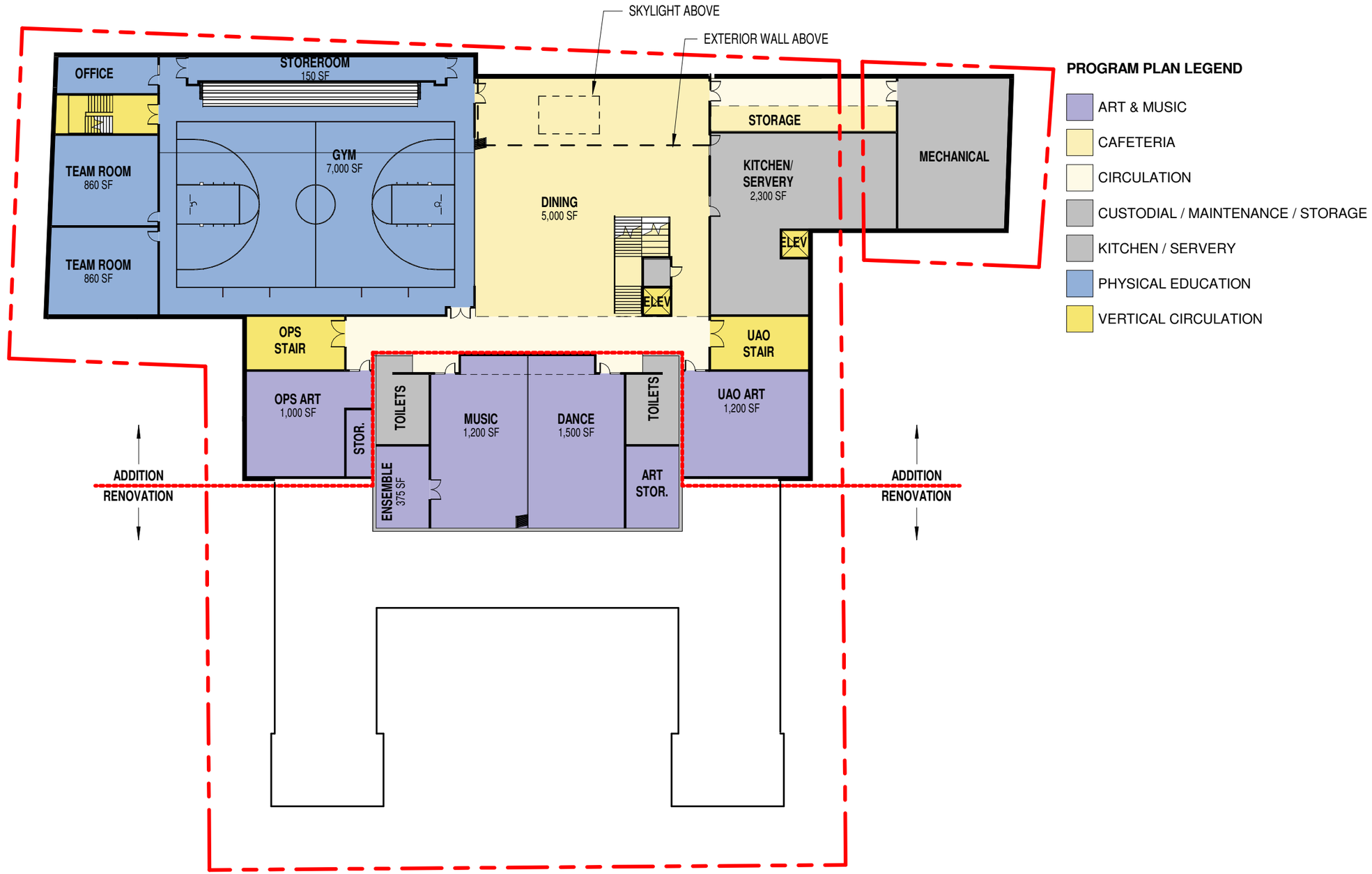
6	0	0	**Innovation**	**Preliminary**	6
5			Credit	Innovation: Low mercury lamps, Exemplary EPD/HPD, walkable site, fitness	5
1			Credit	LEED Accredited Professional	1

2	2	0	**Regional Priority**	**Preliminary**	4
	1		Credit	Regional Priority: Renewable energy (2 points min)	1
1			Credit	Regional Priority: Optimize energy performance (8 points min)	1
	1		Credit	Regional Priority: Rainwater management (2 points min)	1
1			Credit	Regional Priority:Building LCA (Tally)	1

51	34	#	**TOTALS**	Possible Points:	110

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

4.6 Floor Plans Alt 4a

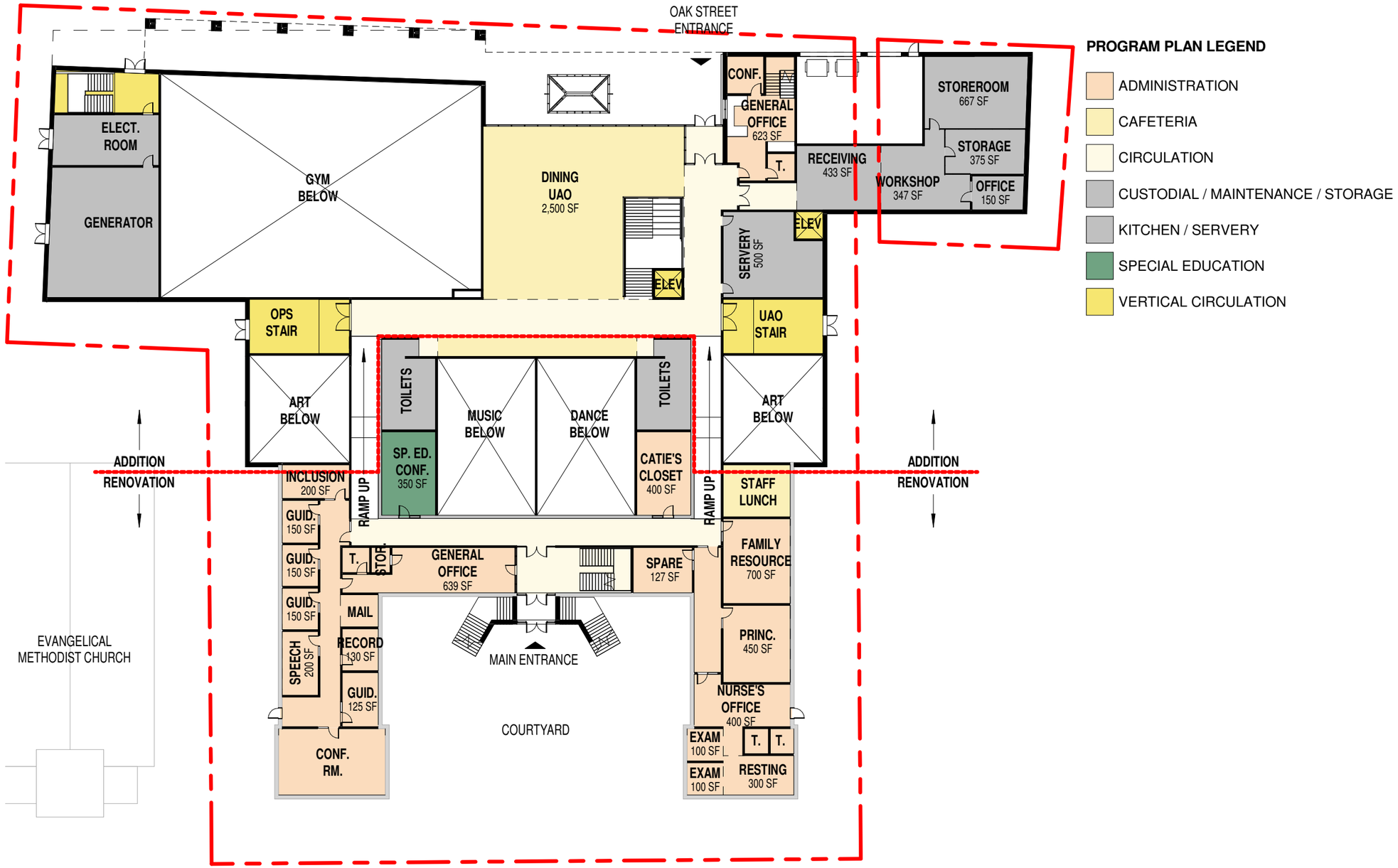


ALTERNATE 4a - ADD RENO - BASEMENT

1/32" = 1'-0"

OLIVER PARTNERSHIP SCHOOL

LAWRENCE PUBLIC SCHOOLS | SMMA



PROGRAM PLAN LEGEND

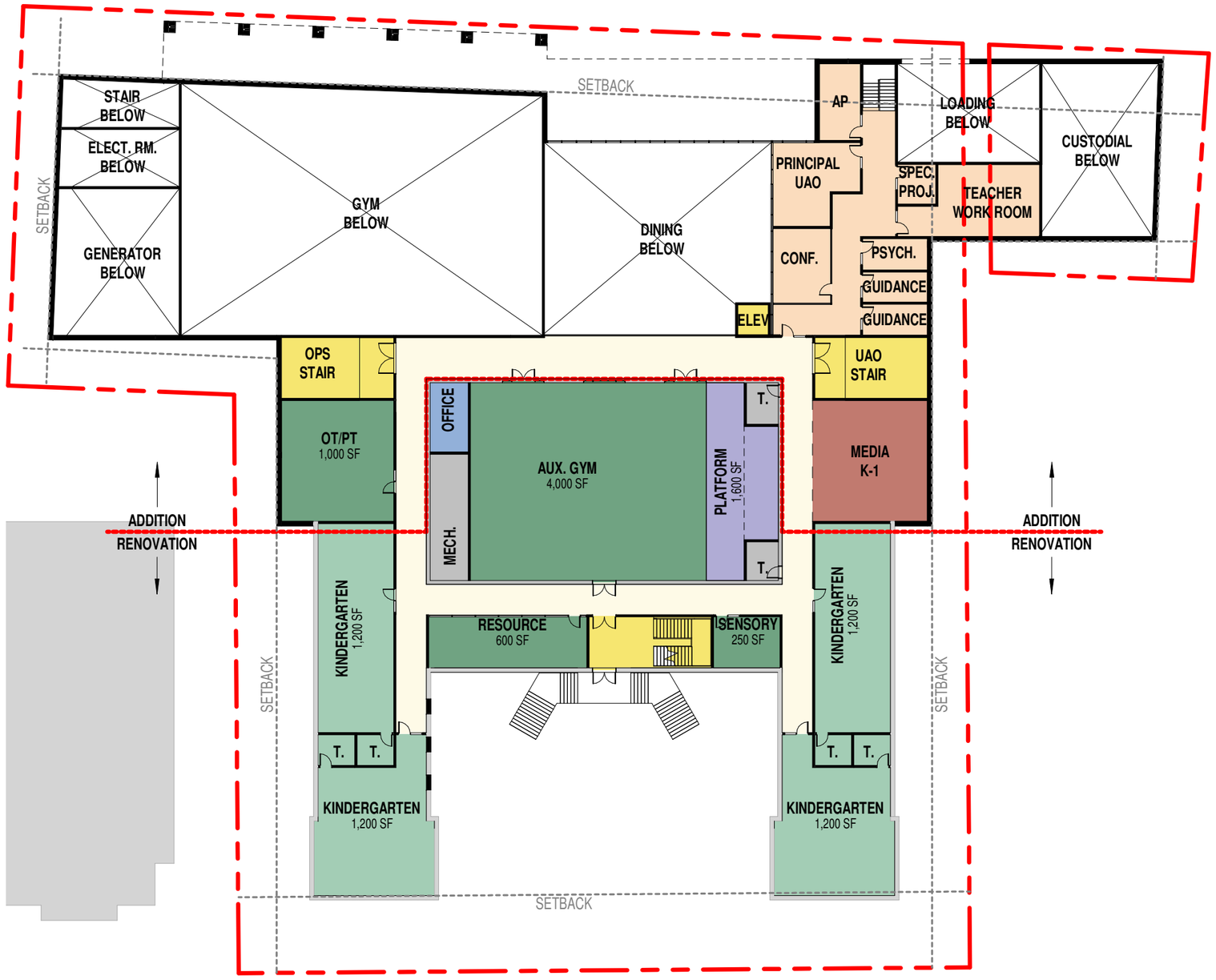
- ADMINISTRATION
- CAFETERIA
- CIRCULATION
- CUSTODIAL / MAINTENANCE / STORAGE
- KITCHEN / SERVERY
- SPECIAL EDUCATION
- VERTICAL CIRCULATION

ALTERNATE 4a - ADD RENO - GRADE

1/32" = 1'-0"

OLIVER PARTNERSHIP SCHOOL

LAWRENCE PUBLIC SCHOOLS | SMMA



PROGRAM PLAN LEGEND

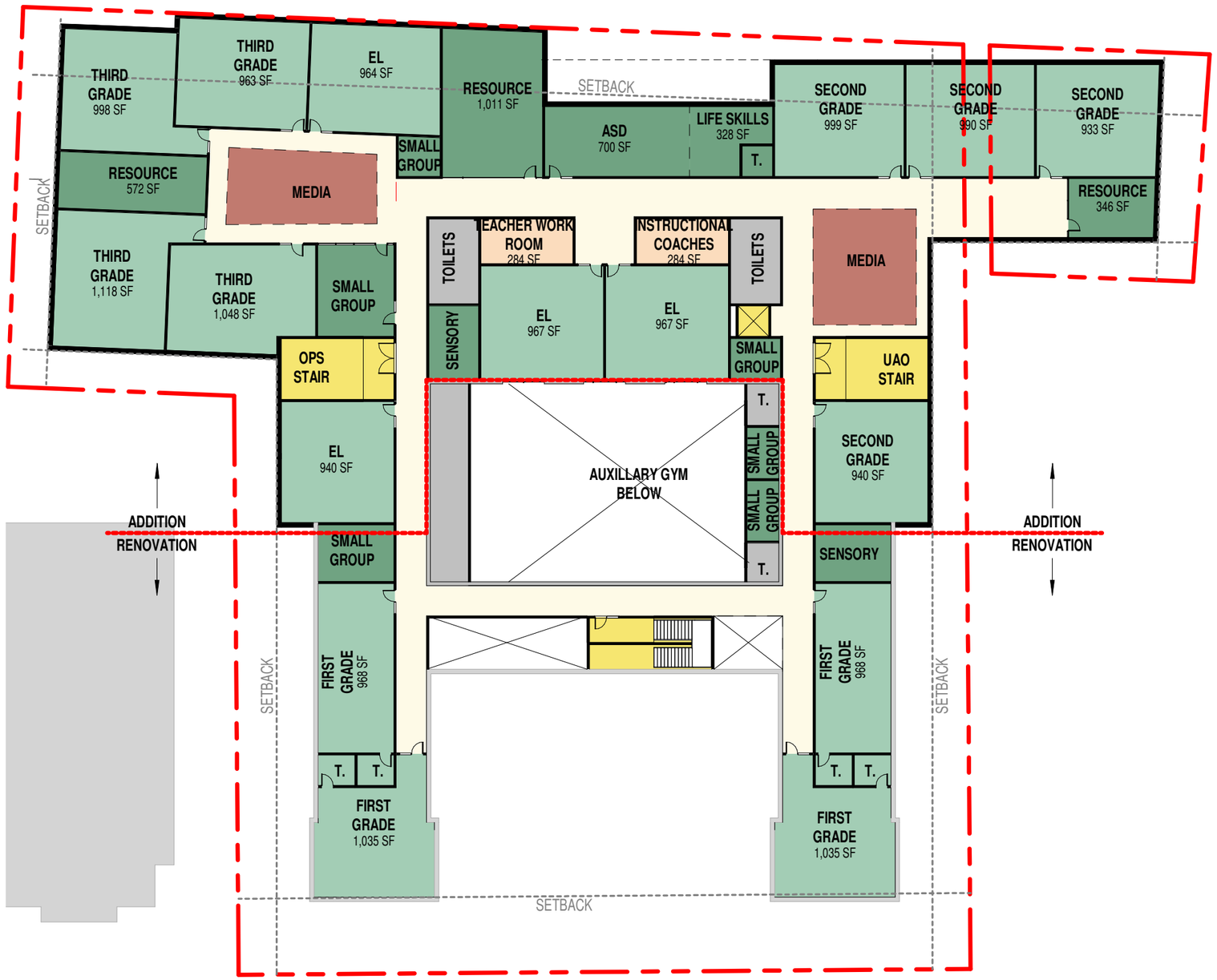
- ADMINISTRATION
- ART & MUSIC
- CIRCULATION
- CLASSROOM & GENERAL EDUCATION SUPPORT
- CUSTODIAL / MAINTENANCE / STORAGE
- MEDIA CENTER
- PHYSICAL EDUCATION
- SPECIAL EDUCATION
- VERTICAL CIRCULATION

ALTERNATE 4a - ADD RENO - FIRST FLOOR

1/32" = 1'-0"

OLIVER PARTNERSHIP SCHOOL

LAWRENCE PUBLIC SCHOOLS | SMMA



PROGRAM PLAN LEGEND

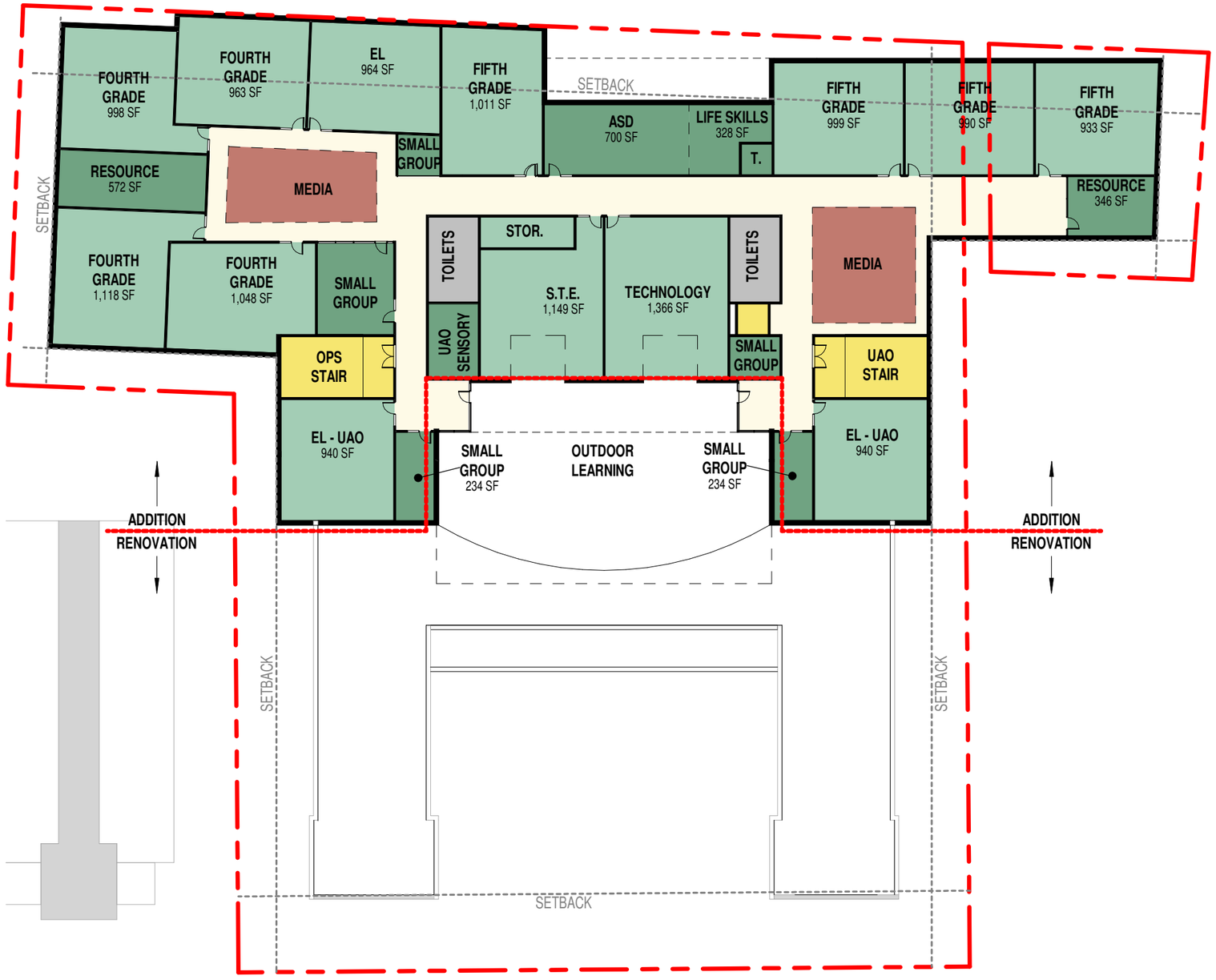
- ADMINISTRATION
- CIRCULATION
- CLASSROOM & GENERAL EDUCATION SUPPORT
- CUSTODIAL / MAINTENANCE / STORAGE
- MEDIA CENTER
- SPECIAL EDUCATION
- VERTICAL CIRCULATION

ALTERNATE 4a - ADD RENO - SECOND FLOOR

1/32" = 1'-0"

OLIVER PARTNERSHIP SCHOOL

LAWRENCE PUBLIC SCHOOLS | SMMA



PROGRAM PLAN LEGEND

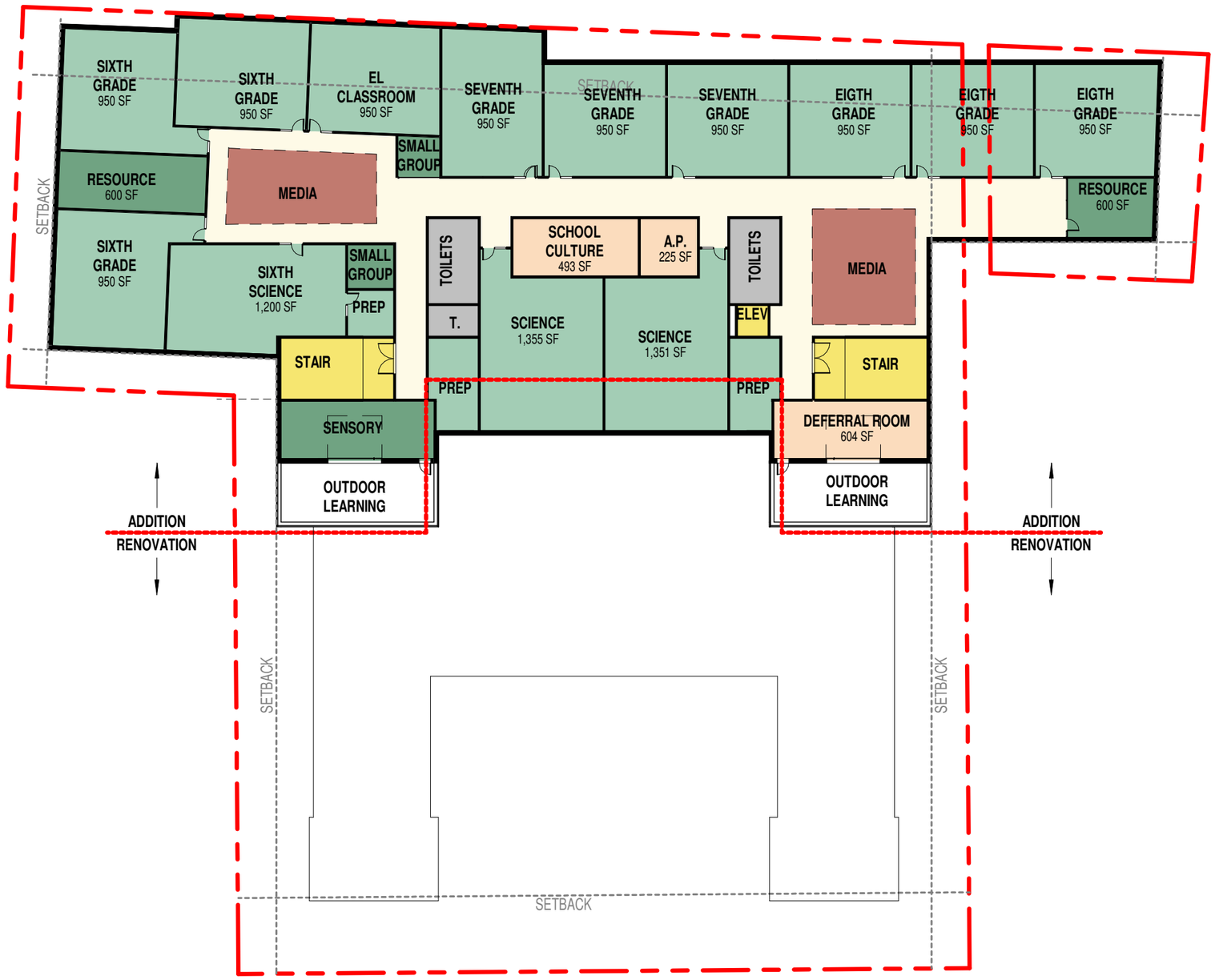
- CIRCULATION
- CLASSROOM & GENERAL EDUCATION SUPPORT
- CUSTODIAL / MAINTENANCE / STORAGE
- MEDIA CENTER
- SPECIAL EDUCATION
- VERTICAL CIRCULATION

ALTERNATE 4a - ADD RENO - THIRD FLOOR

1/32" = 1'-0"

OLIVER PARTNERSHIP SCHOOL

LAWRENCE PUBLIC SCHOOLS | SMMA



PROGRAM PLAN LEGEND

- ADMINISTRATION
- CIRCULATION
- CLASSROOM & GENERAL EDUCATION SUPPORT
- CUSTODIAL / MAINTENANCE / STORAGE
- MEDIA CENTER
- SPECIAL EDUCATION
- VERTICAL CIRCULATION

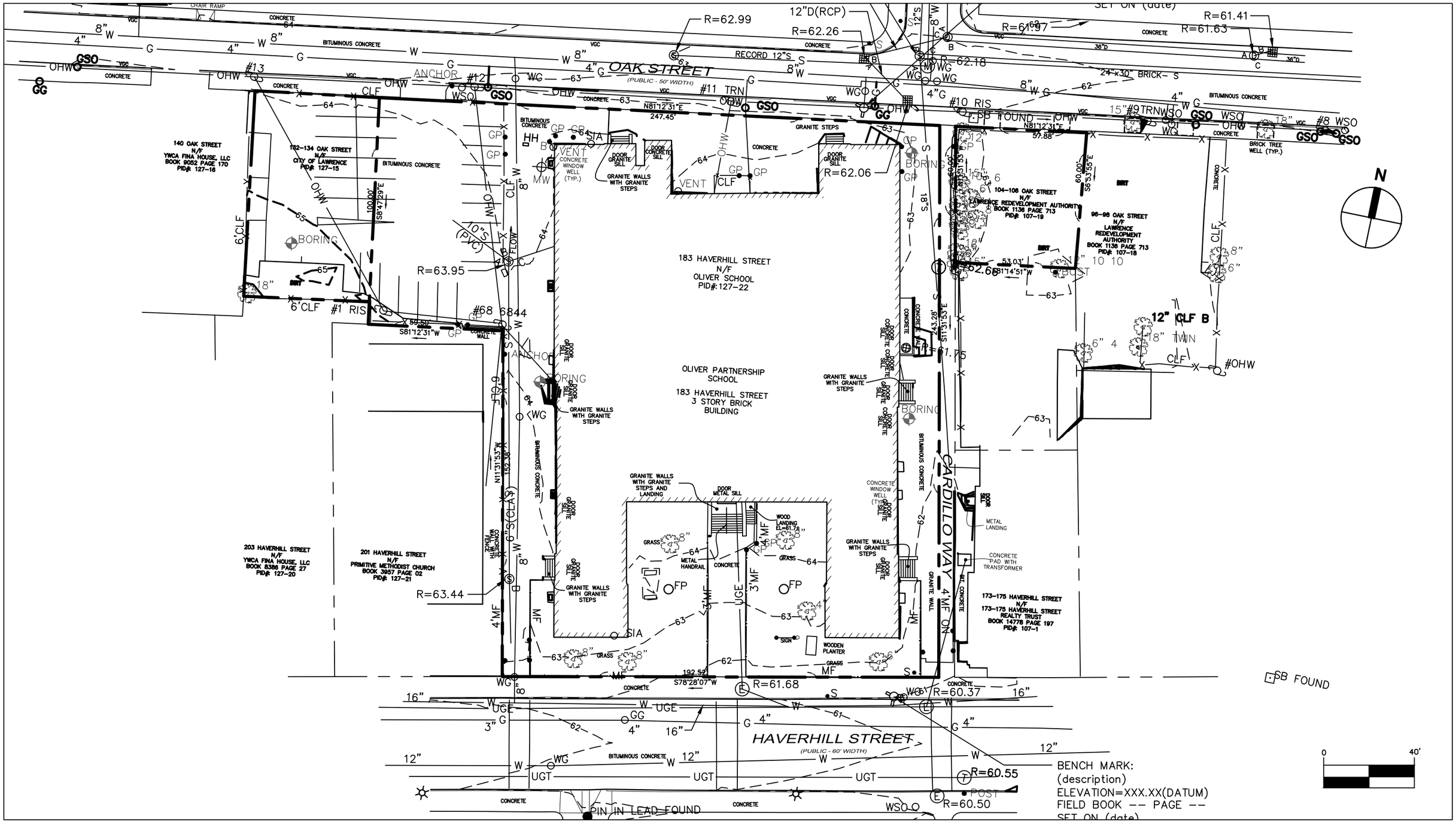
ALTERNATE 4a - ADD RENO - FOURTH FLOOR

1/32" = 1'-0"

OLIVER PARTNERSHIP SCHOOL

LAWRENCE PUBLIC SCHOOLS | SMMA

4.7 Site Plans Alt 4a



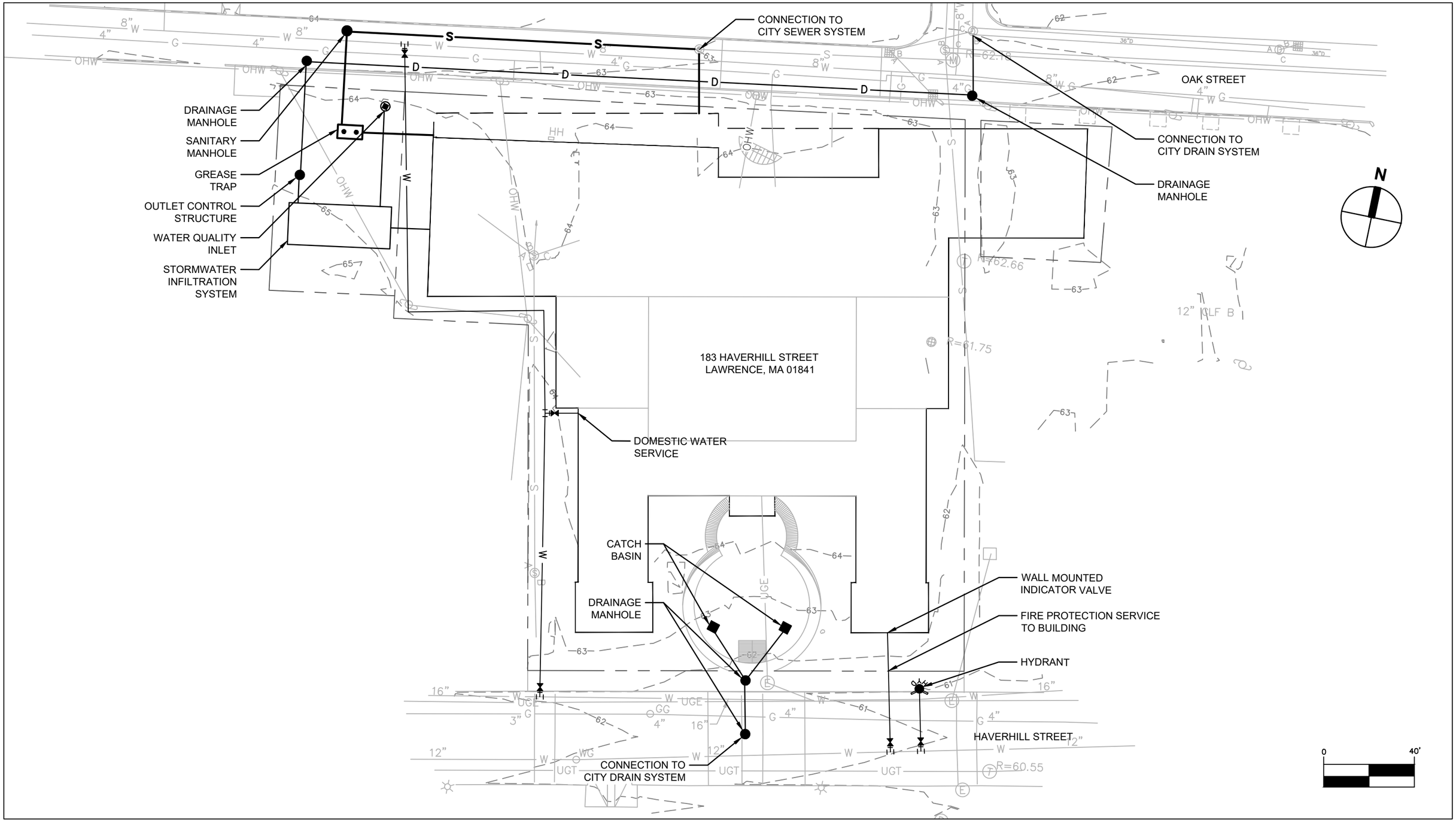
Alternative 4a

Existing Conditions Plan

Oliver Partnership School

183 Haverhill Street Lawrence, MA 01841

LAWRENCE PUBLIC SCHOOLS | SMMA



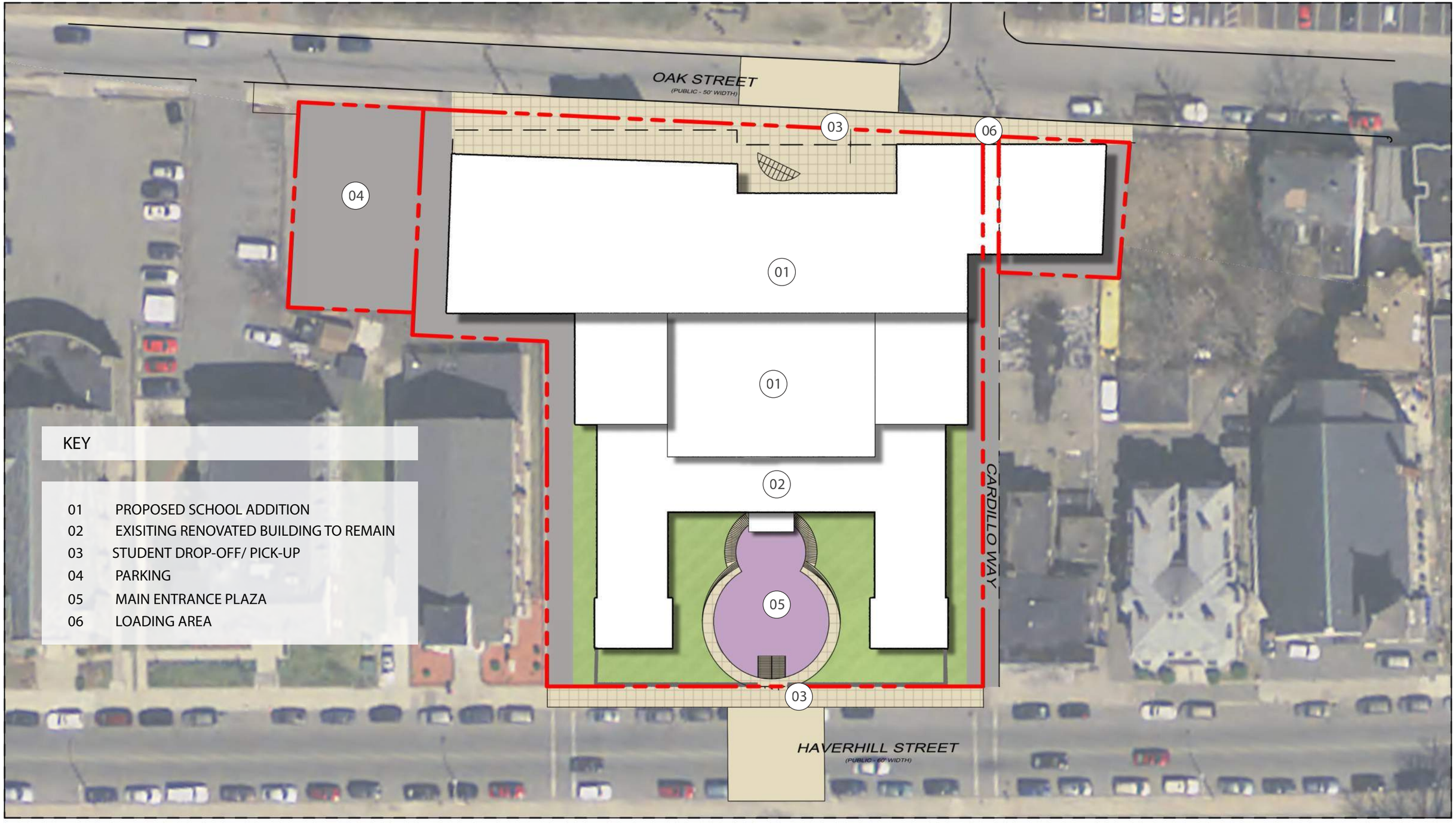
Alternative 4a

Grading and Utilities Plan

Oliver Partnership School

183 Haverhill Street Lawrence, MA 01841

LAWRENCE PUBLIC SCHOOLS | SMMA



KEY

01	PROPOSED SCHOOL ADDITION
02	EXISITING RENOVATED BUILDING TO REMAIN
03	STUDENT DROP-OFF/ PICK-UP
04	PARKING
05	MAIN ENTRANCE PLAZA
06	LOADING AREA

Alternative 4a
Site Plan

Oliver Partnership School
183 Haverhill Street Lawrence, MA 01841

LAWRENCE PUBLIC SCHOOLS | SMMA

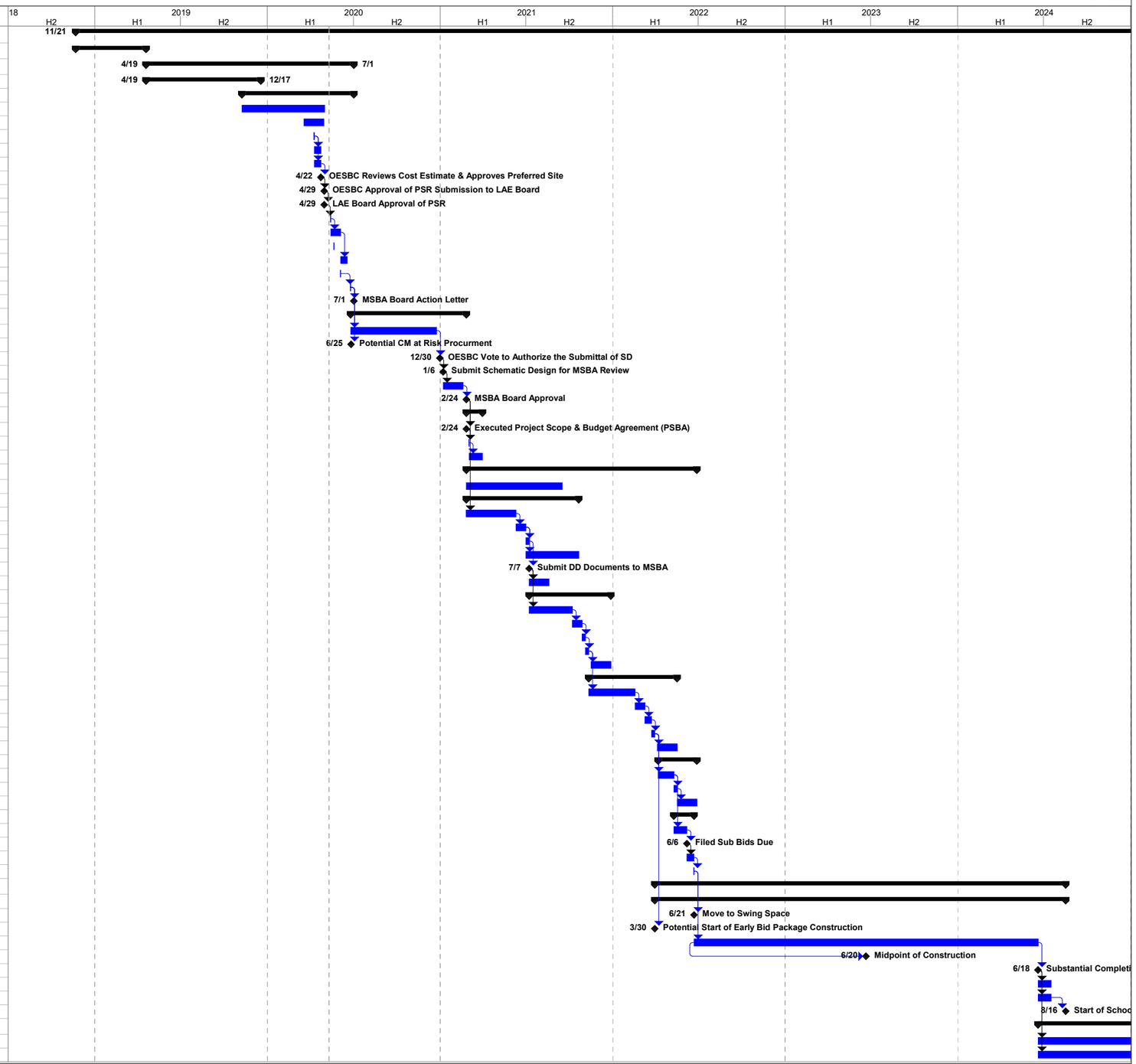
4.10 Project Schedule

Mon 5/11/20

Oliver Partnership School

PINCK & CO

ID	Task Name	Duration	Start	Finish	Predecessors
1	**Oliver Partnership School**	**339 wks**	**Wed 11/21/18**	**Tue 5/20/25**	
2	**Module 2: Designer Selection**	**21.4 wks**	**Wed 11/21/18**	**Fri 4/19/19**	
11	**Module 3: Feasibility Phase**	**62.8 wks**	**Fri 4/19/19**	**Wed 7/1/20**	
12	Preliminary Design Program (PDP)	34.6 wks	Fri 4/19/19	Tue 12/17/19	
18	Preferred Schematic Report (PSR)	33.8 wks	Fri 11/8/19	Wed 7/1/20	
19	Massachusetts Historical Commission: Submission & Review	25 wks	Fri 11/8/19	Thu 4/30/20	
20	Additional Site Investigations	6 wks	Wed 3/18/20	Tue 4/28/20	
21	OESBC Approves Updated Plan	1 day	Wed 4/8/20	Wed 4/8/20	
22	Revised Cost Estimates Draft & Reconciliation	2 wks	Thu 4/9/20	Wed 4/22/20	21
23	District to Update Ed Plan	2 wks	Thu 4/9/20	Wed 4/22/20	21
24	OESBC Reviews Cost Estimate & Approves Preferred Site	0 days	Wed 4/22/20	Wed 4/22/20	23
25	OESBC Approval of PSR Submission to LAE Board	0 days	Wed 4/29/20	Wed 4/29/20	24FS+5 days
26	LAE Board Approval of PSR	0 days	Wed 4/29/20	Wed 4/29/20	25
27	Submit PSR to MSBA	1 day	Wed 5/13/20	Wed 5/13/20	26FS+9 days
28	MSBA Review Period	15 days	Thu 5/14/20	Wed 6/3/20	27
30	Feasibility Assessment Subcommittee (FAS) Meeting #1	1 day	Wed 5/20/20	Wed 5/20/20	
29	District Respond to MSBA Comments	10 days	Thu 6/4/20	Wed 6/17/20	28
31	Feasibility Assessment Subcommittee (FAS) Meeting #2	1 day	Wed 6/3/20	Wed 6/3/20	
32	MSBA Board Approval to Proceed into Schematic Design	1 day	Wed 6/24/20	Wed 6/24/20	31FS+14 days
33	MSBA Board Action Letter	0 wks	Wed 7/1/20	Wed 7/1/20	32FS+5 days
34	**Module 4: Schematic Design (SD)**	**35 wks**	**Thu 6/25/20**	**Wed 2/24/21**	
35	Schematic Design Development	26 wks	Thu 6/25/20	Wed 12/23/20	32
36	Potential CM at Risk Procurment	0 days	Thu 6/25/20	Thu 6/25/20	32FS+1 day
37	OESBC Vote to Authorize the Submittal of SD	0 wks	Wed 12/30/20	Wed 12/30/20	35FS+5 days
38	Submit Schematic Design for MSBA Review	0 days	Wed 1/6/21	Wed 1/6/21	37FS+5 days
39	MSBA Review Period	30 days	Thu 1/7/21	Wed 2/17/21	38
40	MSBA Board Approval	0 wks	Wed 2/24/21	Wed 2/24/21	39FS+5 days
41	**Module 5: Funding the Project**	**4.8 wks**	**Wed 2/24/21**	**Tue 3/30/21**	
42	Executed Project Scope & Budget Agreement (PSBA)	0 wks	Wed 2/24/21	Wed 2/24/21	40
43	Tentative Local Approval (by City Council, 120 Days of MSBA Vote)	1 day	Tue 3/2/21	Tue 3/2/21	42FS+3 days
44	Execute Project Funding Agreement (PFA)	20 days	Wed 3/3/21	Tue 3/30/21	43
45	**Module 6: Detailed Design (DD - Bidding)**	**69.6 wks**	**Thu 2/25/21**	**Mon 6/27/22**	
59	Potential Release of Early Bid Packages	29 wks	Thu 2/25/21	Wed 9/15/21	
46	Design Development	34 wks	Thu 2/25/21	Wed 10/20/21	
47	Design Document Development	15 wks	Thu 2/25/21	Wed 6/9/21	40
48	DD Estimate & Reconciliation	3 wks	Thu 6/10/21	Wed 6/30/21	47
49	Value Engineer DD Documents	1 wk	Thu 7/1/21	Wed 7/7/21	48
52	Subcontractor Prequalification Process	16 wks	Thu 7/1/21	Wed 10/20/21	48
50	Submit DD Documents to MSBA	0 wks	Wed 7/7/21	Wed 7/7/21	49
51	MSBA Review of DD	30 days	Thu 7/8/21	Wed 8/18/21	50
53	60 % Construction Documents	24.6 wks	Thu 7/8/21	Mon 12/27/21	
54	60% Construction Document Development	13 wks	Thu 7/8/21	Wed 10/6/21	50
55	60% CD Estimate & Reconciliation	3 wks	Thu 10/7/21	Wed 10/27/21	54
56	Value Engineer 60% CD Documents	1 wk	Thu 10/28/21	Wed 11/3/21	55
57	Submit 60% CD to MSBA for Approval	1 wk	Thu 11/4/21	Wed 11/10/21	56
58	MSBA Review of 60% CDs	30 days	Tue 11/16/21	Mon 12/27/21	57FS+3 days
60	90% Construction Documents	26.6 wks	Thu 11/11/21	Mon 5/16/22	
61	90% Construction Documents Development	14 wks	Thu 11/11/21	Wed 2/16/22	57
62	90% Construction Documents Estimate & Reconciliation	3 wks	Thu 2/17/22	Wed 3/9/22	61
63	Value Engineer 90% CD Documents	2 wks	Thu 3/10/22	Wed 3/23/22	62
64	Submit 90% Construction Documents to MSBA for Review	1 wk	Thu 3/24/22	Wed 3/30/22	63
65	MSBA Review of 90% CDs	30 days	Tue 4/5/22	Mon 5/16/22	64FS+3 days
66	100% Construction Document Development	11.6 wks	Thu 4/7/22	Mon 6/27/22	
67	100% Construction Document Development	4.6 wks	Thu 4/7/22	Mon 5/9/22	64FS+5 days
68	Submit 100% Construction Documents to MSBA for Review	1 wk	Tue 5/10/22	Mon 5/16/22	67
69	MSBA Review of 100% CDs	30 days	Tue 5/17/22	Mon 6/27/22	68
70	Bidding & GMP	6.2 wks	Tue 5/10/22	Tue 6/21/22	
71	Advertisement	4 wks	Tue 5/10/22	Mon 6/6/22	67
72	Filed Sub Bids Due	0 wks	Mon 6/6/22	Mon 6/6/22	71
73	GMP Negotiation	2 wks	Tue 6/7/22	Mon 6/20/22	72
74	GMP Execution	1 day	Tue 6/21/22	Tue 6/21/22	73
75	**Module 7: Construction**	**124.4 wks**	**Wed 3/30/22**	**Fri 8/16/24**	
76	**Construction**	**124.4 wks**	**Wed 3/30/22**	**Fri 8/16/24**	
77	Move to Swing Space	0 wks	Tue 6/21/22	Tue 6/21/22	74
78	Potential Start of Early Bid Package Construction	0 wks	Wed 3/30/22	Wed 3/30/22	64
79	Construction	104 wks	Wed 6/22/22	Tue 6/18/24	74
80	Midpoint of Construction	0 wks	Tue 6/20/23	Tue 6/20/23	79SS+52 wks
81	Substantial Completion	0 wks	Tue 6/18/24	Tue 6/18/24	79
82	Move in	4 wks	Wed 6/19/24	Tue 7/16/24	81
83	Punch List	4 wks	Wed 6/19/24	Tue 7/16/24	81
84	Start of School Year in Completed Project	0 wks	Fri 8/16/24	Fri 8/16/24	83FS+23 days
85	**Module 8: Completion of the Project**	**48 wks**	**Wed 6/19/24**	**Tue 5/20/25**	
86	Commissioning Close Out	11 mons	Wed 6/19/24	Tue 4/22/25	81
87	MSBA Close Out	12 mons	Wed 6/19/24	Tue 5/20/25	81



Local Actions and Approvals

5.1 Local Action and Approval Certification

An executed copy of the Local Actions and Approvals certification is included in the 5.5 Attachments section of the electronic submission of this PSR. The original executed Local Actions and Approvals Certification is included with the hard copy submission of this PSR.

5.2 Grade Reconfiguration Certification

The preferred Option #4a K-8 1,000 student Addition/Renovation Project at the existing Oliver Partnership School site requires no redistricting or school reconfigurations. Kindergarten was originally part of Oliver Partnership School and was removed less than ten years ago due to capacity issues. A goal of the project is to allow for kindergarten to return to the configuration. Grades 6-8 remain a separate school, the UP Academy Oliver. The two schools would, under the plan, co-exist in the new building. Given current and proposed new locations, almost all students zoned for these schools would continue to be zoned for these schools. Remaining seats would be utilized by students of new residences anticipated to come online in the next one to three years.

When the district does consider redistricting, it is a process that involves careful investigation of past, current and predicted enrollment trends, including a review of current students' addresses and the impact on student assignments if rezoning of their addresses were to happen. Small shifts to school catchment areas happen occasionally and typically only impact new students, with existing students grandfathered into their assigned schools. Larger changes, including major grade reconfigurations are presented to the Lawrence Alliance for Education, the receiver board, for approval.

5.3 Certified School Building Committee Meeting Minutes

The certified minutes from the Tuesday April 28th, 2020 Oliver Partnership School Building Committee Meeting and the minutes from the Wednesday April 29th, 2020 Lawrence Alliance for Education Board Meeting are attached. Submission of this PSR was voted on and approved at both of these identified Public Meetings.

5.4 Public meeting dates, Agendas and Content

Throughout this process, the Oliver Elementary School Building Committee (OESBC) has endeavored to maintain a public, transparent and open process. The OESBC has attempted to reach out to the community in as many different avenues as possible to gain input and feedback - through open public forums during the visioning process, attendance at City and District (Mobile Market, Tu Voz) events, OESBC meetings which are advertised and open to the public, and the Project's website: https://www.lawrence.k12.ma.us/index.php/oliver-school-building-project.

A log of the School Building Committee's meetings and minutes issued since submission of the Preliminary Design Report to present is attached. All meeting minutes and presentations of those meetings are available for public review at Lawrence Public Schools Central Office, 237 Essex Street, Lawrence, MA. Attached to Section 5 is a log listing all OESBC meetings as well as other Public Meetings at which this project was on the agenda since submission of the Preliminary Design Report to date.

The minutes from the Oliver Partnership School Building Committee Meetings, as well as minutes from Lawrence Alliance for Education Board Meetings at which Oliver project updates were on the agenda, are included in the electronic version of the PSR.

5.5 Attachments

- 5.1 Local Actions and Approvals Certification
- 5.3 Certified minutes from April 28, 2020 Oliver Elementary School Building Committee Meeting and minutes from April 29th, 2020 Lawrence Alliance for Education Board Meeting
- 5.4 Log of School Building Committee meetings and minutes

5.1 Local Actions & Approvals Certification

LAWRENCE
PUBLIC SCHOOLS

Lawrence Public Schools • P.O. Box 1498 • Lawrence, MA 01842

May 6, 2020

Ms. Mary Pichetti
Director of Capital Planning
40 Broad Street
Boston, Massachusetts 02109

Dear Ms. Pichetti:

The City of Lawrence School Building Committee ("SBC") has completed its review of the Preferred Schematic Report for the Oliver Partnership Elementary school project (the "Project"), and on April 29, 2020, the SBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A certified copy of the SBC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed, and abstained, are attached.

Since the submission of the Preliminary Design Program on November 7, 2019, the SBC has held twenty-one (21) meetings regarding the proposed project, in compliance with the state Open Meeting Law. See attached spreadsheet of SBC meetings held to discuss and/or present the public material related to the Project.

In addition to the SBC meetings listed above, the District held four (4) public meetings since the submission of the Preliminary Design Program on November 7, 2019 at which the Project was discussed. These meetings were posted in compliance with the state Open Meeting Law. See attached spreadsheet of public meetings at which the project was discussed.

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review at Lawrence Public Schools Central Office, 237 Essex Street, Lawrence, MA 01841.

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact:

Anne Marie Stronach, Chief Operating Officer
Lawrence Public Schools
Lawrence School Department Central Office
237 Essex Street, Lawrence, MA 01840
978-975-5905 ext. 25630

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By: Daniel Rivera

Title: Chief Executive Officer

Date: May 11, 2020

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By: Cynthia Paris

Title: Superintendent of Schools

Date: May 8, 2020

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.

By: Daniel Rivera

Title: Chair of the School Committee

Date: May 11, 2020

5.3 Local Actions & Approvals Meetings Logs

Henry K. Oliver School, Lawrence, MA
Local Actions Approvals
SBC Meeting Log

When / Where was Meeting		Summary of Concerns & Comments Presented	List of Materials Discussed / Available to Public	List of Votes & Results	When / Where Notice was Posted
Elementary School Building Committee: Site Subcommittee Wednesday, November 20, 2019, 4:05 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Alternative Sites, PSR, City Council Meeting, Schedule	Meeting minutes, no attachments.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center November 18, 2019
Elementary School Building Committee Wednesday, November 20, 2019, 5:00 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Space Summaries, Programming, PSR, Total Project Budget	Project Schedule and Project budget.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center November 18, 2019
Elementary School Building Committee Wednesday, December 4, 2019, 5:00 PM North Common Educational Complex	Designer (SMMA) OPM (Pinck & Co.)	MSBA Comments on PDP, PSR, Community Engagement, LAE Board Meeting, City Council Meeting, Educational Program, Schedule	PDP / PSR Summary with Options, Cost, & Milestones.	MOTION: Kelsey LeBuffe made a motion to approve postponing the MSBA Preferred Schematic Report submission from January 2, 2020 to February 13, 2020 as presented; seconded by Superintendent Cynthia Paris. No discussion. Motion carried unanimously.	City of Lawrence Website Public Meeting Notices Document Center November 26, 2019
Elementary School Building Committee Wednesday, December 11, 2019, 2:30 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Educational Program	No attachments.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center December 4, 2019
Elementary School Building Committee Wednesday, December 18, 2019, 5:00 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	MSBA Comments on PDP, PSR, Community Engagement, LAE Board Meeting, City Council Meeting, LEED	Project Budget and PSR Milestone Schedule.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center November 18, 2019
Elementary School Building Committee Monday, January 6, 2020, 3:30 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	PSR, LAE Board Meeting, Community Engagement	Meeting minutes, no attachments.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center December 20, 2019
Elementary School Building Committee: Site Subcommittee Wednesday, January 8, 2020, 4:05 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Alternative Site Updates, Community Outreach, PSR	Meeting minutes, no attachments.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center January 3, 2020
Elementary School Building Committee Wednesday, January 22, 2020, 5:00 PM City Hall	Designer (SMMA) OPM (Pinck & Co.)	PSR, Acquisition Plan, Community Engagement	Project Schedule and Project budget.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center January 3, 2020
Elementary School Building Committee: Site Subcommittee Wednesday, January 29, 2020, 4:00 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Alternative Site Updates, PSR	Meeting minutes, no attachments.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center January 24, 2020

When / Where was Meeting		Summary of Concerns & Comments Presented	List of Materials Discussed / Available to Public	List of Votes & Results	When / Where Notice was Posted
Elementary School Building Committee Wednesday, January 29, 2020, 5:00 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Preferred Alternatives, Cost Estimates, PSR	Meeting minutes, no attachments.	MOTION: Mayor Daniel Rivera made a motion to select the Option #4, OPS Building, Additon/Renovation, 736 students as the preferred alternate; seconded by Anne Marie. Discussion was held. The motion did not carry. MOTION: Anne Marie Stronach made a motion to select Option #5, Stone Mill Building, Addition/Renovation, students as the preferred alternate; seconded by Cynthia Paris. Discussion was held. The motion carried. MOTION: Anne Marie Stronach made a motion to move the Preferred Schematic Report submission to LAE Board vote on the 2/12/20 meeting; seconded by Cynthia Paris. No discussion. The motion carried unanimously.	City of Lawrence Website Public Meeting Notices Document Center January 24, 2020
Elementary School Building Committee Wednesday, February 12, 2020, 5:00 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Review and vote of Preferred Schematic Report submission	Project Schedule and Project budget.	MOTION: Mayor Daniel Rivera made a motion to select the Option #4, OPS Building, Addition/Renovation, 736 students as the preferred alternate; seconded by Rich Dokos. Discussion was held. The motion did not carry. MOTION: Superintendent Paris made a motion to proceed with additional analysis and investigation at the Oliver Site required for consideration of Option #4, OPS Building, Addition / Renovation, 736 students as the preferred alternate; seconded by Kelsey LeBuffe. No discussion. The motion carried.	City of Lawrence Website Public Meeting Notices Document Center February 3, 2020
Elementary School Building Committee **Site Subcommittee** Wednesday, February 19, 2020, 4:05 PM LPS Central Office	Designer (SMMA) OPM (Pinck & Co.)	Meeting Minutes Pending.	Meeting Minutes Pending.	Meeting Minutes Pending.	City of Lawrence Website Public Meeting Notices Document Center February 19, 2020
Elementary School Building Committee **Design Subcommittee** Monday, March 23, 2020, 2:00 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	PSR Updates, Option #4a (OPS, K-12, 1000 students), Educational Program, Schedule	SMMA Presentation.	MOTION: Anne Marie Stronach made a motion that this Design, Outreach & Programming Subcommittee recommend to the OESBC to move forward with revising the PSR submission to include an OPS Addition/Renovation Option at the current Oliver site for +/-1,000 students (referred to in these minutes as Option #4a); the motion was seconded by Kelsey LeBuffe. No additional discussion. The motion carried unanimously. MOTION: Anne Marie Stronach made a motion that in the event the OESBC does not support an OPS Addition/Renovation Option at the current Oliver site for +/-1,000 students (referred to in these minutes as Option #4a), that this Design, Outreach & Programming Subcommittee recommends to the OESBC that the project team continue exploration and required edits the Educational Program for the Option #4 Oliver Addition/Renovation Option for 736 student; the motion was seconded by Masiel Jordan. No additional discussion. The motion carried unanimously.	City of Lawrence Website Public Meeting Notices Document Center March 18, 2020

Henry K. Oliver School, Lawrence, MA
Local Actions Approvals
SBC Meeting Log

When / Where was Meeting		Summary of Concerns & Comments Presented	List of Materials Discussed / Available to Public	List of Votes & Results	When / Where Notice was Posted
Elementary School Building Committee Monday, March 23, 2020, 3:30 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	Alternative Site Updates, Vote to proceed with additional analysis and investigation at existing Oliver Site	Project Schedule, Project Budget, and SMMA Presentation.	MOTION: Anne Marie Stronach made a motion to approve SMMA's Contract Amendment #3 for additional site investigation at the Oliver Partnership School and SMMA services for revised PSR in the amount of $144,000; the motion was seconded by Milagros Puello. No additional discussion. The motion carried unanimously. MOTION: Anne Marie Stronach made a motion to approve Pinck & Co.'s Contract Amendment #1 for (1) Extension of Feasibility Study / Schematic Design Phase and (2) Feasibility Study / Schematic Design Phase cost estimating services in the amount of $99,000 added to the total fee cap for OPM services and paid on an hourly basis; the motion was seconded by Kelsey LeBuffe. No additional discussion. The motion carried unanimously.	City of Lawrence Website Public Meeting Notices Document Center March 18, 2020
Elementary School Building Committee **Design Subcommittee** Tuesday, March 31, 2020, 2:00 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	PSR Updates, Educational Program, Schedule, Communication with MSBA, Historic, Zoning	SMMA Presentation.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center March 27, 2020
Elementary School Building Committee Tuesday, March 31, 2020, 3:00 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	PSR Updates, Educational Program, Site Investigations, Schedule, Communication with MSBA, Historic, Zoning	SMMA Presentation.	Motion: Mayor Daniel Rivera made a motion to include the new Oliver Addition/Revovation 1,000 students K-8 option in PSR; seconded by Kelsey LeBuffe. No discussion. The motion carried unanimously.	City of Lawrence Website Public Meeting Notices Document Center March 27, 2020
Elementary School Building Committee **Design Subcommittee** Tuesday, April 7, 2020, 3:30 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	PSR Updates, Programming, Plans, Space Summary, Educational Program, Schedule Communication with MSBA	SMMA Presentation.	None at this time.	City of Lawrence Website Public Meeting Notices Document Center April 3, 2020
Elementary School Building Committee **Design Subcommittee** Tuesday, April 14, 2020, 2:00 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	Meeting Minutes Pending.	Meeting Minutes Pending.	Meeting Minutes Pending.	City of Lawrence Website Public Meeting Notices Document Center April 9, 2020
Elementary School Building Committee **Design Subcommittee** Tuesday, April 28, 2020, 2:00 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	Meeting Minutes Pending.	Meeting Minutes Pending.	Meeting Minutes Pending.	City of Lawrence Website Public Meeting Notices Document Center April 21, 2020

Henry K. Oliver School, Lawrence, MA
Local Actions Approvals
SBC Meeting Log

When / Where was Meeting		Summary of Concerns & Comments Presented	List of Materials Discussed / Available to Public	List of Votes & Results	When / Where Notice was Posted
Elementary School Building Committee Tuesday, April 28, 2020, 3:00 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	PSR, Cost Estimates, LAE Board Meeting, Votes on Preferred Alternative and PSR submission.	Project Schedule and Project budget.	MOTION: Anne Marie Stronach made a motion to approve PSR Option #4a, the Oliver Partnership School Addition / Renovation 1,000 students K-8 option, as the Preferred Site Alternative. The motion was seconded by Richard Dokos. No additional discussion. No discussion. A roll call was held, all present Committee Members voted aye, and the motion carried unanimously. MOTION: Richard Dokos made a motion to approve Mayor Daniel Rivera and Anne Marie Stronach to have final approval of the final completed Preferred Schematic Report Submission document. The motion was seconded by Masiel Jordan. Anne Marie Stronach commented that there is still work to be done on getting the draft PSR in final form for submission, however there will be no substantive revisions. There was no additional discussion. A roll call was held, all present Committee Members voted aye, and the motion carried unanimously. MOTION: Anne Marie Stronach made a motion to allow the Owner's Project Manager, Pinck & Co., Inc., to submit the Preferred Schematic Report to the Massachusetts School Building Authority by the 5/13/2020 deadline. The motion was seconded by Katherine Maloney. No discussion. A roll call was held, all present Committee Members voted aye, and the motion carried unanimously.	City of Lawrence Website Public Meeting Notices Document Center April 21, 2020
Elementary School Building Committee Tuesday, May 5, 2020, 3:00 PM Video Conference	Designer (SMMA) OPM (Pinck & Co.)	PSR, LAE Board Meeting	Meeting minutes, no attachments.	MOTION: Richard Dokos made a motion to approve the minutes from the 4/28/2020 OESBC meeting; the motion was seconded by Masiel Jordan. No discussion. A roll call was held, all present Committee Members voted aye. The motion carried unanimously.	City of Lawrence Website Public Meeting Notices Document Center April 21, 2020

* The Design Subcommittee has not convened since the 04/28/2020 meeting, therefore the meeting minutes have not yet been certified
** The Site Subcommittee has not convened since the 02/19/2020 meeting, therefore the meeting minutes have not yet been certified
*** The OESBC has not convened since the 05/05/2020 meeting, therefore the meeting minutes have not yet been certified