

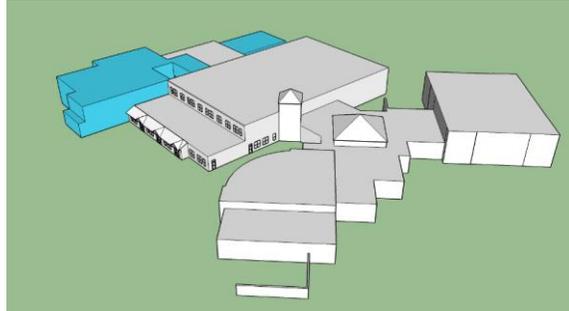
THE DAVIS SCHOOL BUILDING PROJECT

Jon Sills, Superintendent
September 18, 2017

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THE DAVIS SCHOOL BUILDING PROJECT



EXPLANATION OF NEED

The need for additional space at Davis School is driven by enrollment increases, projected to continue into the foreseeable future, and program needs that have evolved over time.

Enrollment

The significant jump in kindergarten enrollment that began in school year 2013 when kindergarten grew from 158 (2012) to 202 (2013). Adjusting with a slight dip, the significantly higher numbers have been sustained the succeeding years, meeting or surpassing our projections:

BPS: STUDENT ENROLLMENT: 1999 - Present (Excluding Pre-School)							
Year	NESDEC 1		NESDEC 2		Actual		Kind
	Davis	Total	Davis	Total	Davis	Total	
10/1/2009	506	2400			506	2400	187
10/1/2010	496	2422			486	2371	148
10/1/2011	513	2449			513	2424	157
10/1/2012	505	2495	513	2424	492	2487	158
10/1/2013	532	2515	491	2480	542	2507	202
10/1/2014	522	2515	542	2505	567	2494	186
10/1/2015	480	2502	567	2490	587	2510	190
10/1/2016	468	2508	604	2509	598	2579	192
9/5/2017	476	2497	595	2527	597	2622	197

and our **Space Needs Task Force Davis Update** (*see Appendix A*) projects a continuation of this new enrollment level plus an additional 17 or 18 students for Davis School. We see this as a conservative estimate. This year, our kindergarten enrolled 8 more students than expected, and JGMS enrolled 12 more. The unexpected growth over the past two years at JGMS suggests that families are moving into Bedford not only at the beginning of their students' formal schooling but at various other points as well. (*See Table 1 below*). We accommodated these new needs by installing two modular classrooms, and then, instead of a third (for a tenth kindergarten class), we chose a temporary less costly solution of hiring a tenth teacher to serve as an interventionist.

	FY 18 Budget Projection	As of September 5, 2017
Kindergarten	189	197
Davis	598	597
Lane	603	608
JGMS	582	594
BHS	826	823
Subtotal	2609	2622
Pre-school	48	48
Total	2657	2670

Enrollment related space needs:

Minimal

- Two classrooms to replace the modular classrooms
- The tenth kindergarten class
- One additional general classroom (highly likely)

Prudent enrollment space need projection

- A second additional general classroom (10, 10, 10 like Lane)
- A combined art/music classroom triggered by 10, 10, 10

Program

The educational program at Davis School has expanded during the past twenty years to include components that did not previously exist: e.g., in-house special education programs, English Language Learner programs, additional specialists, etc. Drop off and pick up constraints imposed by the present site configuration results in 20 minutes of lost learning time every day, as students need to be brought to the gymnasium at dismissal and reshuffled into bus groups. The cafeteria is overcrowded even with four lunches and entrance and egress are limited to the same door.

The CASE classroom at Davis, originally in a small room, pushed music out of its room. Then the need for a ninth kindergarten class displaced the music program again, which has since had to make do in an oddly shaped and undersized room that was originally designed as the orange pod, eliminating a pod space for those classrooms. So we need an actual music room both to solve the music issue and the pod issue. (internal)

Program Needs

- The SAIL program needs an expanded space (internal)
- Expanded OT/PT space (SAIL and pre-school) (internal)
- A properly sized, shaped and acoustically sound music room
- Expanded cafeteria- present tight squeeze, four sittings, must use same door for entry and exit
- Reconfigured parking and bus/parent pick-up and drop-off- will gain 20 minutes of teaching and learning time per day- additional parking spaces as well
- Office, conference and storage space (internal and new)

DUE DILIGENCE

Once the feasibility study gave us a clear picture of Davis's needs and yielded a minimalist and a prudent option, we began to explore whether there might be efficiencies and fiscal savings, as well as programmatic value, in enlarging the scope of the Davis project to include moving the

Davis Minimal: 2 classrooms to replace modular, 1 kindergarten (10), 1 music room, 1 (SAIL an existing room expanded), 1 additional (first or second grade) (plus café expansion, drop off/pickup reconfiguration, OT, office, conference and storage)

Davis Prudent: 2 classrooms to replace modular, 1 kindergarten (10), 1 music room, 1 (SAIL an existing room expanded), 1 additional (first or second grade) plus 1 additional (10, 10, 10) plus 1 art/music room (plus café expansion, drop off/pickup reconfiguration, OT, office, conference and storage)

pre-school from BHS, thereby opening up needed space there, and possibly by moving the central offices from JGMS to BHS, thereby minimizing the need to construct additional square footage at JGMS.

MSBA: We have applied for two years in a row to the Massachusetts School Building Authority for state funding, but we have been denied. With approximately 100 annual applications and only approximately 15 approvals, many of which have been in queue for 10 years awaiting funding for an entirely new building, our projects are highly unlikely to receive MSBA assistance.

To do this, we first had to more clearly identify the projected space needs at both JGMS and BHS, which we did (see below), and then we engaged the architects in what ended up being approximately 15 different scenarios- three initially just for Davis, then two different “three separate project” scenarios, then multiple scenarios involving the moving of the pre-school, CASE collaborative and/or the central offices. (see Appendix F for examples)

JGMS

JGMS 4.5 rooms- 1.5 SAIL/OT, 1 Art/Health, 1 FL, 1 Teachers, Solve Orchestra through FTE and keep Learning Strategies in LGI - solving the orchestra/learning strategies space conflict by adding staff

JGMS 6.5- 1.5 SAIL/OT, 1 Art/Health, 1 FL, 1 Teachers, 2 Learning Strategies (Orchestra/Band/LGI)- solving the orchestra/learning strategies space conflict by adding rooms

BHS

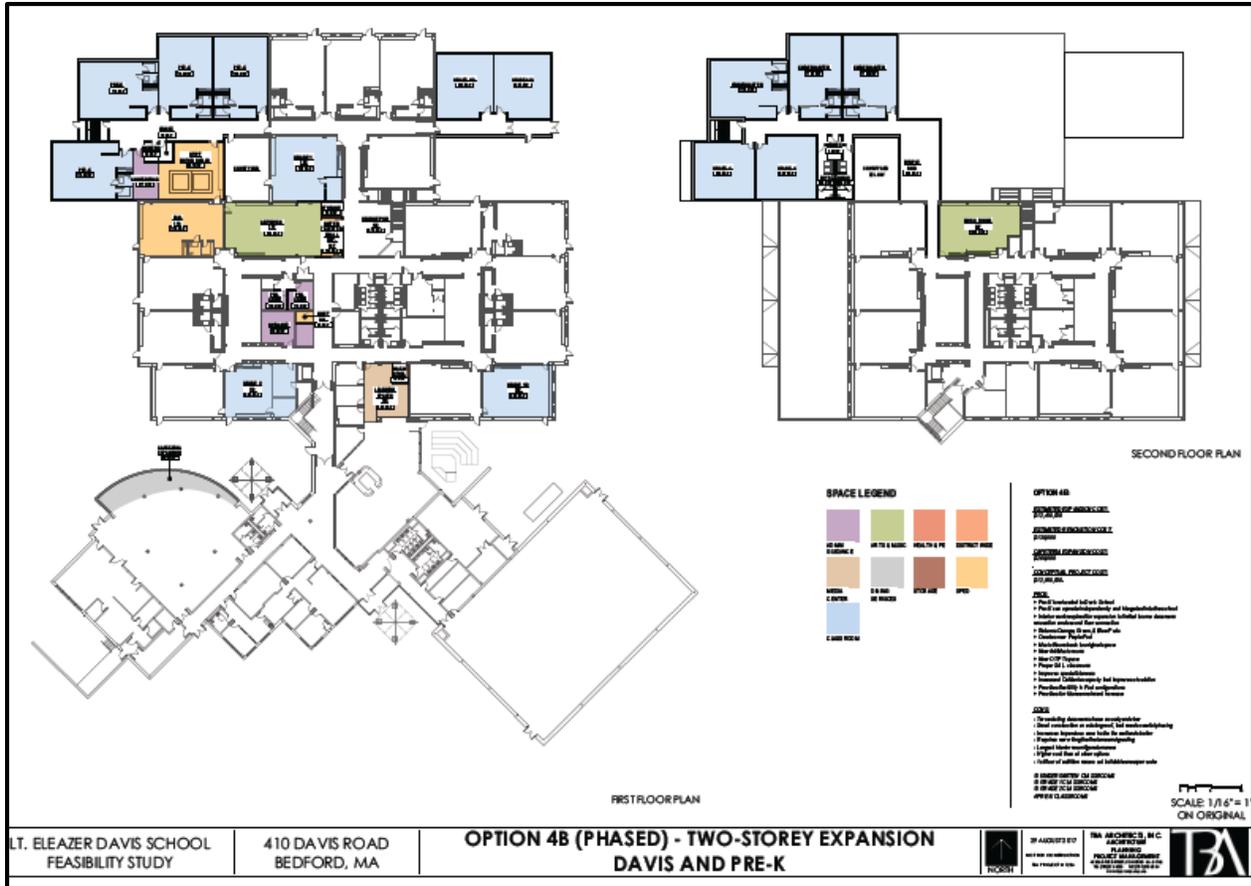
BHS Minimal- 1.5 SAIL, 1 Famco, .5 LC, .5 ELL, .5 Offices

BHS Optimal- 1.5 SAIL, 1 Famco, .5 LC, .5 ELL, .5 Offices, plus 1 Transitions/Life Skills, plus 1 large Dir Study for Subs

SELECTED CONCEPTUAL 3-SCHOOL SCENARIO AND DAVIS 4B OPTION

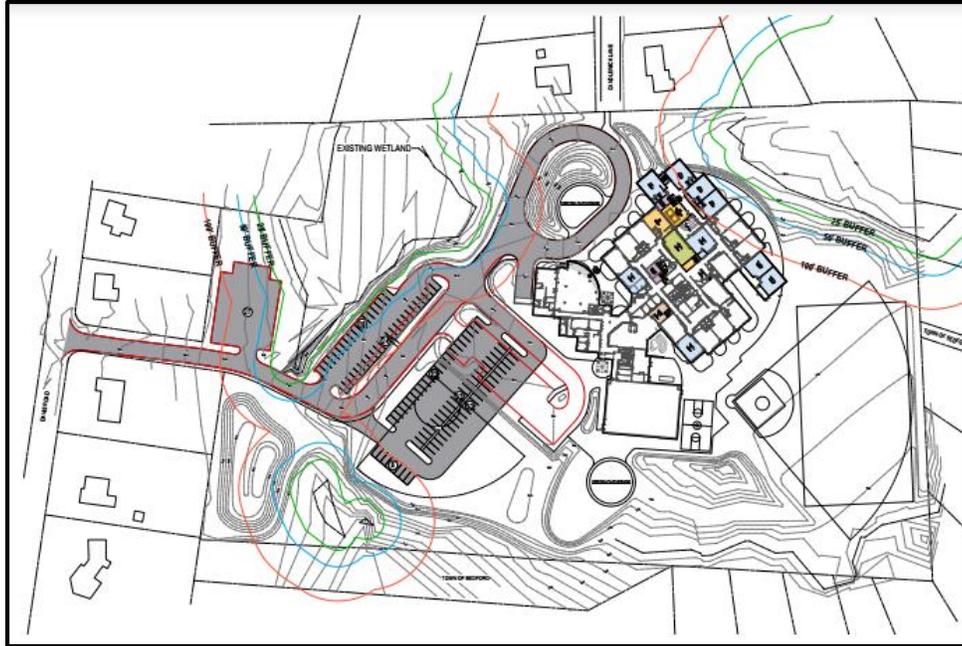
The Davis School Building Committee (see Appendix B for membership) and the School Committee have selected Scenario 3/Option 4B, endorsing the conceptual plan for JGMS and BHS and formally voting the specific (Phased 4B) plan for Davis. This includes:

1. **DAVIS SCHOOL:** A \$12.265 million Davis option that includes moving the four pre-school classrooms from BHS to Davis and constructing a two story, 10 room addition (northwest corner) in the first phase, and then replacing the modular with two classrooms in the northeast corner with a single story two-classroom addition.



This includes 4 pre-school classrooms, and expanded OT/PT space and a small conference room on the first floor of the new addition, and five classrooms on the second floor. The existing footprint would include a renovated space to create an adequate music room on the second floor and an expanded SAIL classroom and combined music/art room on the first.

This first phase would include the cafeteria expansion and parking/expanded bus capacity site renovation, and upon its completion, the pre-school would move to Davis and the new space would be occupied. The reorientation of the parking and extended bus line-up will enable all 14 buses to line up at one time, gaining 100 minutes per week of instruction time. Finally, the two additional regular classrooms would be added as a single story to replace the modular classrooms in the second phase.



To recap, then, the 4B Davis option includes:

- 1 kindergarten classroom
- 2 classrooms to replace the modular classrooms
- 1 first grade classroom (margin of error)
- 1 second grade classroom (margin of error)
- 1 combined art/music room
- 1 music room (internal)
- 1 expanded SAIL room (internal)
- 4 Integrated Pre-school rooms
- Expanded OT/PT
- Small internal adjustments for offices and conferences
- Adult bathrooms
- Expanded Cafeteria
- Modified Parking and pick up/drop off for buses and cars

2. JOHN GLENN MIDDLE SCHOOL: A \$3.7 million, 4.5-5 classroom addition at JGMS. This depends upon a capital cost-reducing decision to hire approximately .25-.5 music FTE in order to better utilize existing space.*
3. BEDFORD HIGH SCHOOL: A \$1.3 million renovation of the pre-school vacated D wing at BHS to yield 4 classroom.*

**Best projections short of a full feasibility study.
See Appendix G for Three School Option cost breakdowns*

Recommended Scenario		Move Pre-School to Davis
		SCENARIO 3: Pre-School to Davis, Keep CASE at BH S, Keep Central Office at JGMS
DAVIS ELEMENTARY SCHOOL	Option	Davis 4B Phased (10, 10, 10 - 30 classrooms + 4 Pre-school)
	Scope	Two storeys - Add 6 classrooms for Davis + 4 Pre-school classrooms and OT/PT + renovate for shared Art/Music Room
	Estimated Project Cost	\$12,265,080
	Estimated Expansion Cost	\$10,410,000
	SF All Renovation	8601
	SF New Building Expansion	18873
	Interior Reconfiguration (address program needs)	\$111,000
	Cafeteria Expansion 768	\$232,000
	Sitework Option 2 (Parking, Minor Bus Loop)	\$295,000
	A/E Fees (included in project cost)	\$970,080
	FF&E (furnishings & equipment)	\$247,000
	JGMS	Option
Scope		Two Storey - add 4 classrooms, 2 per floor infilling southeast corner
Estimated Project Cost		\$3,770,000
SF New Building Expansion		5366
SF Renovation		1507
A/E Fees (included in project cost)		\$357,950
BHS	Option	BHS 3 (renovate D-block for 4.5 classrooms)
	Scope	Renovate D-block to relocate CASE classrooms and create 4 contiguous classrooms
	Estimated Project Cost	\$1,300,000
	SF New Building Expansion	0
	SF Renovation	7790
	A/E Fees (included in project cost)	\$126,150
Total Estimated Scenario Cost		\$17,335,080

1. Total Estimated Project Cost is inclusive of estimated: Chapter 149 Construction, Design & Construction Contingencies, Inflation to Anticipated Bid Date, Design Fees, & Testing Fees.

DAVIS SCHOOL SPACE AND COST CHANGES FROM THE ORIGINAL PROJECTION

Prior to doing our feasibility study, we projected the need for four additional classrooms at Davis: two to replace the modulars, the tenth kindergarten, and one additional general classroom (\$4,000,000-\$4,500,000). Were we to do a Davis addition/renovation alone that would address the prudent assessment of its need (six or seven classrooms), it would cost between \$6,300,000 and \$7,880,000.

		SCENARIO 1: Three Independent Projects	
DAVIS ELEMENTARY SCHOOL	Option	Davis 5A (10,10,9)	Davis 5B (10,10,10)
	Estimated Project Cost	\$6,300,000	\$7,880,000
	Estimated Expansion Cost	\$5,560,000	\$7,140,000
	SF All Renovation	7277	7527
	SF New Building Expansion	7983	10799
	Interior Reconfiguration (address program needs)	\$110,000	\$110,000
	Cafeteria Expansion 768	\$260,000	\$260,000
	Sitework Option 2 (Parking, Minor Bus Loop)	\$370,000	\$370,000
	A/E Fees (included in project cost)	\$559,610	\$676,660

Changes from the original:

- Expensive site work, fill work, retaining wall needed to add on rooms
- Additional hallway space triggered
- The need to expand the cafeteria
- The need to reconfigure the parking lot/drop off
- The fact that building on top of the existing one story could not get us the 5 rooms that we would minimally need.
- Increased construction costs (*see Appendix D*)

DAVIS SCHOOL 4B OPTION COST PROJECTION



Lt. Eleazer Davis School Alterations and Expansion
 Schematic Design Cost Estimate - Summary
 9/12/2017
 DAVIS ADJUSTED BASED ON CHOSEN OPTION

		Classroom Expansion	Expansion Sitework	Cafeteria Expansion	Interior Renovation	Site & Parking	Total Project
Total Direct Costs		\$ 6,330,435	\$ 173,913	\$ 144,928	\$ 69,565	\$ 184,230	\$ 6,903,071
General Requirements	14%	\$ 886,261	\$ 24,348	\$ 20,290	\$ 9,739	\$ 25,792	\$ 966,430
Overhead & Fee	17%	\$ 1,226,838	\$ 33,704	\$ 28,087	\$ 13,482	\$ 35,704	\$ 1,337,815
Total - Direct Cost and OH&P		\$ 8,443,534	\$ 231,965	\$ 193,305	\$ 92,786	\$ 245,726	\$ 9,207,316
Contingency	15%	\$ 1,266,530	\$ 34,795	\$ 28,996	\$ 13,918	\$ 36,859	\$ 1,381,097
Escalation to bid	5%	\$ 422,177	\$ 11,598	\$ 9,665	\$ 4,639	\$ 12,286	\$ 460,366
Total - Estimated Construction Cost		\$ 10,132,000	\$ 278,000	\$ 232,000	\$ 111,000	\$ 295,000	\$ 11,048,000
Total SF - Building Addition and Existing		23,411	10,400	768	4,063		28,242
Cost Per SF		\$ 432.79	\$ 26.73	\$ 302.08	\$ 27.32		\$ 391.19
Estimated A/E Fees	8.5%						\$ 939,080
FF&E (furnishings & equipment)							\$ 247,000
Testing							\$ 31,000
Total - Estimated Project Cost							\$ 12,265,080

(See Appendix C for Additional Davis Option 4B Cost Breakdown)

DAVIS SCHOOL COST COMPARISON TO LESS EXPENSIVE LANE PROJECT

The Davis project, while 2.57 times the square footage, is 3.0 times the cost of the Lane School project. There are a number of significant reasons for this that include:

- the type of construction, e.g.,
 - the number of Davis classrooms that require built-in bathrooms
 - the considerably increased hallway space that a large project triggers
 - much more complicated site work that requires considerable fill, and
- several cost escalators based upon
 - inflation, and
 - an extraordinarily high increase in interior school construction bid prices that we have seen over the past year (see below)

Interior Renovation Projects Summers of 2016 and 2017								
SF	Wayland			Lexington			LABBB	Average of Single Building Projects
	Happy Hollow & Loker	Happy Hollow	Loker Re-bid	Nurse	Nurse - re-bid			
	3107	1320	1600	1200	1200	1600	1384	
Estimate	\$ 349,223	\$ 225,000	\$ 340,729	\$ 260,319	\$ 260,319	\$ 366,987	\$ 290,670.80	
Estimate Cost/SF	\$ 112.40	\$ 170.45	\$ 212.96	\$ 216.93	\$ 216.93	\$ 229.37	\$ 209.33	
Bid	\$ 562,390	\$ 337,100	-	\$ 429,567	\$ 429,567	\$ 503,248	\$ 424,870.50	
Bid Cost/SF	\$ 181.01	\$ 255.38	-	\$ 357.97	\$ 357.97	\$ 314.53	\$ 257.17	
Differential	61%	50%	-	65%	65%	37%	54%	
Notes	Two bids received. Three filed sub categories and one without a bid.	Rebid for a single school. Only one bid received. Project was rebid under separate contracts and with internal contractors.	Awaiting bid for summer 2018 construction	Two bids received. Single bids received under two filed sub-bids. Not Awarded.	Single Bid received. Not Awarded. Owner contracted with filed-sub directly and acted as general. Work was completed for approx. \$300,000.	One bid received. Not Awarded. Awaiting earlier re-bid next year.		

TBA has produced a detailed comparative cost analysis. *(Please see Appendix D for Lane/Davis Comparison)*

SPECIAL ED

The past ten years has seen the creation of multiple in-house special education programs to better meet the needs of our students in the least restrictive environments possible. While fiscal savings has always been a secondary, albeit critical, motivation for creating new in-house special education programs, we have in fact saved millions of dollars annually both as a function of direct cost savings and of cost avoidance associated with bringing students back from outplacements, retaining students who would otherwise be outplaced, or avoiding outplacement for new students.

While we have consistently shown the significant operating expense savings, a legitimate question as to whether the additional capital costs associated with providing space for these programs, particularly as we pursue these building projects, outweigh the fiscal advantages that we have, and will continue to, derive.

In fact, the annual savings, which we have projected out twenty years, far outweigh the capital costs associated with these spaces. With annual projected tuition cost savings/avoidance, ranging from \$6,400,000 in 2017 to \$8,400,000 by 2028, measured against program costs running from \$3.1 million in 2017 to \$5.4 million in 2028, we are netting a \$3,000,000 annual savings/cost avoidance. The \$30,000,000 cost savings/avoidance over only 10 years far exceeds the cost of the entire projects, let alone the space that is specifically required for special education. *(Please see Appendix E)*

CAN WE POSTPONE THE DAVIS SCHOOL PROJECT?

No, educationally this would be highly inadvisable. Our guidelines for K-2 class size are:

GRADE	GUIDELINE	MAX
K	18	20
1	20	22

2	20	22
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This year, we have two Kindergarten, four 1st Grade, and 5 2nd Grade classrooms with 23 students. The two first grade classrooms in the modular spaces are overcrowded and necessitate using the hallway connector to enable certain instructional plans.

SEPTEMBER 5, 2017										TOTAL	
Grade K	22	22	22	22	22	22	19	23	23		197
Grade 1	20	22	22	21	23	23	22	23	23		199
Grade 2	23	23	23	20	23	21	22	22	23	1	201
TOTAL											597

When the new Davis School opened in 1999, these were the class averages.

Year	Davis	Kindergarten	# Classes	Average	Use Differences
1999	486	150	8	18.75	CASE in small room
2017	597	197	8 + 1 Integrated Classroom	22.63 16	CASE in large room, SAIL, ELL, Quiet Room, BCBA, adjustment counselor (comp lab)

Additionally, our space needs at both JGMS and BHS are more immediate than originally projected. This is due to unexpected enrollment increases at JGMS and in-house special education program expansion at BHS.

CAN WE MEET THE TIMETABLE DEADLINES FOR THE DAVIS PROJECT?

Yes. We actually have more latitude than we had with the Lane Project, since the Lane Project vote at ATM included construction documents, whereas the construction document vote will be at STM, to be followed at ATM with the construction cost vote. This project will possibly/likely involve a debt exclusion vote, and we have begun to talk with Rick R about the necessary planning.

Most relevant, we are using the same architects to do the feasibility study and the construction documents that we used for the Lane project. TBA has proven to be exceptionally flexible, responsive and true to their deadline pledges. We have complete confidence that we will be prepared for STM and ATM.

APPENDIX A: SPACE NEEDS TASK FORCE DAVIS UPDATE

DAVIS SCHOOL SPACE NEEDS TASK FORCE HOUSING UPDATE

GOAL

The Space Needs Task Force seeks School Committee and Town Meeting support for the \$95,000 Davis School Addition Feasibility Study that is in this year's Capital Article.

- The Feasibility Study will generate several conceptual options and associated estimated costs for addressing the pressing space needs described below.

SPACE NEEDS DRIVING FEASIBILITY STUDY REQUEST

Due to significant enrollment increases during the past four years, Davis School is inadequately sized to meet class size guidelines and programmatic needs.

- Three classrooms are located in temporary space, and need to be relocated to a permanent space. The district added two temporary first grade modular classrooms in FY14 and converted the music classroom into a third (kindergarten) classroom in response to an enrollment surge. This was implemented as a short-term solution for the following four reasons:
 - The population surge was not predicted by our otherwise accurate enrollment 2009 study and the need was immediate and couldn't await construction
 - The modular classrooms are undersized and are not built to be long-term classrooms
 - The kindergarten classroom lacks the bathroom that best practice requires
 - The new location for the music room, the former Orange Pod group space, is not large enough or acoustically designed for music classes
- Additional space is needed to accommodate evolving educational programs, bring overcrowded classrooms back to guideline, and provide space for the anticipated additional students who will accompany planned housing construction.
- Identified space needs include:
 1. A minimum of four regular classrooms to meet current need. This includes three permanent rooms to replace the temporary classrooms, plus one or two additional classrooms to allow for a modest margin of error.
 2. One space intensive special education classroom for the SAIL Autism Program
 3. An adequately sized music room
 4. Storage space
 - a. Currently, storage space has been created by partitioning the pods which need to be used for small group work, cross classroom groupings, projects and performance-based demonstrations of learning
 - b. The hallways are being used for additional storage, which creates potential safety concerns

5. Small group/intervention space (e.g., reading, math support, English as a Second Language instruction, etc.)
 - a. A portion of the library (former computer lab) is being used currently for intervention space. This location is not ideal because work is interrupted by traffic to and from the library.
 - b. The shrunken pods provide some space, but with increasingly complex student population, more contained/quiet spaces are required.
6. Toilets added to additional kindergarten classrooms
7. Teacher preparation space. Numerous spaces have been created by converting closets and other otherwise needed square footage over the past five years.
8. Meeting space for parent meetings. One small conference room cannot simultaneously function as a space for teacher collaboration work meetings, parent-attended IEP meetings, leadership team meetings, etc.
9. Improved internal pedestrian traffic flow to decrease dismissal time

POSTPONEMENT AND ALTERNATIVES TO CONSTRUCTION

Why not add additional modulares, postpone the feasibility study and wait for state financial support?
 Why not simply add more modular as a long term solution?

- It is unlikely that Bedford would secure Massachusetts School Building Authority financing for the Davis School project for years. This December, the Massachusetts School Building Authority rejected our Davis Addition Statement of Interest for the second year in a row. The Authority moved only 17 of 89 SOIs forward this year. By way of comparison, Belmont, which has submitted an SOI for a badly needed new high school, was rejected 10 times over 10 years before being moved forward this year. Our pressing Davis School space needs cannot wait for such a long time.
- Additional modular would create impediments that would drive up the cost of later construction. Were we to add a third and fourth modular classroom for one or two more years, with the expectation that we would then embark on construction, the additional modular classrooms would fill the space that would then be needed for construction staging. Construction would then have to depend on second shifts (with wage premiums) and cranes to access the site- also very expensive.
- Four modular classrooms would not address the other non-regular classroom space needs.
- Were we to add six or seven modulares as a long-term solution, we would face the following problems:
 - When we priced a third modular classroom two years ago, it ranged from \$250,000 to \$430,000 apiece, not including installation costs.
 - By building outwards, rather than upwards, we would have to take over playing fields
 - The long hallway needed to connect the modular classrooms would be expensive to build and, as is typical with modular classroom hallways, it would be narrow and uncondusive to the open and inviting atmosphere necessary for elementary schools
 - These modular classrooms would require plumbing for student toilets, adding considerably to the installation cost.

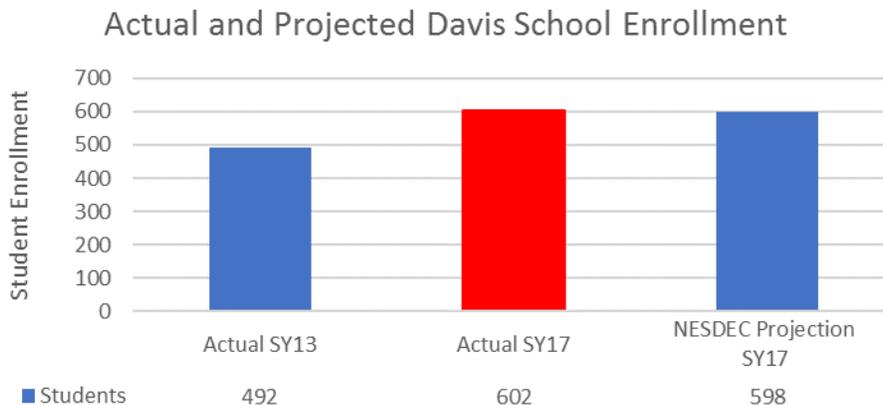
- The operating costs of the present modulars, multiplied several fold, would be burdensome to the town’s utility budget. The modular classrooms are heated by electricity, and the per classroom cost average as compared to our regular brick and mortar classroom costs is approximately 10:1 (\$1,000 per classroom with electricity vs. \$100 per classroom with natural gas).
- Modular classrooms are built to last approximately 10-12 years, where a brick and mortar addition will last approximately 50-70 years.

WHAT EVIDENCE DEMONSTRATES THAT THE INCREASED ENROLLMENT WILL BE SUSTAINED AND POTENTIALLY GROW IN THE FORSEEABLE FUTURE?

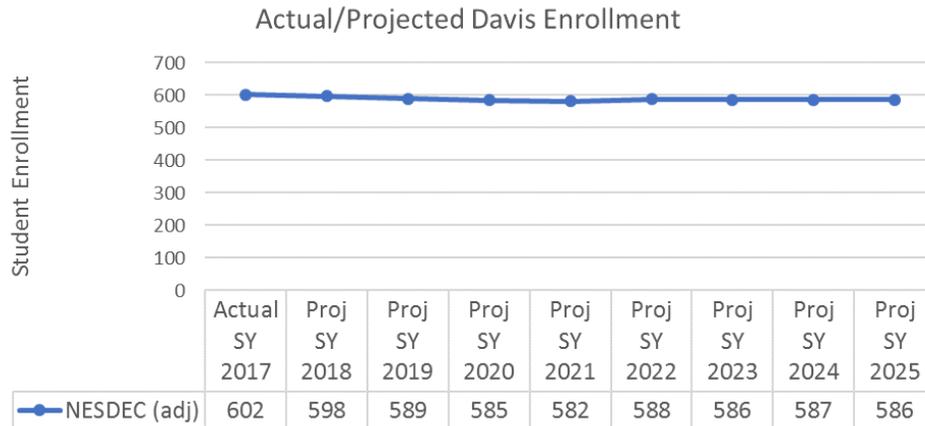
When the Davis School kindergarten population grew by approximately 50 students between FY13 and FY14, the District commissioned the New England School Development Council (NESDEC) to do a follow-up enrollment study to the one it completed in 2009. The District also convened a Space Needs Task Force to verify the new NESDEC projections, which it did at the conclusion of a lengthy and in-depth analysis of Bedford’s population and housing growth, and which it published in a January, 2016 *Space Needs Task Force Report* . With the December, 2016 MSBA rejection of the Davis School addition SOI, the Space Needs Task Force reconvened to evaluate the more recent enrollment and housing data and concluded that:

1. The increased Davis School enrollment (FY13- 492 students/ FY17- 602 students) will be sustained through 2025. Enrollment studies are only reasonably reliable out to ten years, keeping in mind that many kindergarten aged students will not have been born yet.
2. Housing construction that is in process or planned will add anywhere between 18 and 40 additional Davis School students

Current enrollment exceeds the most recent NESDEC projection for school year 2017. As of March 15, 2017, there were 602 students enrolled at the Davis School. NESDEC had projected enrollment of 598 students in grades K-2.



The Task Force updated the projected enrollment figures for the Davis School by applying the percentage change predicted each school year by NESDEC to the actual enrollment for School Year 2017 as measured on October 1, 2016. This projection shows enrollment will remain at approximately 600 students through 2025.



Caveat. While the Davis School numbers remained consistently high this year, unexpected surges at Lane and JGMS indicate that the pattern that we observed for three years, with enrollment increases primarily impacting kindergarten and first grade, has shifted so that now we are seeing increases at other grades as well at the same time that the larger Davis School population is moving up to Lane. This suggests that Bedford’s changing demographic- particularly the dramatic increase in move-ins with school age children- is unpredictable and that it has grown in ways that we could not foresee. For example:

- JGMS jumped from 537 to 556 (NESDEC projection was 534.) Most of the additional students were move-ins.

BEDFORD’S CONTINUED HOUSING DEVELOPMENT, POPULATION GROWTH AND POTENTIAL ENROLLMENT IMPACT

Bedford’s housing supply continues to grow. Approximately 162 housing units will be constructed in the next several years. This includes 149 homes either recently occupied or currently under active development and 13 new single family homes for which building permits have been issued. A list of these projects under development is attached to this report.

Assuming these new units attract families who fit a similar profile to families who live in other recently-developed Bedford housing units, Davis School enrollment would increase by approximately 19 students. This estimate is based upon two methodologies.

Methodology 1: Experience in Bedford

The 667 housing units in the major developments identified in the January 2016 Lane School Task Force Study are home to 80 Davis students as of February 2017.

80 Davis students/ 667 housing units = 12% of housing units have a student enrolled in K-2

Applying this statistic to new units under active development or recently completed:

162 new units x 12% = 19 student increase in the housing units that are recently completed or actively under development

This estimate does not account for increases due to existing homes/dwellings torn down and reconstructed.

Davis Students Residing in Recent Major Housing Developments as of 2/15/2017			
Development	Units	BPS Enrollment*	Davis Enrollment
Albion Road	30 units	4 students	2 students
Avalon Bay	139 units	52 students	20 students
Kendall Court	75 units	41 students	13 students
Freedom Estates	59 units	52 students	9 students
Taylor Pond	200 units	39 students	12 students
Thompson Farm	164 units	63 students	24 students
Total	667 units	261 students	80 students

*Includes out of district placements

Methodology 2: Billerica Projections

A recent proposal in Billerica for development of housing on the Middlesex Turnpike uses a different methodology for estimating school aged children per unit. The developer, Alliance Residential Company, operates \$10 billion worth of multifamily properties around the US. Their projection was based upon recent experience in Billerica as well as statewide data sets. This proposal suggested that a family residing in a two-bedroom unit would have 0.224 children and a three-bedroom unit would have 0.67 children per unit. Studio and one-bedroom units were estimated to have no school aged children living in them.

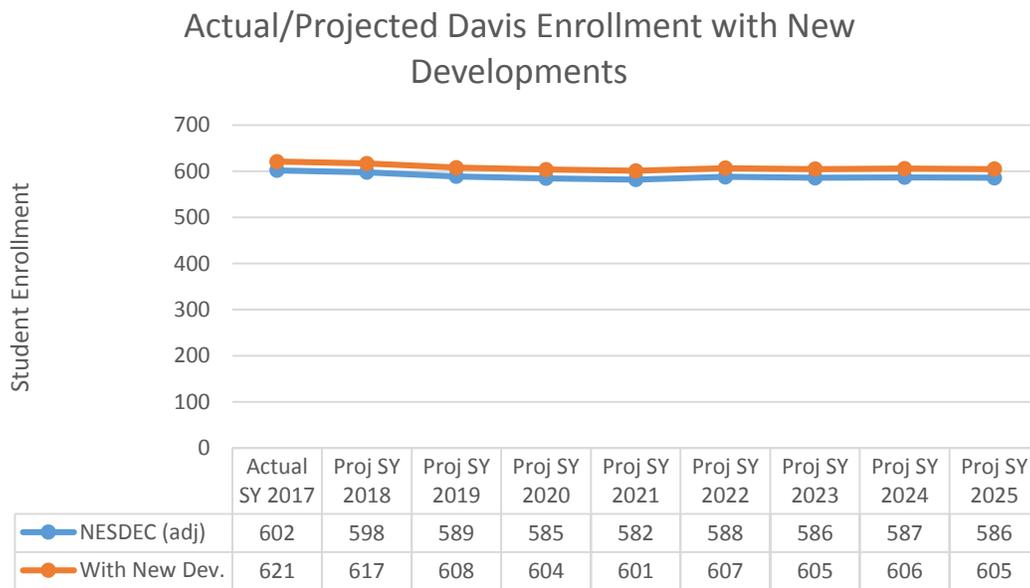
Projected School Aged Children				
	Studio & 1BR	2BR	3+ BR	Total Units
Units	61	10	91	162
Ratio of SAC per unit	-	0.22	0.67	
Projected School Aged Children	-	2	61	63

NOTE: All single family homes were assumed to have 3+ bedrooms.

A listing of projected enrollment by project is in the appendices to this report.

Applying these ratios to the homes under active development or recently completed, an estimated 63 school aged children of all grades would live in these units. Of those Bedford students living in the recently-developed major developments in Bedford, 80 of 261 or 30% attend Davis School. Applying this ratio, an estimated 19 students residing in these new Bedford homes will attend the Davis School.

Both methodologies indicate additional growth in the Davis School population. The chart below shows the projected enrollment using the NESDEC projection adjusted for SY 2017 enrollment, and with the additional students from the housing under development or which has been recently completed.



FEASIBILITY STUDY FOCUS

The task force recommends that the Bedford School Committee authorize a feasibility study for an addition to the Davis School. This feasibility study should incorporate the normal three options for solving the Davis space needs problems and an additional option that would expand the Davis project in order to move the pre-school classrooms to the Davis campus and potentially obviate the need, down the line, for an expansion project at the high school. We have inquired as to the additional costs that including such an option in the feasibility study would entail and are satisfied that the March 27/28, 2017 Town Meeting capital item is sufficient to cover this cost.

Housing Recently Completed or Actively Under Development, as of 1/2017

Location	Estimated Dwelling Units as of 12/7/2015	Actual/Approved Dwelling Units 1/2017	Status
The Crossing at Bedford, Loomis Street	19	19 (29 total bedrooms)	Project complete
30 Chelmsford Rd. aka Gregory Drive	4	4 (4BR units)	Under construction (Site work)
Cottages at Depot Square, 150A – 162 South Rd.	9	9 (3BR units)	Under construction (5 units built)
Evergreen Meadows, 56 Evergreen Ave. (Yauckoes Farm)	17	17 (3BR units)	Under construction (Site work)
100 Plank St.	52	52 (1BR & studio apartments)	Project has received Special Permit, but there has been no activity.
Ebenezer Davis Farm ANR	3		No activity. Fallen off the radar.
Coast Guard Property, Pine Hill Road	30	29 (Renovate 12 existing homes and construct 17 new small homes)	Developer will renovate 12 existing units and rent them out while constructing new units. Zoning relief likely required at 2018 ATM for new units.
Alphonsa Lane (address is 57 & 75 Hartwell Road)	4	3 (probably 4BR)	Subdivision approved in 2015. Under construction (site work).
Isabella Lane (29A Chelmsford Rd.)	4	4 (probably 4BR)	Subdivision approved in 2013. Under construction (site cleared but no building yet).
Irene Drive (off Pine Hill)	4	5 (1 existing home and 4 new homes, probably 4BR)	Under construction (2 units built)
Hosmer Way and Buehler Drive (Springs Rd. at Billerica Line - 614-616 Springs Rd. and 10 Green St. (Fox Run Rd. and Buehler Drive)	9	7 (Renovate 1 existing home and construct 6 new homes, 5 3BR, 2 4BR)	Special Permit approved and decision signed in January 2017. Construction scheduled for spring 2017.
63 Woodland Rd. ANR		2 (currently one lot with an existing dwelling unit on it)	ANR to divide one lot into two. Results in creation of one additional house lot. No plans to redevelop property discussed w/ PB.

Total	155 Estimated new dwellings 12/15	148 Actual or Approved new dwellings 1/17	
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Single-family Residential Development for Period 1/1/16 – 12/31/16

(data provided by Bedford Code Enforcement Department)

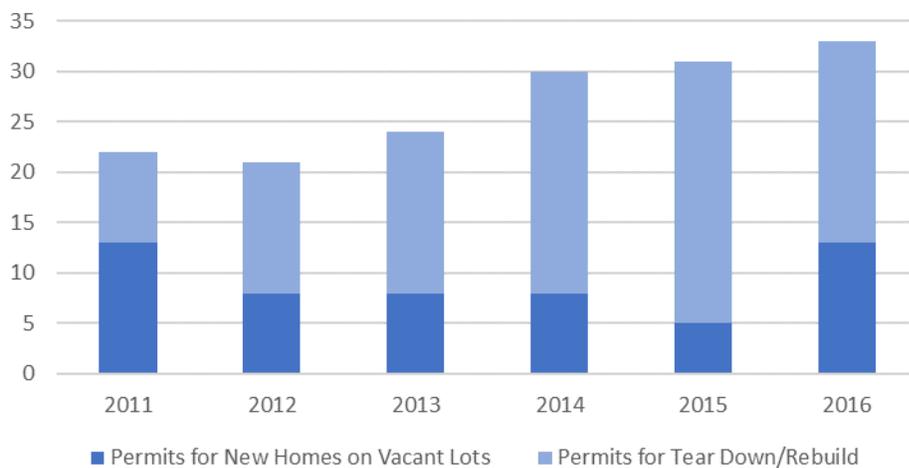
New Single-Family Homes, building permits issued _____ 13

Single-Family Homes, reconstructed _____ 20*

(* Represents teardowns - zero sum gain in number of dwellings, but reasonable to assume an overall increase in the number of bedrooms)

Given recent history of housing permits issued in Bedford, it is likely that there will be new homes built on vacant lots and homes torn down/rebuilt. While the latter will not generate new housing units, it is likely the occupants of these units will be families with young children.

Permits Issued in Bedford



Methodology 2: Estimated Davis Students from new/proposed units in Bedford

Location	Estimated Dwelling Units as of 12/7/2015	Actual/ Approved Dwelling Units 1/2017	Status	1 br	2br	3+ br	Total
The Crossing at Bedford, Loomis Street	19	19 (29 total bedrms)	Project complete	9	10	0	19
30 Chelmsford Rd. aka Gregory Drive	4	4 (4BR units)	Under construction (Site work)	0	0	4	4
Cottages at Depot Square, 150A – 162 South Rd.	9	9 (3BR units)	Under construction (5 units built)	0	0	9	9
Evergreen Meadows, 56 Evergreen Ave. (Yauckoes Farm)	17	17 (3BR units)	Under construction (Site work)	0	0	17	17
100 Plank St.	52	52 (1BR & studio apartments)	Project has received Special Permit, but there has been no activity.	52	0	0	52
Ebenezer Davis Farm ANR	3		No activity. Fallen off the radar.	0	0	0	0
Coast Guard Property, Pine Hill Road	30	29	Developer will renovate 12 existing units and rent them out while constructing new units. 17 new units to be constructed. Zoning relief likely required at 2018 ATM for new units.	0	0	29	29
Alphonsa Lane (address is 57 & 75 Hartwell Road)	4	3 (probably 4BR)	Subdivision approved in 2015. Under construction (site work).	0	0	3	3
Isabella Lane (29A Chelmsford Rd.)	4	4 (probably 4BR)	Subdivision approved in 2013. Under construction (site cleared but no building yet).	0	0	4	4

Location	Estimated Dwelling Units as of 12/7/2015	Actual/ Approved Dwelling Units 1/2017	Status	1 br	2br	3+ br	Total
Irene Drive (off Pine Hill)	4	5 (1 existing home and 4 new homes, probably 4BR)	Under construction (2 units built)	0	0	4	4
Hosmer Way and Buehler Drive (Springs Rd. at Billerica Line - 614-616 Springs Rd. and 10 Green St. (Fox Run Rd. and Buehler Drive)	9	7 (Renovate 1 existing home and construct 6 new homes, 5 3BR, 2 4BR)	Special Permit approved and decision signed in January 2017. Construction scheduled for spring 2017.	0	0	7	7
63 Woodland Rd. ANR		2	ANR to divide one lot into two. Results in creation of one additional house lot. No plans to redevelop property discussed w/ PB.	0	0	0	0
Total	155 Estimated new dwellings 12/15	148 Actual or Approved new dwellings 1/17		61	10	77	148
New Single Family Home Permits						13	13
Total New Units and Units Under Active Development				61	10	90	161
Ratio of school aged children per unit*				-	0.22	0.67	
Estimated total school aged children				-	2.24	60.30	62.54
Estimated percentage in Grades K-2 (based on Bedford)				0.3	0.3	0.3	0.3
Estimated expected students Grades K-2				-	0.67	18.09	18.76

*SOURCE: Broadstone Middlesex Presentation to Billerica Planning Board, <http://www.town.billerica.ma.us/DocumentCenter/Home/View/5851>, accessed 3/19/2017.

APPENDIX B: DAVIS SCHOOL BUILDING COMMITTEE COMPOSITION

DAVIS SCHOOL BUILDING COMMITTEE MEMBERSHIP

Jeff Dearing
Nina Tate
JoAnn Santiago
Angelo Colasante
Jim Oneil
Xue Wang
Kyle Smith
Maurizio Salato
Jeff Cohen
David Coelho
Mike Rosen,
Beth Benoit
Justin Humphries ,
Robert Jefferies
Ed Pierce may join
Taissir Alani
David Coelho
Jon Sills

APPENDIX C: DETAILED DAVIS SCHOOL 4B COST BREAKDOWN



LL Eleazer Davis School Alterations and Expansion
 Conceptual Program Cost Estimate
 9/12/2017

Option 4B (Phased) - Two-Storey Expansion Davis and Preschool without CASE

	Unit	No. Unit	Unit Cost	Location	Total
					1.18
SITE					
Site Preparation	ea	1	\$ 8,508.70	\$ 10,040.27	\$ 10,040
Excavation & Trenching	s.f.	10400	\$ 5.00	\$ 5.90	\$ 61,360
Stormwater Management	ea	1	\$ 53,733.33	\$ 63,405.33	\$ 63,405
Final Grading & Seeding	ea	1	\$ 7,700.00	\$ 9,086.00	\$ 9,086
Access Road (16' wide)	l.f.	225	\$ 152.00	\$ 179.36	\$ 40,356
Retaining Wall	l.f.	100	\$ 278.00	\$ 328.04	\$ 32,804
Subtotal building site					\$ 217,052
New Parking	ea	44	\$ 1,690.00	\$ 1,994.20	\$ 87,745
Demo Existing	sy	2667	\$ 40.00	\$ 47.20	\$ 125,867
Subtotal parking					\$ 213,611
CLASSROOM ADDITION					
First Floor	g.s.f.	10400			
Second Floor	g.s.f.	8473			
Efficiency Factor	0%				
GROSS SQUARE FEET	g.s.f.	18873	\$ 310.00		\$ 5,850,630
INTERIOR RENOVATION - FULL					
Classroom	n.s.f.	4125			
Efficiency Factor	10%	412.5			
GROSS SQUARE FEET	g.s.f.	4537.5	\$ 80.00		\$ 363,000
INTERIOR RENOVATION - FINISHES					
Classroom	n.s.f.	4063			
Efficiency Factor	0%	0			
GROSS SQUARE FEET	g.s.f.	4063	\$ 20.00		\$ 81,260
INTERIOR CIRCULATION					
Stair	ea	1	\$ 11,575.00		\$ 11,575

CAFETERIA ADDITION

Cafeteria	g.s.f.	768			
Efficiency Factor	0%	0			
GROSS SQUARE FEET	g.s.f.	768	\$	200.00	\$ 153,600

Building Subtotal, direct construction costs building	(rounded)	\$	6,460,000
Site Associated with Building Subtotal, direct construction costs	(rounded)	\$	217,000
Parking Subtotal, direct construction costs	(rounded)	\$	214,000

ESTIMATED DIRECT CONSTRUCTION COST	(rounded)	\$	6,891,000
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General Requirements	14%	\$	964,740
Overhead & Fee - including Ch 149	17%	\$	1,335,476
TOTAL - DIRECT COST & OH&P		\$	9,191,216
Escalation to Bid Date	5%	\$	459,561

ESTIMATED CONSTRUCTION BID	(rounded)	\$	9,651,000
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Design & Construction Contingency	15%	\$	1,378,682
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RECOMMENDED CONSTRUCTION BUDGET	(rounded)	\$	11,029,000
Cost per SF, building & site		\$	391

Estimated A/E Fees (includes Civil)	8.5%	\$	937,465
Reimbursables: soils, hazmat testing		\$	47,000
FF&E (furnishings & equipment)		\$	247,000
Owner's Project Manager		\$	100,000

ESTIMATED PROJECT COST**	(rounded)	\$	12,360,000
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APPENDIX D: DAVIS/LANE COST COMPARISON

MEMORANDUM

TO: JON SILLS, SUPERINTENDENT
FROM: TBA ARCHITECTS, INC.
SUBJECT: MEMO #1 – COST EXPLANATION AND COMPARISON
DATE: AUGUST 31, 2017 REVISED SEPTEMBER 13, 2017
CC TAISSIR ALANI

Below are explanations and considerations for the Davis School cost and project size along with comparisons with the Lane School. The selected Davis School option is 'Option 4B, phased'. The plans are attached.

1. Construction costs rise every year – over the past five years at a rate of almost 5% per year. This project will go into construction two years after the Lane, which if bid out in 2018, would likely cost closer to \$4 million.
2. We have seen constructions costs – especially those for site supervision and administration – go up considerably in the past couple of years. School construction is more demanding of administration due to CORI, monitoring of the site, coordinating with school schedules to be as respectful as possible to the classwork taking place.
3. Because of the amount of construction and smaller pool of contractors, bids have not been as competitive as we've seen in the past. Contractors are all very busy and have trouble putting together crews for the increased demand.
4. Contractors are required to pay prevailing wages set by the State for all staff, which are adjusted every 6 months. The rates are sometimes considerably more than those in private construction. Contractors must build the increase in wages into their bids that last longer durations.
5. Work Area is greater at Davis than Lane:
 - a. Size of the addition at Davis is much larger than that at Lane
 - b. Area of renovation and area to be extensively renovated is greater at Davis than Lane
 - c. Classrooms at Davis are larger than those at Lane as the Pre-K and K classes are approximately 1150 sf; 200 sf larger than those at Lane. First and Second grade classrooms are also typically larger at 1000; 50 sf larger than those at Lane
 - d. There is more exterior wall/perimeter enclosure than the Lane.

Total - Estimated Project Cost	\$ 4,091,985	\$ 12,265,080	3.00
addition (sf)	7,350	18,873	2.57
renovation (sf)	4,918	8,600	1.75
ratio of add to reno	1.49	2.19	1.47
perimeter wall (lf)	276	559	2.03
classroom # addition	6	12	2.00
classroom # renovation	2	3	1.50
classroom size (average)	950	1,083	1.14
e. parking size (sy)	303	4,190	13.84

6. Pre-K and K classrooms require a bathroom each, a storage room, and dedicated cubby space in addition to the counter/cabinet/sink found in most elementary classrooms– all making each classroom cost higher than a standard classroom
7. The ratio of new construction to renovation is greater at Davis than Lane; new construction costs more than renovated interior space
8. The addition at Davis has a larger grossing factor than that a Lane because of the need to extend the corridor, and the need to build across the roof and create pod space/corridor to connect the second storey.
9. The addition for the number of classrooms is two storeys and requires a new stair tower.
10. While the Lane was in need of classrooms it was fairly well situated with special education, guidance and other support program space. The Davis needs a great deal more space mining to address the space crunch and configuration of many of these types of spaces.
11. Parking lot renovations are more extensive at Davis, while Lane was primarily a simple extension of an existing lot. We are recreating roadway, a new parking lot and sidewalks – all approximately 14x the size of the Lane area.
12. Site work is greater at Davis and the site is more constrained. The addition location makes the most sense for the interior layout and functioning of the spaces however it is in the more difficult corner of the site. It is within wetlands buffers where the site slopes down requiring filling and retaining wall.
13. The fire access lane needs to be rebuilt around the addition.
14. To decrease the bulk of the addition on one side close to property lines and wetlands this scheme is phased, allowing for construction of the preschool and the minimum number of classrooms needed for Davis in a first round, then removal of the temporary classrooms and constructing the final two to three classrooms. This extends the construction time increasing the general conditions costs that the contractor must carry.

September 13, 2017: Since the school committee vote to support continued work on Davis Option 4B, TBA and the school department have met to review the options in more detail. TBA has revised the estimate based on the confirmation of Option 4B being the best option to

provide the classrooms needed by the Davis School and the preschool program; working within the desired construction timeline; and limiting the disruption to the school during construction. TBA has revised markups, analyzed the square foot cost carried, estimated furniture and equipment costs. The costs illustrated in the Davis (Adjusted) columns are lower than those presented to the building and school committees, because of the work done since in confirming and refining the chosen option. We have prepared tables illustrating the increased cost of the Davis as it compares to the Lane. Attached are:

- Summary spreadsheet comparing the estimates of the Lane Option 1C at schematic level to the chosen Davis 4B option at conceptual level with notes linked to this memo. Shown are total direct costs, markups, contingencies and escalation to bid, revised A/E fees and FF&E budgets. We compared those for the Lane in 2016 to those for the Davis in 2018.
- A square foot analysis. The cost per square foot in all of these summary sheets is that for all addition and renovation work across the entire cost of construction. The cost of the construction includes building addition, renovation, sitework for the building and parking lot improvements. The square foot analysis is broken into three categories
 - Equalizing Lane with today's construction conditions and bidding environment.
 - Additional design considerations at the Davis – lower elementary classroom needs.
 - Additional project requirements at Davis
- Summary cost comparisons. Illustrated across the five columns are:
 - Davis estimate as presented to the building and school committees on August 29, 2017 – a conceptual estimate with markups reflecting the changing nature of the project at the time.
 - Davis Adjusted estimate for Option 4B revised following subsequent meetings and discussions with the school department that confirmed the scope and TBA's further analysis of the Davis project. Shown to the right of the square foot cost is the difference between the square foot cost of the Lane and this project. The square foot analysis spreadsheet describes what is included in this difference.
 - This is the most current estimate of the cost of the project. TBA will review this and the revised layout of 4B with its A/E team and move forward through schematic design and independent estimating.
 - Lane School schematic estimate of March 24, 2016. This is unadjusted and is the basis of the comparison between Davis and Lane. The Lane School was designed and bid on an accelerated schedule within a good bidding environment (good competition), had a site that was fairly easy to work within, and a scope that was neatly phased across 15 months, and needed no inflation to bid.
 - The final two columns equalize the Davis and Lane projects in a hypothetical comparison. The Davis project was adjusted to the cost of doing the project under the same conditions and with the same markups as the Lane had in 2016. The Lane was adjusted to the cost of doing construction under the same conditions, the same needs, and with the same markups carried for the Davis in 2018. We did this to illustrate that our estimates for the cost of the projects on a square foot basis is for all intents and purposes comparable.
 - Revised square foot cost estimate of the Davis School Option 4B. Markups have been adjusted as discussed above.

Please notify TBA if any of this information is inaccurate or incomplete or needs elaboration.

APPENDIX E: SPECIAL EDUCATION COSTS AND SAVINGS

In-House Program Projected Tuition Costs/Savings

FY18					
	Original # of Students	Projected # of students that would be sent out	Outplacement Cost	BPS Program Cost	Savings
Integrated PreK	20	20	2,000,000	917,830	1,082,170
Davis School					
SAIL	6	6	600,000	318,898	281,102
Lane School					
Bridge	15	15	975,000	346,856	628,144
SAIL Inclusive					
SAIL Subseparate	6	6	600,000	411,791	188,209
JGMS					
Bridge	15	15	975,000	314,388	660,612
SAIL Inclusive	13	13	1,300,000	314,388	985,612
SAIL Subseparate					
BHS					
Bridge Program	22	22	1,430,000	422,881	1,007,119
SAIL Inclusive	11	11	1,100,000	140,960	959,040
SAIL Subseparate					
STEP	14	14	910,000	272,181	637,819
Total			9,890,000	3,460,172	6,429,828

FY22					
	Original # of Students	Projected # of students that would be sent out	Outplacement Cost	BPS Program Cost	Cost Savings
Integrated PreK	20	20	2,207,626	1,033,025	1,174,600
Davis School					
SAIL	6	6	662,288	358,922	303,365
Lane School					
Bridge	15	10	717,478	390,389	327,089
SAIL Inclusive		5	551,906	195,195	356,712
SAIL Subseparate	6	6	662,288	463,474	198,814
JGMS					
Bridge	15	15	1,076,218	353,847	722,371
SAIL Inclusive	13	13	1,434,957	353,847	1,081,110
SAIL Subseparate		6	662,288	463,474	198,814
BHS					
Bridge Program	22	22	1,578,452	475,956	1,102,496
SAIL Inclusive	11	11	1,214,194	158,652	1,055,542
SAIL Subseparate					
STEP	14	14	1,004,470	306,342	698,128

Total			11,772,164	4,553,123	7,219,042

FY28					
	Original # of Students	Projected # of students that would be sent out	Outplacement Cost	BPS Program Cost	Cost Savings
Integrated PreK	20	20	2,560,169	1,233,486	1,326,683
Davis School					
SAIL	6	6	768,051	428,572	339,479
Lane School					
Bridge	15	10	832,055	466,145	365,910
SAIL Inclusive		5	640,042	233,072	406,970
SAIL Subseparate	6	6	768,051	553,412	214,639
JGMS					
Bridge	15	15	1,248,082	422,511	825,571
SAIL Inclusive	13	13	1,664,110	422,511	1,241,599
SAIL Subseparate		6	768,051	553,412	214,639
BHS					
Bridge Program	22	22	1,830,521	568,317	1,262,204
SAIL Inclusive	11	11	1,408,093	189,439	1,218,654
SAIL Subseparate		6	768,051	553,412	214,639
STEP	14	14	1,164,877	365,789	799,088
Total			14,420,152	5,990,079	8,430,074

Out of District Program Costs

	FY18 Outplace Cost	FY19 Outplace Cost	FY20 Outplace Cost	FY21 Outplace Cost	FY22 Outplace Cost	FY23 Outplace Cost
SAIL Student	100,000	102,500	105,063	107,689	110,381	113,141
STEP, Bridge	65,000	66,625	68,291	69,998	71,748	73,542
	FY24 Outplace Cost	FY25 Outplace Cost	FY26 Outplace Cost	FY27 Outplace Cost	FY28 Outplace Cost	FY29 Outplace Cost
SAIL Student	115,969	118,869	121,840	124,886	128,008	131,209
STEP, Bridge	75,380	77,265	79,196	81,176	83,205	85,286

In-House Program Salary Costs

Program	Current Salary FY18	Curr Sal+.3 Benefits Tot FY18	Projected Salary FY19 1.03	Projected Benefits FY19 (.3)	FY 19 Total 1.03 *FY18	FY20 Total 1.03*FY19
Preschool						
Teacher	83,456	108,493	85960	25788	111,748	115,100
Teacher	83,456	108,493	85960	25788	111,748	115,100
Teacher	83,456	108,493	85960	25788	111,748	115,100
Teacher	83,456	108,493	85960	25788	111,748	115,100
(1.0)Tas x 4	99,780	129,714	102773	30832	133,605	137,614
(.6) Tas x 2	29,970	38,961	30869	9261	40,130	41,334
(.6) Eas x2	25,463	33,102	26227	7868	34,095	35,118
Speech (.8)	66,765	86,795	68768	20630	89,398	92,080
OT (.8)	66,765	86,795	68768	20630	89,398	92,080
PT -contracted (.5)	41,728	54,246	42980	12894	55,874	57,550
BCBA (.5)	41,728	54,246	42980	12894	55,874	57,550
Preschool Total	706,023	917,830	727,203	218,161	945,365	973,725
Davis						
SAIL Subseparate						
SAIL Teacher/BCBA	83,456	108,493	85960	25788	111,748	115,100
6 SAIL Tas	161,850	210,405	166706	50012	216,717	223,219
Davis Total	245,306	318,898	252665	75800	328,465	338,319
Lane						
Bridge						
Bridge Teacher	83,456	108,493	85960	25788	111,748	115,100
Adj. Counselor	83,456	108,493	85960	25788	111,748	115,100
4 Tas	99,900	129,870	102897	30869	133,766	137,779
Bridge Total	266,812	346,856	274816	82445	357,261	367,979
SAIL Subseparate						
SAIL Teacher	83,456	108,493	85960	25788	111,748	115,100
BCBA	83,456	108,493	85960	25788	111,748	115,100
6 TAs	149,850	194,805	154346	46304	200,649	206,669
Sail Sub Total	316,762	411,791	326265	97879	424,144	436,869
SAIL Inclusive						
SAIL Teacher	83,456	108,493	85960	88538	111,748	115,100
2 Tas	49,950	64,935	51449	52992	66,883	68,890
Sail Incl Total	133,406	173,428	137,408	141,530	178,631	183,990
Lane Total	716,980	932,074	738489	221547	960,036	988,837
JGMS						
Bridge						
Bridge Teacher	83,456	108,493	85960	25788	111,748	115,100
Adj Counselor	83,456	108,493	85960	25788	111,748	115,100

3 TAs	74,925	97,403	77173	23152	100,325	103,334
Total Bridge	241,837	314,388	249,092	74,728	323,820	333,534
SAIL Subseparate						
SAIL Teacher	83,456	108,493	85960	25788	111,748	115,100
BCBA	83,456	108,493	85960	25788	111,748	115,100
6 Tas	149,850	194,805	154346	46304	200,649	206,669
Total Sail Sub	316,762	411,791	326,265	97,879	424,144	436,869
SAIL Inclusive						
SAIL Teacher	83,456	108,493	85960	25788	111,748	115,100
Adjusment Counselor	83,456	108,493	85960	25788	111,748	115,100
3 TAs	74,925	97,403	77173	23152	100,325	103,334
Total Sail Incl	241,837	314,388	249,092	74,728	323,820	333,534
JGMS Total	800,436	1,040,567	824,449	247,335	1,071,784	1,103,937
BHS						
Bridge						
Teacher	83,456	108,493	85960	25788	111,748	115,100
Teacher	83,456	108,493	85960	25788	111,748	115,100
Adjustment Counselor	83,456	108,493	85960	25788	111,748	115,100
3 Tas	74,925	97,403	77173	23152	100,325	103,334
Total Bridge	325,293	422,881	335,052	100,516	435,567	448,634
SAIL Inclusive						
SAIL Teacher	83,456	108,493	85960	25788	111,748	115,100
1 TA	24,975	32,468	25724	7717	33,442	34,445
Total SAIL Incl	108,431	140,960	111,684	33,505	145,189	149,545
STEP						
Teacher	83,456	108,493	85960	25788	111,748	115,100
Counselor	83,456	108,493	85960	25788	111,748	115,100
1.7 TAs	42,458	55,195	43732	13120	56,851	58,557
Total STEP	209,370	272,181	215,651	64,695	280,346	288,757
BHS Total	643,094	836,022	662,387	198,716	861,103	886,936
TOTAL ALL	3,111,839	4,045,390	3,205,194	961,558	4,166,752	4,291,755

Program	FY22 Total 1.03*FY21	FY23 Total 1.03*FY22	FY24 Total 1.03*FY23	FY25 Total 1.03*FY24	FY26 Total 1.03*FY25	FY27 Total 1.03*FY26	FY28 Total 1.03*FY27
Preschool							
Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805

(1.0)Tas x 4	145,994	150,374	154,885	159,532	164,318	169,247	174,325
(.6) Tas x 2	43,851	45,166	46,521	47,917	49,355	50,835	52,360
(.6) Eas x2	37,256	38,374	39,525	40,711	41,932	43,190	44,486
Speech (.8)	97,688	100,619	103,637	106,746	109,949	113,247	116,645
OT (.8)	97,688	100,619	103,637	106,746	109,949	113,247	116,645
PT -contracted (.5)	61,055	62,886	64,773	66,716	68,718	70,779	72,903
BCBA (.5)	61,055	62,886	64,773	66,716	68,718	70,779	72,903
Preschool Total	1,033,025	1,064,016	1,095,937	1,128,815	1,162,679	1,197,560	1,233,486
Davis							
SAIL Subseparate							
SAIL Teacher/ BCBA	122,110	125,773	129,546	133,432	137,435	141,558	145,805
6 SAIL Tas	236,813	243,917	251,235	258,772	266,535	274,531	282,767
Davis Total	358,922	369,690	380,781	392,204	403,970	416,089	428,572
Lane							
Bridge							
Bridge Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Adj. Counselor	122,110	125,773	129,546	133,432	137,435	141,558	145,805
4 Tas	146,170	150,555	155,072	159,724	164,515	169,451	174,534
Bridge Total	390,389	402,101	414,164	426,589	439,386	452,568	466,145
SAIL Subseparate							
SAIL Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
BCBA	122,110	125,773	129,546	133,432	137,435	141,558	145,805
6 TAs	219,255	225,832	232,607	239,586	246,773	254,176	261,802
Sail Sub Total	463,474	477,378	491,700	506,450	521,644	537,293	553,412
SAIL Inclusive							
SAIL Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
2 Tas	73,085	75,277	77,536	79,862	82,258	84,725	87,267
Sail Incl Total	195,195	201,050	207,082	213,294	219,693	226,284	233,072
Lane Total	1,049,057	1,080,529	1,112,945	1,146,333	1,180,723	1,216,145	1,252,630
JGMS							
Bridge							
Bridge Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Adj Counselor	122,110	125,773	129,546	133,432	137,435	141,558	145,805
3 TAs	109,627	112,916	116,304	119,793	123,387	127,088	130,901
Total Bridge	353,847	364,462	375,396	386,658	398,257	410,205	422,511
SAIL Subseparate							
SAIL Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
BCBA	122,110	125,773	129,546	133,432	137,435	141,558	145,805
6 Tas	219,255	225,832	232,607	239,586	246,773	254,176	261,802
Total Sail Sub	463,474	477,378	491,700	506,450	521,644	537,293	553,412
SAIL Inclusive							
SAIL Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Adjusment Counselor	122,110	125,773	129,546	133,432	137,435	141,558	145,805

3 TAs	109,627	112,916	116,304	119,793	123,387	127,088	130,901
Total Sail Incl	353,847	364,462	375,396	386,658	398,257	410,205	422,511
JGMS Total	1,171,167	1,206,302	1,242,491	1,279,766	1,318,159	1,357,704	1,398,435
BHS							
Bridge							
Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Adjustment Counselor	122,110	125,773	129,546	133,432	137,435	141,558	145,805
3 Tas	109,627	112,916	116,304	119,793	123,387	127,088	130,901
Total Bridge	475,956	490,235	504,942	520,090	535,693	551,764	568,317
SAIL Inclusive							
SAIL Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
1 TA	36,542	37,639	38,768	39,931	41,129	42,363	43,634
Total SAIL Incl	158,652	163,412	168,314	173,363	178,564	183,921	189,439
STEP							
Teacher	122,110	125,773	129,546	133,432	137,435	141,558	145,805
Counselor	122,110	125,773	129,546	133,432	137,435	141,558	145,805
1.7 TAs	62,123	63,987	65,906	67,883	69,920	72,017	74,178
Total STEP	306,342	315,532	324,998	334,748	344,791	355,134	365,789
BHS Total	940,950	969,179	998,254	1,028,202	1,059,048	1,090,819	1,123,544
TOTAL ALL	4,553,123	4,689,716	4,830,408	4,975,320	5,124,580	5,278,317	5,436,666

APPENDIX F: STAFFING IMPLICATIONS

1. How many new staff members will the enrollment and program expansion driving the Davis School building expansion/renovation require?

When school opens in September, 2019 (Phase 1 complete), and the pre-school moves to Davis, we anticipate the need to hire on education assistant for the 10th kindergarten (the classroom teacher is already in place as an intervention specialist to address the large class size created by our decision not to invest in another modular classroom). Additionally, given our increased kindergarten numbers (we predicted 189 and enrolled 194), we may need an additional special education teacher.

If enrollment continues to grow, we will need to hire either one additional first or second grade classroom teacher, or two classroom teachers and therefore an additional part-time art teacher and part-time music teacher, and possibly an additional special educator. Depending upon the demographic composition of the new students, we could need additional English Language Learner staff.

	Professional Staff	Support Staff
September, 2019	<i>Likely 1 special educator</i>	.8 to 1.0 EA
Beyond 2019 Moderate Growth	1 classroom teacher	<i>TA's based upon individual student special education needs (0 – 2)</i>
Beyond 2019 Major Growth	2 classroom teachers .25 part-time art .25 part-time music <i>Possibly 1 special ed</i> <i>Possibly .5-1.0 ELL</i>	<i>TA's based upon individual student special education needs (0 – 3)</i>

(Italics indicate needs based upon individual students rather than numbers)

2. Will our nursing staff FTE be sufficient to handle the additional needs?

We have had to add 15 hours to our part-time nurse's schedule to be used at Davis School this year pursuant to the enrollment of medically fragile students. It is likely that this additional FTE/time would be sufficient to cover the needs of the expanded enrollment anticipated at Davis. Currently the pre-school is assisted by the CASE Collaborative classroom nurse at BHS. We anticipate that the CASE nurse already assigned to the Davis Case classroom would be able to do the same whether or not we move the BHS CASE classrooms to Davis.

APPENDIX G: SAMPLE MULTIPLE SCENARIOS AND OPTIONS



0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL





FIRST FLOOR PLAN



SECOND FLOOR PLAN

SPACE LEGEND

ADMIN/ GUIDANCE	ARTS & MUSIC	FOREIGN LANGUAGE	HEALTH & PE	DISTRICT WIDE
MEDIA CENTER	NURSE	DINING SERVICES	IT DEPT	STORAGE
CUSTODIAL	SPED	MEP	KINDERGARTEN	GRADE 1
GRADE 2				

0 4 8 16
SCALE: 1/16" = 1'
ON ORIGINAL





FIRST FLOOR PLAN



SECOND FLOOR PLAN

SPACE LEGEND

			
ADMIN/ GUIDANCE	ARTS & MUSIC	HEALTH & PE	DISTRICT WIDE
			
MEDIA CENTER	DINING SERVICES	STORAGE	SPED
			
CLASSROOM			

OPTION 1

ESTIMATED EXPANSION COST:
\$ 4,450,000

ESTIMATED RENOVATION COST:
\$ 170,000

CAFETERIA EXPANSION COST:
\$ 260,000

CONCEPTUAL PROJECT COST:
\$ 4,880,000

PROS:

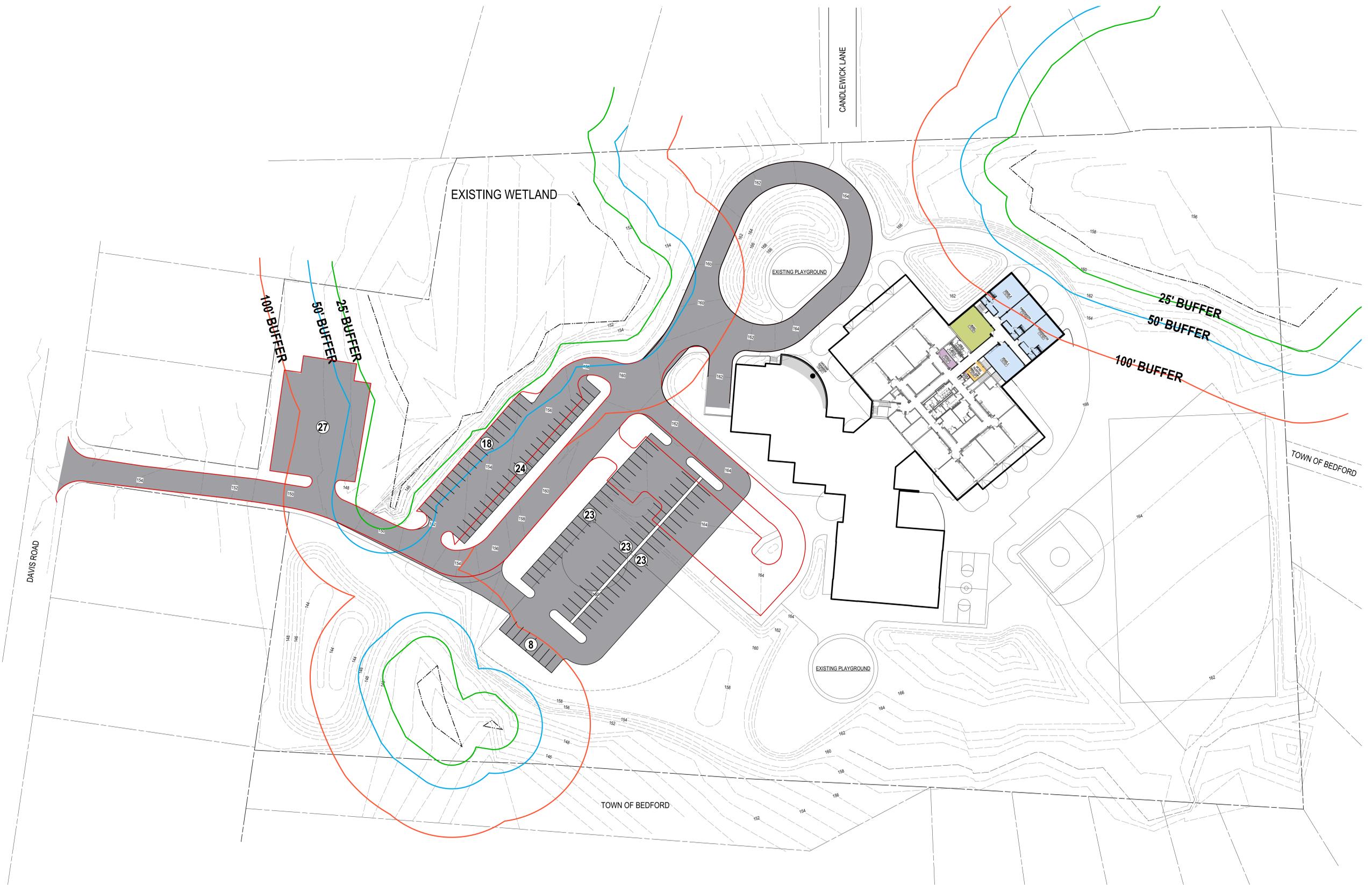
- + All 4 classrooms in the addition, plus Music Room
- + No interior work required beyond the second floor connection
- + Interior renovations can be done in several smaller projects
- + Returns Orange, Green, & Blue Pods
- + OT/PT space expands
- + Improves specialist areas
- + Increased Cafeteria capacity that improves circulation

CONS:

- Requires carefully phased work
- Disruption from work above occupied classrooms
- Does not provide 6 classrooms
- Does not allow any flexibility for future growth

10 KINDERGARTEN CLASSROOMS
18 GRADE 1 & 2 CLASSROOMS
MUSIC ROOM
SAIL WITH RESTROOM/STORAGE





0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL





FIRST FLOOR PLAN



SECOND FLOOR PLAN

SPACE LEGEND

ADMIN/ GUIDANCE	ARTS & MUSIC	HEALTH & PE	MEDIA CENTER
DINING SERVICES	STORAGE	SPED	CLASSROOM

OPTION 2

ESTIMATED EXPANSION COST:
\$ 6,580,000

ESTIMATED RENOVATION COST:
\$ 110,000

CAFETERIA EXPANSION COST:
\$ 260,000

CONCEPTUAL PROJECT COST:
\$ 6,950,000

PROS:

- + All 6 classrooms in the addition
- + No interior work required beyond the second floor connection
- + Interior renovations can be done in several smaller projects
- + Returns Orange, Green, & Blue Pods
- + Creates new Purple Pod
- + Music Room back to original space
- + OT/PT space expands
- + New Conference Room
- + Increased Storage
- + Improves specialist areas
- + Increased Cafeteria capacity that improves circulation
- + Smallest total internal reconfiguration work

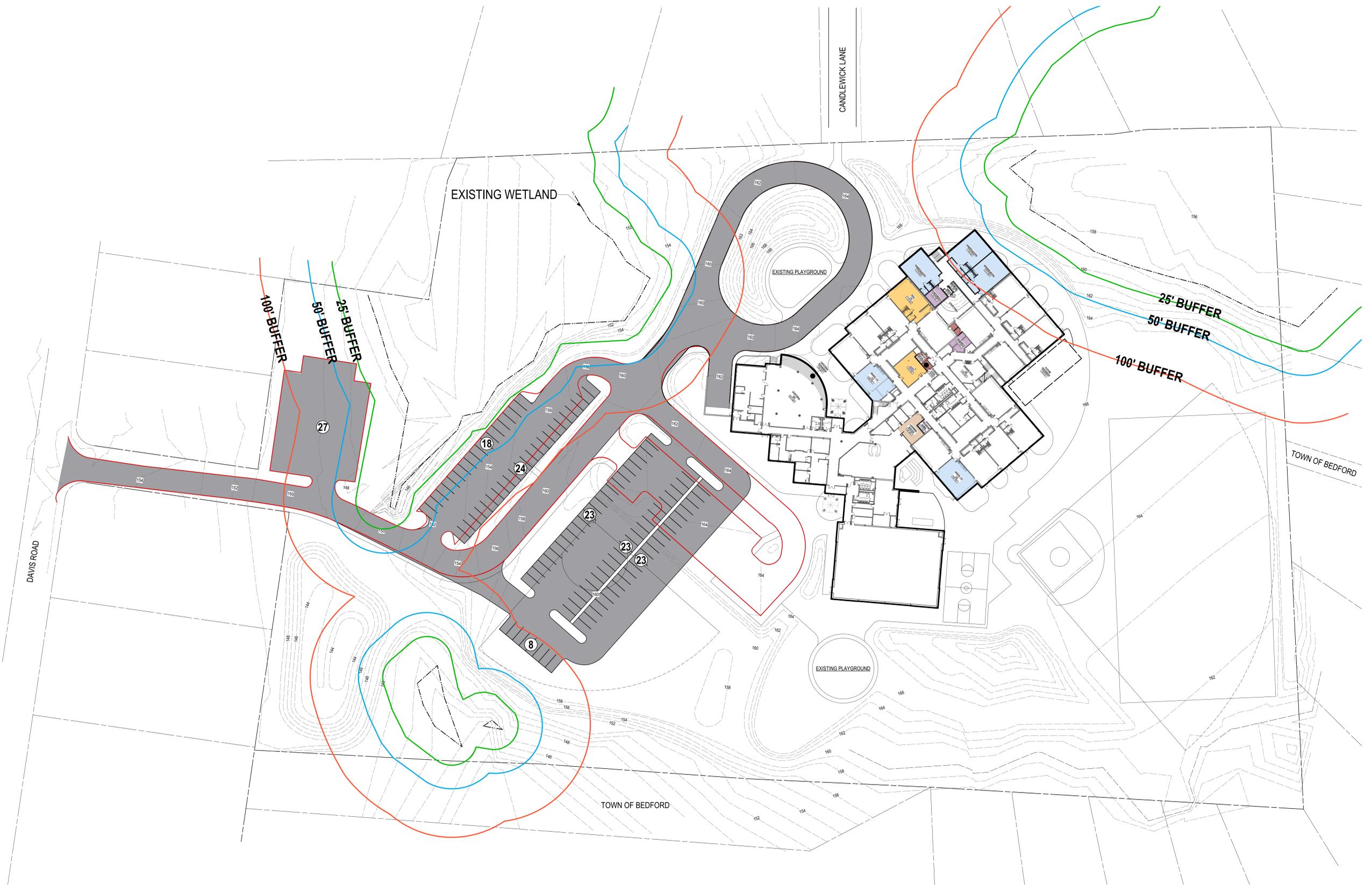
CONS:

- Two existing classrooms have a courtyard view
- Small construction on existing roof, that needs careful phasing
- Complicates future expansion for Pre-K
- Requires reworking the fire lane and grading

10 KINDERGARTEN CLASSROOMS
10 GRADE 1 CLASSROOMS
9 GRADE 2 CLASSROOMS

0 2 4 8 16
SCALE: 1/16" = 1'
ON ORIGINAL





0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL





FIRST FLOOR PLAN



SECOND FLOOR PLAN

SPACE LEGEND

ADMIN/ GUIDANCE	ARTS & MUSIC	HEALTH & PE	MEDIA CENTER
DINING SERVICES	STORAGE	SPED	CLASSROOM

OPTION 3

ESTIMATED EXPANSION COST:
\$ 10,860,000

ESTIMATED RENOVATION COST:
\$ 220,000

CAFETERIA EXPANSION COST:
\$ 260,000

CONCEPTUAL PROJECT COST:
\$ 11,340,000

PROS:

- + Pre-K and CASE are relocated to Davis School
- + Pre-K and CASE can operate independently and integrated into the school
- + Interior work required for expansion is limited to one classroom renovation and second floor connection
- + Returns Orange, Green, & Blue Pods
- + Creates new Purple Pod
- + Music Room back to original space
- + New OT/PT space
- + Improves specialist areas
- + Increased Cafeteria capacity that improves circulation
- + Provides flexibility in Pod configurations

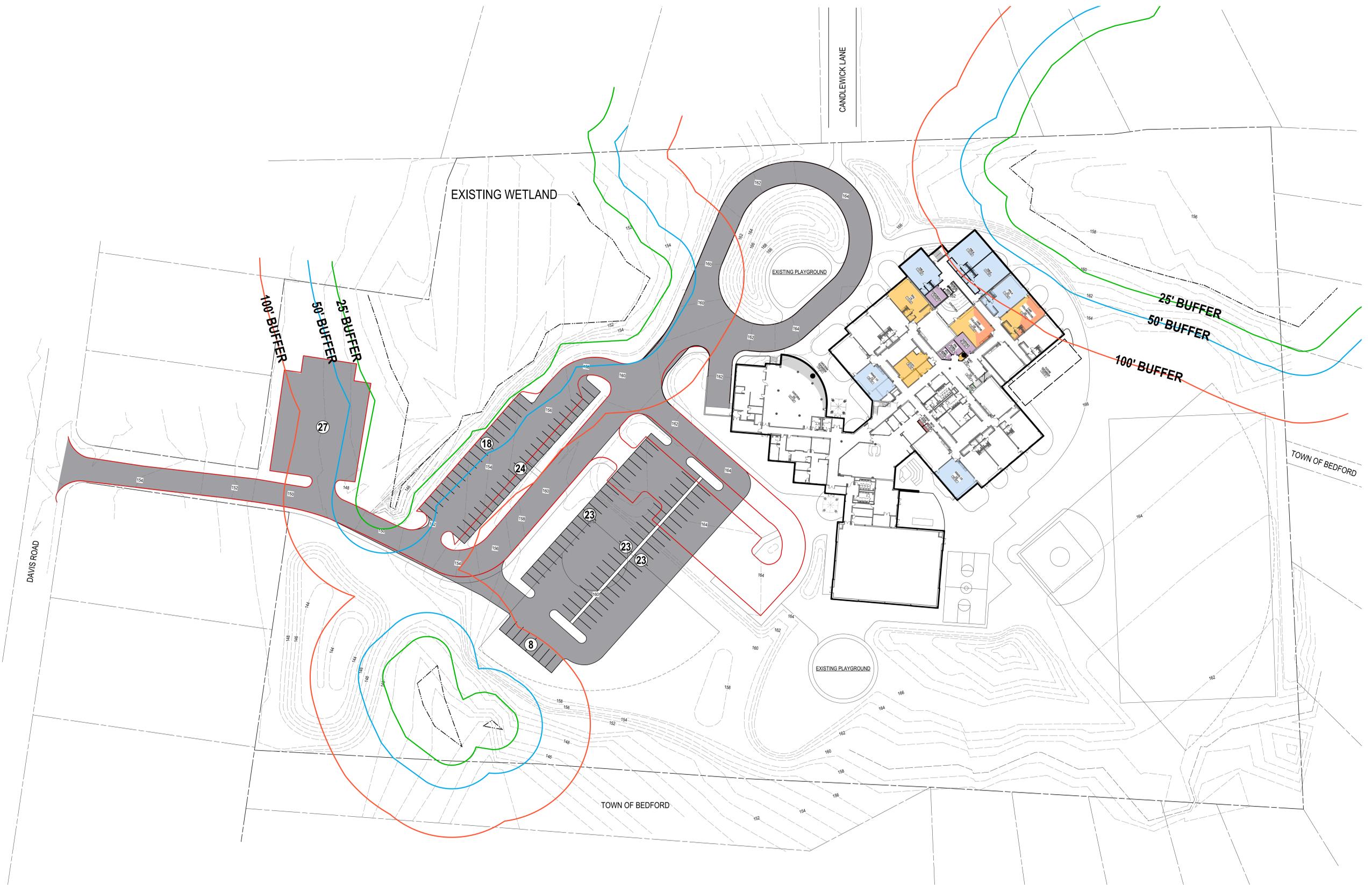
CONS:

- Two existing classrooms have a courtyard view
- Small construction on existing roof, that needs careful phasing
- Increases impervious area inside the wetlands buffer
- Requires reworking the fire lane and grading
- Requires more classroom relocation and renovation to accommodate Pre-K & CASE
- Large interior reconfiguration
- Higher cost than Options 1 & 2

10 KINDERGARTEN CLASSROOMS
10 GRADE 1 CLASSROOMS
9 GRADE 2 CLASSROOMS
4 PRE-K CLASSROOMS
3 CASE CLASSROOMS

SCALE: 1/16" = 1'
ON ORIGINAL



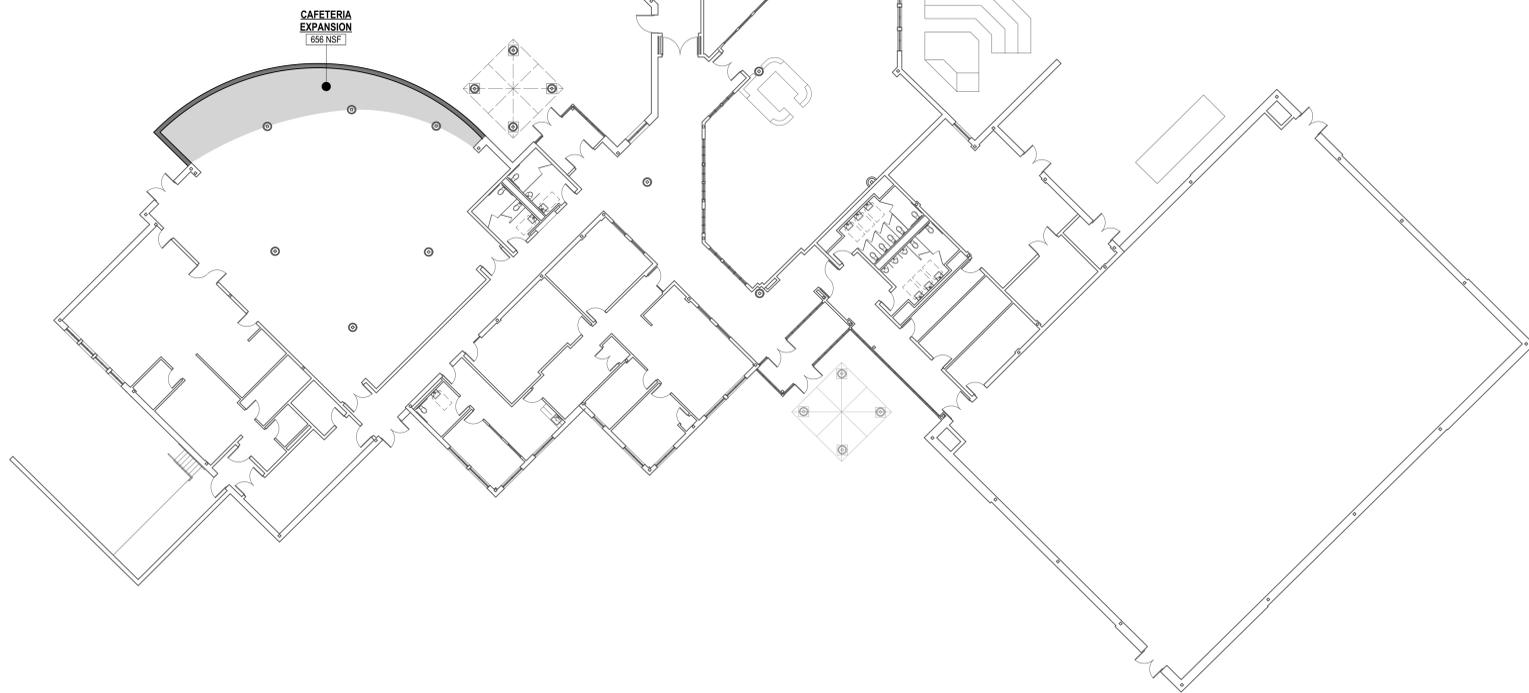


0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL





SECOND FLOOR PLAN



FIRST FLOOR PLAN

SPACE LEGEND

ADMIN/ GUIDANCE	ARTS & MUSIC	HEALTH & PE	DISTRICT WIDE
MEDIA CENTER	DINING SERVICES	STORAGE	SPED
	CLASSROOM		

OPTION 4A

ESTIMATED EXPANSION COST:
\$ 12,040,000

ESTIMATED RENOVATION COST:
\$ 140,000

CAFETERIA EXPANSION COST:
\$ 260,000

CONCEPTUAL PROJECT COST:
\$ 12,440,000

MULTIPURPOSE ROOM EXPANSION COST:
\$ 1,190,000

PROS:

- + Pre-K and CASE are relocated to Davis School
- + Pre-K and CASE can operate independently and integrated into the school
- + Interior work required for expansion is limited to one classroom renovation and second floor connection
- + Returns Orange, Green, & Blue Pods
- + Creates new Purple Pod
- + Music Room back to original space
- + New OT/PT space
- + Improves specialist areas
- + Increased Cafeteria capacity that improves circulation
- + Provides flexibility in Pod configurations

CONS:

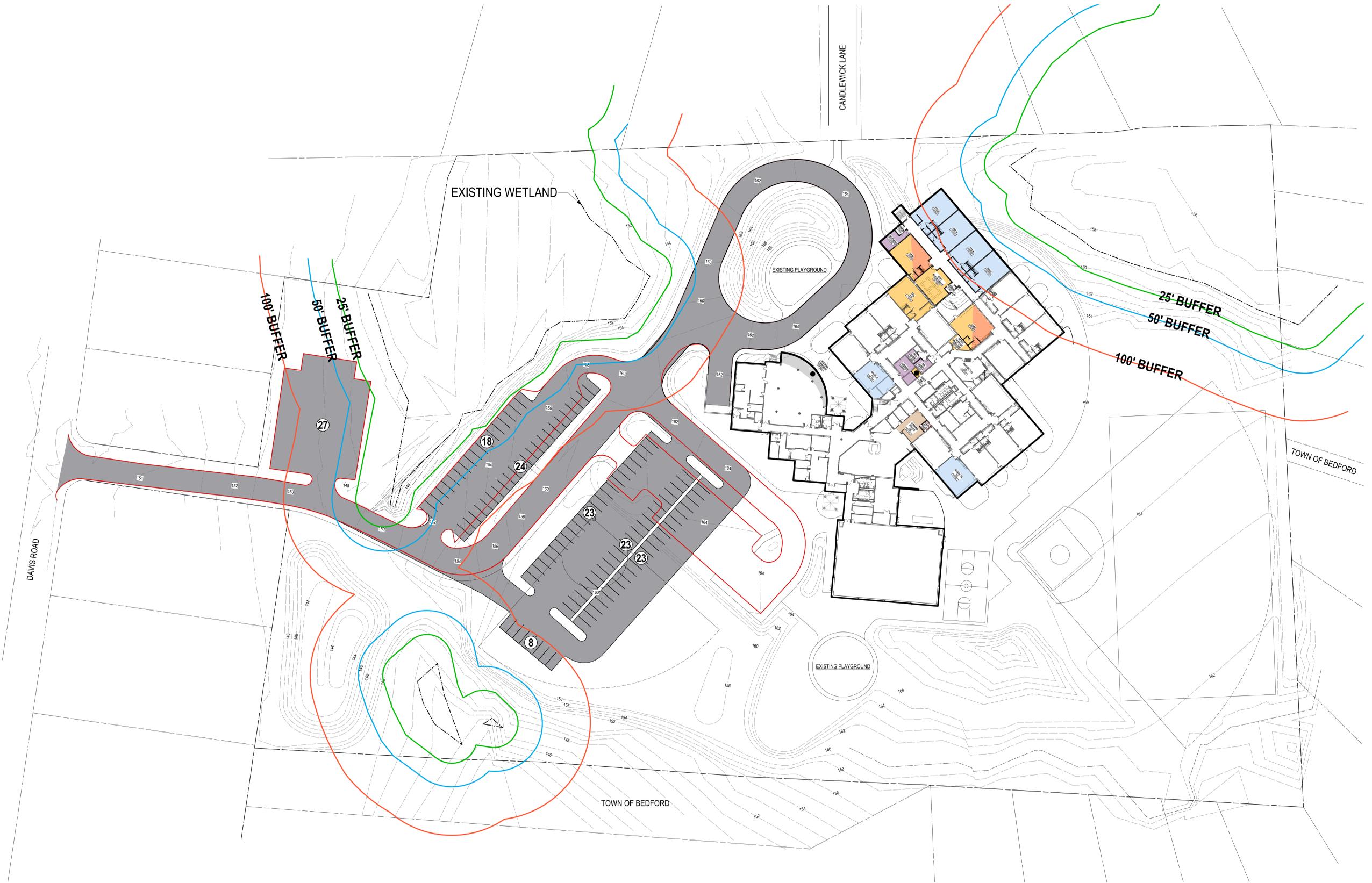
- Two existing classrooms have a courtyard view
- Small construction on existing roof, that needs careful phasing
- Increases impervious area inside the wetlands buffer
- Requires reworking the fire lane and grading
- Requires more classroom relocation and renovation to accommodate Pre-K & CASE
- Large interior reconfiguration
- Higher cost than Options 1 & 2
- 1st floor of addition maxes out buildable area per code

10 KINDERGARTEN CLASSROOMS
10 GRADE 1 CLASSROOMS
9 GRADE 2 CLASSROOMS
4 PRE-K CLASSROOMS
3 CASE CLASSROOMS



SCALE: 1/16" = 1'
ON ORIGINAL





0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL

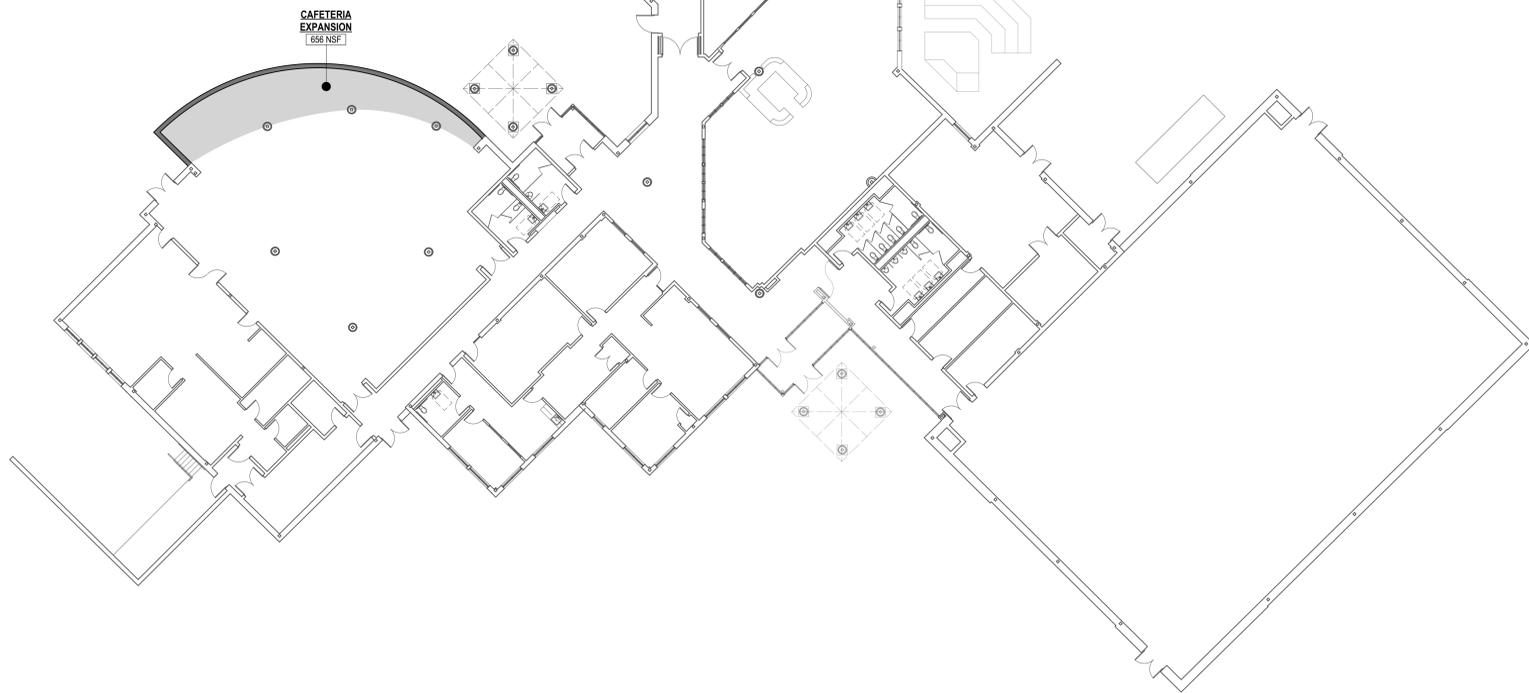




FIRST FLOOR PLAN



SECOND FLOOR PLAN



SPACE LEGEND

			
ADMIN/ GUIDANCE	ARTS & MUSIC	HEALTH & PE	DISTRICT WIDE
			
MEDIA CENTER	DINING SERVICES	STORAGE	SPED
	CLASSROOM		

OPTION 4B

ESTIMATED EXPANSION COST:
\$ 12,140,000

ESTIMATED RENOVATION COST:
\$ 130,000

CAFETERIA EXPANSION COST:
\$ 260,000

CONCEPTUAL PROJECT COST:
\$ 12,530,000

PROS:

- + Pre-K is relocated to Davis School
- + Pre-K can operate independently and integrated into the school
- + Interior work required for expansion is limited to one classroom renovation and second floor connection
- + Returns Orange, Green, & Blue Pods
- + Creates new Purple Pod
- + Music Room back to original space
- + New Art/Music room
- + New OT/PT space
- + Proper SAIL classroom
- + Improves specialist areas
- + Increased Cafeteria capacity that improves circulation
- + Provides flexibility in Pod configurations
- + Provides for future enrollment increase

CONS:

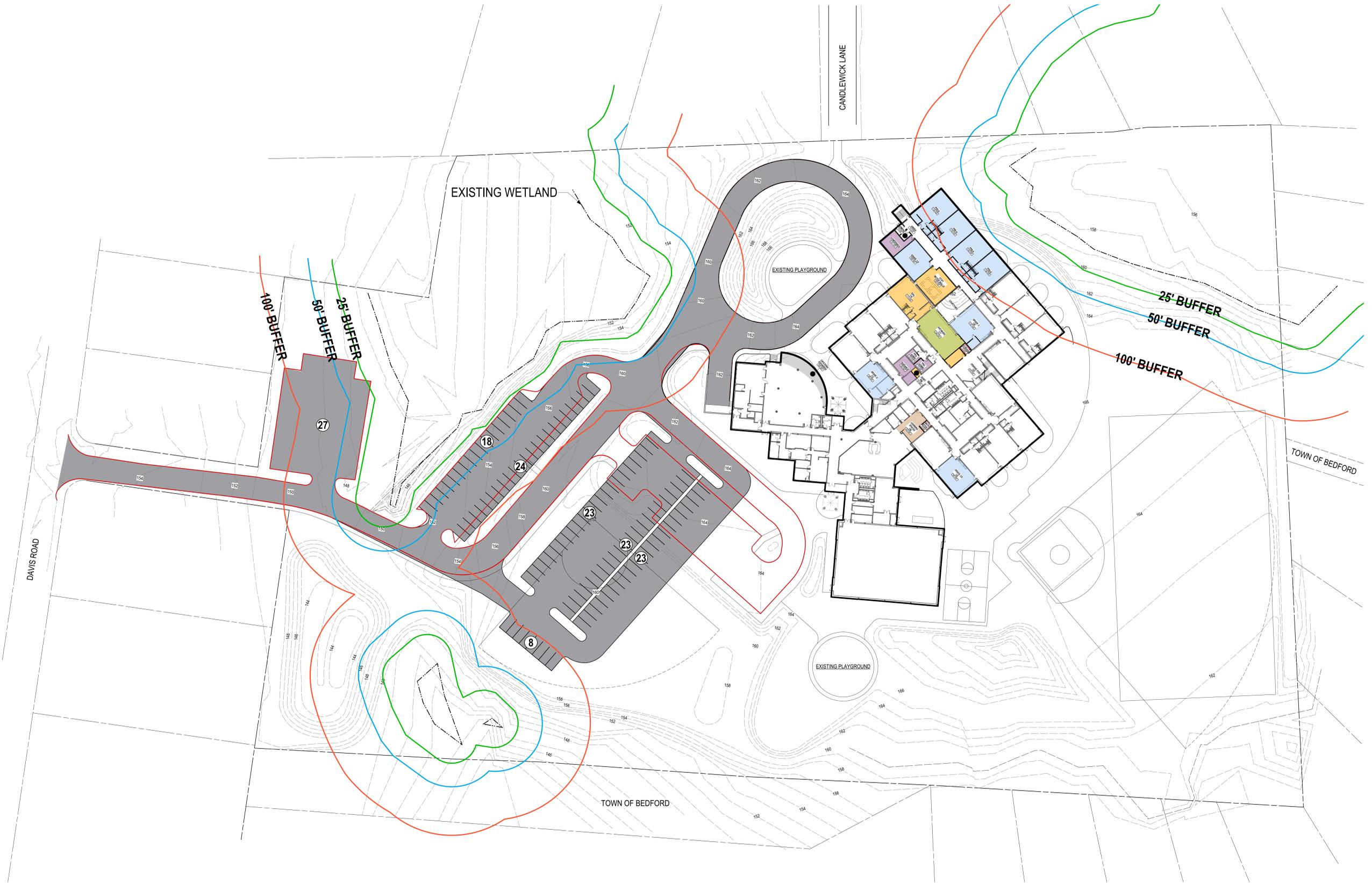
- Two existing classrooms have a courtyard view
- Small construction on existing roof, that needs careful phasing
- Increases impervious area inside the wetlands buffer
- Requires reworking the fire lane and grading
- Largest interior reconfiguration area
- Higher cost than all other options
- 1st floor of addition maxes out buildable area per code

10 KINDERGARTEN CLASSROOMS
10 GRADE 1 CLASSROOMS
10 GRADE 2 CLASSROOMS
4 PRE-K CLASSROOMS
1 CASE CLASSROOM



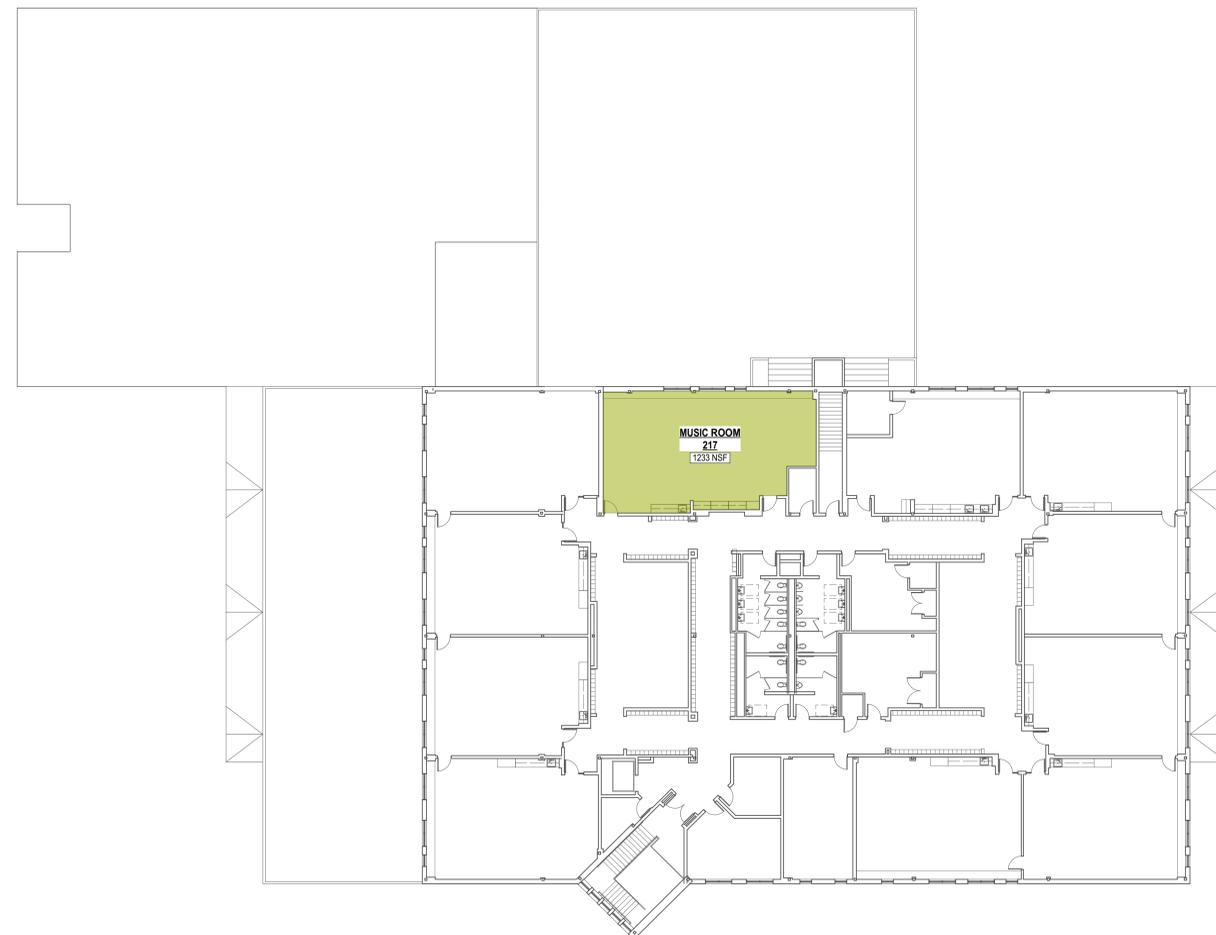
SCALE: 1/16" = 1'
ON ORIGINAL



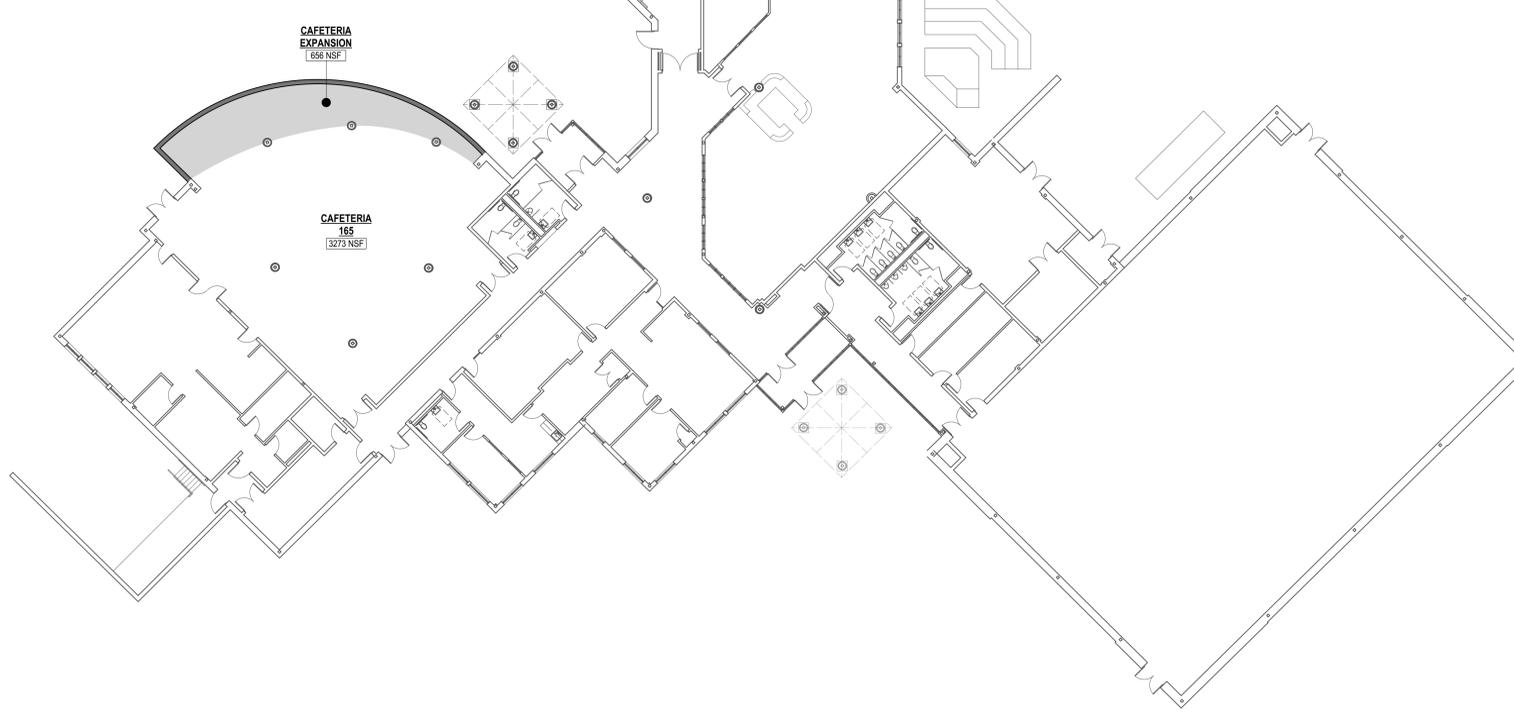


0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL





SECOND FLOOR PLAN



FIRST FLOOR PLAN

SPACE LEGEND

			
ADMIN/ GUIDANCE	ARTS & MUSIC	HEALTH & PE	MEDIA CENTER
			
DINING SERVICES	STORAGE	SPED	CLASSROOM

OPTION 5

ESTIMATED EXPANSION COST:
\$ 6,390,000

ESTIMATED RENOVATION COST:
\$ 110,000

CAFETERIA EXPANSION COST:
\$ 260,000

CONCEPTUAL PROJECT COST:
\$ 6,760,000

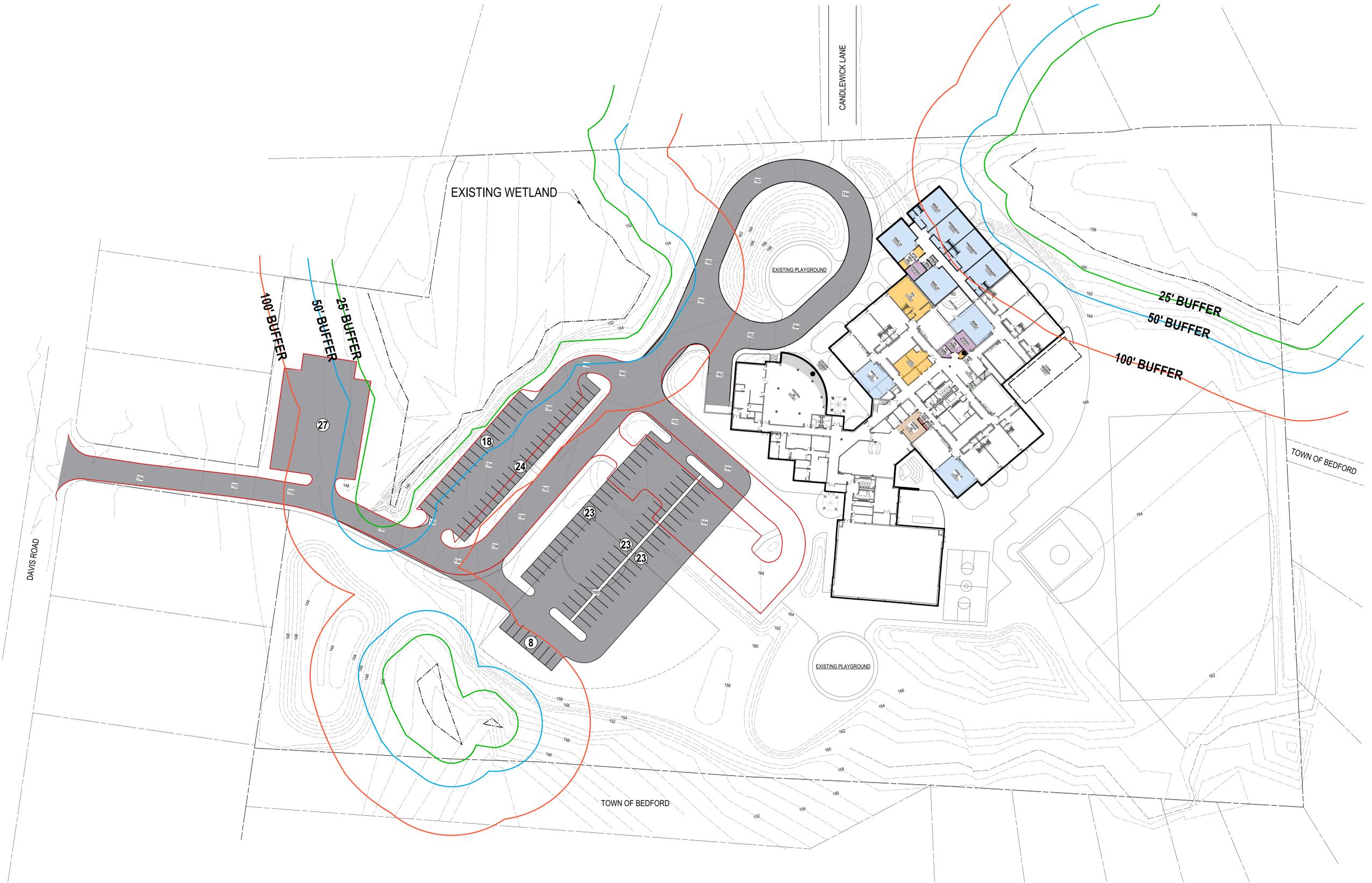
- PROS:**
- + All 6 classrooms in the addition
 - + No work above existing classrooms
 - + Returns Music Room
 - + Interior renovations can be done in several smaller projects
 - + Returns Orange, Green, & Blue Pods
 - + OT/PT space expands
 - + Improves specialist areas
 - + Increased Cafeteria capacity that improves circulation
 - + Lower cost than Option 2 (two storey Davis Only)

- CONS:**
- Two existing classrooms have a courtyard view
 - Increases impervious area inside the wetlands buffer
 - Requires reworking the fire lane and grading
 - No room for future growth at this corner.

10 KINDERGARTEN CLASSROOMS
10 GRADE 1 CLASSROOMS
10 GRADE 2 CLASSROOMS
MUSIC ROOM
SAIL WITH RESTROOM/STORAGE

0 2 4 8 16
SCALE: 1/16" = 1'
ON ORIGINAL





0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL





	BUILT	POSSIBLE
LOWER LOT	27	27
MID LOT	38	42
UPPER LOT	37	77
ROAD	8	
TOTAL PARKING	110	146
		+36
CAR	0	23
BUS	3	12

0 10 20 40 80
 SCALE: 1" = 40'
 ON ORIGINAL

