NEWTON
PUBLIC SCHOOLS

100 Walnut Street, Newtonville, MA 02460

AREA CODE (617) 559-9025

Office of Business, Finance and Planning

Memorandum

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TO: David Fleishman, Superintendent

FROM: Sandra Guryan, Deputy Superintendent/Chief Administrative Officer

DATE: October 25, 2010

RE: Additional Information on Short-term Facilities Options

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In order to inform continued School Committee discussion of short-term facilities options, the following documents are provided:

1.) Memorandum to Superintendent David Fleishman on Classroom Usage at Day, October 14, 2010, from Paul Stein, Deputy Superintendent and Brian Turner, Principal, Day Middle School

2.) Answers to Recently Asked Questions

3.) Presentation on Short-Term Space Options, Special Meeting of the School Committee, October 20, 2010

NEWTON
PUBLIC SCHOOLS

100 Walnut Street, Newtonville, MA 02460-1398

Office of the Deputy Superintendent
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MEMO

TO: Superintendent David Fleishman, Newton School Committee Members
FROM: Paul Stein, Deputy Superintendent
Brian Turner, Principal, Day Middle School
RE: Classroom Usage at Day
DATE: October 14, 2010

Questions have been raised about how classroom space is utilized at Day Middle School, particularly with regard to vacancy rates. Day operates on a seven period schedule (plus lunch) within a six-day cycle. Most team teachers are with students, either teaching their content area or in Extension periods, for 5 of these 7 periods. Teachers hold meetings with colleagues, or engage in prep work, during the remaining two periods. One proposal suggests that rather than building 6 new classrooms, we instead ask a number of teachers to share classrooms. **The cumulative impact of this proposal would create an inequitable experience between students among the four middle schools. Day would be the only school that would need to make the accommodations listed below and thus students would receive a lower quality education at Day than at the other 3 middle schools.**

The list below details the potential impact of such a proposal. In general, problems arise in three areas:

- Teaching and learning is compromised.
- The learning environment, and to a degree, the middle school model is compromised.
- The constraints to the building and to the schedule will reduce flexibility, negatively impacting programming by forcing the schedule to drive programming (rather than the other way around).

Teaching and learning is compromised.

1) Students would not have time to ask teachers questions at the beginning or end of class, as the teachers would need to rush off to or into their next class. Extra-help would be compromised. On a related note, it is not uncommon for teachers to instruct students to stop by their room during lunch or before and after school for check-ins, extra help, or just a friendly haven. This practice would of necessity be curtailed.

2) Preparation time would be compromised. Teachers use their classroom as their offices. Without a workspace, lesson planning becomes disrupted and more difficult. Of course, teachers will continue to get the work done, but less efficiently. Separate office space would mitigate this problem, but in order to create office space, the school would need to give up some classroom space. Obviously, this would defeat the original goal, which was to create *more* classroom space.

3) Teachers use their prep time in their classrooms to prepare the physical space itself. Science labs require provisioning. Differentiated instruction often requires learning stations, which often requires teachers to prepare student resources for group projects and assignments.

4) Most "rotation" and "elective" courses require unique physical spaces: Physical Education, Tech Engineering, Art, Drama, Band, Chorus, and Computers. This lessens the opportunities to establish itinerant teachers within multi-use spaces. Science teachers need science labs, and it becomes a safety concern if science lab equipment and materials were left out when other classes make use of the space. Social studies teachers have distinctly unique classrooms full of primary and secondary sources. Walls have history murals that map out the year's curriculum. ELA teachers create spaces and centers that bring to life the varied skills addressed: vocabulary, grammar, reading comprehension, writing, speaking and listening. ELA teachers set space aside for independent reading libraries, writing centers, poetry corners, vocabulary walls, etc. Math teachers splash walls with strategies. It is quite hard to separate the discipline from the space.

5) Start-up time in classes would be seriously compromised. Teachers would need to move back and forth between classrooms, likely in different parts of the building, sharing space in 2 to 3 rooms. As a result, they would have no time to set up their classrooms. When teachers have back-to-back classes, teaching time would be lost since teachers cannot realistically travel from one class and be ready to begin the next in a matter of 3 minutes.

6) Instead of teachers welcoming students into their classrooms as they enter, teachers would be waiting and entering the classrooms along with the students. This limits the possibility of teachers effectively passing out "starters," "do-nows" or "activators" to the students as they walk into the classroom. At the same time, teachers would have limited opportunity to collect "tickets-to-go" or "exit assignments" as the students exit classes.

7) Traveling teachers would need carts to wheel classroom sets of textbooks from one class to the next. World Language teachers – should they be itinerant teachers – would also need to transport audio equipment on their carts. The use of carts would require the use of the elevator, which would increase the need for transition time. The elevator is already slow and would be slower with greater use. Any increase in transition time increases unstructured time and decreases structured classroom time.

8) The classroom teaching environment would be compromised, since teachers could not easily establish a classroom environment that reinforces the teacher's teaching style and content area. The teacher could not display student work, visual aides, and materials – all of which help create a physical environment which reinforces the academic goals. Improved technology could, at best, only ease this problem, and we do not even have such technology in place or the means of doing so in the next few years at least. In addition, different teachers use different seating arrangements depending upon the types of teaching they are doing, and these could not easily or quickly be altered if space were shared.

9) Teachers make effective use of wall space. For example, Word Walls help students learn vocabulary. Traveling teachers would need to replicate Word Walls for each classroom.

10) Teachers often post academic expectations, norms, rules, procedural expectations and consequences. Rules are unique to disciplines and teachers. Multiple teachers within one space may have varied student expectations and criteria for success, which could send mixed messages and confuse matters. This may be especially problematic for an age-group that is constantly on the look out for what is fair and unfair.

11) Visually displaying and pitting one teacher's expectations, norms, procedures, etc. against another's in front of the eyes of the students may very well cause acrimonious situations, both across and among teachers and students.

12) Teachers who teach all of their classes in the same room will also be disrupted since they must leave their room any time their classroom is otherwise occupied. In addition, they must wait for the other teacher and his or her class to leave before they can get started teaching (again creating likely delays).

The learning environment, and to a degree, the middle school model is compromised.

1) Students in the impacted teams would lose their "home base." If team teachers were asked to move about during the school day, the teams would no longer have their geographic center, negatively impacting the school-within-a-school environment. Teaming as a middle school concept is vital for the middle school child in that it ensures a smaller school within a school environment that helps smooth the transition away from elementary models to department-based models at the high school level. Teams provide students with a safe haven within which to mature socially, emotionally and academically within a climate that allows students to comfortably take risks within a familiar environment. Teaming also ensures a team of core-academic teachers have frequent collegial opportunities to collaboratively discuss how best to support struggling students, enhance instructional techniques and maximize student learning. Teaming helps connect students to their community, helps build strong teacher-student and student-student bonds, and helps engage students in school so that they can confidently explore the world around them without the fear of adolescent ridicule that can far too easily surface when students co-exist off teams and within larger school populations.

2) The more students lose their home base or geographic center, the less likely they are to take ownership of and responsibility for the physical space itself. At the end of the day, students are much more willing to clean up after themselves than they are willing to clean up after others who have visited their space. Students and teachers have pride in their spaces, especially when it truly is their space.

3) Unless all subjects were equally impacted, students, teachers and parents will get the message that the subject matter taught by the itinerant teacher is somehow less important.

4) A teacher's classroom is his or her workplace. Removing this classroom would negatively impact how teachers feel about their working environment.

The constraints to the building and to the schedule will reduce flexibility, negatively impacting programming by forcing the schedule to drive programming (rather than the other way around).

1) With greater student enrollment, there will need to be more teachers to not only teach ELA, math, science and social studies, but also to teach "rotation" and "elective" classes, considering these off-team courses are already at full capacity (e.g. some world language, health, art, tech engineering, yearbook, music and PE classes currently have 28, 29 and 30 students each). Hiring additional "rotation" and "elective" teachers will certainly result in their needing additional space, too. Therefore, world language teachers who are already doubling up will double up even more. We currently have three .3 FTE world language teachers and one .3 FTE health/PE teacher. These four positions will need to increase from .3 FTE to at least .5 FTE to accommodate additional classes, thereby compounding the need for additional space.

2) Scheduling is more difficult than it appears at first glance because, although there will be empty classrooms throughout the school day, these classrooms are not always available when needed.

3) Special education teachers make great use of "empty" classrooms for pull-out sessions and for separate locations to administer accommodations for quizzes, tests, projects and assignments. Grade-level department meetings and interdisciplinary team meetings all take place within the "empty" classrooms. Teachers use their prep time in their classrooms to prepare the physical space itself ("provisioning"). For example, science teachers set up labs; ELA teachers set up stations, etc. Therefore, it is much less than 30% of the time that classroom space is not utilized.

4) Grade-level department meetings take place in department-based classrooms, which helps teachers share instructional techniques and strategies. Currently, for example, math teachers meet within a math classroom. This provides host math teachers, coaches and mentors with opportunities to demonstrate in-class strategies within the actual math space.

5) Interdisciplinary team meetings take place in team-based classrooms, which helps teachers discuss and share common systems and policies. Currently, for example, a host teacher can have a show-and-tell to demonstrate exactly how HW is processed, how hall passes are utilized, how class work is filed, how absent students' work is collected, how norms have been displayed, how room configurations maximize student learning, etc… giving each teacher better opportunities to provide consistency from one classroom to the next.

6) This proposal would sacrifice the flexibility that new classrooms would offer if student enrollment were to increase in future years.

Recently Asked Questions Related to the Proposed Additional Space at Day Middle School

What would the cost be of just an expansion of the cafeteria at Day?

The cost of an interior renovation for the cafeteria at Day is estimated at $190,400 in the Raymond Design Associates, Inc. Day Middle School Space Needs Study. (This is the cafeteria expansion option that would involve using a portion of the existing lobby.) This pricing does assume that individual scopes of work are taking place within a larger project.

How many classrooms are there currently at Day?

The following table contains a listing and brief description of the use of space at Day Middle School in the 2010-2011 school year:

Use of Space (2010-11)	Regular Classrooms Avg. 825 sf	Small Classrooms Avg. 480 sf	Converted Closets	Other
Team Classrooms	34			
Additional Team Classroom	1			
Special Education	2	9	2	
World Language	7			
Health (with Latin)	1			
Art	2			
Chorus				1
Band				1
Drama				1
Technology Engineering				2
ELL			1	
Speech & Language			1	
Faculty Lounge		1		
Cafeteria				1
Library				1
Gymnasium				1
Locker Rooms				2
Computer Labs	2			
TV Studio				1
Newspaper/Yearbook	1			
Total	**50**	**10**	**4**	**11**

Recently Asked Questions Related to the Proposed Additional Space at Day Middle School

Is it true that core subject classrooms have no students in them for 2 periods out of seven each day?

Please refer to the memorandum to Superintendent David Fleishman on classroom usage at Day dated October 14, 2010 from Paul Stein, Deputy Superintendent and Brian Turner, Principal, Day Middle School.

What is the class size data for Day and other middle schools?

The Annual Class Size Report, January 11, 2010, provides historical class size data for all Middle Schools. Table 14 of the Annual Class Size Report has been updated for the current year, 2010-2011, and has been excerpted below, with 5 years of historical information.

TABLE 14
DISTRIBUTION OF CLASS SIZES
2010-11
TOTAL MIDDLE SCHOOLS

	SUBJECT					TOTAL	
Class Size	English	World Language	Science	Social Studies	Math	N	%
35-39	0	0	0	0	0	0	0.0%
30-34	0	0	0	0	2	2	0.4%
25-29	4	22	16	12	16	70	12.7%
20-24	88	54	89	94	69	394	71.2%
15-19	19	21	7	6	24	77	13.9%
10-14	1	7	0	0	2	10	1.8%
5-9	0	0	0	0	0	0	0.0%
1-4	0	0	0	0	0	0	0.0%
Total	112	104	112	112	113	553	100.0%
Avg. Class Size 2010-11	21.4	21.3	22.3	22.1	21.5	21.7	
2009-10	21.3	21.9	22.3	21.8	21.3	21.7	
2008-09	21.1	20.8	21.7	21.5	21.2	21.2	
2007-08	20.3	19.8	21.2	21.1	21.2	20.7	
2006-07	21.9	19.8	22.6	22.6	22.3	21.8	

Recently Asked Questions Related to the Proposed Additional Space at Day Middle School

BIGELOW MIDDLE SCHOOL

	SUBJECT					TOTAL	
Class Size	English	World Language	Science	Social Studies	Math	N	%
35-39	0	0	0	0	0	0	0.0%
30-34	0	0	0	0	1	1	0.8%
25-29	0	4	1	1	4	10	8.3%
20-24	19	11	20	21	15	86	71.7%
15-19	5	5	3	2	4	19	15.8%
10-14	0	4	0	0	0	4	3.3%
5-9	0	0	0	0	0	0	0.0%
1-4	0	0	0	0	0	0	0.0%
Total	24	24	24	24	24	120	100.0%
Avg. Class Size							
2010-11	21.4	19.8	21.8	21.6	21.7	21.3	
2009-10	21.2	21.1	21.6	21.2	21.4	21.3	
2008-09	20.5	19.8	21.0	20.5	20.5	20.5	
2007-08	21.1	19.1	21.1	21.3	21.1	20.7	
2006-07	21.5	18.9	22.9	22.5	22.2	21.6	

BROWN MIDDLE SCHOOL

	SUBJECT					TOTAL	
Class Size	English	World Language	Science	Social Studies	Math	N	%
35-39	0	0	0	0	0	0	0.0%
30-34	0	0	0	0	0	0	0.0%
25-29	0	3	1	3	4	11	7.4%
20-24	25	20	28	26	22	121	81.8%
15-19	5	4	1	1	4	15	10.1%
10-14	0	0	0	0	1	1	0.7%
5-9	0	0	0	0	0	0	0.0%
1-4	0	0	0	0	0	0	0.0%
Total	30	27	30	30	31	148	100.0%
Avg. Class Size							
2010-11	21.6	21.7	22.1	22.0	21.3	21.7	
2009-10	20.3	23.1	20.8	20.3	20.2	20.9	
2008-09	20.8	21.1	20.9	20.6	21.1	20.9	
2007-08	19.3	20.4	21.3	20.9	21.7	20.7	
2006-07	21.2	20.2	21.7	21.8	21.2	21.3	

Recently Asked Questions Related to the Proposed Additional Space at Day Middle School

DAY MIDDLE SCHOOL

	SUBJECT					TOTAL	
Class Size	English	World Language	Science	Social Studies	Math	N	%
35-39	0	0	0	0	0	0	0.0%
30-34	0	0	0	0	0	0	0.0%
25-29	0	11	2	2	3	18	11.0%
20-24	28	9	30	29	21	117	71.8%
15-19	6	6	2	3	10	27	16.6%
10-14	0	1	0	0	0	1	0.6%
5-9	0	0	0	0	0	0	0.0%
1-4	0	0	0	0	0	0	0.0%
Total	34	27	34	34	34	163	100.0%
Avg. Class Size							
2010-11	21.3	22.8	22.2	22.1	21.5	21.9	
2009-10	21.6	21.8	22.4	22.3	21.3	21.9	
2008-09	21.4	21.5	22.3	22.0	22.0	21.9	
2007-08	21.0	21.8	21.3	21.6	22.0	21.5	
2006-07	22.6	21.8	22.6	23.3	22.9	22.7	

OAK HILL MIDDLE SCHOOL

	SUBJECT					TOTAL	
Class Size	English	World Language	Science	Social Studies	Math	N	%
35-39	0	0	0	0	0	0	0.0%
30-34	0	0	0	0	1	1	0.8%
25-29	4	4	12	6	5	31	25.4%
20-24	16	14	11	18	11	70	57.4%
15-19	3	6	1	0	6	16	13.1%
10-14	1	2	0	0	1	4	3.3%
5-9	0	0	0	0	0	0	0.0%
1-4	0	0	0	0	0	0	0.0%
Total	24	26	24	24	24	122	100.0%
Avg. Class Size							
2010-11	21.4	20.8	23.3	22.9	21.8	22.0	
2009-10	22.2	21.1	24.7	23.9	22.6	22.9	
2008-09	21.6	20.2	22.6	22.8	20.8	21.6	
2007-08	19.7	17.9	21.0	20.7	19.9	19.8	
2006-07	22.0	17.9	23.7	23.0	22.9	21.8	

Recently Asked Questions Related to the Proposed Additional Space at Day Middle School

Might we have a related space issue at Day regarding the science classes as numbers go up? Are there enough "stations" for experiments?

There are typically 12 Science lab stations in the Science classrooms at Day. Two students can effectively work at each station and when there is a student without a partner, the effectiveness and safety of assigning three students to a laboratory station is considered carefully. According to the Science department chair at Day, higher class sizes can interfere with effective teaching of experiential laboratory Science as it is currently delivered while still maintaining lab safety. For example, the use of Bunsen burners in 8th grade to study the chemical makeup of minerals would have to be revamped with more than two students at a station. Also, students need the accessories that go along with lab space, lab sinks for proper clean-up, lab tables, proper storage for any additional equipment and/or chemicals. Some safety items would need to be incorporated with any plans for expanding the rooms that facilitate a Science curriculum.

Newton Public Schools

Newton, Massachusetts

Short-Term Space Options

October 20, 2010

Summary of Presentation

1. Introduction
2. Middle School Model and Statistics
3. Options Considered
    a. Do Nothing – No Additional Space Added
    b. Reconfigure Existing Space
    c. Redistricting and Buffer Zones
    d. Options for Construction
4. Elementary Space Considerations
5. Review of Enrollment Growth

Middle School Model

Unique developmental issues faced by middle school students demand:

- A learning environment that is sensitive to this developmental period, flexible, and multi-faceted.
- A core academic program characterized by a student-centered curriculum that is academically challenging, experiential, exploratory, and interdisciplinary.
- An educational structure that creates small communities for learning where stable, close, mutually respectful relationships with adults and peers are considered fundamental for intellectual development and personal growth. **Teaming is the centerpiece of this structure.**

Middle Schools: The Numbers

- 4 subjects lend themselves to 4 teacher teams.
- 2 teacher (half) teams work as well.
- 3 teacher teams are very problematic.
- Targeted team size: 88-92
- Team size must account for Math leveling in Grades 7 and 8, which skews class size.

Team Size and Average Class Size

2009-10 (In Order of Team Size)

	Avg. Team Size	Avg. Class Size	% Classes > 25 students	% Classes < 20 Students
Brown	85	20.9	7%	28%
Bigelow	88	21.3	7%	21%
Day	91	21.9	15%	17%
Oak Hill	96	22.9	29%	11%

2010-11 (In Order of Team Size)

	Avg. Team Size	Avg. Class Size	% Classes > 25 Students	% Classes < 20 Students
Bigelow	87	21.3	9%	19%
Brown	89	21.7	7%	11%
Day	89	21.9	11%	17%
Oak Hill	93	21.9	26%	16%

Team Size and Teacher FTE

- **How many middle school team teachers are needed for all teams to be at 96 students or below?**

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
# Team Teachers	114	122	128	130	128	130
Increase from Prior Year		8 +2 Day +2 Brown +4 Oak Hill	6 +6 Day	2 +2 Brown	-2 -2 Brown	2 +2 Brown
Average team size	**90**	**88**	**85**	**88**	**88**	**88**

Impact of Potential Reductions

- How many middle school team teachers would be reduced if teams are allowed to go to a maximum of **110** students?

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
# Team Teachers	114	108	112	120	116	116
Increase from Prior Year		-6	4	8	-4	0
		-2 Bigelow	+2 Brown	+2 Bigelow	-2 Bigelow	+2 Bigelow
		-4 Brown	+2 Oak Hill	+2 Brown	-2 Oak Hill	-2 Oak Hill
				+2 Day		
				+2 Oak Hill		
Average team size	**90**	**99**	**97**	**95**	**97**	**98**

- How many middle school team teachers would be reduced if teams are allowed to go to a maximum of **104** students?

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
# Team Teachers	114	114	120	120	122	122
Increase from Prior Year		0	6	0	2	0
			+2 Day		+2 Brown	
			+4 Oak Hill			
Average team size	**90**	**94**	**91**	**95**	**92**	**94**

Day at 36, 38, 40 or 42 Team Classrooms Average (with Min/Max) Team Size

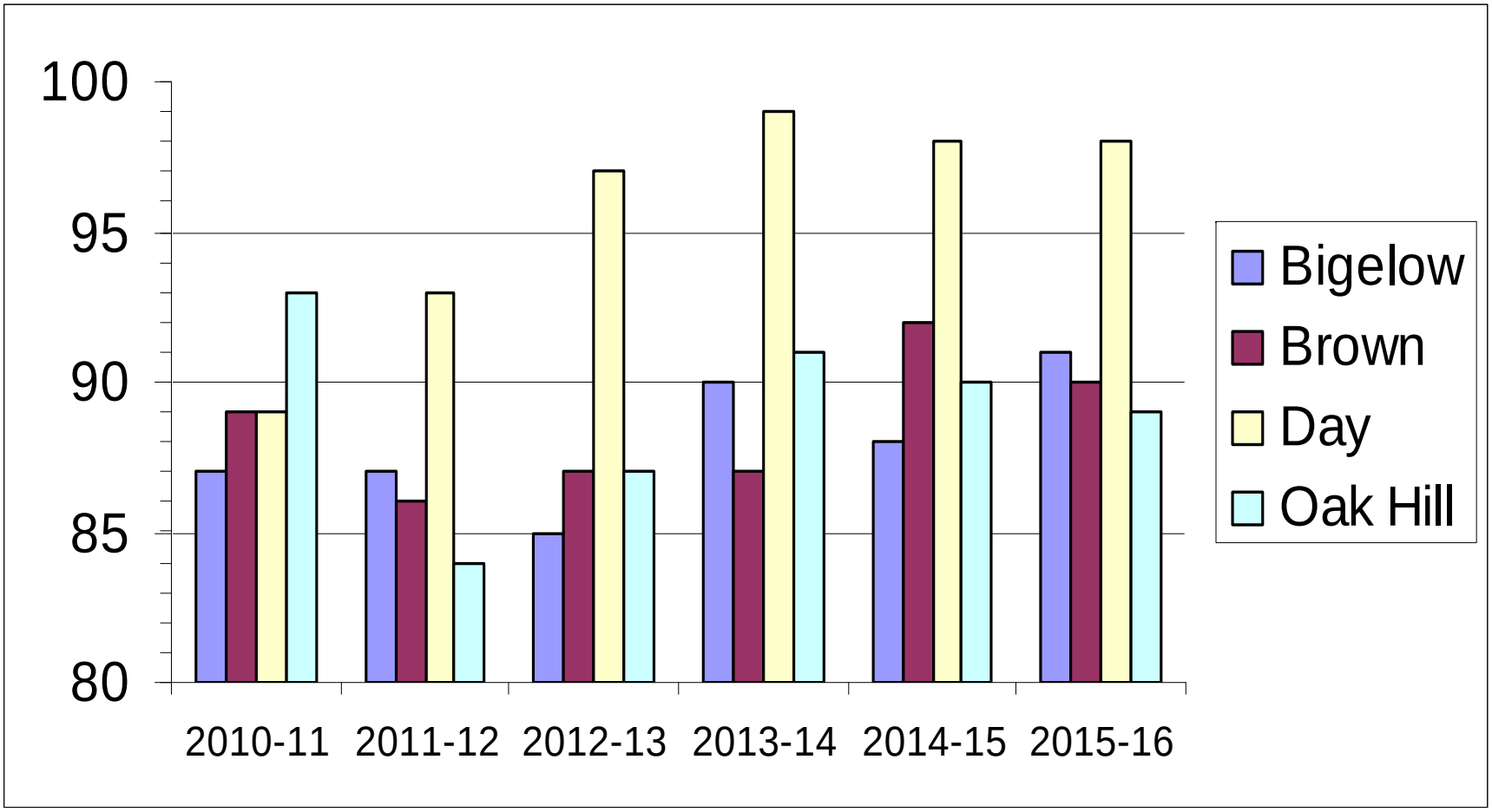
# Team Classrooms	Team Size	2011-12	2012-13	2013-14	2014-15	2015-16
36	Average	93	97	99	98	98
	Min/Max	87/98	92/100	97/100	94/100	95/101
38	Average	88	91	94	93	93
	Min/Max	84/93	85/98	86/99	86/99	87/98
40	Average	83	87	89	88	88
	Min/Max	80/87	84/92	85/97	85/94	84/95
42	Average	79	83	85	84	84
	Min/Max	74/84	79/85	83/86	81/86	81/87

Impact at Day Middle School with No Additional Space Added

- Teaching and learning is comprised.
- The learning environment, and to a degree, the middle school model is compromised.
- The constraints to the building and to the schedule will reduce flexibility, negatively impacting programming by forcing the schedule to drive programming, rather than the other way around.

Average Team Size: Day at 36 Team Classrooms

(Max Team Size At Any Grade in Other Schools = 96)

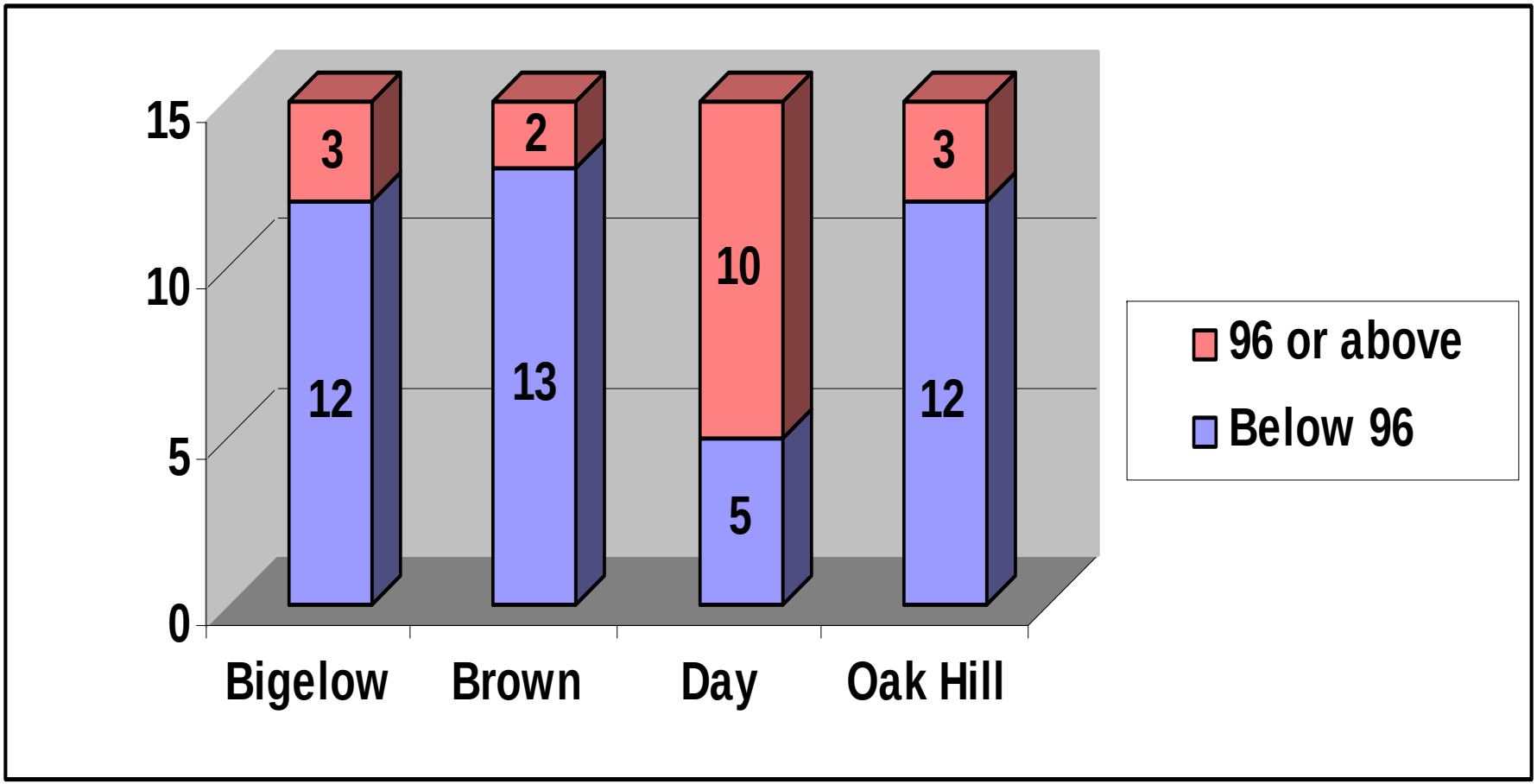


Number of Teams at 96 Students or Above

Day at 36 Team Classrooms

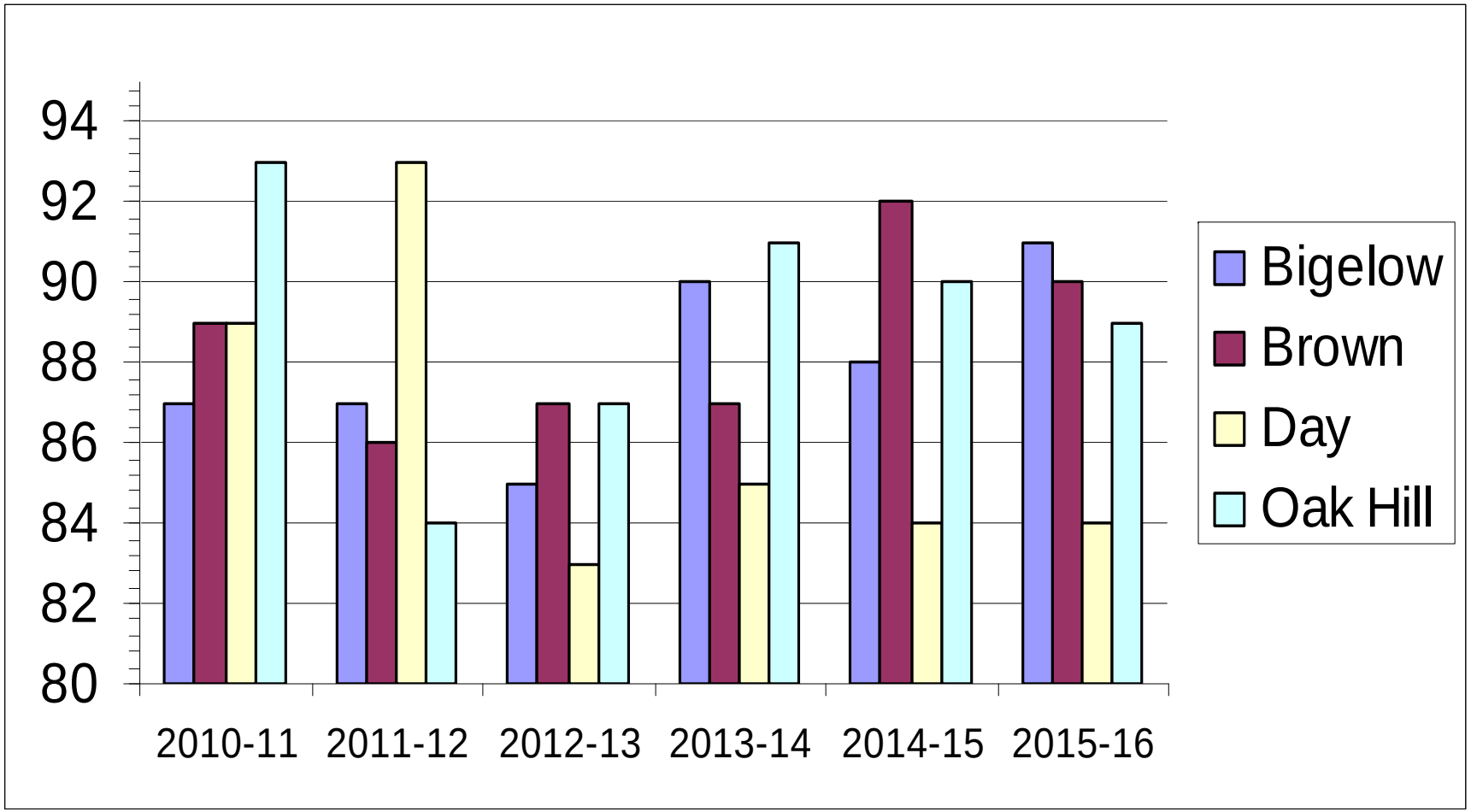
Max Team Size of 96 students at other schools

2011-12 through 2015-16



Team Size: Day at 42 Team Classrooms

(Max Team Size At Any Grade in Any School = 96)



Options to Reconfigure Existing Space at Day

Create 6 Classrooms and Expand Cafeteria	Amount
■ Interior renovation for the cafeteria	$194,400
■ Infill Weight Room for 2 classrooms	$448,875
■ Infill Library for 2 classrooms	$461,700
■ Renovate existing front entrance and storage spaces for 2 classrooms	$243,000
Grand Total	**$1,347,975**

Other Options for Internal Renovation	
■ Infill Library for 2 classrooms as a stand-alone project	$615,600
■ Convert Boiler Room to 1 classroom (750 sq. ft.)	$580,500

DAY MIDDLE SCHOOL: USE OF SPACE

Use of Space (2010-11)	Regular Classrooms Avg. 825 sf	Small Classrooms Avg. 480 sf	Converted Closets	Other
Team Classrooms	34			
Additional Team Classroom	1			
Special Education	2	9	2	
World Language	7			
Health (with Latin)	1			
Art	2			
Chorus				1
Band				1
Drama				1
Technology Engineering				2
ELL			1	
Speech & Language			1	
Faculty Lounge		1		
Cafeteria				1
Library				1
Gymnasium				1
Locker Rooms				2
Computer Labs	2			
TV Studio				1
Newspaper/Yearbook	1			
Total	**50**	**10**	**4**	**11**

Redistricting Options

Guidelines

- All current students are grandfathered.
- Students follow new feeder patterns through all grades.

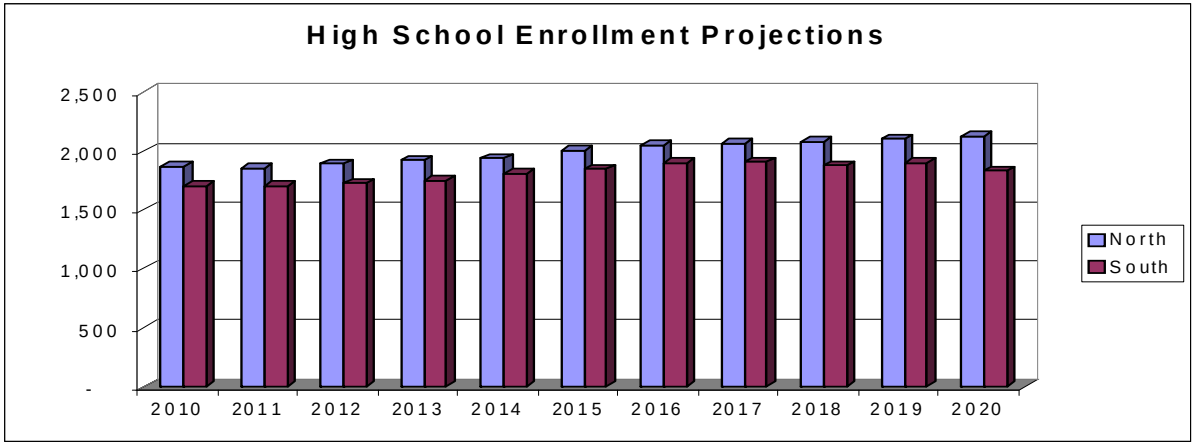
Options (detail on next 4 slides)

- No Redistricting: Significant space constraints at Bigelow and Day; North-South split grows to 292 students in FY21.
- 100% of Cabot to Bigelow: Larger space constraint at Bigelow; North-South split grows to 292 students in FY21.
- 100% of Cabot to Bigelow; 100% of Lincoln-Eliot to Day: Larger space constraint at Day; North-South split grows to 292 students in FY21.
- 100% of Cabot to Bigelow; 100% of Ward to Brown/South: Small space constraint at Bigelow; Brown North-South split to 38 students in FY21.

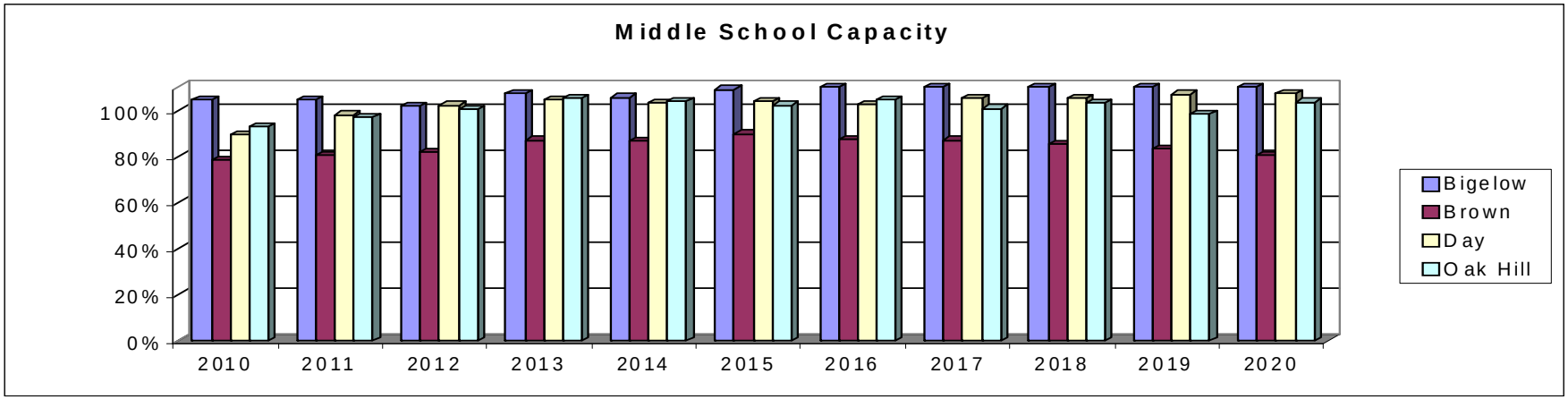
No Redistricting

Elementary	Middle	High
Lincoln-Eliot	Bigelow	North
Underwood	Bigelow	North
Ward	Bigelow	North
Cabot	Big/Day	North
Burr	Day	North
Franklin	Day	North
Horace Mann	Day	North
Peirce	Day	North
Mason-Rice*	Brown	South
Angier	Brown	South
Countryside	Brown	South
Williams	Brown	South
Bowen	Oak Hill	South
Memorial-Spaulding	Oak Hill	South
Zervas	Oak Hill	South

*Except for M-R, 1 Mile to North



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
North	1,870	1,856	1,891	1,919	1,936	2,002	2,050	2,067	2,081	2,103	2,124
South	1,706	1,700	1,727	1,752	1,812	1,844	1,902	1,905	1,878	1,901	1,832
Total	**3,576**	**3,556**	**3,618**	**3,671**	**3,748**	**3,846**	**3,952**	**3,972**	**3,959**	**4,004**	**3,956**
Diff	N +164	N +156	N +164	N +167	N +124	N +158	N +148	N +162	N +203	N +202	N +292

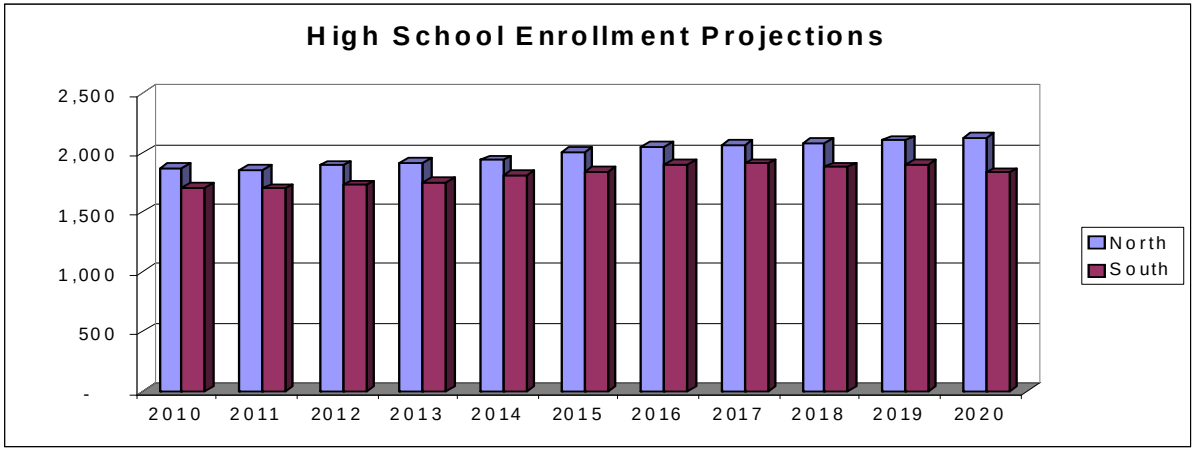


	Capacity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bigelow	500	524	524	509	537	528	545	554	584	571	574	566
Brown	850	667	686	696	741	737	763	743	741	727	708	684
Day	850	759	833	869	889	879	882	872	897	895	911	912
Oak Hill	650	603	630	654	685	675	664	679	656	670	641	674
Total		**2,553**	**2,673**	**2,728**	**2,852**	**2,819**	**2,854**	**2,848**	**2,878**	**2,863**	**2,834**	**2,836**

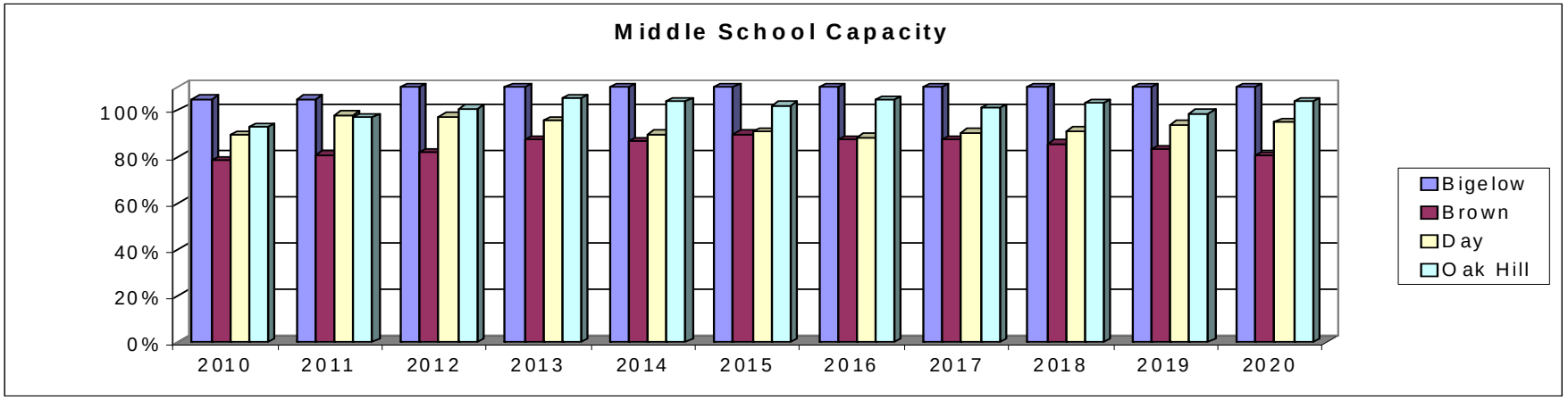
100% of Cabot to Bigelow

Elementary	Middle	High
Lincoln-Eliot	Bigelow	North
Underwood	Bigelow	North
Ward	Bigelow	North
Cabot	**Bigelow**	North
Burr	Day	North
Franklin	Day	North
Horace Mann	Day	North
Peirce	Day	North
Mason-Rice*	Brown	South
Angier	Brown	South
Countryside	Brown	South
Williams	Brown	South
Bowen	Oak Hill	South
Memorial-Spaulding	Oak Hill	South
Zervas	Oak Hill	South

*Except for M-R, 1 Mile to North



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
North	1,870	1,856	1,891	1,919	1,936	2,002	2,050	2,067	2,081	2,103	2,124
South	1,706	1,700	1,727	1,752	1,812	1,844	1,902	1,905	1,878	1,901	1,832
Total	**3,576**	**3,556**	**3,618**	**3,671**	**3,748**	**3,846**	**3,952**	**3,972**	**3,959**	**4,004**	**3,956**
Diff	N +164	N +156	N +164	N +167	N +124	N +158	N +148	N +162	N +203	N +202	N +292

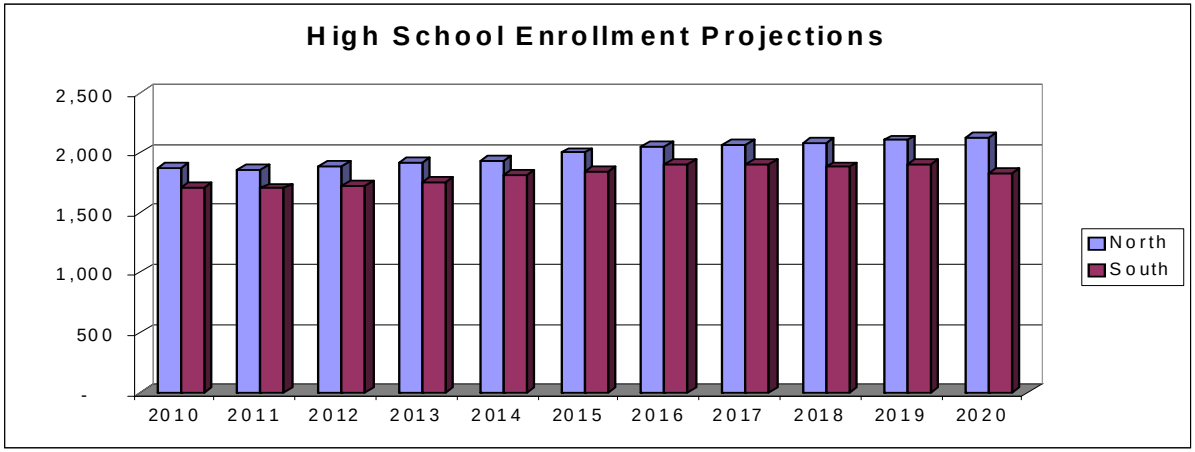


	Capacity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bigelow	500	524	524	550	614	641	656	673	710	692	686	669
Brown	850	667	686	696	741	737	763	743	741	727	708	684
Day	850	759	833	827	811	763	769	750	768	773	798	806
Oak Hill	650	603	630	654	685	675	664	679	656	670	641	674
Total		**2,553**	**2,673**	**2,727**	**2,851**	**2,816**	**2,852**	**2,845**	**2,875**	**2,862**	**2,833**	**2,833**

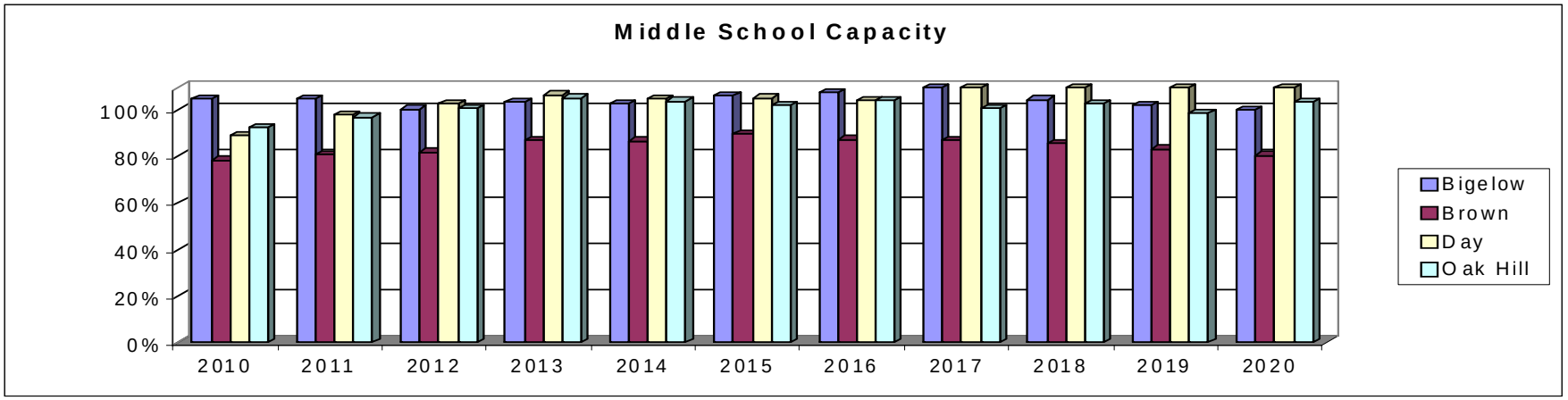
100% of Cabot to Bigelow; 100% of Lincoln-Eliot to Day

Elementary	Middle	High
Lincoln-Eliot	**Day**	North
Underwood	Bigelow	North
Ward	Bigelow	North
Cabot	**Bigelow**	North
Burr	Day	North
Franklin	Day	North
Horace Mann	Day	North
Peirce	Day	North
Mason-Rice*	Brown	South
Angier	Brown	South
Countryside	Brown	South
Williams	Brown	South
Bowen	Oak Hill	South
Memorial-Spaulding	Oak Hill	South
Zervas	Oak Hill	South

*Except for M-R, 1 Mile to North



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
North	1,870	1,856	1,891	1,919	1,936	2,002	2,050	2,067	2,081	2,103	2,124
South	1,706	1,700	1,727	1,752	1,812	1,844	1,902	1,905	1,878	1,901	1,832
Total	**3,576**	**3,556**	**3,618**	**3,671**	**3,748**	**3,846**	**3,952**	**3,972**	**3,959**	**4,004**	**3,956**
Diff	N +164	N +156	N +164	N +167	N +124	N +158	N +148	N +162	N +203	N +202	N +292

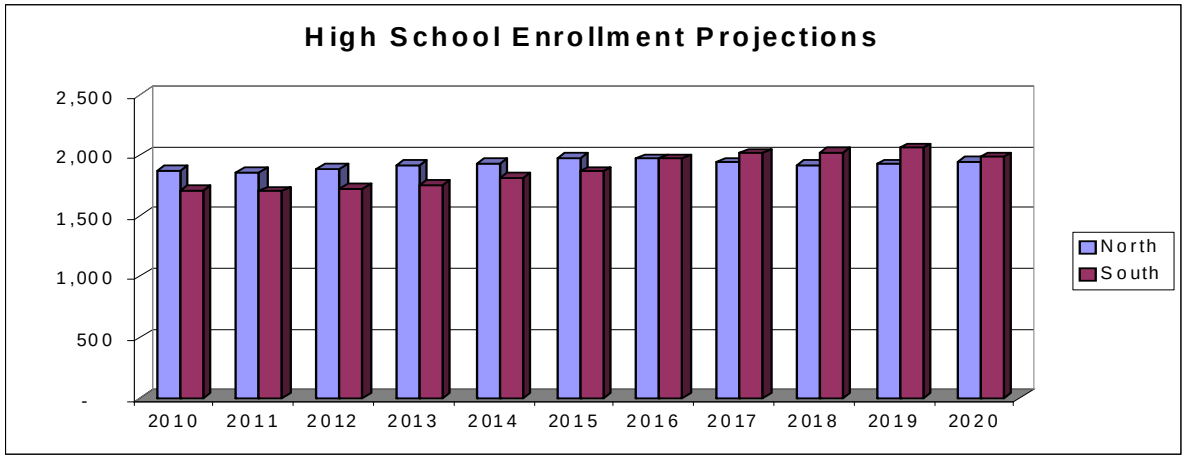


	Capacity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bigelow	500	524	524	502	519	515	531	538	549	523	512	500
Brown	850	667	686	696	741	737	763	743	741	727	708	684
Day	850	759	833	876	907	892	895	888	933	944	974	979
Oak Hill	650	603	630	654	685	675	664	679	656	670	641	674
Total		**2,553**	**2,673**	**2,728**	**2,852**	**2,819**	**2,853**	**2,848**	**2,879**	**2,864**	**2,835**	**2,837**

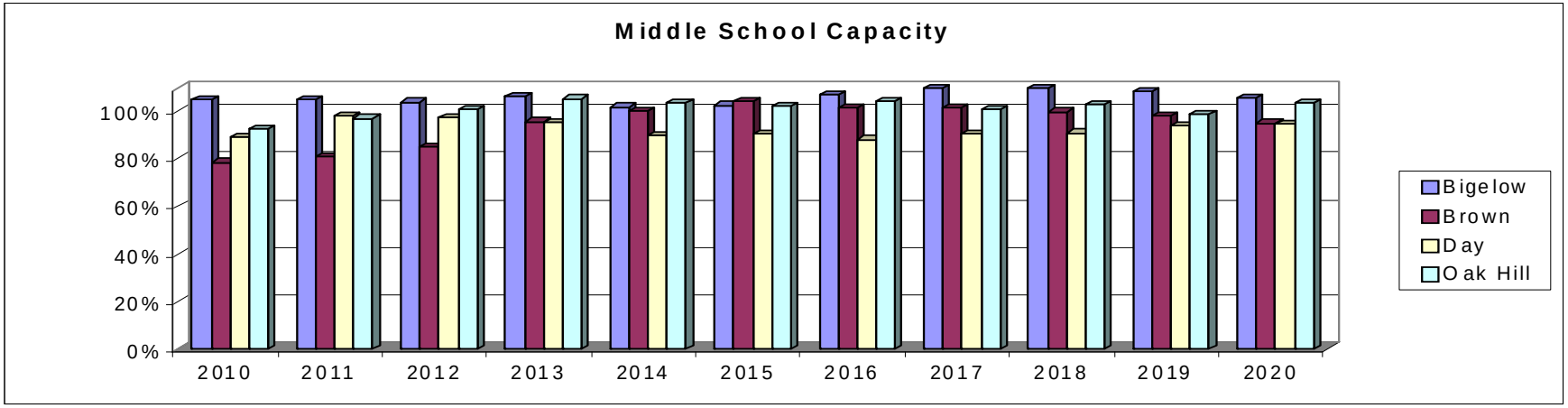
100% of Cabot to Bigelow; 100% Ward to Brown

Elementary	Middle	High
Lincoln-Eliot	Bigelow	North
Underwood	Bigelow	North
Ward	**Brown**	**South**
Cabot	**Bigelow**	North
Burr	Day	North
Franklin	Day	North
Horace Mann	Day	North
Peirce	Day	North
Mason-Rice*	Brown	South
Angier	Brown	South
Countryside	Brown	South
Williams	Brown	South
Bowen	Oak Hill	South
Memorial-Spaulding	Oak Hill	South
Zervas	Oak Hill	South

*Except for M-R, 1 Mile to North



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
North	1,870	1,856	1,891	1,919	1,936	1,975	1,973	1,943	1,918	1,924	1,945
South	1,706	1,700	1,727	1,752	1,812	1,869	1,969	2,013	2,018	2,056	1,983
Total	**3,576**	**3,556**	**3,618**	**3,671**	**3,748**	**3,844**	**3,942**	**3,956**	**3,936**	**3,980**	**3,928**
Diff	N +164	N +156	N +164	N +167	N +124	N +106	N +4	S +70	S +100	S +132	S +38



	Capacity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bigelow	500	524	524	520	531	509	513	535	572	551	542	528
Brown	850	667	686	722	813	852	887	862	862	849	834	808
Day	850	759	833	827	811	763	769	750	768	773	798	806
Oak Hill	650	603	630	654	685	675	664	679	656	670	641	674
Total		**2,553**	**2,673**	**2,723**	**2,840**	**2,799**	**2,833**	**2,826**	**2,858**	**2,843**	**2,815**	**2,816**

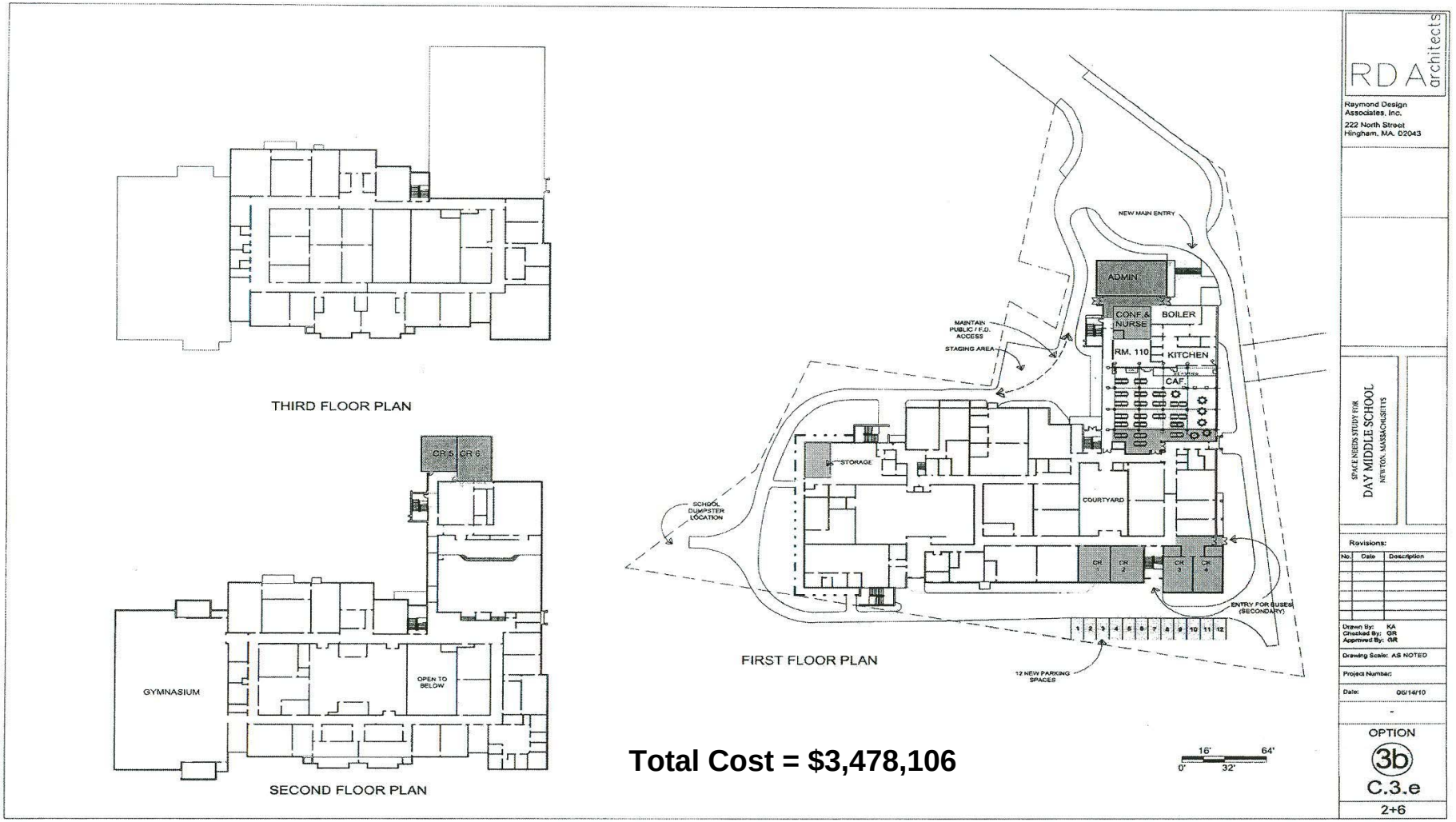
Buffer Zone Options

- Analyzed all options for eliminating certain buffer zones; consolidated to four options shown below.
- These options do not solve the space issues, but could be used in conjunction with redistricting.

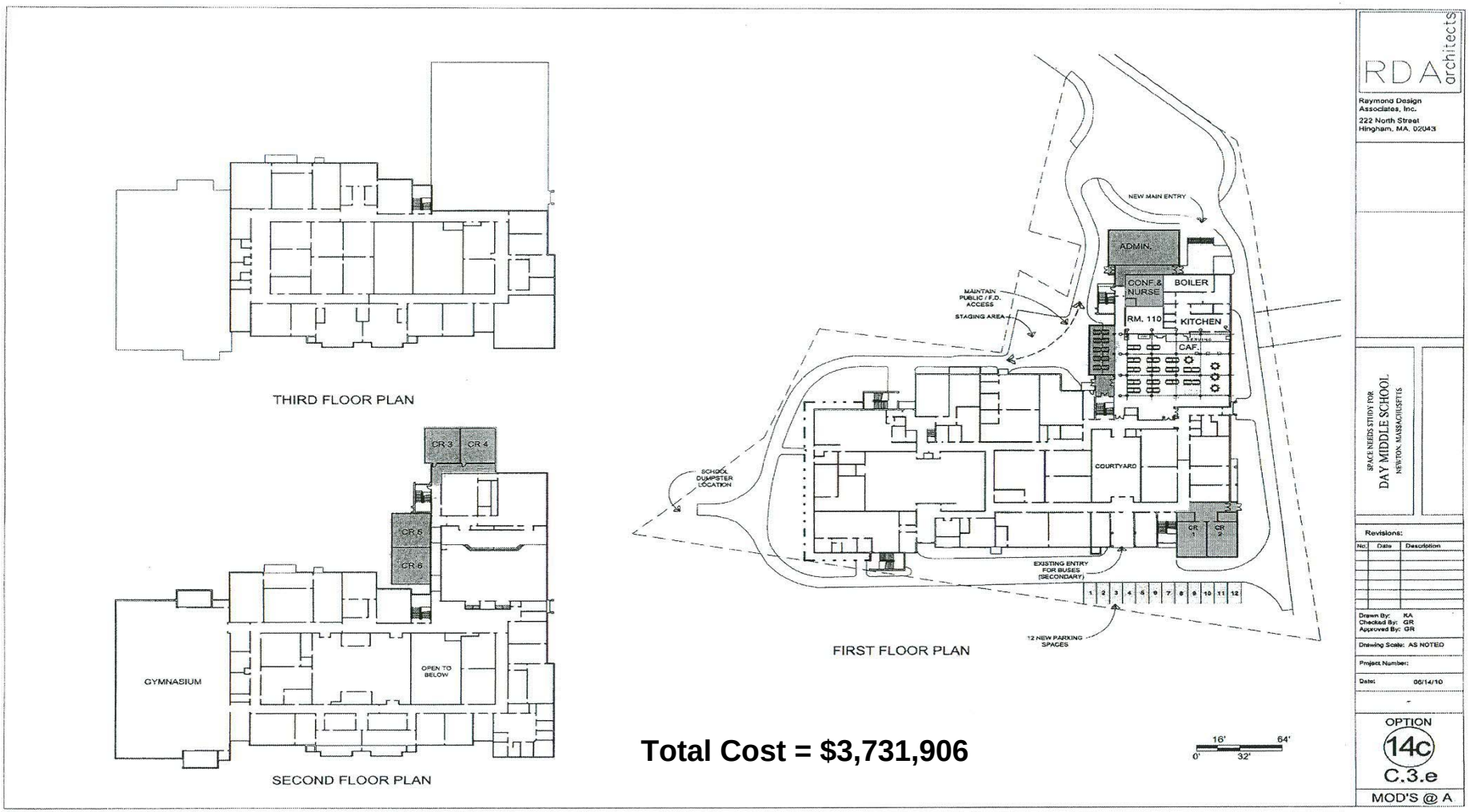
Buffer Zone Options Considered

- Eliminate Burr-Williams Buffer Zone: Potential to move approximately 3 students per grade from Burr to Williams. Students will feed into Brown and South instead of Day and North.
- Eliminate Horace Mann-Lincoln-Eliot Buffer Zone: Potential to move approximately 6 students per grade from Horace Mann to Lincoln-Eliot. Students will feed into Bigelow instead of Day.
- Eliminate Mason-Rice-Ward Buffer Zone: Potential to move approximately 2 students per grade from Ward to Mason-Rice. Students will feed into Brown and South instead of Bigelow and North. Mason-Rice may need additional space for this option to be considered.
- Eliminate Peirce-Williams Buffer Zone: Potential to move approximately 11 students per grade from Peirce to Williams. Students will feed into Brown and South instead of Day and North.

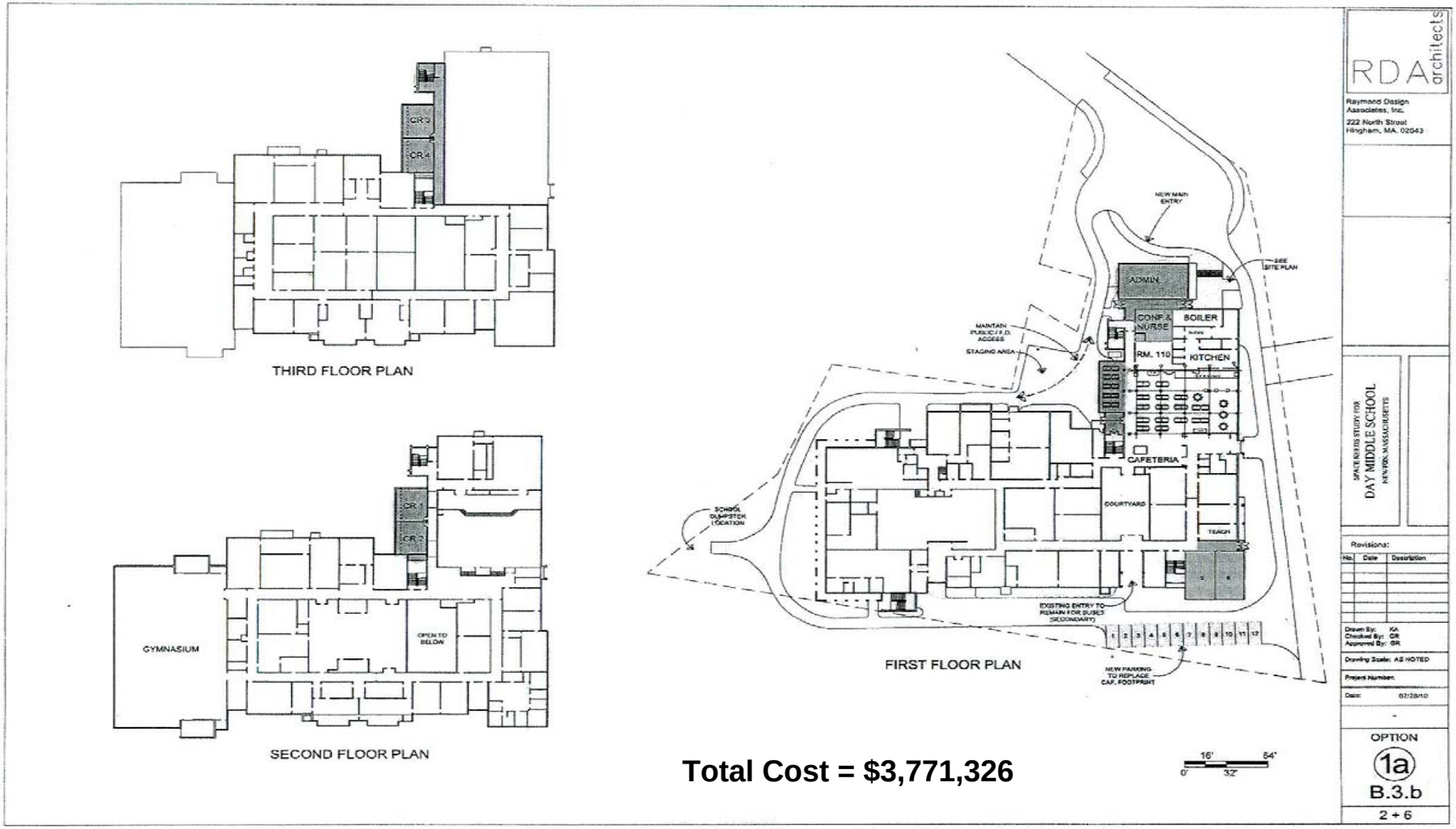
Options for Construction - Option 3b



Options for Construction - Option 14c



Options for Construction - Option 1a



Total Cost = $3,771,326

Timeline for Approval and Construction

- School Committee Approval: September-October 2010
- Board of Alderman Approval/Funding: November-December 2010
- Funding & Designer Selection: October-December 2010
- Design Permanent Construction: January-May 2011 (5 months)
- Bid and Award Permanent Construction: June-July 2011 (2 months)
- Permanent Construction: October 2011 – December 2012 (15 months)
- Open New Construction: as early as November 1, 2012

Elementary School Space Concerns

- Limited Facilities remain a prominent issue when considering elementary space concerns.
- Elementary school space has been reviewed with principals, central office, and operations and facilities staff. Elementary school space has been reviewed in conjunction with updated enrollment projections.
- Key considerations in decision making are instructional and other strategies, such as:
    - combination classes
    - additional half teachers
    - redistricting

Burr School

- Burr School currently houses 391 students in 19 full sized spaces, 17 classrooms, 1 Art room, and 1 Music room (shared with Aftercare).
- The current 5th grade class is configured in 2 sections.
- The incoming kindergarten is anticipated to include 3 sections, raising the number of dedicated classrooms to 18.

Burr School Options

- Reconfigure Art room to classroom space. Move Art to new space created in cafeteria/all purpose room.
- Add modular for needed classroom/Art room.
- No other options seem feasible at this time.

Zervas School

- Zervas School currently houses 349 students in 17 full sized spaces, 16 classrooms and 1 Art room.
- The current 2nd grade class has been assigned a 0.5 FTE teacher to address the two sections of 27 students.
- The 0.5 classroom uses space previously used by the Learning Center, Speech and Inclusion which are now housed in an undersized common area, along with the math coach, literacy specialist, OT, PT and visual specialist.
- The psychologist, social worker and ELL space are housed behind the gym in a reconverted rest room.

Zervas School Options

- Reconvert Student Services area to classroom space. This would provide no workspace for displaced staff.
- Add modular classroom(s) for needed classroom/instructional space.
- No other options seem feasible at this time.

Mason-Rice School

- Mason-Rice School currently houses 442 students in 21 full sized spaces, 19 classrooms,1 Art room, and 1 Aftercare space.
- In 2010, an Inclusion classroom was moved to the Teachers' Room. A Teachers' Room was configured in the Aftercare space.
- The psychologist, inclusion facilitator, social worker and O.T. share one undersized space.
- Current 3rd grade is housed in an undersized classroom.
- Current first grade enrollment is 72 students in 3 classrooms and second grade enrollment is 73 students in 3 classrooms.

Mason-Rice Options

- Maintain 19 classrooms, (depending on incoming K registrations) with primary classrooms larger than most in the district.
- Add modular classroom for instructional space, providing Student Services staff additional instructional space.

Horace Mann School

- Horace Mann School currently houses 374 students in 18 full sized spaces, 17 classrooms and 1 Art room.
- The current 3rd grade class has been assigned a 0.5 teacher to address the two sections of 25 students.
- The 0.5 classroom occupies space previously used by the ELL program and speech therapist.
- In summer 2010, additional small instruction spaces were built in the upstairs front and rear lobby of the school.

Horace Mann Options

- Maintain 17 classrooms, (depending on incoming K registrations) and eliminating 0.5 classroom.
- Add modular classroom for increasing K enrollment (anticipated to require 4 sections).

Countryside School

- Countryside School currently houses 498 students in 25 full-sized spaces, 22 classrooms, 1 Literacy room, 1 ELL room, 1 Special Education room.
- In summer 2010, the Art room was moved to a space behind the gym which is shared with the After School program to create additional classroom space.
- Countryside requires 4 sections of each grade K-3. If the trend continues, additional classroom spaces will need to be addressed in upcoming years.

Countryside School Options

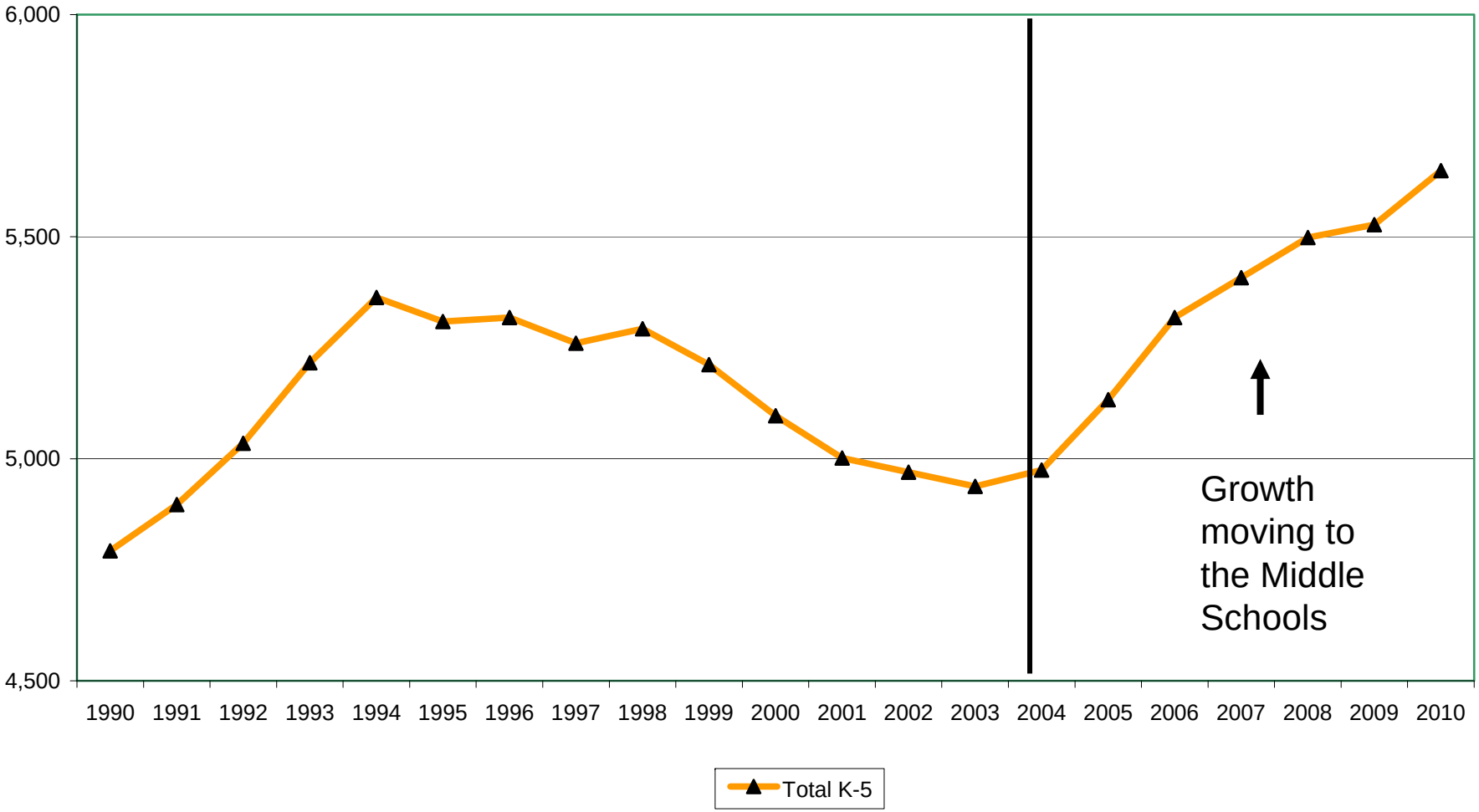
- For September 2011, combine ELL and Literacy rooms to allow for additional classroom space.
- For September 2012, add modular classroom to address growing enrollment.

Recommendations

<u>September 2011</u>

- Reconfigure classroom space at Countryside for an additional section of kindergarten.
- Add 2 modular classrooms at Zervas
- Add 1 modular classroom at Burr, Mason-Rice and Horace Mann as finances allow.

K-5 ENROLLMENT TRENDS
1990-1991 TO 2010-11



Note: 1993 Change in Grade organization from K-6 to K-5 and 7-8 to 6-8.

Outgoing 8th Grade v. Incoming 6th Grade

School	2010-11 Actual*			2011-12 Projected		
	Outgoing 8th	Incoming 6th	Diff	Outgoing 8th	Incoming 6th	Diff
Bigelow	165	162	-3	180	181	1
Brown	228	217	-11	226	244	18
Day	**276**	**277**	**1**	**218**	**293**	**75**
Oak Hill	179	208	29	196	223	27
Total	**848**	**864**	**16**	**820**	**941**	**121**

*FY11 Enrollments are preliminary.

Elementary Enrollment
2004-05 to 2010-11

Grade	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11*
Total	**4,975**	**5,133**	**5,318**	**5,408**	**5,498**	**5,527**	**5,649**
Change from Prior Year	37	158	185	90	90	29	122
Cumulative Increase from 2004-05		**158**	**343**	**433**	**523**	**552**	**674**

*FY11 Enrollments are preliminary.

Middle School Enrollment
2007-08 to 2013-14

School	Actual				Projected		
	2007-08	2008-09	2009-10	2010-11*	2011-12	2012-13	2013-14
Bigelow	487	505	527	523	532	518	564
Brown	644	681	684	669	690	703	752
Day	**764**	**747**	**773**	**761**	**861**	**886**	**896**
Oak Hill	558	547	572	608	634	658	682
Total	**2,453**	**2,480**	**2,556**	**2,561**	**2,717**	**2,765**	**2,894**
Change from Prior Year	-21	27	76	5	156	48	129
Cumulative from 2007-08		**27**	**103**	**108**	**264**	**312**	**441**

*FY11 Enrollments are preliminary.

SYSTEMWIDE ENROLLMENT TRENDS
1990-91 TO 2015-16