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To: County Council

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Subject: Strategies to Address Public School Capacity Constraints

This memorandum report responds to the County Council’s request that the Office of Legislative Oversight (OLO) prepare a report that provides Councilmembers an overview of approaches implemented in other communities in the United States to address school capacity constraints (see OLO FY17 Work Program, Council Resolution 18-571). This report describes and provides case studies of specific strategies employed by school districts to expand school capacity and alleviate overcrowding. As stipulated in the Council-approved OLO Work Program, this report offers no recommendations regarding which strategies, if any, should be implemented by the Montgomery County Public Schools (MCPS).

This report contains four sections:

Section 1 describes the scope of this report.	Page 2
Section 2 presents information and case studies regarding efforts to increase the amount of instructional space.	Page 3
Section 3 presents information and case studies regarding efforts to address overcrowding through the redistribution of students among schools.	Page 14
Section 4 presents information and case studies regarding efforts to address school overcrowding through non-traditional instructional scheduling.	Page 19

This report also includes two appendices. **Appendix A** is MCPS Policy FAA, *Long-range Educational Facilities Planning*. **Appendix B** lists the sources of information used to prepare the case studies in Sections 2 – 4 of this report.

SECTION 1: REPORT SCOPE

The purpose of this report is to present information on how school districts in the United States have addressed school overcrowding. Unquestionably, the preferred strategy to increase school capacity to meet enrollment demand is to build additional classrooms. However, many school districts lack sufficient funds and land to build their way out of a school capacity shortfall.

Other than building new school buildings or expanding existing ones, school districts frequently use two additional strategies to meet school capacity needs. First, many school districts place relocatable classrooms on the grounds of existing school buildings. Use of relocatable classrooms, however, is often considered only a temporary solution to capacity constraints. Second, many school districts seek to better allocate students among nearby schools by adjusting school attendance boundaries. Nonetheless, boundary changes may only have limited effect in areas where all schools have enrollment well above capacity.

Faced with severe school capacity shortfalls, several school districts have employed non-traditional approaches. In most cases, these districts implemented a non-traditional strategy as a last resort when traditional strategies (new construction, relocatable classrooms, and boundary changes) were impossible to implement. **This report focuses on non-traditional strategies employed in select school districts around the country to alleviate school overcrowding.** The report includes 11 one-page case studies from school districts that have adopted a non-traditional approach to expanding school capacity.

This report discusses the operational and logistical challenges posed by non-traditional strategies. Many of the strategies described in this report also present educational challenges. **The scope of this report does not include evaluation of the educational implications of non-traditional strategies to address school overcrowding.**

A further way to expand the number of students that receive instruction in a school is to increase class size. This report does not present case studies from school districts that responded to enrollment growth by increasing the number of students in classes.

The Montgomery County Board of Education has adopted policies and programs to respond to changing school enrollment. The principal MCPS policy document for this matter is Policy FAA, *Long-range Educational Facilities Planning*. Policy FAA appears in Appendix A of this report. OLO notes that several of the non-traditional strategies presented in this report would require changes in State or County law or policy to apply to MCPS. As stated above, **this report offers no recommendations regarding which strategies, if any, should be implemented by MCPS.**

SECTION 2: ADDING SPACE

The most direct approach to addressing school overcrowding is to add instructional space. For all school districts, the preferred method to increase instructional space is to construct new schools or to build additions to existing schools. However, fiscal constraints and/or the lack of available land often preclude a school district from building its way out of a capacity shortfall.

Another common strategy to increase instructional space is to place relocatable classrooms at a school site. However, most school districts consider relocatable classrooms as an interim strategy that is adequate to address short-term capacity needs, but not considered a long-term approach to addressing school capacity needs.

MCPS Approach: MCPS addresses capacity shortfalls through its capital program. As stated in the FY17 Educational Facilities Master Plan, one priority of the MCPS capital budget is to “fund new schools and additions so facilities can operate within capacity.” The approved FY17-FY22 CIP includes a six-year total of \$115.7 million programmed for the construction of new schools. The approved CIP also includes an additional \$375.6 million programmed over the next six years to build additions at existing schools.

For the 2016-17 school year, MCPS has a total of 311 portable classrooms located at 80 different schools. The approved CIP includes a six-year total of \$12.3 million for relocatable classrooms.

Strategies Employed in Other School Districts: OLO has identified five strategies employed in other school districts to address school overcrowding through the addition of instructional space. This section describes the five following strategies to increase instructional space:

- a. Leased Space
- b. Purchase of Existing Non-School Buildings
- c. Contract Schools
- d. Space Sharing
- e. Conversion of Non-Classroom Space

Examples of school districts that have employed each of these strategies appear in the case studies below.

A. Leased Space

Several school districts around the country lease space to address capacity concerns and to relieve school overcrowding. Leasing may be a viable option when additional capacity is needed for a finite period, such as when a high enrollment wave is passing through a school system or while awaiting completion of a school construction project. School districts also may elect to lease space when there is a scarcity of land available for new construction.

Schools systems consider leasing when the available space meets site location requirements and when the building meets or can be modified to meet educational and structural standards. Leasing space for instructional use presents certain operational concerns, particularly when a school shares

Strategies to Address Public School Capacity Constraints

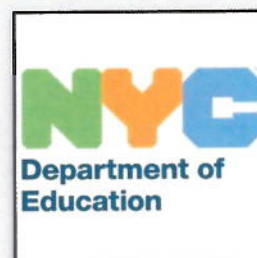
a site with other entities. For example, a school district that leases space may need to make special arrangements for building maintenance, site security, and other operational matters.

Case studies of leased school space from New York City and Brookline, Massachusetts follow. New York City often enters long-term building leases, while Brookline has entered into short-term lease agreements.

Case Study: Space Leased by New York City Department of Education

Leasing property is one of the strategies adopted by the New York City Department of Education to address facility overutilization. The New York City School Construction Authority (SCA) is responsible for the school district's capital program. The role of facility leasing is described in the SCA's FY 2015 – 2019 Five Year Capital Plan:

In addition to new construction, the SCA will continue to employ, wherever possible ... strategies ... to create new capacity. The strategies were designed to maximize our resources and include ... expansion of leasing as a means to build seats in districts and neighborhoods where finding new construction sites has proven to be difficult.



This year, the New York City Department of Education has budgeted \$170 million to lease more than 180 sites for school-related purposes. Approximately two-thirds of these sites include instructional classrooms. The Department of Education houses entire high schools, middle schools, and elementary schools in leased space. In addition, the Department leases about 60 sites for pre-kindergarten centers. The SCA renovates leased space to comply with school system educational and building requirements.

Properties leased for school use include about 50 current and former Catholic and other parochial schools. In the Bensonhurst section of Brooklyn, the Catholic Diocese runs the Our Lady of Guadalupe School. For many years, the Catholic school operated out of two buildings. As enrollment declined in recent years, the Diocese consolidated the school into a single building. Meanwhile, the public elementary school in the area, P.S. 112, suffered from severe overcrowding. The Department of Education elected to lease and renovate the building vacated by the Diocese to provide additional school capacity in the neighborhood. Beginning in the 2015-16 school year, the renovated two-story building, now called P.S. 768, houses kindergarten and first grade students. The opening P.S. 768 allowed for the transfer of 256 seats from P.S. 112 located two blocks away.

Sources: See Appendix B.

Case Study: Space Leased by Public School of Brookline

The Public Schools of Brookline (Massachusetts) have addressed classroom overcrowding by leasing space for instructional use at multiple private sites. The FY17 school system operating budget includes about \$1 million to pay for leased space at four different sites. The Public Schools of Brookline currently lease space for three different purposes:



1. Pre-Kindergarten Program: The Brookline Early Education Program (BEEP) offers pre-kindergarten education in seven locations, primarily in school buildings. As stated in the school system's FY15 capital plan:

... [S]tudent enrollment increases have necessitated continuing changes to program/classroom spaces within school buildings ... and will result in the relocation of additional pre-K classrooms to leased sites.

Recently, the school district entered into lease agreements with two synagogues that had available space suitable for BEEP. The educational program is identical at all locations. BEEP activities are distinct and separate from synagogue activities in the leased locations.

2. Additional Classroom Space for Overcrowded Schools: The Pierce School is a K-8 school that had insufficient capacity to accommodate enrollment. In 2015, the Brookline Board of Selectmen approved a five-year agreement to lease classroom space in a commercial building located on the same block as the Pierce School. The lease provides for the school to use four classrooms on the third floor of the multi-use building.

3. Temporary Space During Building Renovation: The Edward Devotion School is the largest of Brookline's K-8 schools with a building capacity of about 750 students. By 2014, enrollment in the school had grown to nearly 1,000 students. The school system began a capital project in 2015 to renovate and enlarge the school building. To allow for continued instruction during the construction period, the Board of Selectman approved a plan to lease a nearby property. During the three-year construction period, students in grades K-4 are attending class in leased space in a former assisted living facility. The Town will pay a total of \$4.75 million for use of the leased facility, including approximately \$1.5 million in building renovations. Renovations include reconfiguration of the floor plan to create 700-square-foot classrooms, as well as converting a parking lot into a playground.

Sources: See Appendix B.

B. Purchase of Existing Non-School Buildings

As mentioned above, school districts generally prefer to increase instructional space through construction of new schools or additions to existing schools. When constructing its own space, a school district identifies an available site and retains control of building design. As such, when constructing new buildings or additions, school districts create spaces that accommodate educational specifications (such as the minimum square footage of classrooms), accessory uses (such as cafeteria and play areas), and structural requirements (such as ease of access to common areas). In short, from the outset, the building's design meets the customized needs of an educational facility.

Nonetheless, when faced with insufficient land located at or near an existing overcrowded school, a few school districts have chosen to purchase an existing non-school building to be converted into a school building. This strategy can only be employed when a vacant building is available for sale at the right price and in the needed location.

When purchasing a non-school building, the school district must then engage in adaptive re-use of the building to create a functional educational facility. Despite the need to perform significant interior renovations (and possibly exterior site improvements), conversion of an existing non-school building into a school may involve, in some instances, lower construction costs and shorter construction timelines than traditional new construction.

A case study of non-school building conversion from Fairfax County, Virginia appears on the next page. The case study references the Fairfax County policy to routinely consider re-use of non-school buildings as a means of meeting future capacity needs. (Note that the case study of Renaissance High School in the Space Sharing section below is another example of adaptive re-use of a non-school building.).

Case Study: Bailey's Upper Elementary School, Fairfax, Virginia

Bailey's Elementary School had been one of Fairfax County's most overcrowded schools. The facility has a design capacity of about 800 students. In the 2013-14 school year, enrollment exceeded 1,300 students and the school site housed 19 trailers with temporary classrooms. To alleviate the overcrowding, Fairfax County Public Schools (FCPS) purchased a five-story, 101,000 square-foot commercial office building on Leesburg Pike, about 1.5 miles away from the elementary school.



The new school, called "Bailey's Upper Elementary School," opened in September 2014 and now serves students in third through fifth grades. Kindergarten through second grade students remain in the original building; no trailers remain at the school.

FCPS spent about \$20 million to purchase and renovate the building. FCPS gutted the building and rebuilt the interior to include classrooms, administrative offices, a cafeteria, and other school-related space. The school includes three wood-floored rooms with padded walls for indoor physical education; however, the school opened without space for outdoor playground equipment. The current FCPS Capital Improvements plan includes funding to construct a gymnasium at Bailey's Upper Elementary School.

Then FCPS Superintendent Karen Garza was quoted in the Washington Post as saying: "As we continue to be a fast-growing school system and property becomes harder to come by, we will have to think differently. Vertical buildings will be part of our plan throughout the county."

Last year, the Fairfax County Planning Commission recommended that:

The adaptive re-use of existing buildings is another possible option for future schools and education facilities. Advantages of this approach include lower construction costs, greater sustainability and a shorter construction timeline.

Based on the above recommendation, the Fairfax County Board of Supervisors in November 2016 approved an amendment to the County's Comprehensive Plan establishing a policy to "consider properties such as office, commercial, or other buildings for conversion to education facilities."

Sources: See Appendix B.

C. Contract Schools

Most commonly, school districts manage the construction of their school facilities. In the previous section, this report describes two exceptions – leasing and purchasing existing buildings – in which the school district occupies facilities previously constructed by other entities. In a few instances, a school district will contract for the construction (and operation) of a new facility.

A contract school is a public school that is operated by an educational entity other than the school district. Under this strategy, the school district enters into contractual agreement with a provider to operate a school with an educational program that conforms to standards specified in the agreement. The contract may also involve construction of a facility to house the school (as was the case in the Anne Arundel County case study on the next page). In such a case, the public school district pays the operating entity (or its partners) to construct the school, either through direct payment or through an annual per student operating fee. The construction and design specifications of a contract school may differ from those of a school built under the direct management of a public school district.

As contract schools are not directly run by the school district and do not need to comply with all of the school district's educational standards, much has been written comparing the educational merits of contract schools versus traditional public schools. The purpose of this report is to describe strategies to address school capacity – as such, the report does not describe or evaluate the relative instruction performance of contract and traditional public schools.

A case study of construction of a contract school in Anne Arundel County appears on the next page (Anne Arundel County recently entered into an agreement for a second contract school. However, that second school is housed in leased space, not in a facility originally constructed to be a contract school).

Case Study: Monarch Global Academy Contract School, Anne Arundel County

In 2010, the Anne Arundel County Board of Education approved a plan to relieve overcrowding at three schools in the northwestern portion of the County: Brock Bridge, Jessup, and Maryland City Elementary Schools. The central element of the plan was an agreement with a private entity, the Children's Guild, to operate the County's first public contract school. As stated in the synopsis of the April 10, 2010 Board of Education meeting:



This contract school differs from a charter school in that the school system is able to identify the attendance boundary and subsequently address school system and community needs through partnership with a private entity. ... The school system will provide the funding based on the per pupil funding formula for students enrolled in the school, similarly used for its charter schools.

Under the contract agreement, the Children's Guild paid for the construction of the school, called the Monarch Global Academy, located one-quarter mile from Brock Bridge Elementary. The school cost \$16.5 million to build. According to a report by the Interagency Committee on School Construction, "the Monarch Academy was built to commercial building standards and to a smaller size than a concurrent public school in Anne Arundel County, resulting in a total cost that was approximately \$9.67 million less ... compared to the costs of the public school facility." The lower building standards used in construction of Monarch Academy could reduce the functional life of the facility as compared to schools built to Anne Arundel County standards.

The Monarch Academy opened in 2014 with students in kindergarten through sixth grade (and currently serves students through eighth grade). The building has a capacity of 780 students. Anne Arundel County limits enrollment in the contract school to students who live within the boundaries of Brock Bridge, Jessup, and Maryland City Elementary Schools. Acceptance is determined by lottery from students who applied to attend the school.

The Anne Arundel school system pays on-going operating costs for the Monarch Academy. Similar to a charter school, the contractor (not the school system) operates the Monarch Academy. However, the school is subject to certain Anne Arundel County Public Schools educational standards.

Sources: See Appendix B.

D. Space Sharing

Traditionally, school facilities are predominantly dedicated to a single user, the school located at that site. While many school districts (including MCPS) make space available for non-school uses during non-school hours, the school itself remains the primary user of the facility. In contrast, space sharing is a strategy in which a school facility has more than one primary user. In such a facility, a public school could share space with another public (or charter) school or with an outside entity.

Space sharing is a strategy to extend available resources. Typically, school districts employ space sharing for one (or more) of the following three reasons:

- Insufficient land is available to accommodate demand for new school capacity (such as in urban areas);
- The demand for new construction exceeds available resources; and
- Schools with specialized educational programs do not have sufficiently large enrollment to justify a dedicated site.

Space sharing introduces operational and logistical considerations not encountered by administrators of traditional schools with a single primary user. When sharing a facility, administrators of the school and its facility partner must coordinate to establish and implement building use policies including: defining shared and exclusive spaces, scheduling of common spaces, and managing facility access and security.

Case studies of shared school space from Denver, Colorado and Meridian, Idaho follow. In the Denver case study, two or more public schools share space in the same campus; in the Meridian case study, a public school shares space with an outside educational entity. (As noted above, the Meridian case study is also an example of adaptive re-use of a non-school building.)

Case Study: Shared Campuses in Denver Public Schools

Denver Public Schools (DPS) has 23 campuses at which two or more schools are co-located at the same site in shared building(s). DPS implemented the shared campus strategy as a means of addressing capacity needs while avoiding the cost of constructing and maintaining separate buildings. The Denver Board of Education adopted a policy (Policy FN) that identifies the benefits of co-locating schools in a shared facility:



Sharing campuses helps defray the very large costs of underutilized space (enabling a greater proportion of our budget to be spent on classroom instruction), avoids unnecessary new construction and maintenance costs, and promotes choices for students and families. In addition, it allows for the creation of new schools without the need for the sizeable expenditures associated with buying or building new facilities.

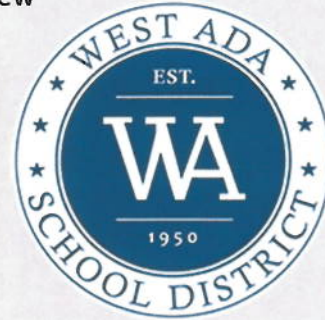
Schools located on a single campus function as separate organizational entities but share common spaces (such as cafeterias, gymnasiums, auditoriums, and playing fields). Classrooms, however, are assigned exclusively to a single school. When the Board of Education approves a shared campus, school leaders and district staff create a contract that specifies how schools will share common spaces, coordinate activities, and manage the facility.

As an example, in the Fall of 2010, DPS opened a new shared campus in the Green Valley Ranch section of eastern Denver. The 35-acre campus houses a new elementary school, a new science and technology middle school, and a new science and technology high school with a combined current year enrollment of approximately 1,500 students. The facility cost \$43 million and includes two academic buildings and a sports complex.

Sources: See Appendix B.

Case Study: Renaissance High School, West Ada School District, Idaho

In 2003, a large industrial plant in a Boise suburb (Meridian, Idaho) closed and sat vacant. At that time, the West Ada School District, the largest in Idaho, experienced a large growth in enrollment. The school district sought to open a new International Baccalaureate high school to relieve overcrowding in the district's five existing schools. Meanwhile, Idaho State University was looking for a site in the Boise area to locate a new medical arts and science campus. The School District and University entered into an agreement to purchase the site of the vacant plant (for \$5.2 million) and to redevelop the building as a shared educational facility.



In 2009, the redeveloped shared facility opened as the home of Renaissance High School, the West Ada School District administrative offices, and the Idaho State University Meridian Health Science Center. Each of the three uses has a separate parking area and building entrance. Approximately 190,000 square feet of the facility is dedicated to Renaissance High School. The high school has a capacity of about 840 students (in grades 9 through 12). The construction cost for the redeveloped facility was \$12.2 million.

The high school and university share much of the interior building space. Shared space includes laboratories, multimedia classrooms, seminar rooms, the media center, fitness center, and cafeteria. The shared facility allows for educational collaboration between the high school and university. For example, Renaissance High School offers a series of courses that qualify for credit for Associate of Arts core requirements and select electives at Idaho State.

Co-location of high school and university activities with students of different ages gives rise to safety and security concerns. With this in mind, the building was designed with few interrupted sight lines, rooms with interior windows, and the placement of faculty offices throughout the shared space. In addition, university faculty, staff, and students must carry ID cards at all times within the building.

Sources: See Appendix B.

E. Conversion of Non-Classroom Space

Throughout the country, school districts facing capacity constraints have re-evaluated the use of space in school buildings. Under pressure of over-enrollment, many schools have concluded that classroom space is a higher priority than other school-related uses. As a result, schools have (often reluctantly) converted non-classroom space into classrooms to accommodate burgeoning student populations.

A decade and a half ago, many school districts built in-school computer labs to create a single space to allow students to interact with new technologies. Across the country, as technology has become more mobile and less reliant on fixed internet connections, school districts (including MCPS) have converted computer labs into classroom space. Some school districts have taken more extreme measures by converting other types of school space into classrooms. Below is a sample list of school districts that have addressed overcrowding by converting non-classroom space into classrooms.

- Library and Stage: Faced with severe overcrowding, the Freehold (New Jersey) Public School District divided the library at Park Avenue Elementary School into seven makeshift classrooms and has converted the cafeteria stage at the same school into an additional classroom.
- Auxiliary Gymnasium: To address overcrowding, the Minneapolis Public School district partitioned one of two auxiliary gymnasiums at Washburn High School to create four new classrooms.
- Teachers' Lounge: The Westbury (New York) Public School district converted a basement teachers' lounge at Westbury Middle School into classroom space to accommodate rising enrollment.
- Curriculum, Storage, and Multi-Purpose Rooms: The Needham (Massachusetts) Public Schools district addressed overcrowding at Needham High School by converting multiple non-classroom spaces into classrooms. Converted space included two curriculum rooms, a social studies storage room, an administrative office, and a multi-purpose room.
- Locker Room: The Northborough (Massachusetts) Public School District converted a locker room at the Lincoln Street Elementary School into a technology lab.
- Hallway Space: In ten schools in the East Aurora (Illinois) School District, overcrowded conditions have compelled schools to convert hallway space into classrooms and other types of instructional areas.

The sources of information for the above examples appears in Appendix B.

SECTION 3: REDISTRIBUTING STUDENTS

While the capacity of a school building remains stagnant from year to year (absent the addition of permanent or relocatable classrooms), demand for that capacity can vary over time. A public school's enrollment may fluctuate over time because of many factors, including:

- Aging of the student population;
- Local birth rates;
- In- and out-migration trends;
- Changes in the area's housing stock;
- Changes in household size, and
- Private school attendance.

The above factors may have different effects on enrollment in different areas of a school district. During the same time period, schools in the same school district may experience varying rates of enrollment growth or reduction. As a result, the school district may wish to re-distribute students to create more balanced student-to-capacity ratios among schools.

School districts establish maps that demarcate the geographic boundaries of neighborhoods whose students are assigned to a particular school. When the population of students residing within a school's boundaries changes markedly, a school district may alter the map to redistribute students among schools. Boundary changes are the most common strategy to redistribute students in a public school system.

MCPS Approach: MCPS policy allows for boundary changes to address capacity concerns. As stated in the current MCPS Capital Budget (page 3-2): "if a school is projected to be underutilized (less than 80 percent) or overutilized (over 100 percent), then a boundary study, non-capital action, or a capital project may be considered." Nonetheless, MCPS considers boundary changes to have limited applicability. As stated in the Capital Budget (page 3-4): "Due to the high level of school utilization throughout the school system, there are very few opportunities to address school space shortages through boundary changes among existing schools."

Furthermore, MCPS policy requires students to attend their assigned neighborhood school in most cases. MCPS Board of Education Policy JEE states that "students are expected to attend the school within the established area in which they reside (home school) or assigned in accordance with their IEP. Students may submit applications for Change of School Assignment from the home school or the school assigned through the IEP process in cases of documented unique hardship, a recent family move within Montgomery County, and in certain circumstances to permit a younger sibling to attend the same school as an older sibling."

Strategies Employed in Other School Districts: OLO has identified two strategies employed in other school districts to address school overcrowding through the redistribution of students among schools. This section describes the two following strategies:

- f. Capacity-Related Student Transfers
- g. Temporary Relocation of Grade of Students

Examples of school districts that have employed each of these strategies appear in the case studies below.

A. Capacity-Regulated Student Transfers

Some school districts allow students to apply to attend a school other than their neighborhood school. Often, a school district will consider transfers to permit a student to participate in an educational program (such as language immersion) not offered by the student's neighborhood school. In addition, many school districts have created specialized schools (such as International Baccalaureate high schools) that are open to students throughout the district. Typically, enrollment in these schools or programs is capped at a set number of students. When demand exceeds the number of available seats, the school district employs a lottery to determine which students are accepted.

In a few school districts, transfers between neighborhood schools is permitted, but regulated by capacity considerations. In other words, a student's ability to enroll in a school outside his or her neighborhood is determined, in part, by the enrollment and capacity of both the assigned and the requested neighborhood school. This type of policy allows a school district to balance utilization among schools by promoting student transfers from over-capacity to under-capacity schools. Unlike boundary changes, however, this strategy to re-assign students is voluntary, occurring at the discretion of the student and his or her family.

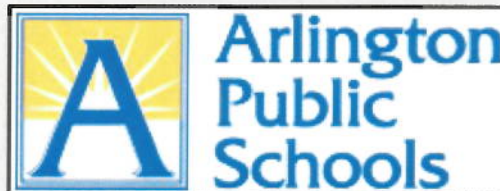
A school district that engages in capacity-regulated student transfers must address several implementation matters, including:

- Enrollment Projections and Capacity Thresholds: To implement capacity-regulated transfers, a school district must produce school-specific enrollment projections. The district also must determine the enrollment projection time frame and the capacity threshold that will govern the transfer process. For example, for the purposes of this policy, a district could establish that a school is considered over-capacity if enrollment over each of the next three years exceeds 110 percent of building capacity.
- Siblings: School districts that allow capacity-related transfers must establish a policy as to whether approval of a transfer grants the student's siblings the right to attend the same school.
- Transportation: A school district must set a policy regarding whether it will provide transportation for a student approved to attend a non-neighborhood school.

A case study of capacity-regulated student transfers from Arlington County, Virginia, appears on the next page.

Case Study: Arlington County Capacity-Regulated Student Transfers

Arlington Public Schools (APS) permits students, under certain circumstances, to apply to transfer from one neighborhood school to another. The transfer policy considers the capacity and enrollment of the student's neighborhood school, as well as the requested receiving school.



By APS policy, the number of students attending a neighborhood elementary school from outside its attendance boundary may not exceed five percent of the receiving school's total enrollment. A neighborhood elementary school with enrollment that is not projected to reach 95% of facility capacity within the next three years may exceed the five percent transfer limit, but may only accept transfers of students from schools at or projected to reach 95 percent of capacity within the next three years. However, any neighborhood elementary school for which projected enrollment for the next three years exceeds 95 percent of facility capacity may accept non-sibling transfers. Similar transfer rules apply for most APS middle and high schools.

Several APS middle and high schools currently have enrollments well above building capacity. To address overcrowding and to balance enrollment among schools, the Arlington School Board approved a waiver of the transfer policy beginning in the 2015-16 school year. Under the waiver, students may transfer from certain schools with enrollment greater than 120 percent of capacity into certain receiving schools with enrollments below 120 percent of capacity. Under the waiver, for example, 18 students from Washington-Lee High School (a school with projected enrollment above 120 percent of capacity) transferred in 2016 to Wakefield High School (with projected enrollment near 110 percent). Although the School Board considers the waiver to be an interim measure, the Board voted to continue the policy at least through the 2017-18 school year. The Board plans to annually re-evaluate extension of the waiver.

Once APS approves a student's application to transfer schools, the student's enrollment in the receiving school will be continuous through all grade levels of that school (unless the school is involved in a redistricting). The parent(s) or guardian(s) of a transfer student assume responsibility for transportation to the receiving school.

Sources: See Appendix B.

B. Temporary Relocation of Grade of Students

Most school districts assign grades of students uniformly among schools. Generally, schools in the United States are designed and built to accommodate students in a fixed range of grades. For example, in MCPS, elementary schools include kindergarten through fifth grade; middle schools include sixth through eighth grades; and high schools include ninth through twelfth grades. Under this conventional practice, school enrollment is a function of permanent grade assignments to each school level (elementary, middle, or high).

While permanent grade assignments to schools is a preferred practice, overcrowding and capacity constraints may compel a school district to re-evaluate this approach. A school district may experience different enrollment versus capacity circumstances in different school levels. As an example, an elementary school may have enrollment that greatly exceeds its capacity, while the middle school into which it feeds may have enrollment below capacity. In such a case, a school district may consider re-alignment of grades between the elementary and middle school facilities to alleviate the overcrowded conditions.

The population of school age children within the boundaries of a particular school may undergo measurable change in just a few years. Relocation of students likely would be a temporary measure to accommodate waves of high enrollment in certain grades, or to provide capacity relief while awaiting construction of new instructional space. Given its temporary nature, this strategy would be subject to annual review to re-assess which grades should be assigned to which schools. Once conditions change, a school district that had relocated an entire grade of students may return that grade to its original school.

The case study on the next page describes a current example from Washington State in which a school district re-assigned sixth-grade students from select elementary schools to relieve overcrowding.

Case Study: Transfer of Sixth Graders, Puyallup, Washington

The Puyallup School District, located east of Tacoma, Washington, has a total enrollment of more than 22,000 students in 21 elementary schools, seven junior high schools, and three high schools. Traditionally, students in kindergarten through sixth grade attended elementary schools, while students in seventh through ninth grades attended junior high schools.



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In 2015, as a response to enrollment growth and a lack of classroom space, the Puyallup School Board approved a three-year plan to relocate sixth graders at several overcrowded elementary schools to junior high schools with available space. In the 2014-15 school year, Zeigler Elementary School, a facility built for 550 students, had an enrollment of 830 students. For the 2015-16 school year, Ziegler sixth graders moved to Ballou Junior High, a school that could accommodate the relocated students. The School Board annually reviews the student relocation policy. In February 2017, the School Board voted to relocate sixth grade students from four additional elementary schools to junior high buildings for the 2017-18 school year.

The School Board considers the transfer of sixth graders as a temporary measure to relieve overcrowding until new classroom space is constructed. At the time of the 2015 vote, School Board member Chris Ihrig stated: "It is a pretty significant moment when we move sixth graders to junior highs, and it's the result of us having a lot of increased growth in the district. ... None of us have been really comfortable with having to do this, but we really have no choice." In November 2016, voters approved a \$293 million school construction bond. Schools built with those bond dollars are scheduled to open in 2019 and 2020.

Transferred students receive instruction in the same core curriculum (English, math, social studies, and science) as sixth-graders in traditional K-6 elementary schools. In addition, sixth graders that attend junior high schools are eligible to enroll in beginning band or orchestra offered in their new school. The sixth graders eat in the same space as junior high students; attend schoolwide assemblies; receive support from the junior high librarian, counselors, and nurses; and are eligible to participate in junior high intramural sports, clubs, and activities.

Sources: See Appendix B.

SECTION 4: INSTRUCTIONAL SCHEDULING

The capacity of a school building limits the number of students that can receive instruction simultaneously under acceptable educational and safety standards. School capacity is a function of multiple factors, primarily building size, the number and types of classrooms and related educational space, and class size limits. Traditionally, the calculation of school capacity is predicated on the notion of simultaneous instruction, that is, that all enrolled students will attend school at the same time.

An underlying assumption to the traditional measure of school capacity is that instructional hours are the same for all students attending the school. Under simultaneous instruction, teaching occurs in a building only during fixed hours on fixed dates that are identical for the entire student body. Thus, the building is not available for core (as opposed to supplemental or extra-curricular) instruction during hours outside of the uniform school day and school calendar. Nearly all school districts in the United States adopt this approach to instructional scheduling.

MCPS Approach: Board of Education Policy IDA establishes the procedures for the Board to develop the MCPS school year calendar. Policy IDA identifies as a desired outcome the development of “a standard School Year Calendar that allows for the effective use of time for teaching and learning, for professional growth opportunities, and planning instructional strategies focused on improving student achievement.”

MCPS annually establishes its school year calendar governed by the requirements of State law. The Maryland Code (section 7-103 of the Education Article) requires public schools in the State “shall be open for pupil attendance for at least 180 actual school days and a minimum of 1,080 school hours during a 10-month period in each school year” and “shall be open for pupil attendance a minimum of 3 hours during each school day.” In addition, State law prohibits public schools from opening on certain specified holidays.

In October 2016, Governor Hogan signed Executive Order 01.01.2016.13, which prohibited public school instruction from June 16 through the Tuesday following Labor Day. State law permits the Boards of Education in certain counties (including Montgomery County) to pilot a program “to operate one or more schools ... within the county or Baltimore City on a year-round basis, provided that the 180-day and the minimum hour requirements under this section are met.”

Strategies Employed in Other School Districts: OLO has identified two strategies employed in other school districts to address school overcrowding through non-traditional instructional scheduling. This section describes the two following strategies:

- h. Split Session Scheduling
- i. Multi-Tracking

Examples of school districts that have employed each of these strategies appear in the case studies below.

Split Session Scheduling

Traditionally, the start and the end of the school day is uniform for all students attending the same school. While many schools offer before- and after-hours programming, classroom instruction occurs exclusively between defined start and end times that apply to most, if not all, students. In this conventional mode, the capacity of a school is a function of the amount of instructional space needed to accommodate all enrolled students at one time. Overcrowding occurs when a building's instructional space is insufficient to simultaneously house classes for all students.

One method to expand school building capacity without constructing new space is to have students attend the school on staggered schedules. This strategy, sometimes referred to as “split session scheduling,” reduces the number of students in the building at given times of the school day while increasing the hours classrooms are available for instructional use. In sum, by extending the length of the instructional day and by staggering students' attendance time, the same classroom space can accommodate more classes per day than under the traditional fixed school hours approach.

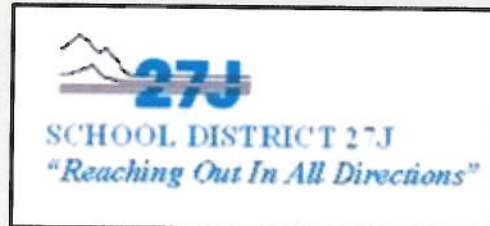
A school district that employs split session scheduling confronts several challenges arising from this unconventional approach, including:

- Transportation: Staggered school day start and end times generates a need for multiple morning and afternoon bus routes serving the same school.
- Extra-Curricular Activities: After-school extra-curricular activities cannot begin until after the last instructional session, which may be long after many students' last class of the day.
- Schoolwide Activities: Split scheduling offers a narrow time window for assemblies and other schoolwide activities.
- Early Morning Start Time: Extending the instructional hours of the school day likely requires early morning start times, which could reduce students' sleep.
- Maintenance and Utility Costs: Split session scheduling increases the operational hours of the school day, possibly resulting in higher building maintenance and utility costs.

A case study of split session scheduling from Suburban Denver appears on the next page.

Case Study: Split Session Scheduling in Suburban Denver

School District 27J, located in Suburban Denver, serves about 17,000 students. In 2014, the school district proposed a \$150 million bond measure to build a new high school and two new elementary schools to relieve overcrowding in existing school buildings. At the time, school district officials warned that failure of the bond measures would compel the district to adopt student scheduling changes to accommodate enrollment demand. In the November 2014 election, the bond measure received 49.8% of the vote, falling just short of the simple majority needed for approval.



Upon failure of the bond measure, the school district adopted split session scheduling for the 2015-16 school year to address overcrowding in two high schools. Under the split session schedule, the school day differs for different groups of students to more fully utilize scarce classroom space. For example, in Brighton High School, freshmen and sophomores attend class from 7:00 a.m. to 2:22 p.m. while juniors and seniors attend class from 9:48 a.m. to 5:10 p.m.

The school district had to undertake operational changes to implement split session scheduling. The district expends an additional \$750,000 annually to fund multiple morning and afternoon bus routes. In addition, the district added a monthly professional development day to help promote collaboration among teachers who work at different times of the day.

The school district considers split sessions a temporary solution until funding becomes available to construct new capacity. A school district spokesman stated that “this is not a decision we’re making to benefit our families, it’s what we need to do to accommodate our students. It’s not ideal; it’s where we are. As soon as we pass a bond and build a high school, we’ll move away from it.”

In 2015, the School District 27J proposed a \$248 million bond measure to fund construction of four new schools. Residents approved the measure with 61% of the vote. The district intends to retain high school split sessions until a new bond-funded high school opens in the fall of 2018.

Sources: See Appendix B.

B. Multi-Tracking

In the United States, most commonly, the K-12 school year extends nine to ten months with an extended summer vacation separating one school year from the next. A few school districts (for example, in Holt, Michigan) have implemented year-round schooling in select schools for educational purposes. However, year-round schooling may also be used as a strategy to increase effective school capacity without constructing new classrooms.

Year-round schools may ease overcrowding when schools implement a multi-track system. Under multi-tracking, students (and often, teachers) are assigned to separate tracks. The tracks have different vacation days staggered throughout the year. As a result, the full student body is never in the building at the same time. For example, in a four-track schedule, three tracks of students are in the building on any given day, while one track is on break. Thus, over the course of the year, the building accommodates one-third more students than under a traditional schedule.

A multi-tracked schedule gives rise to several challenges not experienced by schools on a traditional schedule, including:

- Siblings: Under multi-tracking, siblings may not be on the same school schedule. Some districts have implemented procedures to try to place siblings in the same track.
- Extra-Curricular Activities: Participation and attendance in extra-curricular activities may be affected, as a portion of the student body is on vacation on any given date during the school year.
- Schoolwide Activities: Students that are on their multi-track vacation period may be unable to attend assemblies and other schoolwide activities.
- Maintenance and Utility Costs: Year-round multi-tracking increases the operational hours of the school year, possibly resulting in higher building maintenance and utility costs.

Two multi-tracking case studies appear on the following pages. Both Wake County, North Carolina and Clark County, Nevada, have employed multi-tracking to effectively increase school capacity and alleviate overcrowding without constructing new classrooms.

Case Study: Multi-Tracking in Wake County, North Carolina

In the early 1990s, Wake County Public School System (WCPSS) experienced rapid enrollment growth. At that time, the school district instituted year-round multi-tracking in select schools as a strategy to address overcrowding. As stated by WCPSS Chief Communications Officer Michael Evans, "we have used it as a capacity governance model. You get more students into a school and have to build fewer schools. It's a function of trying to keep up with growth." In the following years, WCPSS has continued to implement multi-tracking as a mandatory requirement for students at schools with enrollment that exceeded capacity.



In 2007, a group of parents sued WCPSS claiming that the State constitution required the school district to allow students to attend school for a fixed nine-month schedule. A State court found in favor of the parents group and ruled that WCPSS may not mandatorily impose a multi-tracking schedule nor impose year-round school attendance without informed parental consent. In 2008, however, the North Carolina Court of Appeals ruled unanimously that WCPSS did not need parental consent to assign students to year-round schools. The North Carolina Supreme Court upheld the Court of Appeals ruling. In a 4-to-3 decision, the Court wrote that by implementing multi-tracking, WCPSS was doing "its duty to provide a school system adequate to the needs of increasing student enrollment."

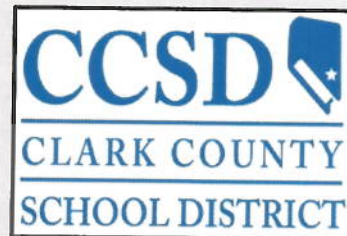
Today, WCPSS employs multi-tracking in 30 elementary schools and eight middle schools. About 44% of the district's elementary students and 36% of middle school students attend a multi-tracking school. In multi-tracked schools, WCPSS assigns students into one of four year-round tracks. In each track, students attend school for 45 days followed by a 15-day vacation. Vacation time is staggered among the tracks so that, at any given time, students in three tracks attend school while students in one track are on vacation.

As school enrollment patterns shift over time, the need to multi-track changes. For the 2018-19 school year, WCPSS is considering converting two middle and two to six elementary multi-track schools to a traditional nine-month schedule.

Sources: See Appendix B.

Case Study: Multi-Tracking in Clark County, Nevada

The Clark County School District (CCSD), which includes Las Vegas and surrounding areas, has experienced rapid enrollment growth in recent years. In 1971, CCSD converted a single elementary school to year-round multi-tracking scheduling. However, nearly all CCSD schools remained on a traditional nine-month schedule until 2008. In that year, facing overcrowding throughout the district, CCSD adopted year-round multi-tracking at 90 schools. As the recession brought severe budget constraints, CCSD raised class sizes and restored all schools to the traditional schedule for the 2010-11 school year.



In 2012, the school district proposed a property tax increase to fund building renovations and new construction. Clark County residents voted against the property tax increase by a two-to-one margin. As enrollment in many schools well exceeded building capacity, CCSD returned three elementary schools to multi-tracking for the 2013-14 school year and ten additional elementary schools for the following school year. In March 2015, CCSD announced that, to ease overcrowding, 11 additional elementary schools will convert to a year-round calendar for the 2015-16 school year. In presenting the decision to implement multi-tracking in additional schools, CCSD Superintendent Pat Skorkowsky said that "converting schools to a year-round calendar is not a decision that is made lightly, but it serves as a solution to our overcrowded schools, which pose potential safety issues and create congestion in the classrooms." CCSD expects to phase out multi-tracking in several years, as the Nevada legislature recently approved funding for new school construction.

In multi-tracked schools, CCSD assigns students into one of five tracks. For schools operating a multi-track schedule, siblings who have been in different school tracks are granted top priority for track selection for the upcoming school year.

In each track, students attend school for 11 to 12 consecutive weeks (excluding holidays), followed by a three-week vacation. Vacation time is staggered among the tracks so that, at any given time, students in four tracks attend school while students in one track are on vacation. The CCSD multi-track schedule extends for 11 months. All students and faculty have a one-month summer break from late July through late August. Students may participate in after-school activities, even when their track is not in session.

Sources: See Appendix B.

APPENDIX A

**Montgomery County Public Schools
Policy FAA**

Long-range Educational Facilities Planning

POLICY BOARD OF EDUCATION OF MONTGOMERY COUNTY

Related Entries: ABA, ABC, ABC-RA, ACD, DNA, FAA-RA, FKB, JEE, JEE-RA
Responsible Office: Chief Operating Officer
 Department of Facilities Management

Long-range Educational Facilities Planning

A. PURPOSE

The Montgomery County Board of Education (Board) has a primary responsibility to plan for school facilities that address changing enrollment patterns and sustain high-quality educational programs in accordance with the policies of the Board. The Board fulfills this responsibility through the facilities planning process. Long-range educational facilities planning is essential to identify the infrastructure needed to ensure success for every student.

The *Long-range Educational Facilities Planning* (LREFP) policy guides the planning process. The process is designed to promote public understanding of planning for Montgomery County Public Schools (MCPS) and to ensure that there are sufficient opportunities for parents, students, staff, community members and organizations, local government agencies, and municipalities to identify and communicate their priorities and concerns to the superintendent of schools and the Board. LREFP will be in accordance with all federal, state, and local laws and regulations.

B. ISSUE

Enrollment in MCPS is constantly changing. The fundamental goal of facilities planning is to provide a sound educational environment for changing enrollment. The number of students, their geographic distribution, and the demographic characteristics of this population all impact facilities planning. Enrollment changes are driven by factors including birth rates and movement within the school system and into the school system from other parts of the United States and the world.

MCPS is among the largest school systems in the country in terms of enrollment and serves a county of approximately 500 square miles. The full range of population density, from rural to urban, is present in the county. Since 1984, enrollment has increased where new communities have formed, as well as in established areas of the county where

turnover of houses has occurred.

MCPS is challenged continually to anticipate and plan for facilities in an efficient and fiscally responsible way to meet the varied educational needs of students. The LREFP policy describes how the school system responds to educational and enrollment change; the rate of change; its geographic distribution; and the racial, ethnic, and socioeconomic diversification of enrollment.

School facilities also change. Aging of the physical plant requires a program of maintenance, renovation, and revitalization/expansion, in accordance with Board Policy FKB, *Sustaining and Modernizing Montgomery County Public Schools (MCPS) Facilities*. Acquiring new sites, designing new facilities, and modifying existing facilities to keep current with program needs is essential. This policy provides the framework to coordinate planning for capital improvements.

C. POSITION

The long-range facilities planning process will continue to:

1. Plan for utilization of schools in ways that are consistent with sound educational practice and consider the impact of facility changes on educational program and related operating budget requirements and on the community.
2. Establish processes designed to obtain input by engaging in a discussion among a broad variety of stakeholders and utilizing opportunities for input from the public and relevant staff members, in accordance with Board Policy ABA, *Community Involvement*, for the capital improvements program and the facilities planning activities listed below:
 - a) Selection of school sites
 - b) Facility design
 - c) Boundary changes
 - d) Geographic student choice assignment plans (such as consortia)
 - e) General enrollment, demographic, and facility related issues that are explored through roundtables and other community input processes.
 - f) School closures and consolidations
3. Provide a six-year capital improvements program and educational facilities master

- plan which include enrollment projections, educational program needs, and available school capacity countywide, and identify—
- a) when new schools and additions will be needed to keep facilities current with enrollment levels and educational program needs;
 - b) funds for systemic maintenance and replacement projects to sustain schools in good condition and extend their useful life;
 - c) a schedule to revitalize/expand older school buildings in order to continue their use on a cost-effective basis, and to keep facilities current with educational program needs;
 - d) when school closures and consolidations are appropriate due to declining enrollment levels; and
 - e) facility utilization levels, capacity calculations, school enrollment size guidelines, and school site size (adopted as part of the Board review of the superintendent of schools' recommended CIP).
4. Provide for the Board to hold public hearings and solicit written testimony on the recommendations of the superintendent of schools.
 5. Provide a process for facility design that—
 - a) ensures a safe and secure environment;
 - b) is consistent with educational program needs;
 - c) includes community input;
 - d) demonstrates environmental stewardship; and
 - e) anticipates future needs
 6. Provide a process for changing school boundaries and establishing geographic student choice assignment plans that—
 - a) solicits input at the outset of the process consistent with Board Policy ABA, *Community Involvement*;
 - b) considers four main factors in development of school boundaries, student choice assignment plans, and ways to address other facility issues including—

- 1) demographic characteristics of student population,
 - 2) geographic proximity of communities to schools,
 - 3) stability of school assignments over time,
 - 4) facility utilization;
- c) recognizes that the Board may, by majority vote, identify alternatives to the superintendent of schools' recommendations for school boundaries or geographic student choice assignment plans for review;
 - d) allows time for the Board to hold public hearings and solicit written testimony on the recommendations of the superintendent of schools and Board identified alternatives for school boundaries or geographic student choice assignment plans; and
 - e) recognizes that the Board has the discretion to adopt minor modifications to the superintendent of schools' recommendation or Board identified alternatives if, by a majority vote, the Board has determined that such action will not have a significant impact on an option for school boundaries or geographic student choice assignment plans that has received public review.
7. Provide a process for closing and consolidating schools that meets the requirements of COMAR (Chapter 13A).
 8. Provide for articulation in school assignments by:
 - a) Traditional Student Assignments

Structure high schools for Grades 9-12 and, where possible, creating straight articulation for clusters composed of one high school, and a sufficient number of elementary and middle schools, each of which sends its students, including special education and ESOL students, to the next higher level school in that cluster.
 - b) Student Choice Assignment Plans

In cases where students participate in a student choice assignment plan (e.g., consortium) to identify the school they wish to attend, articulation patterns may vary from the straight articulation pattern that is desired in traditional student assignment.

9. Provide for a different and/or condensed process and time schedule, developed by the superintendent of schools, for making recommendations to the Board regarding the capital improvements program and the facility planning activities listed above, including but not limited to changing school boundaries and establishing geographic student choice assignment plans in the event that the Board determines that unusual circumstances exist.

D. DESIRED OUTCOMES

1. A LREFP process that identifies the infrastructure necessary to deliver high quality educational facilities to all students and incorporates the input of parents, staff, and community and, as appropriate, students.
2. The superintendent of schools will develop regulations with student, staff, community, and parental input to guide implementation of this policy.

E. REVIEW AND REPORTING

1. The annual June publication of the Educational Facilities Master Plan will constitute the official reporting on facility planning. This document will reflect all facilities actions taken during the year by the Board and approved by the County Council. The Master Plan will project the enrollment and utilization of each school, and identify schools and sites that may be involved in future planning activities.
2. This policy will be reviewed in accordance with the Board policy review process.

Policy History: Adopted by Resolution No. 257-86, April 28, 1986; amended by Resolution No. 271-87, May 12, 1987; amended by Resolution No. 831-93, November 22, 1993; amended by Resolution No. 679-95, October 10, 1995; amended by Resolution No. 581-99 September 14, 1999; updated office titles June 1, 2000; updated November 4, 2003; amended by Resolution No. 268-05, May 23, 2005; amended by Resolution 282-14, June 17, 2014.

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