Douglas MacArthur Elementary School

1101 Janney's Lane, Alexandria, VA 22302

At a Glance…			
Year Built **1942**	*Tax Map* **051.02-03-16**	*Current Square Feet* **56,098**	*Average Educational Adequacy* **Borderline (68)**
Zoning **R12**	*Lot Size* **191,664**	*Floor Area Ratio* **0.30**	*Allowed Square Feet* **57,000**
School Site **Satisfactory (84)**	*Building Assessment* **Borderline (58)**	*Instructional & Support Spaces* **Borderline (63)**	*Utilization* **Very Inadequate (69)**

Background

Douglas MacArthur Elementary School was built in 1943 predominantly for children of the Naval Torpedo Plant workers living in Chinquapin Village. The school has undergone a number of renovations with the most recent one occurring in 2008. The school is located at 1101 Jenney's Lane, in a residential neighborhood.

In 2014, Douglas MacArthur had an enrollment of 708 students with a capacity of 554 students. By 2020, enrollment is expected to increase by 9.5 percent to 772 students.

The academic curriculum at MacArthur includes reading, language arts, mathematics, social studies, and science.

The school also offers:

• Art instruction once per week • Two physical education classes per week • Global Art on a Timeline • Habits of the Mind and Character Counts • Instruction in family life education at age appropriate levels • Band and orchestra beginning in 4th grade • Vocal music instruction once per week • LD Resource with inclusion, • Speech, OT and PT • Visiting science teacher • Weekly library visits, • Talented & Gifted program for grades K-5 • ELL program for students learning English as a second language • Opportunity to participate in numerous after school programs.

DASHBOARD	
Current Enrollment (2014-2015)	**708**
School Capacity	**554**
Projected Enrollment (2020)	**772**
Projected Primary Instructional Classroom (surplus/deficit)	**2020** -6
Projected Total Program Square Feet	**2020** -23,445
Electric Usage in kilowatt-hour (7/1/2013 – 6/30/2014)	**539,440**
Number of Maintenance Calls (7/1/2013 – 6/30/2014)	**134**

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Key Findings

Summary

With a score of 68 percent, the site assessment completed for Douglas MacArthur rates this school as borderline on the educational adequacy benchmark.

High Priority Issues

- The school will be significantly over capacity by 2020. The major issues in the school are the classroom sizes, need for additional storage areas and temperature controllability.

School Site

Site Data	
Environmental Considerations	*Rolling slopes*
Number of Playgrounds	*4*
Recreation Features	*Playgrounds, basketball court, synthetic turf field, open fields.*
Resource Protection Areas	*No*
Number of Parking Spaces	*59*
Storm Water Management	*No existing BMPs*

The existing school is adjacent to the Forest Park. The existing school building was partially constructed in the adjacent park (POS zone). Any future projects should consider rectifying this boundary issue.

While assessment of this school site resulted in a satisfactory rating, it is important to note that the school is lacking a student drop-off area with a stacking room and the pedestrian pathways are not adequately separate from vehicular traffic.

There are significant drainage issues that have caused flooding and deterioriation of the north wing of the school.

Instructional and Support Spaces

The overall score for this section is borderline. Items contributing to this low score include classroom size, internal organization, loose furnishings, and air quality—while more than half of instructional and specialty classrooms did not have the required number of teaching walls

For Alexandria City Public Schools (ACPS), meeting size requirements is one of the highest priorities and the majority of classrooms in this category were below the minimum square footage requirement. The desired square footage for a kindergarten classroom is 1,175, however, at Douglas MacArthur, the average for this grade level was 961 square feet. First through fifth grade classrooms require at least 900 square feet, but the average at this school is 742 square feet. The overall capacity of the instructional classrooms is only 69 percent of their ideal square foot size (per student) as detailed in the educational specifications.

The second most important condition is air, lighting, and acoustic quality of the rooms. Of these three, the lack of controllable lighting and air temperature were borderline for both core and specialty classrooms. Although most core instructional classrooms maintained proper equipment and infrastructure, with classroom acoustics being acceptable, the specialty and shared classrooms were borderline or below in this category. The specialty and shared classrooms were also missing adequate storage and the presence of an interactive electronic device. The last area of concern is the specialty classrooms which are lacking required space, infrastructure, furnishings, temperature and lighting controls.

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Building Assessment

There are three subcategories evaluated in the building assessment section: building organization, technology and support infrastructure, and building accessibility. MacArthur received a borderline rating in two of the three subcategories; technology and support infrastructure and building accessibility. Some technology inadequacies include: lack of wireless internet for students at a 1:1 ratio, lack of electrical outlets in classrooms and hallways, and an integrated clock and public announcement system.

Finally, building organization received a satisfactory score due to shared space and grade level clusters being centrally located, however, the school does not have extended learning areas for first through third grade clusters. ACPS should also provide public visitor restrooms, which were not available at MacArthur.

Recommendations

Because of the building condition and the interior configuration, a total school replacement is recommended. In order to accommodate the existing enrollment, a new building will likely exceed the FAR allowed by the zoning.

Group 1 – Required Planning

- **Site** assessment to determine whether the drop-off location for the school can be relocated/reconfigured (based on property, boundaries, setbacks, etc.).

Group 2 – First Priority

- **Rezone** the property and correct the boundary to allow for a new building to accommodate the projected student enrollment
- **Consider** a total school replacement. This should address additional square footage supporting projected utilization and address deficient key organizational adjacencies while maximizing open space at the existing site.

Group 3 – Second Priority

- **Equip** all core classrooms and support spaces with wall mounted interactive devices and the appropriate support infrastructure.
- **Additional** storage for teachers and students should be integrated into the reconfigured classrooms as well as an upgrade to furniture, fixtures and equipment
- **Equip** all classrooms and support spaces with individual climate and variable lighting controls.

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Exhibit A

Appraisal Summary for :	Douglas MacArthur			
Summary	**Unweighted Points**	**Tier**	**Priority**	**Rating Category**
1.0 School Site	84			Satisfactory
2.0 Building Assessment	58			Borderline
3.0 Instructional and Support Spaces	63			Borderline
4.0: Utilization	47			Very Inadequate
Average	**63**			Borderline

Key	
1	Excellent
2	Satisfactory
3	Borderline
4	Inadequate
5	Very Inadequate

1.0 School Site

Section 1	Unweighted Points	Tier	Priority	Rating Category
A Site Circulation.	68	4	14	Borderline
B Play areas / fields	100	3	23	Excellent
Average : School Site	**84**			Satisfactory

2.0 Building Assessment

Section 2	Unweighted Points	Tier	Priority	Rating Category
A Building Organization	75	4	19	Satisfactory
B Technology and Supporting Infrastructure	50	4	14	Borderline
C Accessibility	50	4	14	Borderline
Average : Building Assessment	**58**			Borderline

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3.0 Instructional and Support Spaces

Section 3	Unweighted Points	Tier	Priority	Rating Category
Core Classrooms				
Meets Size Requirements	48	2	7	Inadequate
Internal Organization and Ancillary Spaces	72	4	19	Satisfactory
Loose Furnishings	69	4	14	Borderline
Fixed Equipment and Infrastructure	81	4	19	Satisfactory
Lighting Quality	69	3	13	Borderline
Natural Lighting	82	3	18	Satisfactory
Acoustics	93	3	23	Excellent
Air Quality and Temperature	65	3	13	Borderline
Shared Spaces				
Meets Size Requirements	36	2	7	Inadequate
Internal Organization and Ancillary Spaces	79	4	19	Satisfactory
Loose Furnishings	90	4	24	Excellent
Fixed Equipment and Infrastructure	69	4	14	Borderline
Lighting Quality	76	3	18	Satisfactory
Natural Lighting	74	3	18	Satisfactory
Acoustics	87	3	18	Satisfactory
Air Quality and Temperature	72	3	18	Satisfactory
Average: Instructional and Support Spaces	**63**			Borderline

4.0: Utilization

Section 4 : Utilization	Unweighted Points	Tier	Priority	Rating Category
A Core Classrooms (Capacity Drivers)	75	2	7	Inadequate
B Specialty Classrooms (Core A)	9	3	3	Very Inadequate
C Shared Spaces (Core B)	57	3	3	Very Inadequate
Average : Utilization	**47**			Very Inadequate

Douglas MacArthur

Program Isometric

Building Massing