



# SDA Model Schools: Kit of Parts Development Update

December 9, 2011

## SDA Model Schools: Kit of Parts Development

- Introduction
- Model Programs
- Model Ed Specs
- Component Elements
- Application
- Next Steps

# Introduction: Why Model Schools?

- Provide for greater consistency in school facility projects within and across all SDA districts while responding to varying site conditions
- Provide quality educational facilities more cost effectively
- Reduce the time and expense required for design of SDA school facilities
- Serve as a first step toward higher levels of design standardization

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# KOP Development Team Goal

The goal of the Kit of Parts (KOP) Development Team is to develop a prototypical school design, comprised of standardized component elements, which can be easily rearranged to respond to varying site and other conditions for multiple Capital Program projects.

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# Kit of Parts Elements

- Model Programs
- Model Educational Specifications
  - Room Ed Specs
  - Room Fit-Out Lists
- Component Elements (Building Blocks)

## Related Application Elements

- SDA Materials and Systems Standards
- Bridging Documents (to support Design-Build Project Delivery)

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# SDA Model Programs

Model Programs describe the number and type of rooms and spaces to be provided in a school facility. Four basic programmatic models have been developed with 16 potential variations.

The image displays four spreadsheets, each representing a different SDA Model Program for 11110 schools. Each spreadsheet has a title 'SDA Model Programs 11110' and a subtitle 'New Jersey Schools Development Authority Address/Calendar/Consultative'. The spreadsheets are organized into sections: 'SM COMPONENT (Optional)', 'INSTRUCTIONAL COMPONENT', 'LARGE GROUP COMPONENT', and 'SMALL GROUP COMPONENT'. Each section lists various room types (e.g., Classroom, Lab, Storage Room) and their corresponding quantities and areas. The fourth spreadsheet is marked 'DRAFT' in the top right corner.

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# SDA Model Programs

Model	Base Model	Classes per Grade	ES Capacity	PK Capacity	Total Capacity	Component Options (C or M)
1	K-5 (Small)	5	628	0	628	Cafetorium or Multi-Purpose
2	K-5 (Large)	6	756	0	756	Cafetorium or Multi-Purpose
3	K-8 (Small)	3	581	0	581	Cafetorium or Multi-Purpose
4	K-8 (Large)	4	770	0	770	Cafetorium or Multi-Purpose
5	K-5 (Small)	5	628	120	748	Cafetorium or Multi-Purpose
6	K-5 (Large)	6	756	150	906	Cafetorium or Multi-Purpose
7	K-8 (Small)	3	581	60	641	Cafetorium or Multi-Purpose
8	K-8 (Large)	4	770	90	860	Cafetorium or Multi-Purpose



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# Model Educational Specifications

Room Ed Specs – Describe the programs & activities, desired spatial relationships, and special environmental requirements of each space

DRAFT

**INSTRUCTIONAL COMPONENT**  
**KINDERGARTEN CLASSROOM**

Number of Similar Spaces: 33  
 Number of Teachers/Staff: 11 teacher aide  
 Number of Students: 15

**DESCRIPTION OF FUNCTIONS AND ACTIVITIES**  
 The Pre-Kindergarten Classroom will be designed to support learning of the NJ Core Curriculum Content. Students will achieve academic and enduring learning using a variety of methodologies including lecture, discussion, project centered activities, All presentations, shared and performing arts activities and activities involving manipulatives materials, computers, technology, and teamwork. Activities will take place with the whole group, in small work groups, and on an individualized basis.

**DESIRED SPATIAL RELATIONSHIPS:**

- Located within the Instructional Component
- Located no higher than the second floor as per state code
- Room shall have visual access to exterior spaces
- Classrooms shall be clustered together with the grade level
- Located away from the high traffic and noisy areas in the building, with access to special activity areas including the media center and the computer lab
- Easy access to designated Pre-Kit outdoor play space

**SPECIAL CONSIDERATIONS:**

- Sufficient ceiling height to meet applicable code, allow multi-media projection and project-based instruction.
- All areas of the room shall be at the same floor level.
- Provide in-classroom storage for student coats, books, etc.
- Provide an elevated, grade student table/room in each classroom containing child-appropriate furniture.
- Include area for small refrigerator.
- To the extent feasible, arrange floor elements of the room such as storage together to allow for maximum flexibility of furniture arrangement and group activities
- Defined hearing center area.
- Provide accessible sink area – include bubbler or a separate water fountain.

**Other Room Considerations:**

- Provide room acoustics to allow lecture, small group and individual instruction with emphasis on audible sound recognition.
- Maximize natural lighting in the space, avoiding glare on instructional surfaces
- Artificial lighting intensity should be a maximum of 50 footcandles.
- Windows to be operable with inside locks and shall be child safe.
- Refer to Room Finish Schedule for additional room finish requirements.

**FURNITURE & EQUIPMENT (SEE APPENDIX A, ROOM AREA CALCULATIONS)**

**SPECIAL SYSTEM CONSIDERATIONS:**

**Other Notes:**

- No special considerations
- None
- Hot and cold water to sink area and toilet room with temperature controlled regulator and stop trap

New Jersey Schools Development Authority  
 State Model  
 EDUCATIONAL SPECIFICATIONS TO NEW SCHOOLS  
 2011  
 K-1

Room Fit-Out Lists – List number, type, and size of required fit-out elements (FF&E, IT, etc.) and identify party responsible for providing them

KINDERGARTEN CLASSROOM	Quantity	Unit	Area	Cost	Responsible Party
Acoustic Ceiling Tiles	1	sq ft	150	1000	SDA
Acoustic Wall Panels	1	sq ft	150	1000	SDA
Acoustic Floor Tiles	1	sq ft	150	1000	SDA
Acoustic Baffles	1	sq ft	150	1000	SDA
Acoustic Clouds	1	sq ft	150	1000	SDA
Acoustic Panels	1	sq ft	150	1000	SDA
Acoustic Blankets	1	sq ft	150	1000	SDA
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Acoustic Curtains	1	sq ft	15		

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# Component Elements

The Kit of Parts prototype is comprised of the following standardized component elements:

- **Instructional Component** - Classrooms, Science Classrooms/Labs, and Instructional & Administrative Support Areas
- **Large Group Component** – Specialized Instructional Areas (Art, Music, Technology), Physical Education, Dining, and Assembly Areas (Includes Cafetorium or Multi-Purpose Options)
- **Core Component** – Main Office, Nurse, Student Services, and Media Center
- **Pre-Kindergarten Component** – Pre-Kindergarten Classrooms and Support



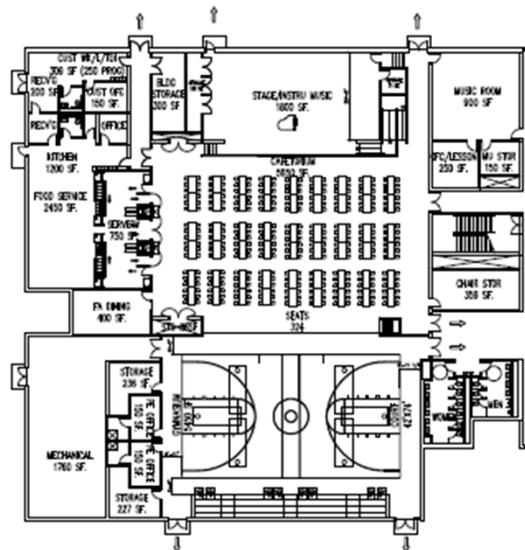


## SDA Model Schools: Kit of Parts Development

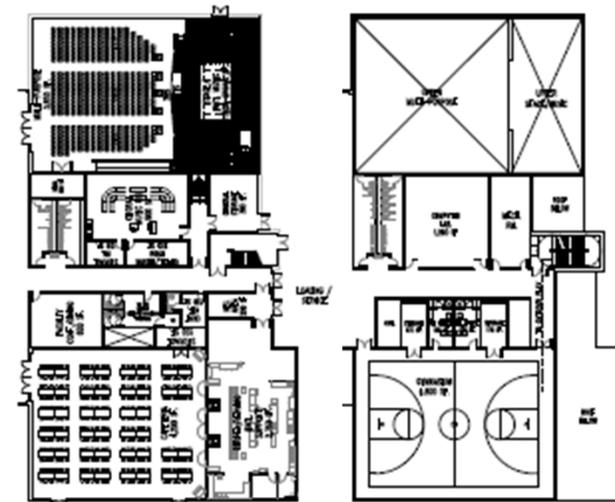
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# Large Group Components

Large Group Components offer the option of either a Gym and Cafetorium (which combines dining and assembly), or a Gym and separate Cafeteria and Multi-Purpose Room



Cafetorium Option

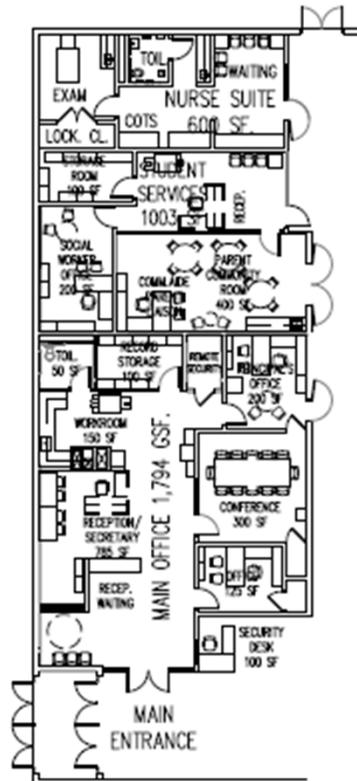


Cafeteria/Multi-P Option

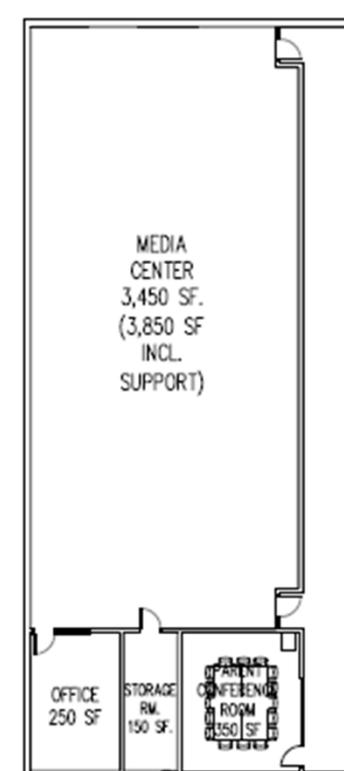
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# Core Component



First Floor Plan



Second Floor Plan

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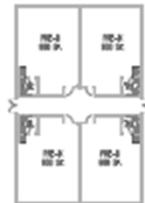
## Pre-Kindergarten Components



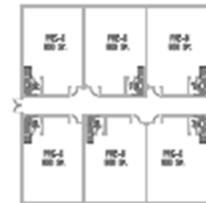
TYPICAL 2ND FLOOR  
PRE-K CLASSROOM WING



TYPICAL 2ND FLOOR  
PRE-K CLASSROOM WING



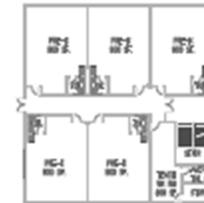
TYPICAL 1ST FLOOR  
PRE-K CLASSROOM WING



TYPICAL 1ST FLOOR  
PRE-K CLASSROOM WING



TYPICAL 1ST FLOOR  
PRE-K CLASSROOM WING



TYPICAL 1ST FLOOR  
PRE-K CLASSROOM WING

**MODEL 7  
PRE-K  
60 STUDENTS**

**MODEL 8  
PRE-K  
90 STUDENTS**

**MODEL 5  
PRE-K  
120 STUDENTS**

**MODEL 6  
PRE-K  
150 STUDENTS**

Single-Story  
Components

Two-Story  
Components

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# Application of the Kit of Parts

Application of the Kit of Parts prototype to a particular project is based upon the following:

- Identification of appropriate Model Program based on grade alignment and target capacity
- Confirmation of required Pre-K capacity, if any
- Test-Fit of Model Components on project site
- Evaluation and comparison with other alternatives for project delivery including advancement of existing design, if any

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# Application of Kit of Parts Prototypes to Specific Projects

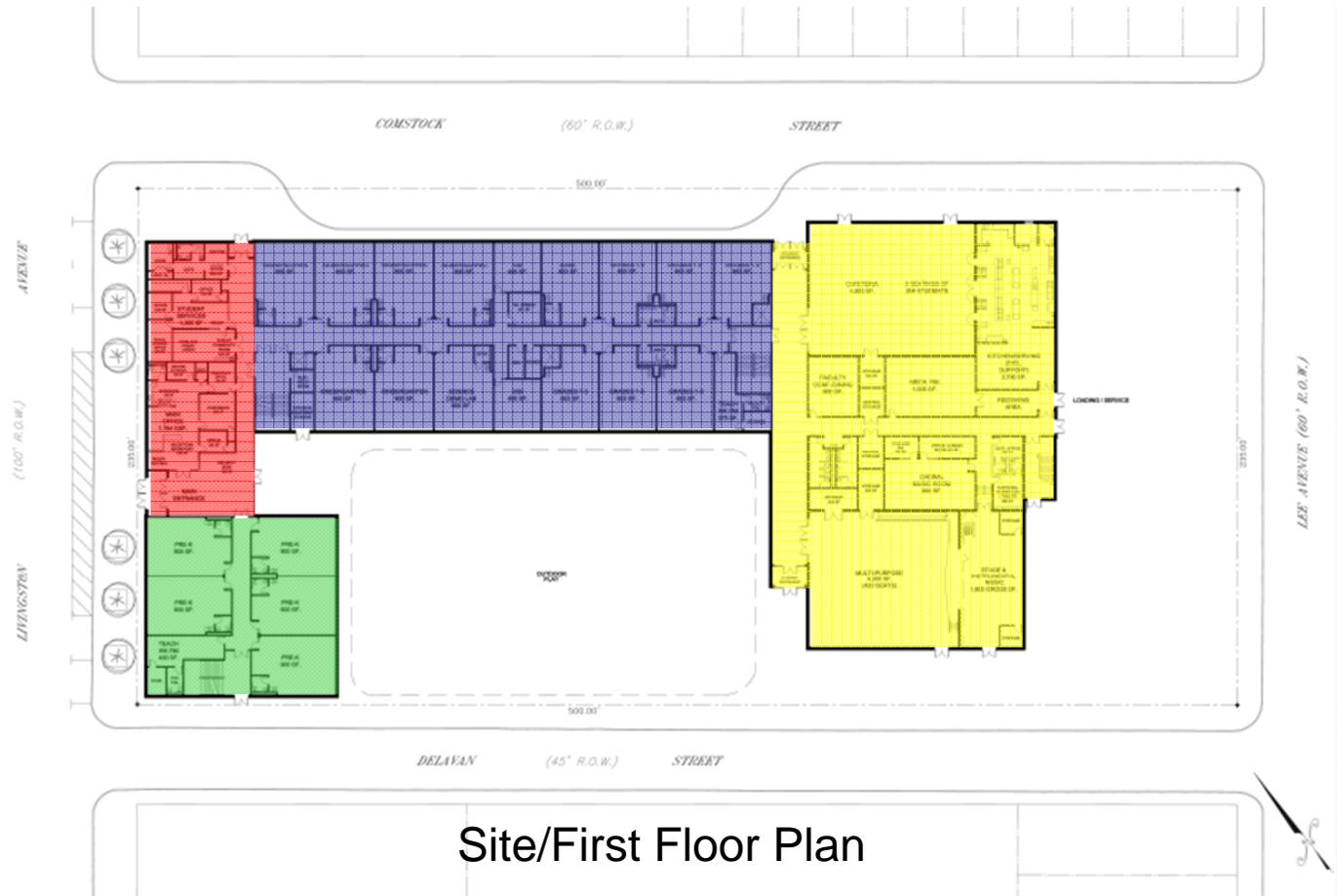
Following are preliminary “test fits” of the Kit of Parts prototype, based on identified district needs and proposed project sites

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# New Brunswick Redshaw School

Model 6M – 906 Students in Grades PK-5

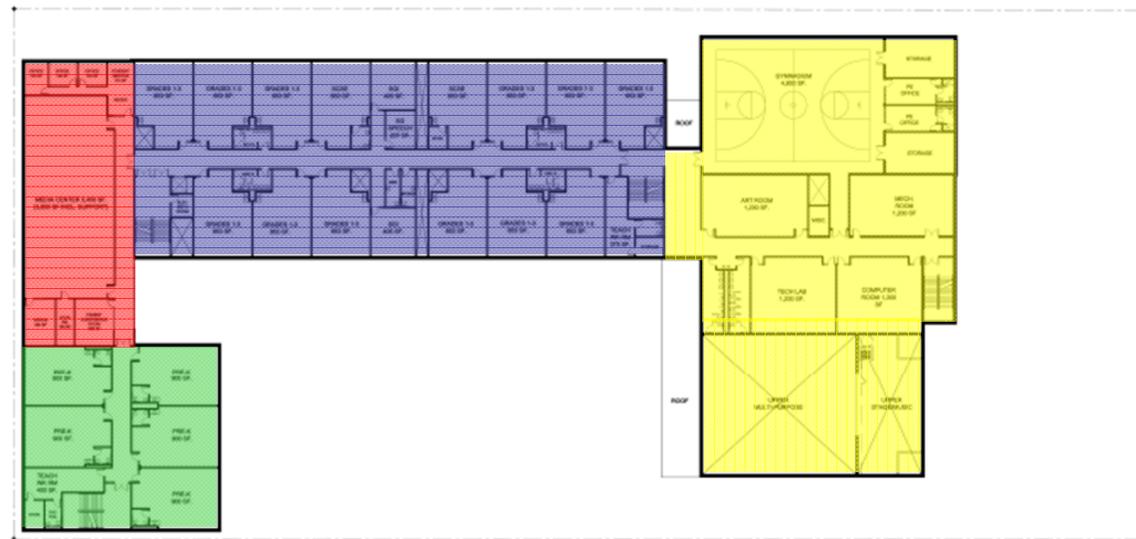


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# New Brunswick Redshaw School

Model 6M – 906 Students in Grades PK-5



Second Floor Plan

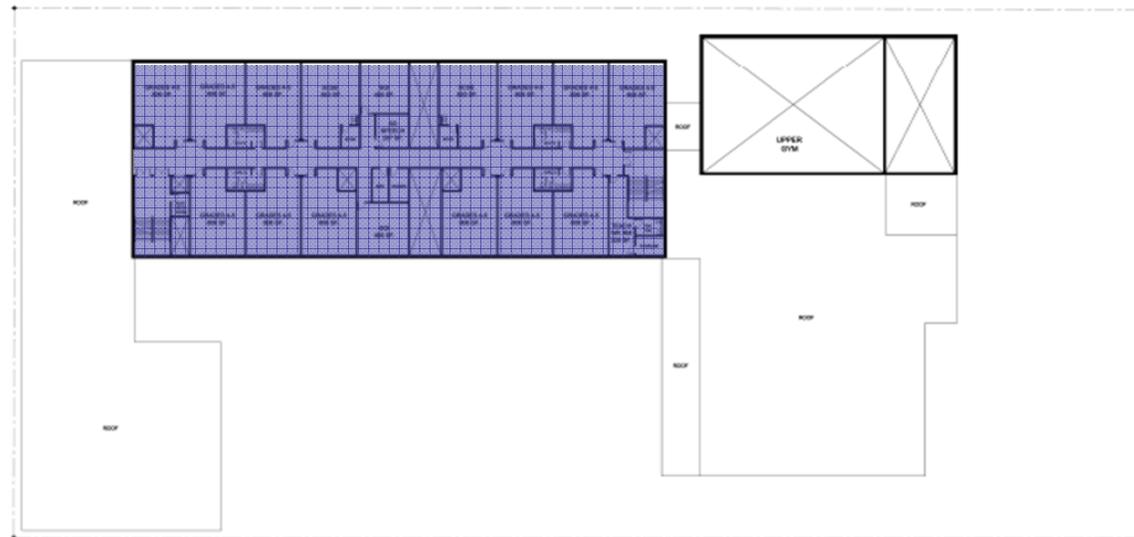


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# New Brunswick Redshaw School

Model 6M – 906 Students in Grades PK-5



Third Floor Plan

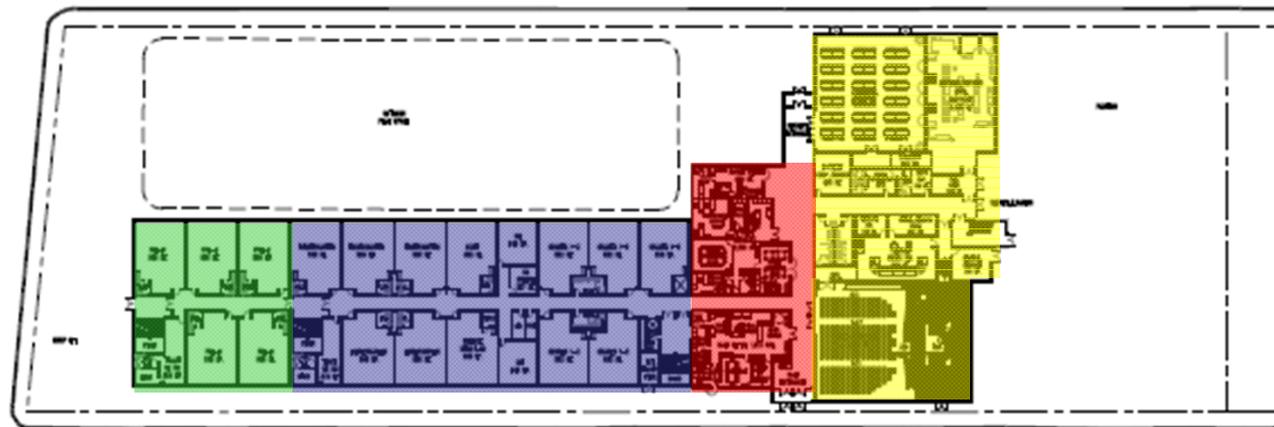


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# Jersey City New ES 3

Model 5M+ 778 Students in Grades PK-5

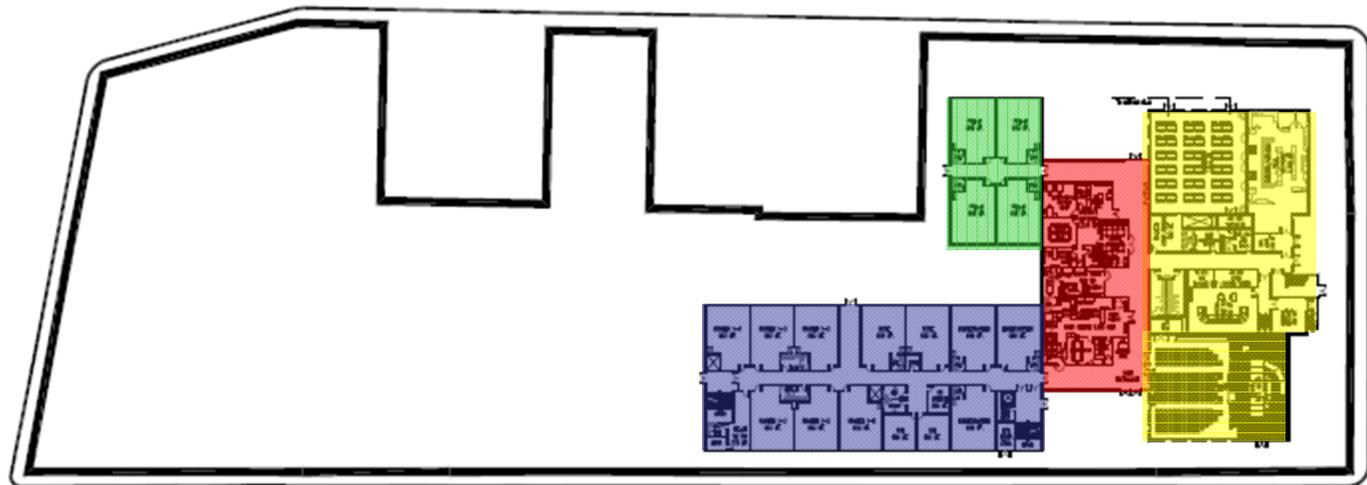


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# Newark Oliver Street Kit of Parts Candidate

Model 8M – 860 Students in Grades PK-8



 Instructional Component  
 Core Component

 Large Group Component  
 PK Component

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# Paterson PS-16 Kit of Parts Candidate

Model 7M – 641 Students in Grades PK-8

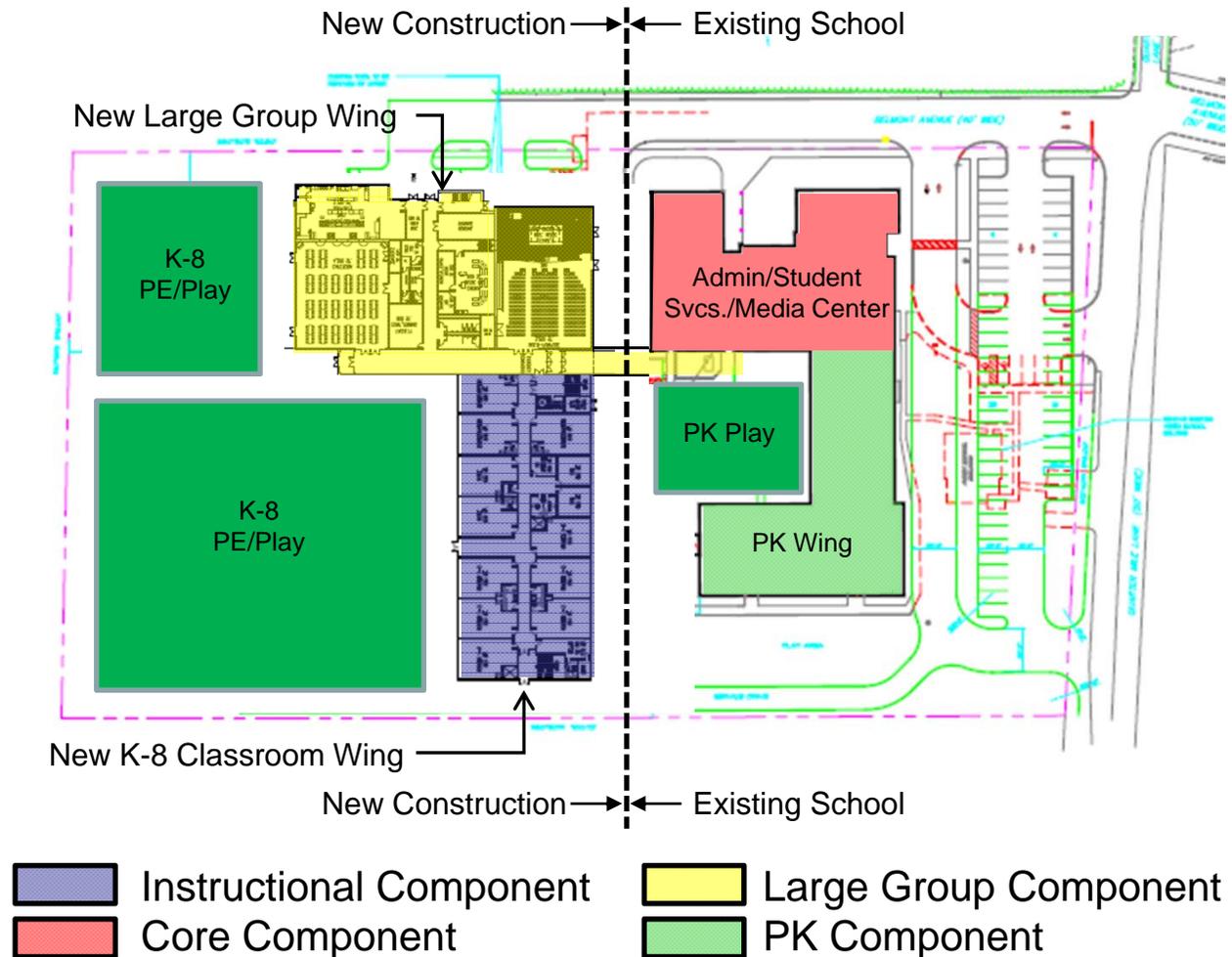


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# Bridgeton Kit of Parts Candidate

Addition/Renovation – Model 7M+ 731 Students Grades PK-8



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# SDA Kit of Parts - Next Steps

## **Kit of Parts Development**

- Finalize Model Programs
- Finalize Ed Specs and Room Fit-Out Lists
- Room Layout Plans
- Finalize Component Elements

## **Application of Kit of Parts to Subject Projects**

- Determination to Utilize Kit of Parts Prototype
- Engage Site Civil/Environmental Consultant
- Conceptual Design
- Schematic Design
  - DOE Schematic Approval
  - DCA Preliminary Review
- Potential Design-Build Project Delivery
  - Preliminary Design (DOE FEA Approval)
  - Final Design (DCA Approvals)
  - Construction
  - Close-Out



STATE OF NEW JERSEY

**SCHOOLS DEVELOPMENT AUTHORITY**

DECEMBER 9, 2011