Dover Area School District
Facility Study Update
PLANCON Part A & B
May 10, 2016

Providing a Client Oriented Approach to Architecture
Crabtree, Rohrbaugh & Associates, Architects
Meeting Agenda

Review District Facility Study Update
- Overview: Enrollment, Capacity, Options
- District/Community Reference
- Board must adopt the Study Update

PLANCON
- May 15, 2016 Deadline
- Approve PLANCON Part A: Project Justification & Part B: Schematic Design
- Design Concepts & Preliminary Budgets

Our Experience
- Crabtree, Rohrbaugh & Associates - Architects
- DCED Grant Potential
- PDE Reimbursement

Meets specific needs and goals of YOUR District
**What is the Process?**

**Plancon**: acronym for “Planning and Construction Workbook” - via Pa Dept of Education

- Required if District seeks State Reimbursement for Capital Improvement Projects
- Series of Forms / Procedures used to apply for State Reimbursement – (eleven (11) steps – Plancon A - K)
- Forms are designed to:
  - document District’s planning process
  - provide justification for a project to the public
  - ascertain compliance with state laws & regulations
  - establish level of State participation w/ cost of a project

- May 15, 2016 deadline for Part A: Project Justification
- Must enter into construction contract by July 1, 2019
Demographics

District / County Population Trend

- Understanding different models, sources
- Establish reliability
- Establish planning number for long range goal
Demographics

PDE Model

*Used for Reimbursement $$$*

- Understanding different models, sources
- Establish reliability
- Establish planning number for long range goal
What is the District’s K-12 Student Population Trend?

**A**

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<tr>
<td>Public enrollment only</td>
<td>21</td>
<td>50</td>
<td>141</td>
<td>132</td>
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<td>9</td>
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</tbody>
</table>

**Demographics**

**Actual K – 12 Student Population Trend**

- Understanding different models, sources
- Establish reliability
- Establish planning number for long range goal
## Capacity & Enrollment

**Evaluation of capacity of each building by grade alignment**

**Shows where space is needed or can expand program offerings**

**Important to understand relationship between PDE capacity, functional capacity as it relates to PDE highest projected enrollment**

### Dover Area School District

**Educational Facilities - Capacity & Enrollment Analysis**  
**May-16**

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>PDE Capacity</th>
<th>2016 Enrollment</th>
<th>Difference</th>
<th>Functional Capacity</th>
<th>Difference</th>
<th>PDE HPE</th>
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<tbody>
<tr>
<td><strong>Elementary</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Dover ES</td>
<td>K-6</td>
<td>675</td>
<td>492</td>
<td>183</td>
<td>641</td>
<td>149</td>
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<tr>
<td>Leib ES</td>
<td>K-6</td>
<td>625</td>
<td>486</td>
<td>139</td>
<td>594</td>
<td>108</td>
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<tr>
<td>Weigelstown ES</td>
<td>K-6</td>
<td>700</td>
<td>527</td>
<td>173</td>
<td>665</td>
<td>138</td>
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<tr>
<td>North Salem ES</td>
<td>K-6</td>
<td>600</td>
<td>495</td>
<td>105</td>
<td>570</td>
<td>75</td>
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<td><strong>Subtotal</strong></td>
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<td>2600</td>
<td>2000</td>
<td>600</td>
<td>2470</td>
<td>470</td>
<td>2179</td>
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<td><strong>Intermediate</strong></td>
<td>7-8</td>
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<td>721</td>
<td>577</td>
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<td>706</td>
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<td><strong>High School</strong></td>
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<td>1336</td>
<td>889</td>
<td>447</td>
<td>1187</td>
<td>298</td>
<td>1100</td>
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<td>New Dover High School</td>
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<td><strong>Difference utilizing HPE</strong></td>
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<td>1421</td>
<td>532</td>
<td>1100</td>
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### Dover Area School District
#### Facility Study Options & Costs to Upgrade

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<thead>
<tr>
<th></th>
<th>Maintain</th>
<th>Renovations</th>
<th>Additions/Renovations</th>
<th>Replace / Repurpose</th>
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<tbody>
<tr>
<td>Dover ES</td>
<td>X</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Leib ES</td>
<td>X</td>
<td>$2,872,104</td>
<td>NA</td>
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<td>X</td>
<td>$4,014,000</td>
<td>NA</td>
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<td>Weigelstown ES</td>
<td>X</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Dover Intermediate</td>
<td>X</td>
<td>$13,413,630</td>
<td>$18,521,970</td>
<td>Vacate/Demo</td>
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<td></td>
<td></td>
<td></td>
<td>* repurpose existing HS to Intermediate 7-8 or 6-8</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>* $10,230,000</td>
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<tr>
<td>Dover High School</td>
<td>X</td>
<td>$24,240,000</td>
<td>$29,760,000</td>
<td>NA</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>** New Dover High School on Dover Intermediate site</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>** $53,940,000</td>
<td></td>
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</tbody>
</table>

**Maintain:** Provide ongoing maintenance in accordance with district capital improvements plan; $15,000/Yr/Bldg.

**NA Not Applicable:** Due to recent upgrades and ongoing maintenance, no work is currently required.

**Renovations:** Work may be identified as Light, Moderate to Major.

**Additions/Renovations:** Work may identify space for new programs or building reorganization and or deficiency.

**Replace / Repurpose:** Cost to replace existing facility with all new construction on district owned land.

<table>
<thead>
<tr>
<th>Light</th>
<th>$35-40/SF</th>
<th>Interior finishes, casework, doors, hardware, security upgrades, roofing</th>
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<tbody>
<tr>
<td>Moderate</td>
<td>$85-95/SF</td>
<td>All Light plus HVAC, Electrical, Plumbing Upgrades focused on efficiency</td>
</tr>
<tr>
<td>Major</td>
<td>$115/SF</td>
<td>All Moderate, comprehensive renovations, ADA and replace all building systems</td>
</tr>
<tr>
<td>New</td>
<td>$165/SF</td>
<td>All new construction for year 2016-17 anticipated construction start</td>
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</table>

20% Soft Costs added to each project and allowances for site work relative to scale of project.
Project Scope/Walk thru meeting
– Feb. 17, 2016 with District

New High School on Current MS Site
• Grades 9-12 - 250,000 SF – 275,000 SF Program
• Capacity for 1200 students, 300 per grade
• Simple design, efficient use of space
• Pod design, grade houses
• Open spaces, flexible, collaborative areas
• All science rooms standard design, movable furniture
• Separate parent drop off for special needs programs, program location near this drop off within floor plan
• Health suite within the kitchen/café
• Improve the outside traffic flow, student parking
• Pool
• Auditorium to seat entire student body (1200)
• 2/3 stories
• Program space for FFA and wood shop

Convert Current HS for Intermediate School
• Reduce current square footage
• Possible demo of original wood frame structure
• Move the mechanical room to ground level
• New entrance
• Improve traffic flow
• Convert wood shop and FFA areas into District Maintenance Facility
• Remove modular classrooms
• Improve ADA/multiple levels in building
• Minor kitchen upgrades, incorporate dishwasher
• Add AC to gym
21st Century Learning Communities

- Planning Concepts to promote flexible learning environments
- STEM / STEAM
- Student as presenter
- Utilizes every SF for learning
- Houses / Academy Pods
- Integrated furniture
New High School Concept

- Plan “idea” to illustrate the approximate size/SF
- Building configuration for site consideration
New High School Site Option 1

- Proposed High School Building is located outside Existing Middle School Footprint- Minimum impact to Middle School during construction.
- Separation of Bus Loop and Student/ Staff Parking for safety.
- Clear and easily identifiable Main Entrance.
- Pedestrian link around entire site and to North Salem Elementary School.
- Athletic Fields located adjacent Physical Education Spaces within Building.

Building Footprint
- L shaped building configuration to maximize use of Existing Site Grading.
- 2 Story Academic Wing
- Separation of Academic and Assembly Spaces to allow Academic Wings to be locked after hours.
New High School Site Option 2

- Proposed High School Building is located outside Existing Middle School Footprint - minimum impact to Middle School during construction.
- Separation of Bus Loop and Student/Staff Parking for safety.
- Clear and easily identifiable Main Entrance.
- Pedestrian link around entire site and to North Salem Elementary School.
- One way Vehicular Access Drive around proposed building with secure gate.
- Athletic Fields located adjacent Physical Education Spaces within Building.

Building Footprint
- 2 Story Academic Wing
- Separation of Academic and Assembly Spaces to allow Academic Wings to be locked after hours.
## High Schools Bid in 2014-2015

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>COMPLETION</th>
<th>BID DATE</th>
<th>BUDGET</th>
<th>BASE BID</th>
<th>SIZE</th>
<th>GRANTS</th>
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<tr>
<td>State College Area High School</td>
<td>2019</td>
<td>11/2015</td>
<td>$129,400,000</td>
<td>TBD</td>
<td>683,000 SF</td>
<td>$4,000,000</td>
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<td>State College Area High School District</td>
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<tr>
<td>Montoursville High School</td>
<td>2017</td>
<td>07/2015</td>
<td>$29,652,084</td>
<td>$29,601,000</td>
<td>210,000 SF</td>
<td>$2,000,000</td>
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<td>Montoursville School District</td>
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<td></td>
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<tr>
<td>Lewisburg Area High School</td>
<td>2016</td>
<td>09/2014</td>
<td>$30,913,483</td>
<td>$30,500,070</td>
<td>182,481 SF</td>
<td>$2,000,000</td>
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<td>Lewisburg School District</td>
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<tr>
<td>Middletown Area High School</td>
<td>2016</td>
<td>04/2014</td>
<td>$33,087,336</td>
<td>$34,036,599</td>
<td>202,700 SF</td>
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<td>Middletown Area High School District</td>
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### Experience

- Current and Relevant HS Experience
- Size, Complexity, Phasing
- Accurate Cost Planning
  - New Lewisburg HS projected lowest cost/SF in PA (750 student capacity)
- Cost Effective Design
- More Educational Program for dollars spent
Part A Preliminary Cost Estimate

<table>
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<th>Description</th>
<th>Cost</th>
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<td>A  Structure, Site Development</td>
<td>$46,379,375</td>
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<td>B  Professional Fees/Consultants</td>
<td>$3,017,417</td>
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<td>C  Movable Fixtures/Equip</td>
<td>$494,333</td>
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<tr>
<td>E  Site Sanitary</td>
<td>$250,000</td>
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<tr>
<td>G  Additional Construction Costs</td>
<td>$3,103,635</td>
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<td>H  Financing</td>
<td>$741,500</td>
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<td><strong>Total Preliminary Project Cost</strong></td>
<td><strong>$53,986,261</strong></td>
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New High School Preliminary Budget

- Purpose of Part A (page A04) is to establish preliminary budget – expect change
  - Area of New Construction (250,000 SF)
  - Final Educational Program
  - Time of Bidding
  - Materials / System selection
  - Municipal review/approvals
  - PDE review / approvals
  - Regulatory review / approvals
Process

- Transparency: Easy Access to Process
- Define Committee Structure & Purpose
- Establish Community Partnerships
- Focus on Education / Fiscal Responsibility
Crabtree, Rohrbaugh & Associates

Corporate Information

• Founded 1984
• Client Oriented Approach
• Over 70 Professional Staff
• Full Service Architectural Firm
• Recent Recognition
  – Engineering News Record – Top 500
  – Architectural Record – Top 150
• Company Culture
  – Zweig White – Top 6 Firm Nationally
  – Top 50 Places to Work in PA
• Diverse Experience
  – Education
  – Higher Education
  – Corporate/Office
  – High Tech/Distribution
  – Mission Critical
  – Healthcare
  – County/Government
  – Religion
Crabtree, Rohrbaugh & Associates

Corporate Information

• Over $3.5 Billion in Education Projects
  – No Turnover of Project Management Staff

• Accredited Educational Facility Planners
  – Council of Educational Facility Planners Int. (CEFPI)
  – United States Green Building Council (USGBC)
  – Green Globes, Green Building Initiative
  – Crime Prevention Through Environmental Design (CPTED)

• Understanding Education
  – Doug Rohrbaugh - 17 Years on School Board / 6 Years as School Board President
  – Experienced Administrators & Teachers

• Meeting Project Budgets
  – Guaranteed Budget for all Public Projects

- Albert Gallatin School District
- Annville Cleona School District
- Bellefonte Area School District
- Brookville Area School District
- Camp Hill School District
- Capital Area Intermediate Unit
- Catawissa School District
- Central Pennsylvania Institute of Science & Technology
- Chambersburg Area School District
- Clarion Area School District
- Clearfield Area School District
- Clearfield County Career Technology Center
- Coatesville Area School District
- Connellsville Area School District
- Coudersport Area School District
- Cumberland Perry Voc-Tech
-Dallas School District
- Dallastown Area School District
- Donegal School District
- **Dover Area School District**
  - Eastern Lancaster County School District
  - Eastern Lebanon County School District
  - Millersburg Area School District
  - Minersville Area School District
- Elizabethtown Area School District
- Fannett-Metal School District
- Fayette Co. Area Vocational Tech. School
- Franklin County Career & Tech. Center
- Gettysburg Area School District
- Halifax Area School District
- Hanover Public School District
- Harrisburg School District
- Hazleton Area School District
- Hempfield School District
- Iroquois School District
- Jersey Shore School District
- Juniata County School District
- Juniata Valley School District
- Lewisburg Area School District
- Lincoln IU #12
- Line Mountain School District
- Lower Merion School District
- Manheim Township School District
- Mechanicsburg Area School District
- Middletown Area School District
- Midd-West School District
- Monroe Career & Technical School
- Mohnton Valley School District
- Mount Carmel School District
- Northeastern York School District
- Northern Tioga County School District
- Northern Potter School District
- North Pocono School District
- North Schuylkill School District
- Northern Tier Career Center
- Northern York County School District
- Northumberland Vo-Tech
- Otto-Eldred School District
- Penn Cambria School District
- Penn Manor School District
- Penn Valley Area School District
- Phelps School
- Phoenixville Area School District
- Philipsburg-Osceola School District
- Pocono Mountain School District
- Pottstown School District
- Port Allegany School District
- Red Lion Area School District
- Seneca Highlands AVTS & IU
- School District of Philadelphia
- Schuylkill Technology Center
- Schuylkill Valley School District
- Shamokin Area School District
- Shippensburg School District
- Southern Huntingdon County School District
- South Middleton School District
- South Western School District
- South Eastern York School District
- Southern Columbia School District
- Southern York County School District
- Spring Grove Area School District
- Susquehanna Township School District
- Susquenita School District
- Troy Area School District
- Trinity High School
- Tussey Mountain School District
- Tuscarora School District
- Twin Valley School District
- Uniontown Area School District
- Warrior Run School District
- Warren County School District
- West Shore School District
- Williams Valley School District
- Wyoming Area School District
- Wyalusing Area School District
- York Catholic School
- York County School of Technology
- Amelia County Public Schools
- Clarke County Public Schools
- Culpeper County Public Schools
- Fairfax County Public Schools
- Fluvanna County Public Schools
- Garrett County Public Schools
- Jersey City Public Schools
- King George Public Schools
- Lancaster County Day School
- Madison County Public Schools
- Matawam-Aberdeen Regional SD
- Prince George’s County Public Schools
- Polytechnic School District
- Preston County Schools
- Queen Anne’s County Public Schools
- Richmond City Public Schools
- Talbot County Public Schools
- Washington County Public Schools
- Westmoreland County Public Schools

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**Over 233 Secondary School Projects in 5 States.**

- Albert Gallatin School District
- Annville Cleona School District
- Bellefonte Area School District
- Brookville Area School District
- Camp Hill School District
- Capital Area Intermediate Unit
- Catawissa School District
- Central Pennsylvania Institute of Science & Technology
- Chambersburg Area School District
- Clarion Area School District
- Clearfield Area School District
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- Connellsville Area School District
- Coudersport Area School District
- Cumberland Perry Voc-Tech
- Dallas School District
- Dallastown Area School District
- Donegal School District
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  - Eastern Lancaster County School District
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- Franklin County Career & Tech. Center
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- Hanover Public School District
- Harrisburg School District
- Hazleton Area School District
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- Line Mountain School District
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- Mohnton Valley School District
- Mount Carmel School District
- Northeastern York School District
- Northern Tioga County School District
- Northern Potter School District
- North Pocono School District
- North Schuylkill School District
- Northern Tier Career Center
- Northern York County School District
- Northumberland Vo-Tech
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- Phoenixville Area School District
- Philipsburg-Osceola School District
- Pocono Mountain School District
- Pottstown School District
- Port Allegany School District
- Red Lion Area School District
- Seneca Highlands AVTS & IU
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- Schuylkill Technology Center
- Schuylkill Valley School District
- Shamokin Area School District
- Shippensburg School District
- Southern Huntingdon County School District
- South Middleton School District
- South Western School District
- South Eastern York School District
- Southern Columbia School District
- Southern York County School District
- Spring Grove Area School District
- Susquehanna Township School District
- Susquenita School District
- Troy Area School District
- Trinity High School
- Tussey Mountain School District
- Tuscarora School District
- Twin Valley School District
- Uniontown Area School District
- Warrior Run School District
- Warren County School District
- West Shore School District
- Williams Valley School District
- Wyoming Area School District
- Wyalusing Area School District
- York Catholic School
- York County School of Technology
- Amelia County Public Schools
- Clarke County Public Schools
- Culpeper County Public Schools
- Fairfax County Public Schools
- Fluvanna County Public Schools
- Garrett County Public Schools
- Jersey City Public Schools
- King George Public Schools
- Lancaster County Day School
- Madison County Public Schools
- Matawam-Aberdeen Regional SD
- Prince George’s County Public Schools
- Polytechnic School District
- Preston County Schools
- Queen Anne’s County Public Schools
- Richmond City Public Schools
- Talbot County Public Schools
- Washington County Public Schools
- Westmoreland County Public Schools

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Grant Writing Experience

- Alternative and Clean Energy Grant Program
- Awarded for High Performance Building Design
- Potential of Funding 10% of Total Project

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<tr>
<th>School District/Client</th>
<th>Requested</th>
<th>Submission Details</th>
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<td>Iron Forge Educational Center</td>
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<td>State College Area High School</td>
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<td>Awarded Oct 21, 2014</td>
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<td>Awarded Jan 14, 2015</td>
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<td>Delta Magnet School</td>
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<td>Submitted April 1, 2016</td>
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<td>Radio Park Elementary School</td>
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<td><strong>TOTAL GRANT AMOUNT SUBMITTED</strong></td>
<td><strong>$14,000,000</strong></td>
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Dover Area School District
Questions?

Providing a Client Oriented Approach to Architecture

Crabtree, Rohrbaugh & Associates, Architects