PUBLIC INFORMATION

ITEM NO. _2_

DATE OF MEETING: July 5, 2016

REQUESTED BY: Pender County Board of Education

SHORT TITLE: Review of the Bond Projects for Penderlea School and Surf City School by SfL+a Architects and LSP3 Architects.

BACKGROUND: The Board of Education will be updating the Board on these projects.

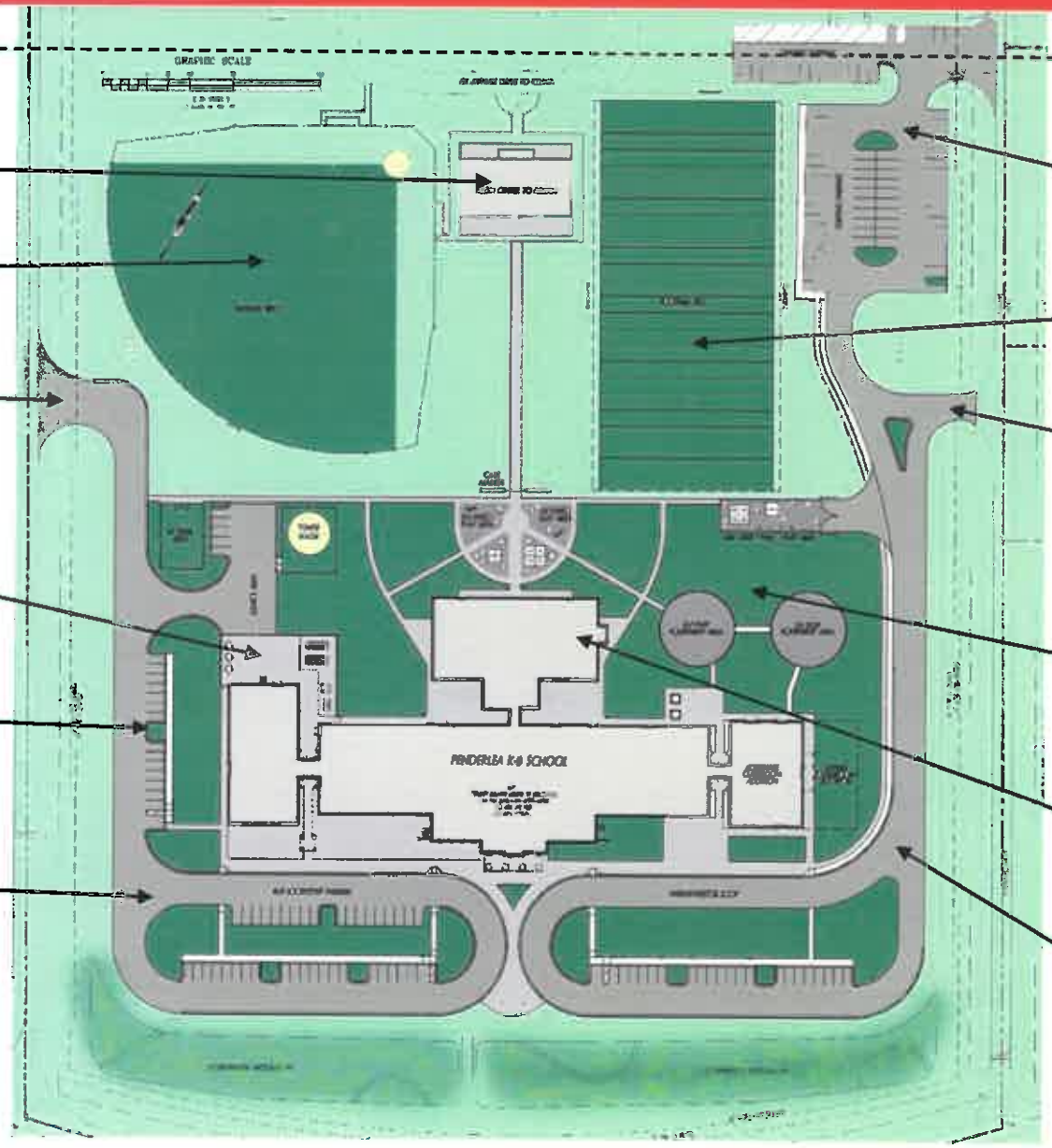
Penderlea School

Pender County Schools

June 23, 2016

Penderlea School

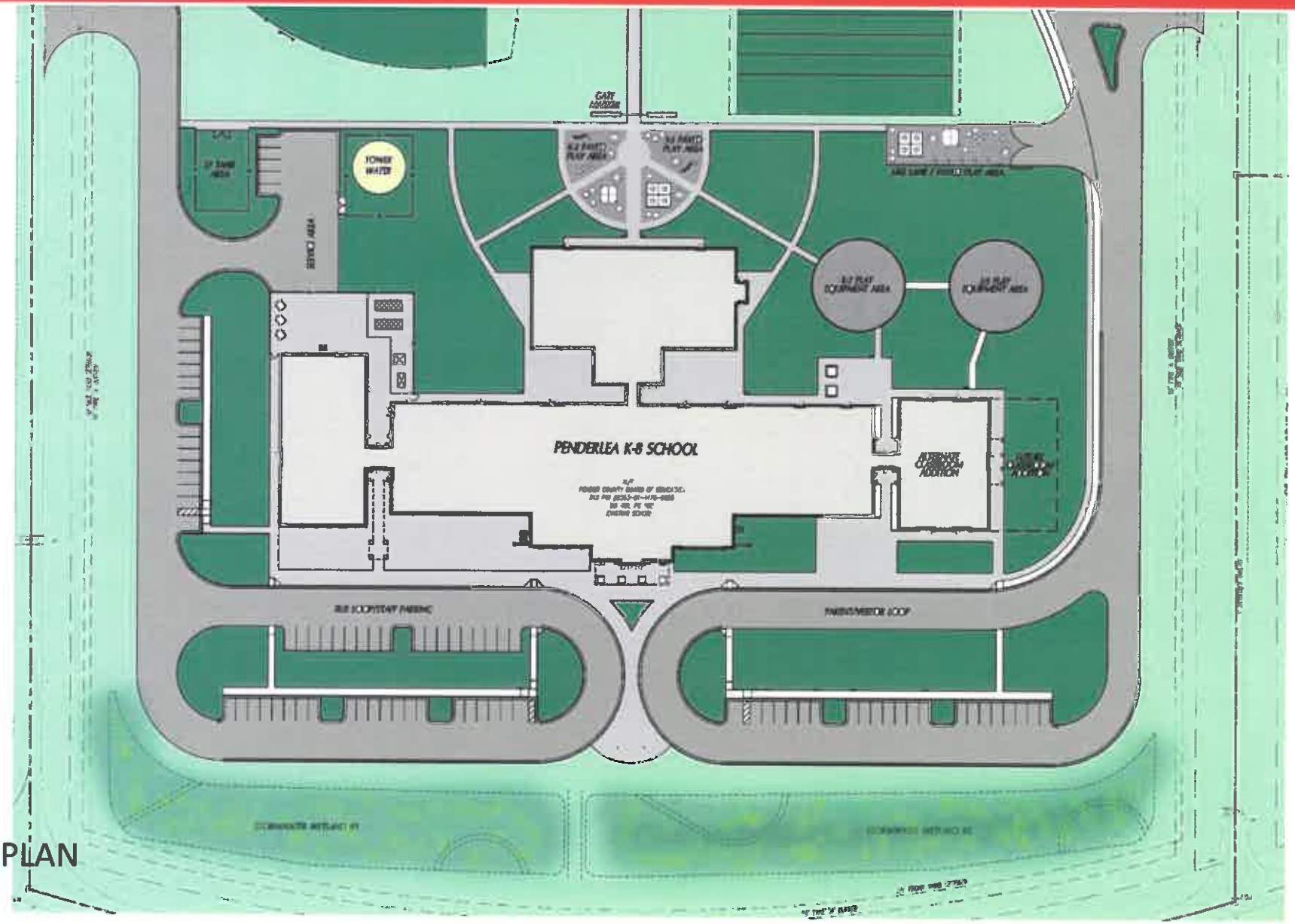
sfL+a ARCHITECTS



SITE PLAN

Penderlea School

sfL+a ARCHITECTS



SITE PLAN

Penderlea School

sfL+a ARCHITECTS

SITE PLAN

Penderlea School

sfL+a ARCHITECTS

Penderlea School

sfL+a ARCHITECTS

Propane Storage tank

Fire Protection water storage tank

Penderlea School

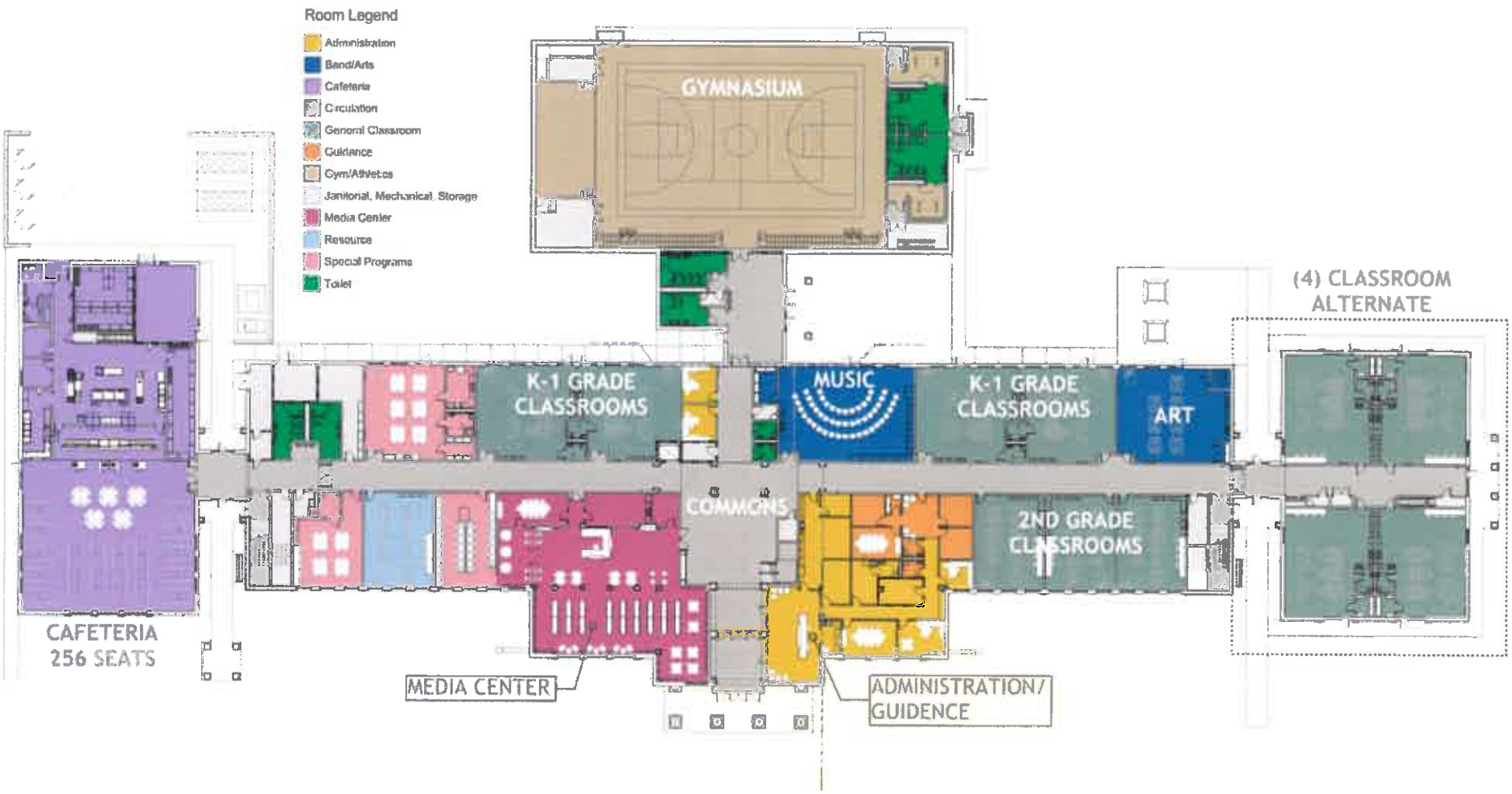
sfL+a ARCHITECTS

BUILDING AREA SUMMARY:

	Current	Previous
FIRST FLOOR – BASE BID	62,539 GSF	63,379 GSF
SECOND FLOOR	30,525 GSF	31,329 GSF
TOTAL	93,064 GSF	94,708 GSF
ALTERNATE FOUR CLASSROOMS	7,021 GSF	7,021 GSF

Penderlea School

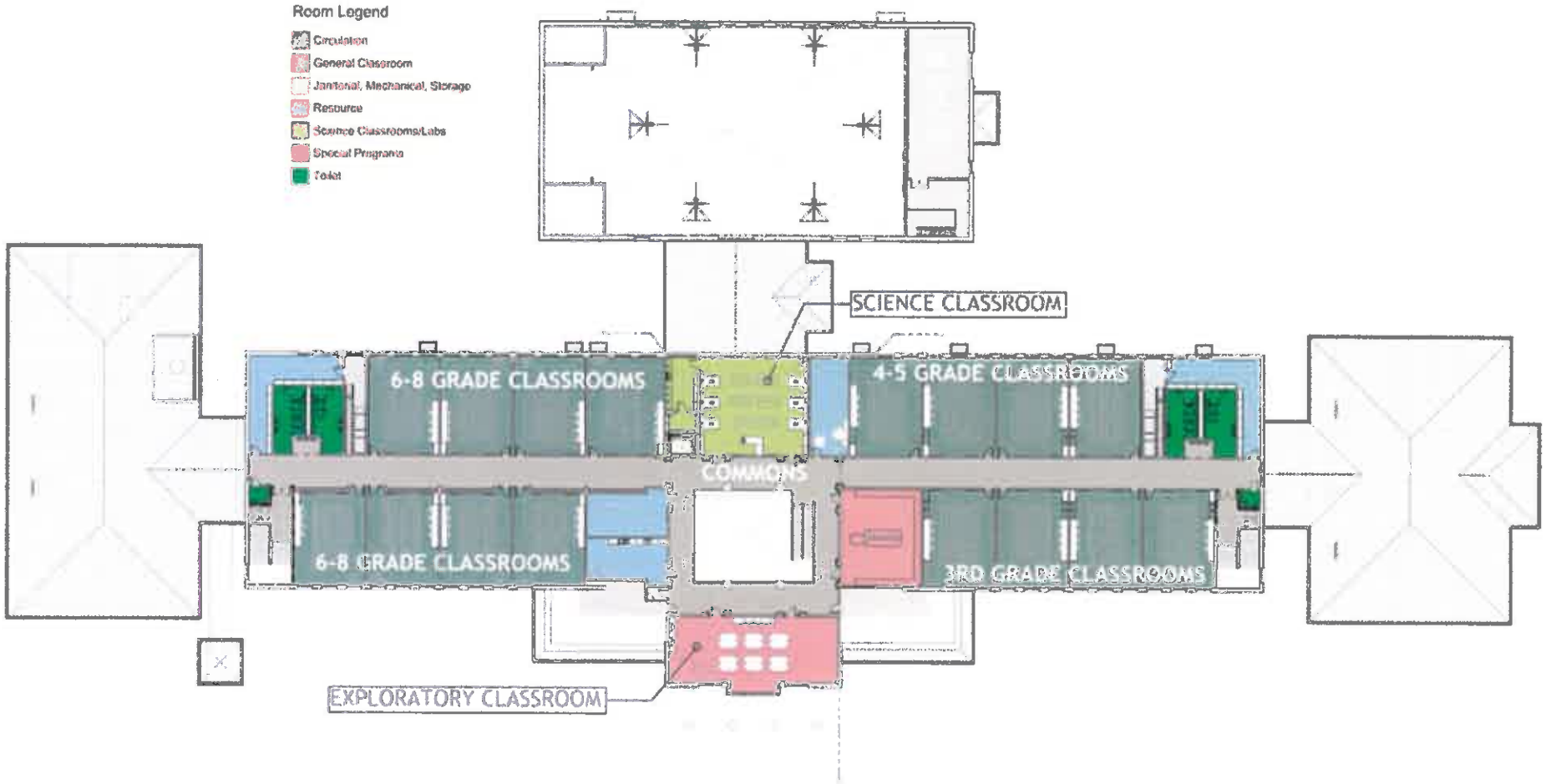
sfL+a ARCHITECTS



FIRST FLOOR PLAN

Penderlea School

sfL+a ARCHITECTS



SECOND FLOOR PLAN

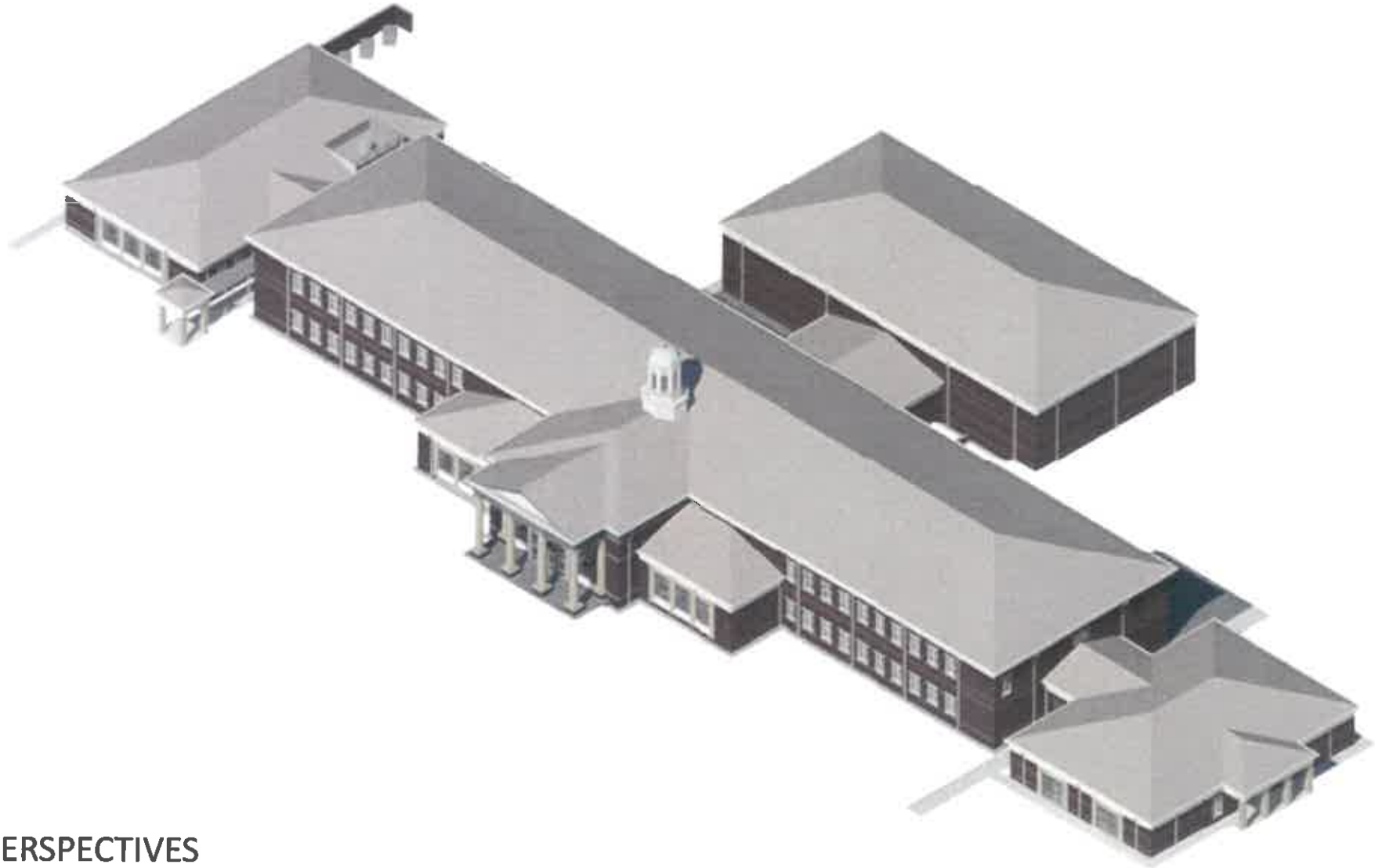
Penderlea School

sfL+a ARCHITECTS

PERSPECTIVES

Penderlea School

sfL+a ARCHITECTS



PERSPECTIVES

Penderlea School

sfL+a ARCHITECTS

CLASSROOMS

ELEVATIONS

DINING

Penderlea School

sfL+a ARCHITECTS

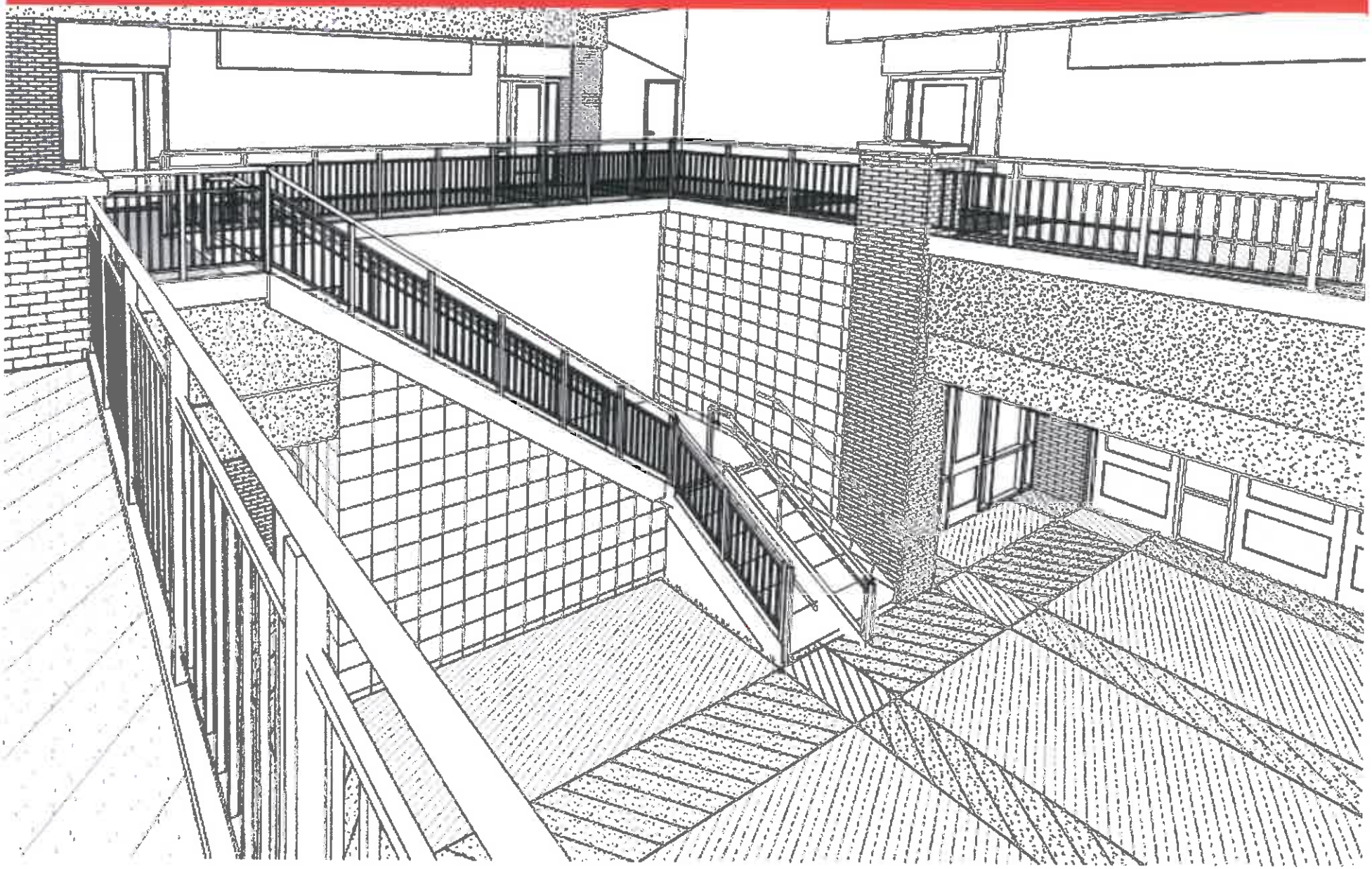
FRONT

BACK

ELEVATIONS

Penderlea School

sfL+a
ARCHITECTS

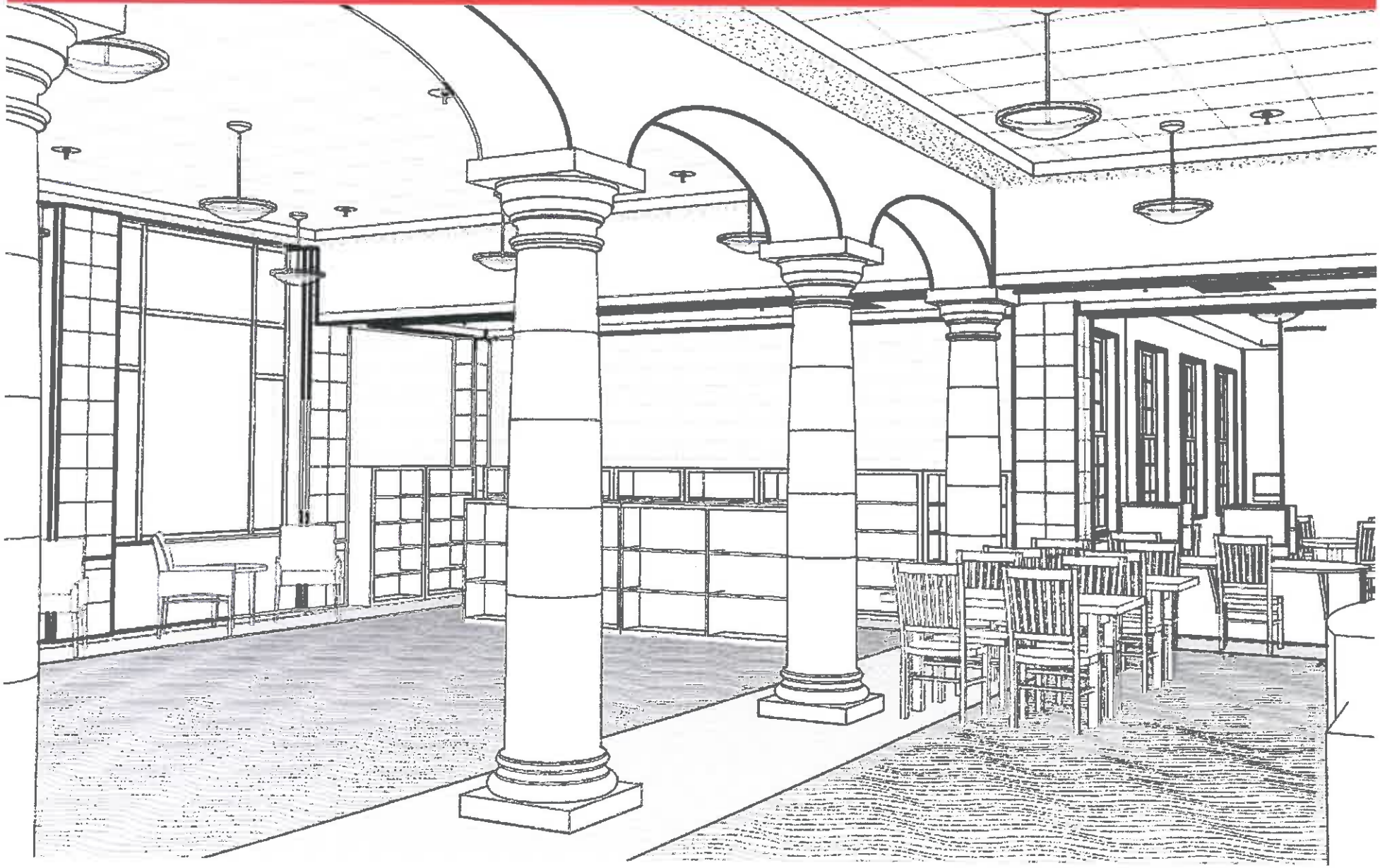


Penderlea School

sfL+a ARCHITECTS

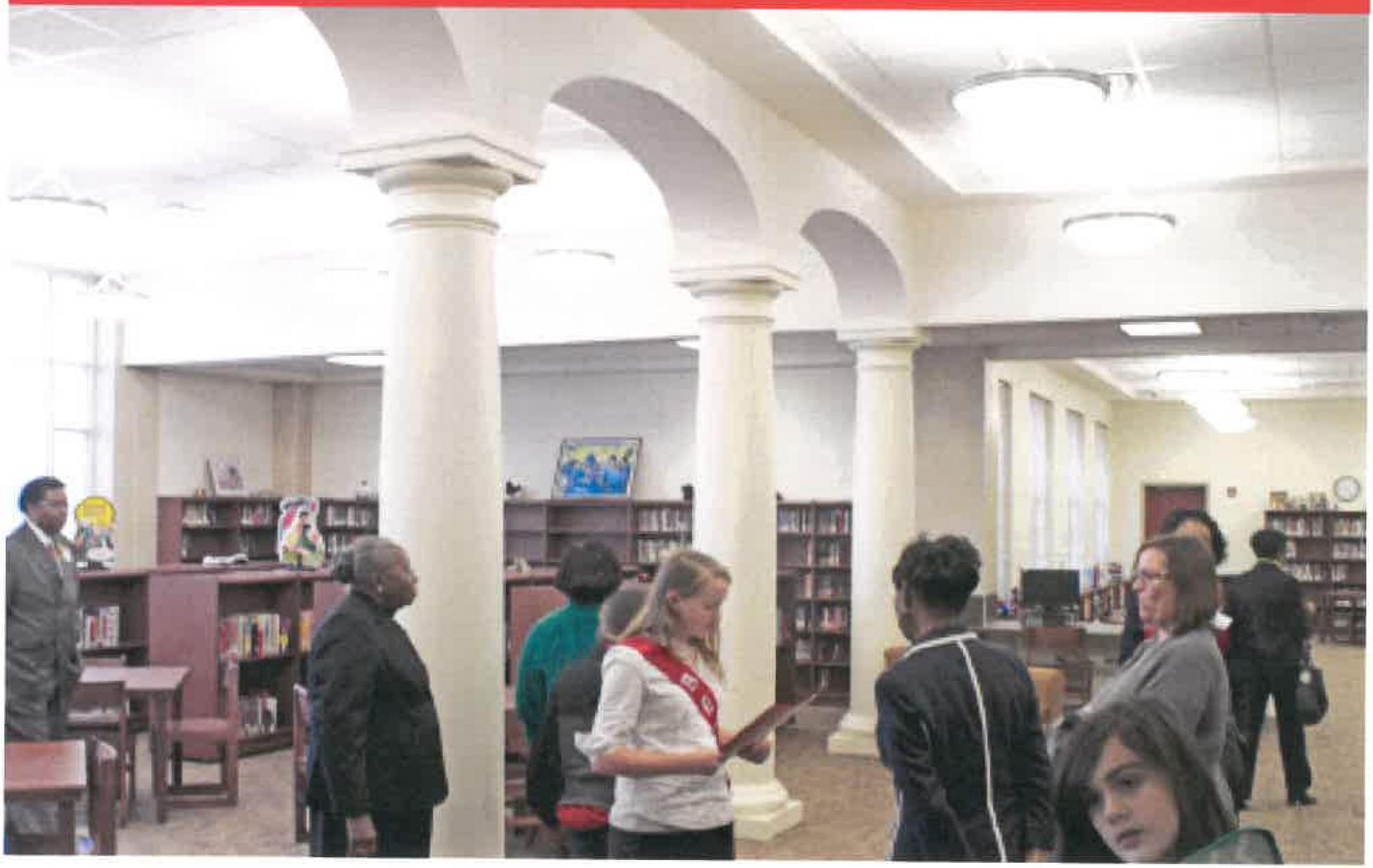
Penderlea School

sfL+a ARCHITECTS



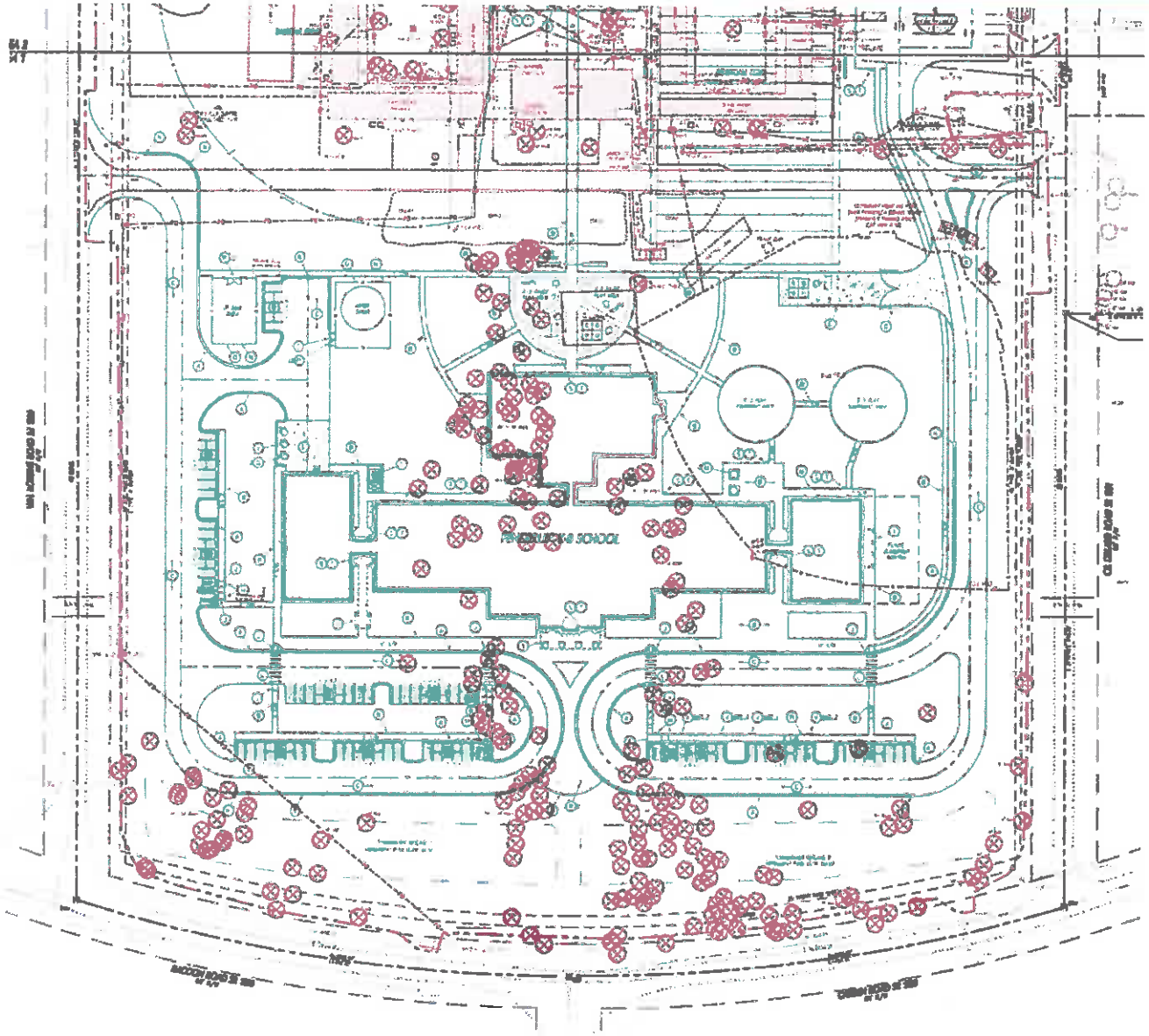
Penderlea School

sfL+a ARCHITECTS



Penderlea School

STATEMENT OF PROBABLE CONSTRUCTION COST:



Design Development

Includes
2% Design Contingency
2% CM Contingency

Site Development

- French Drains
- Structure Foundations
- Utilities
- Parking Areas
- Undercut Allowance
- Water Storage Tank

Excludes

- Not Septic Tank/Field $
- No NCDOT offsite

Penderlea School

STATEMENT OF PROBABLE CONSTRUCTION COST:

sfL+a ARCHITECTS

**Does not include any renovation costs dedicated to the existing gymnasium, media center, or auditorium.

SUMMARY		
Total GMP Budget (Construction Cost)	$18,467,252	
Total **Base Bid** GMP Estimate	$18,661,584	+$194,332
Combination of ALL ADD Alternates	$ 1,462,632	
1. Terrazzo Flooring: $ 220,000		
2. 4 Classroom Wing: $1,097,632		
3. Cupola: $ 95,000		
4. Mech. Plat. Walls: $ 50,000		
Total of All Construction Costs:	$20,124,216	
PROJECT BUDGET		
Total Base Bid GMP Budget	$18,467,252	
Technology Budget	$ 720,000	
Fixtures, Furniture, Equipment Budget	$ 436,550	
Soft Costs, Including Fees	$ 1,876,198	
Overall Project Budget	$21,500,000	

metcon BUILDINGS INFRASTRUCTURE

Penderlea School

Pender County Schools

June 23, 2016

Surf City Area
K-8 School

July 5, 2016
Pender County Commissioners

PENDER CountySchools

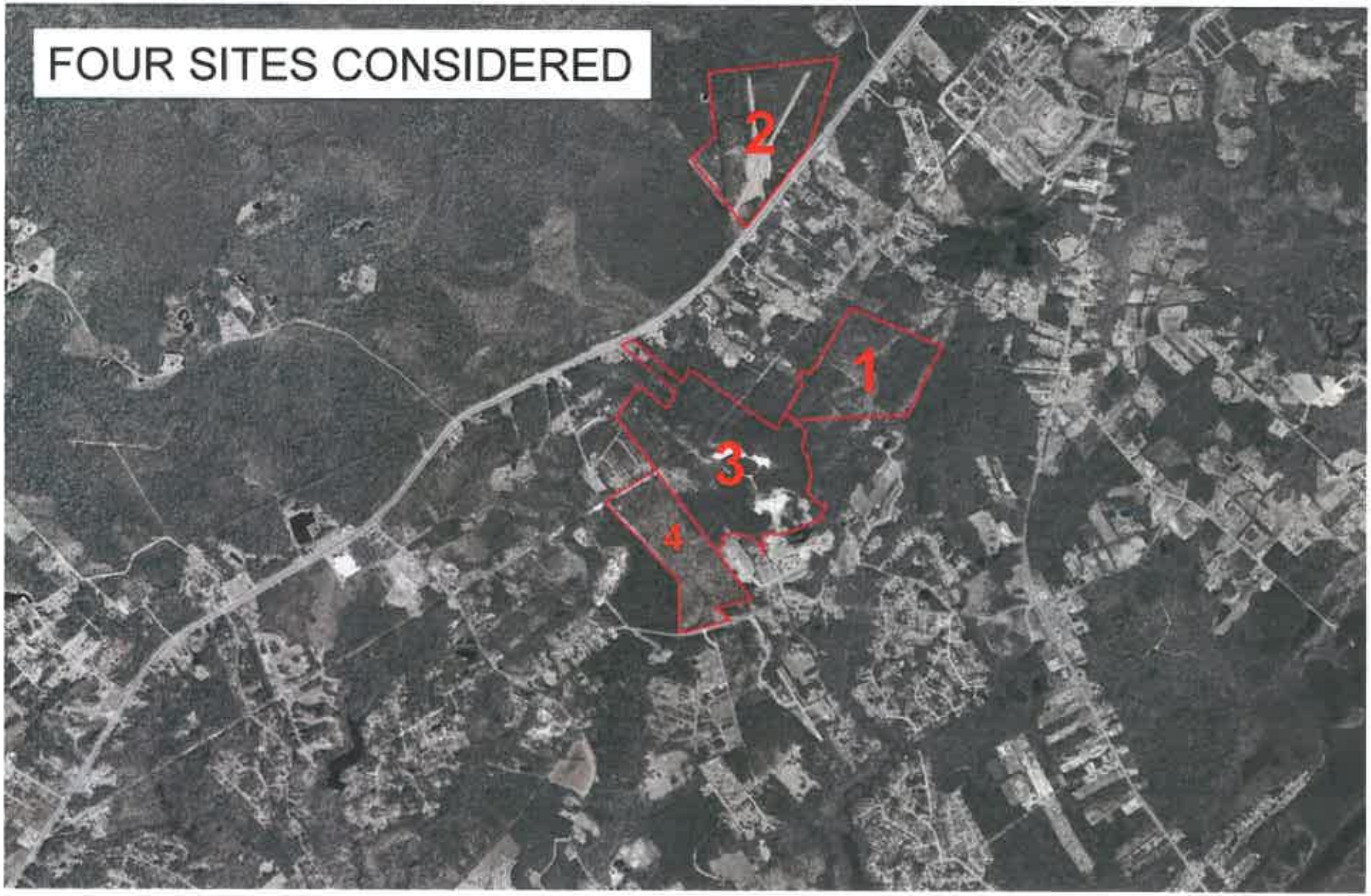
Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY

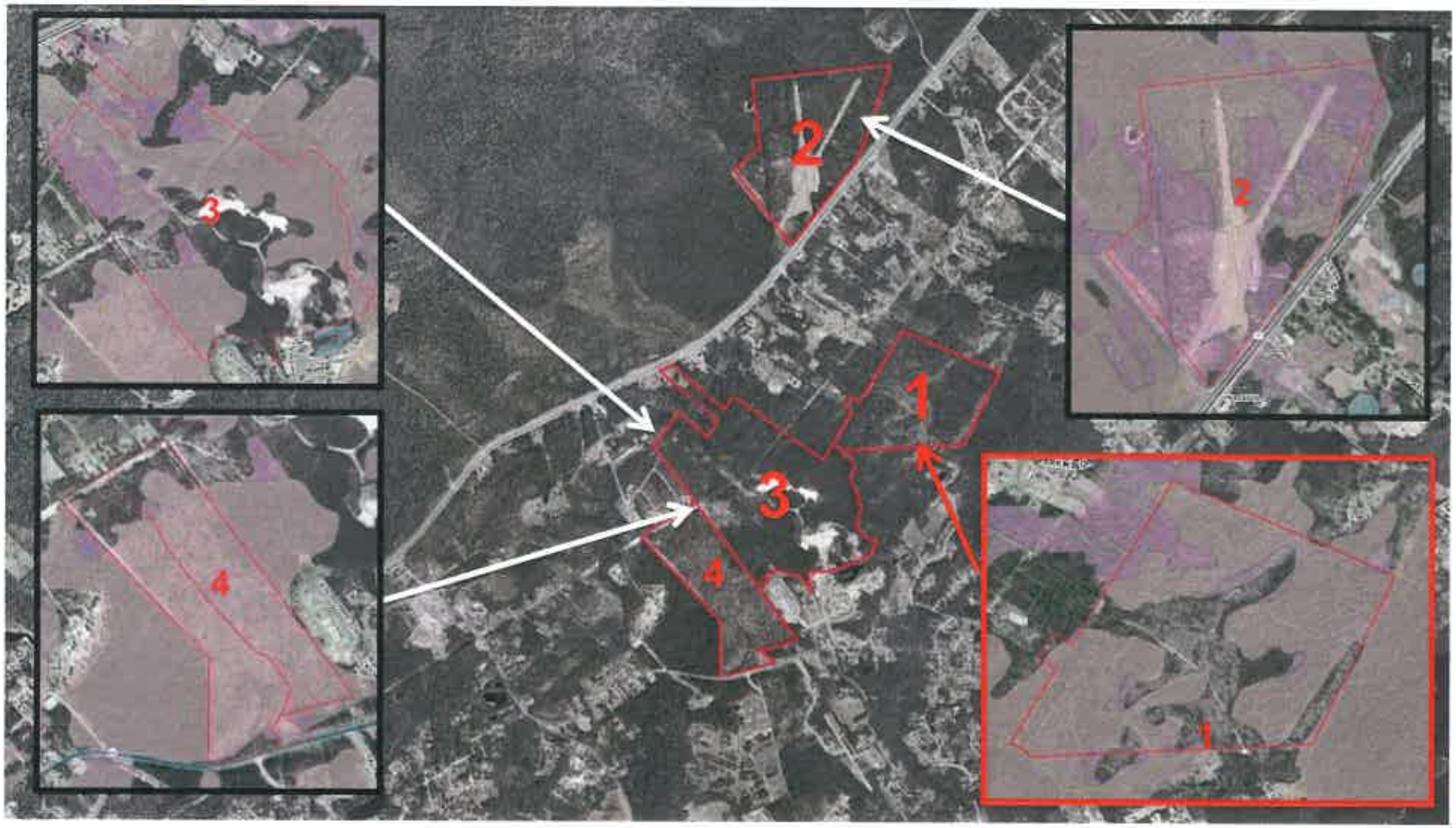
Project Update

- Army Corps of Engineers (ACOE) application comments received June 1
  - Land Management Group will submit response to ACOE June 24
- Traffic Impact Analysis (TIA) comments received from DOT
- DOT Driveway Permit and Encroachment Agreement to be submitted week June 27
- Permit applications for Sanitary Sewer and Water Main Extension have been submitted to Town of Surf City
- Annexation and rezoning of property by Town of Surf City is complete
- NCDEQ Storm Water and Erosion Control Permits have been received
- Construction Documents phase complete August 5
- Documents issued for bid August 8
- Bids received September 7-8



FOUR SITES CONSIDERED

October 29, 2015



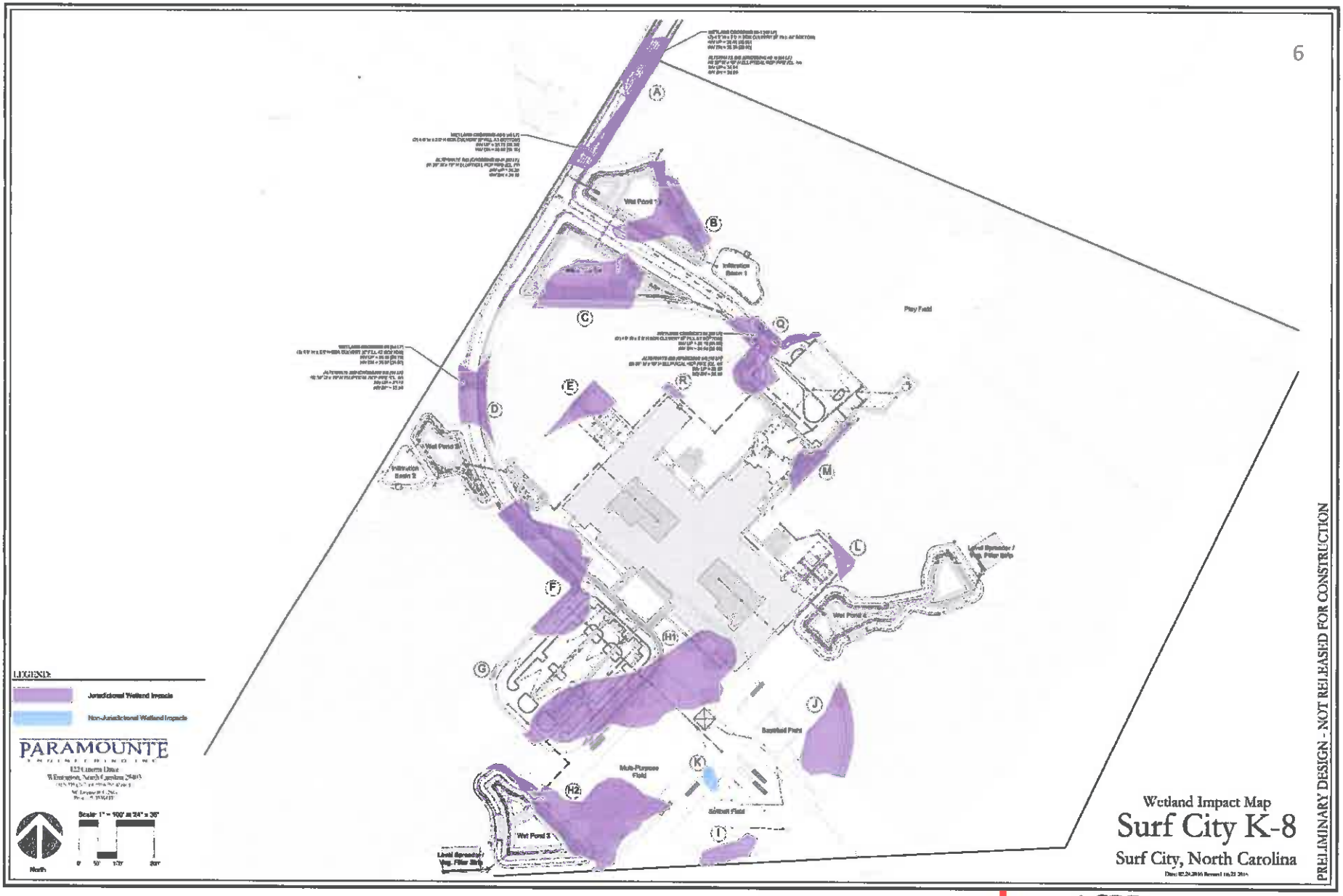
Comparative Criteria	Site 1	Site 2	Site 3	Site 4
Wetlands	60%	100%	60%	90%
Access	residential	US17	US17	NC 210
Water/Sewer	Surf City	No	No	Surf City
Area	Surf City	Airport	Surf City	Surf City

Site Plan

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY



Site Plan

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY

Site Mitigation: Cost Progression

Anticipated Site Mitigation Cost at 3:1 Ratio	$1,200,000
ACOE Agrees to 2:1 Ratio	$800,000
Site Plan is Refined (Credits from ACOE for 49 Acres of Preserved Wetlands)	$334,500
Application Comments Received from ACOE (Credits for 49 Acres of Preserved Wetlands is Modified)	Approx. $372,278 at Typical Mitigation Rate Approx. $290,000 at Trending Bank Mitigation Rate
Total (Including Trending Bank Mitigation Rate)	**$290,000**

Site Plan Statistics

- Total Site Acreage 99.22 acres
- Total Wetlands Acreage 56.93 acres

- Total Wetlands Impacted 7.247 acres (reduced from 8.16 acres)
- Total Preserved Wetlands 49.68 acres (increased from 48.77 acres)

Front Entry Rendering

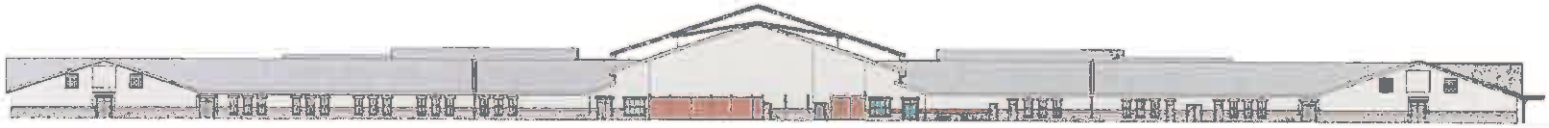
Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY

OVERALL NORTH ELEVATION

OVERALL EAST ELEVATION



OVERALL SOUTH ELEVATION

OVERALL WEST ELEVATION

Building Elevations

Surf City
K-8 School

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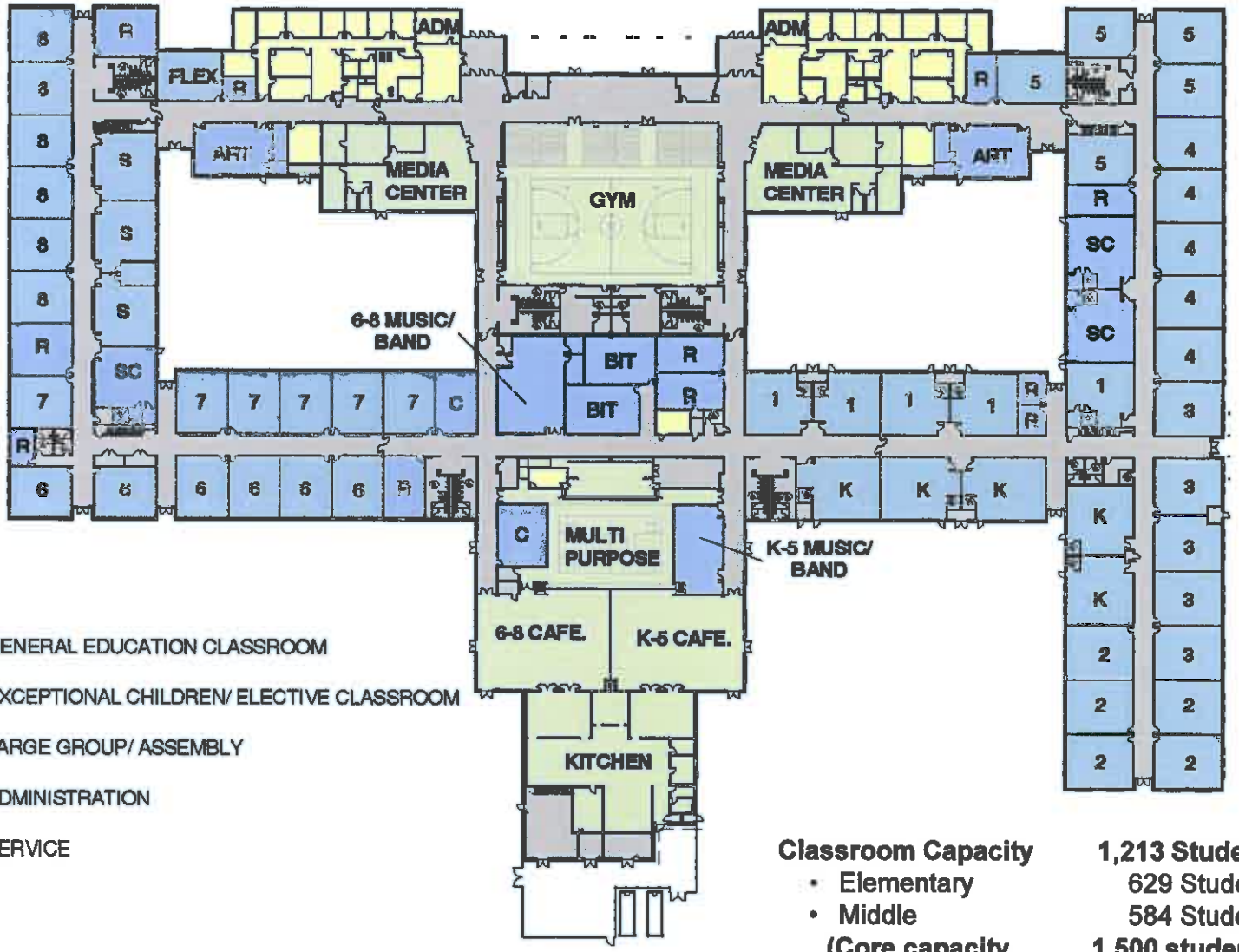
BARNHILL CONTRACTING COMPANY



GENERAL EDUCATION CLASSROOM

EXCEPTIONAL CHILDREN/ ELECTIVE CLASSROOM

LARGE GROUP/ ASSEMBLY

ADMINISTRATION

SERVICE

Classroom Capacity	**1,213 Students**
• Elementary	629 Students
• Middle	584 Students
(Core capacity	**1,500 students)**

Floor Plan

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY

CONSTRUCTION COSTS	PROJECT CONSTRUCTION BUDGET	1200 BASE BID + 6 CR ALTERNATE DESIGN DEVELOPMENT 1213 students
PCS Surf City K-8 Construction Budget	$ 27,750,000.00	$ 33,442,492.80
Site Purchase Cost	$ 1,000,000.00	$ 1,000,000.00
Site Development Contingency Expenses	$ -	$ 903,761.00
TOTAL	**$ 28,750,000.00**	**$ 35,346,253.80**
AMOUNT OVER BUDGET W/O CONTINGENC	**$0**	**$ (6,596,253.80)**
Adjustments from contingencies:		
Adjustment from Kitchen Equipment	$ -	$ (350,000.00)
Adjustment from Contingency	$ -	$ (1,405,000.00)
Adjustment from Site Contingency	$ -	$ (1,357,225.00)
TOTAL CONSTRUCTION BUDGET	**$ 28,750,000.00**	**$ 32,234,028.80**
Total (over) under budget		**$ (3,484,028.80)**
SOFT COSTS		
Site Survey, Geotech, Allowance	$ 75,000.00	$ 75,000.00
Design Fees	$ 1,657,775.00	$ 1,657,775.00
Kitchen Equipment	$ 350,000.00	$0
Fixtures, Furniture, and Equipment	$ 1,405,000.00	$ 1,405,000.00
Contingency	$ 1,405,000.00	$0
Site Contingency	$ 1,357,225.00	$0
TOTAL SOFT COSTS	**$ 6,250,000.00**	**$ 3,137,775.00**
TOTAL PROJECT BUDGET	**$ 35,000,000.00**	**$ 38,484,028.80**

Budget Update

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM
BARNHILL CONTRACTING COMPANY

BUDGET SUMMARY

Cost overage	$6,596,254
Less contingency adjustment	($3,112,225)
Amount over budget	$3,484,028

PRIMARY CAUSES OF COST OVERRUN

10% inflation	2,775,000
Site development variance	3,917,966
Additional building area to meet standards*	2,310,000
TOTAL	9,002,966

*2015: HB 97, Section 8A.3(a)/115C-301.c and 8.A.3.(b) addresses maximum students/classroom. This required 6 additional classrooms plus support space.

DETAILED COST FACTORS

- High cost of site development
  - Original estimate (15% of construction) $4,162,500
  - Current estimate $8,080,466
  - Difference $3,917,966

- Site development cost factors
  - Wetlands mitigation costs $290,000
  - Highway 50 improvements (DOT) $310,000
  - Perkins Road improvements (DOT) $111,451
  - Shepard's Road improvements (DOT) $ 84,400
  - Additional site purchase cost $ 35,000
  - Condemned site purchase cost $ 25,000
  - Cost of fill dirt (80,000 cy @ $14) $1,120,000
  - Piped storm drain solution (to avoid wetlands)

- Road access into site from Shepard's Road and Perkins Road

- Drainage requirements for SA waters require 2.5 times normal retention ponds

- Building cost/sf = $154/sf are consistent with current educational facility construction costs

- Site development cost/sf = $50/sf are significantly higher than average site development costs

- Classroom allocation change for grades K-3 decreased students/classroom and requires more classrooms (6 classrooms plus support space added to budget)*

*2015: HB 97, Section 8A.3(a)/115C-301.c and 8.A.3.(b) addresses maximum students/classroom.

PROJECT CUTS TO MEET BUDGET	
Delete 6 classrooms (121 students)	$962,136
Stage Curtain	$37,060
Additional Leg of Operable Partition @ Cafeteria	$54,103
Aluminum Canopies	$234,778
Athletic fields and Irrigation	$321,916
Delete 9 classrooms	$1,677,214
TOTAL ALTERNATES	**$3,287,207**

Resulting capacity loss: 329 students
Capacity with cuts: 884 students
Core capacity: 1500 students

Budget Update

Surf City
K-8 School

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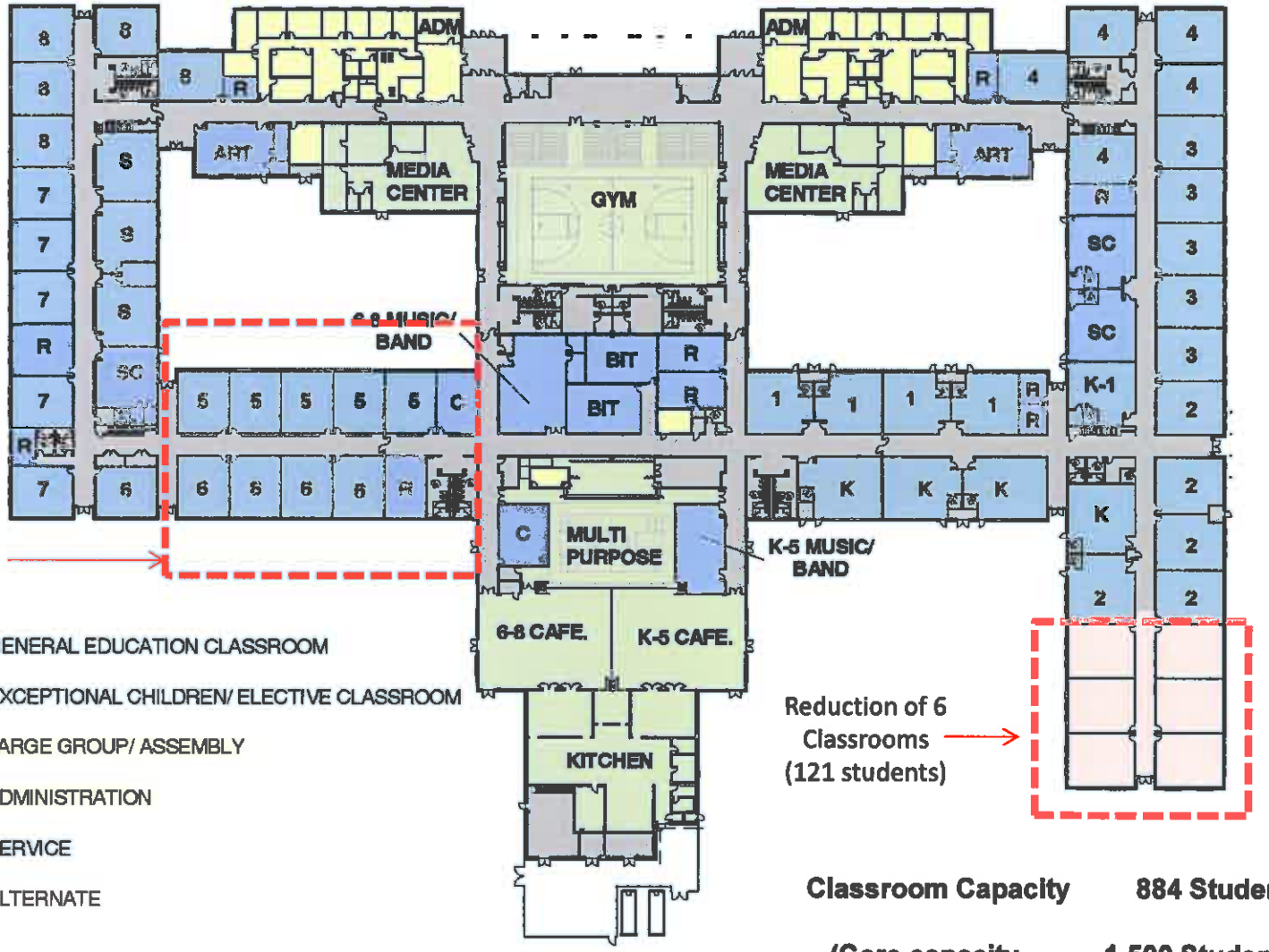
BARNHILL CONTRACTING COMPANY



Reduction of 9 Classrooms (208 students)

Reduction of 6 Classrooms (121 students)

GENERAL EDUCATION CLASSROOM

EXCEPTIONAL CHILDREN/ ELECTIVE CLASSROOM

LARGE GROUP/ ASSEMBLY

ADMINISTRATION

SERVICE

ALTERNATE

Classroom Capacity 884 Students

(Core capacity 1,500 Students)

Floor Plan Reductions

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY

Site Plan Reductions

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY

Project Schedule

• Complete Construction Documents	August 5, 2016
• Issue Documents for Bid	August 8, 2016
• Receive Bids	September 7-8, 2016
• NTP to Key Subcontractors	October 2016
• Anticipated Start Date	October 2016 **
• Substantial Completion of Project	August 2018

** Start date contingent on permit by Army Corps of Engineers

Front Entry Rendering

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM
BARNHILL CONTRACTING COMPANY

Thank You

PENDER CountySchools

Surf City
K-8 School

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BARNHILL CONTRACTING COMPANY

PENDER CountySchools

Surf City
K-8 School

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BARNHILL CONTRACTING COMPANY

Supplemental Slides

COST TO ADD CLASSROOM CAPACITY*

	# students	Cost	Cost/student
Add 2 classrooms	44	$545,160	$12,390
Add 4 classrooms	88	$1,090,320	$12,390
Add 6 classrooms	132	$1,635,480	$12,390
Add 8 classrooms	176	$2,180,640	$12,390
Add support space: toilets, faculty		$363,440	$2,065
Total cost for 8 classrooms		$2,544,080	$14,455
Add 10 classrooms	220	$2,725,800	$12,390
Add support space: toilets, faculty		$363,440	$1,652
Total cost for 10 classrooms		$3,089,240	$14,042
Add 12 classrooms	264	$3,270,960	$12,390
Add support space: toilets, faculty		$363,440	$1,377
Total cost for 12 classrooms		$3,634,400	$13,767
Add 14 classrooms	308	$3,816,120	$12,390
Add support space: toilets, faculty		$363,440	$1,180
Total cost for 14 classrooms		$4,179,560	$13,570
Add 15 classrooms	330	$4,088,700	$12,390
Add support space: toilets, faculty		$363,440	$1,101
Total cost for 15 classrooms		$4,452,140	$13,491

1,500 students

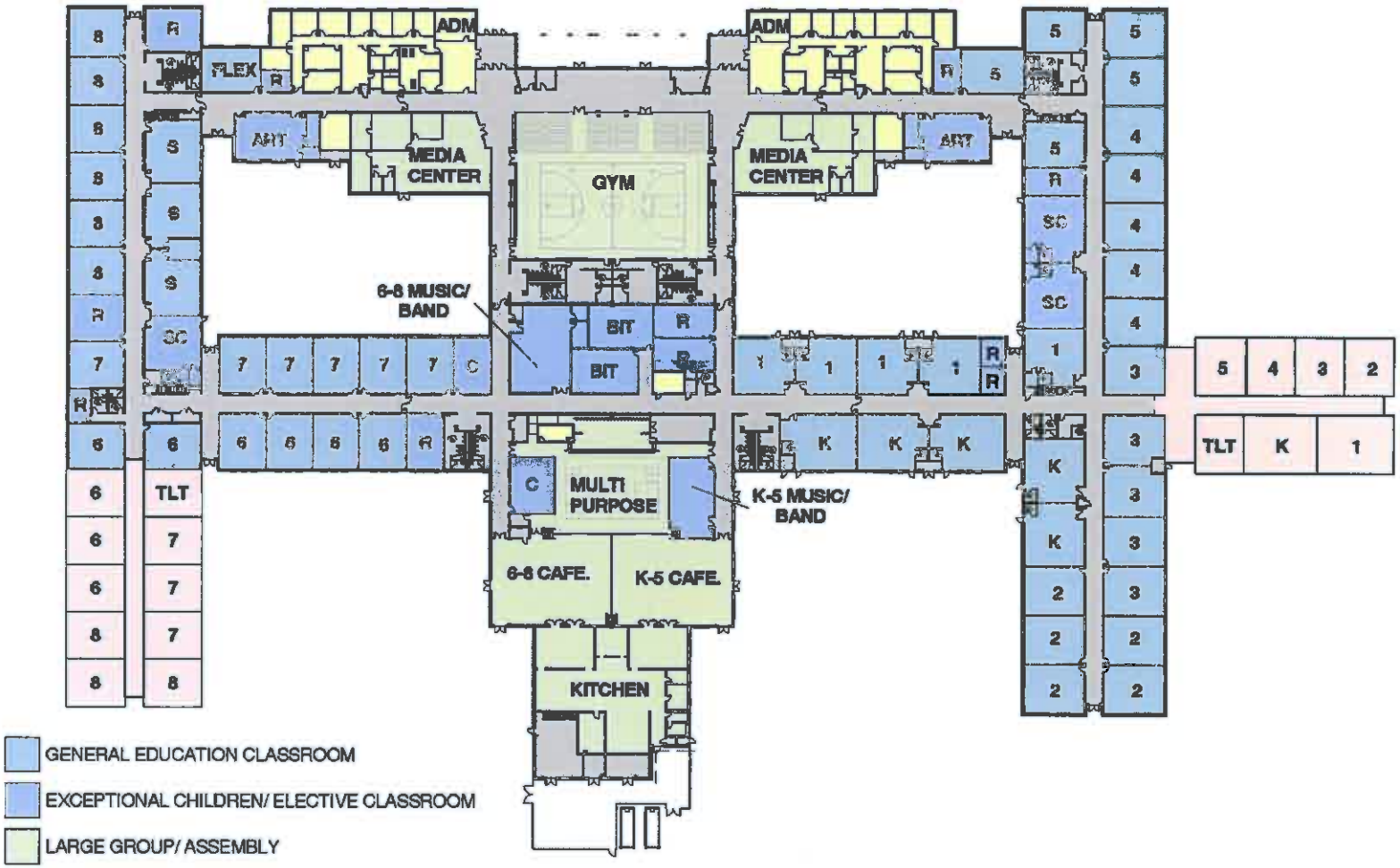
*Includes design fees plus cost escalation to 2019

Future Classroom Costs

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY



GENERAL EDUCATION CLASSROOM

EXCEPTIONAL CHILDREN/ ELECTIVE CLASSROOM

LARGE GROUP/ ASSEMBLY

ADMINISTRATION

SERVICE

Student Capacity — **1,568 Students**

- Elementary — 750 Students
- Middle — 818 Students

Floor Plan Future Build-Out

1,500 Student Capacity

Surf City

K-8 School

LS3P ENGAGE DESIGN TRANSFORM

BARNHILL CONTRACTING COMPANY

1,213 Students

1,200 Student Capacity	Pupils / Teacher	No. of Classrooms	Total No. of Pupils
Elementary			
Kindergarten	18	5	90
First	17	5	85
Second	17	5	85
Third	17	5	85
Fourth	26	5	130
Fifth	26	5	130
Self-Contained	12	2	24
Middle			
Sixth	26	6	156
Seventh	26	6	156
Eighth	26	6	156
Science	26	3	78
Self-Contained	12	1	12
Flex	26	1	26
	Total	55	1,213
		Elementary	629
		Middle	584

Future Build-Out
1,568 Students

1,500 Student Capacity	Pupils / Teacher	No. of Classrooms	Total No. of Pupils
Elementary			
Kindergarten	18	6	108
First	17	6	102
Second	17	6	102
Third	17	6	102
Fourth	26	6	156
Fifth	26	6	156
Self-Contained	12	2	24
Middle			
Sixth	26	9	234
Seventh	26	9	234
Eighth	26	9	234
Science	26	3	78
Self-Contained	12	1	12
Flex	26	1	26
	Total	70	1,568
		Elementary	750
		Middle	818

Student Capacity

Surf City
K-8 School

LS3P ENGAGE DESIGN TRANSFORM
BARNHILL CONTRACTING COMPANY