PUBLIC INFORMATION

ITEM NO. _2_

DATE OF MEETING: January 19, 2016

REQUESTED BY: Pender County Board of Education

SHORT TITLE: Update on School Bond Construction and Renovation Projects.

BACKGROUND: The Board of County Commissioners and the Board of Education agreed to receive periodic updates related to the Bond. This agenda item will include information related to small projects within the Bond, including Cape Fear Elementary, Cape Fear Middle, Burgaw Middle, Pender High, West Pender Middle, as well as the Penderlea project. Architects will be making presentations with the support of staff. sfL+a will present information regarding the Penderlea site. Little and Associates will present regarding the small projects.

sfL+a ARCHITECTS

Penderlea School

Pender County Schools

January 12, 2016

CLH DESIGN

metcon BUILDINGS INFRASTRUCTURE

Penderlea School

sfL+a ARCHITECTS

SITE DATA:

SITE ZONING	CA (OFFICE INSTITUTIONAL)
OVERLAY ZONING	NONE
USES ALLOWED	SCHOOLS ARE A PERMITTED USE
WATERSHED	CROOKED RUN
RIVER BASIN	CAPE FEAR
CURRENT DEVELOPMENT PLAN	PENDER COUNTY (VED)
SITE ACREAGE	33.41 AC.
MAXIMUM BUILDING HEIGHT	40' (50' WITH SEPARATION & FIRE BLOCK)
BUILDING SETBACKS	FRONT YARD - 25' SIDE YARD 10' CORNER YARD 12' REAR YARD 10'
STREET YARD BUFFER	10' TYPE A BUFFER ADJACENT TO STREET RIGHT-OF-WAYS
LANDSCAPE BUFFER	TYPE B BUFFER ALONG ALL OTHER BOUNDARIES
PARKING REQUIRED	1 SPACE PER CLASSROOM + 1 SPACE PER 300 SF OF ADMINISTRATIVE OFFICE SPACE
MAXIMUM IMPERVIOUS SURFACE AREA	N/A
MAXIMUM BUILDING LOT COVERAGE	N/A
STORMWATER CONTROLS	STANDARD COASTAL COUNTY STORMWATER REGULATIONS APPLY
OTHER REQUIREMENTS	PENDERLEA HOMESTEADS HISTORIC DISTRICT - 2014 FDC1197 PENDERLEA SCHOOL AND SITE - 1916 FDC1196

1 C-101 SCHEMATIC DESIGN

GRAPHIC SCALE

1 IN. = 100 FT.

SCHEMATIC DESIGN

sfL+a ARCHITECTS

CLH DESIGN, P.A.

PENDER COUNTY SCHOOLS
PENDERLEAD K-8 SCHOOL
PENDERLEA, NC

ENERGY STAR PARTNER

#	DATE	DESCRIPTION

ISSUE DATE 01.06.16
PROJECT # 01905.160
DRAWN BY
CHECKED BY

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SCHEMATIC DESIGN

C-101

Penderlea School

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1 C-101 SCHEMATIC DESIGN

GRAPHIC SCALE

SCHEMATIC DESIGN

PENDER COUNTY SCHOOLS
PENDERLEAD K-8 SCHOOL
PENDERLEA, NC

ENERGY STAR PARTNER

0	DATE	DESCRIPTION

ISSUE DATE 01.28.16
PROJECT # 21525-000
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SCHEMATIC DESIGN

C-101

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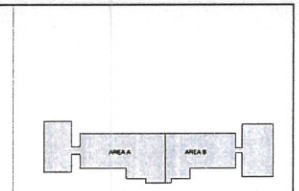
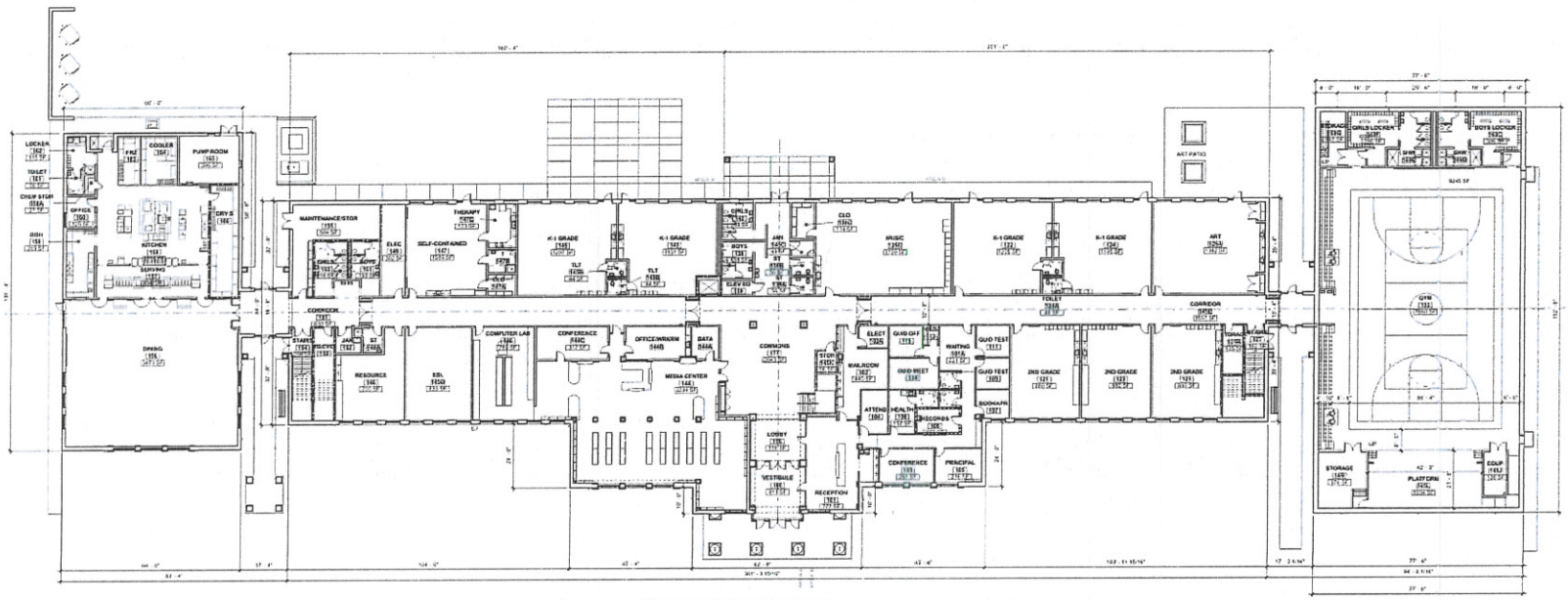


KEYPLAN
NO SCALE

1ST FLR - 54,970 GSF
2ND FLR - 33,430 GSF
TOTAL - 88,400 GSF



1 A-101 OVERALL FIRST FLOOR PLAN
1/16" = 1'-0"

SCHEMATIC DESIGN

PENDER COUNTY SCHOOLS
PENDERLEAD K-8 SCHOOL
PENDERLEA, NC

ENERGY STAR PARTNER

#	DATE	DESCRIPTION

ISSUE DATE 01.06.16
PROJECT # 01305.000
DRAWN BY DK
CHECKED BY TH

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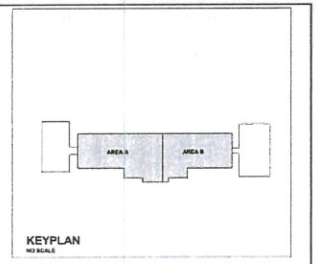
FIRST FLOOR PLAN

A-101

Penderlea School

sfL+a ARCHITECTS



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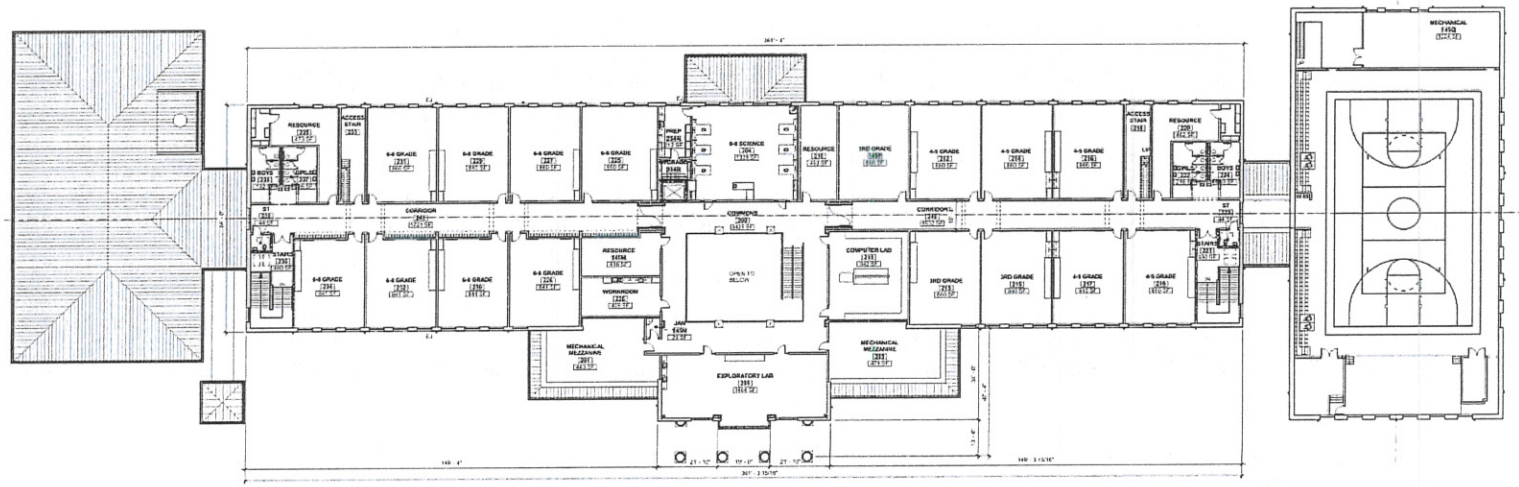

1 A-102 OVERALL SECOND FLOOR PLAN
1/16" = 1'-0"

SCHEMATIC DESIGN

PENDER COUNTY SCHOOLS
PENDERLEAD K-8 SCHOOL
PENDERLEA, NC

ENERGY STAR PARTNER

ID	DATE	DESCRIPTION
ISSUE DATE		01.08.19

PROJECT # 01505.003
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SECOND FLOOR PLAN

A-102

Penderlea School

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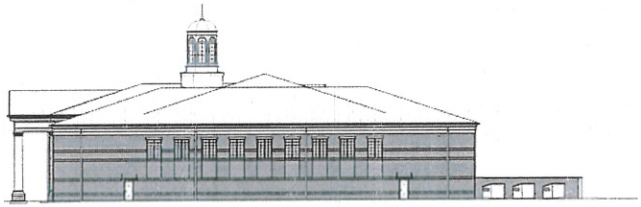
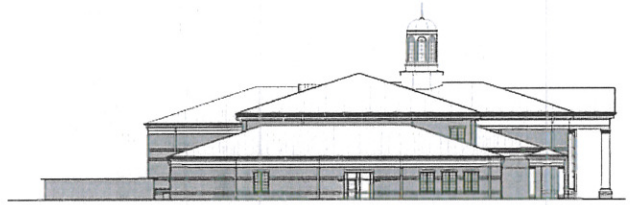


3 A-201 EAST ELEVATION - OVERALL
1/16" = 1'-0"



1 A-201 WEST ELEVATION - OVERALL
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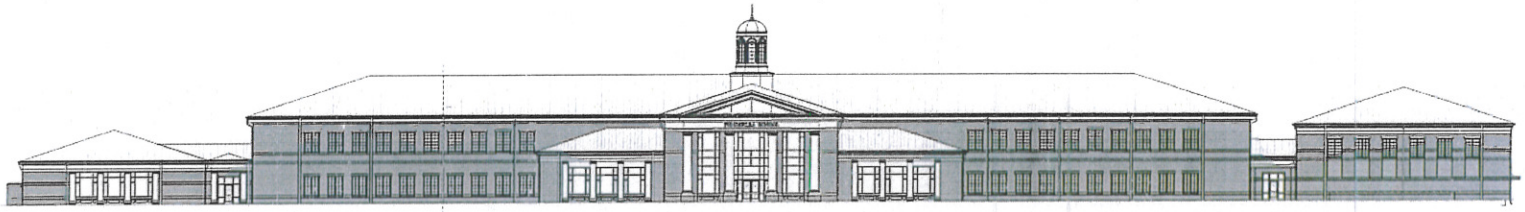
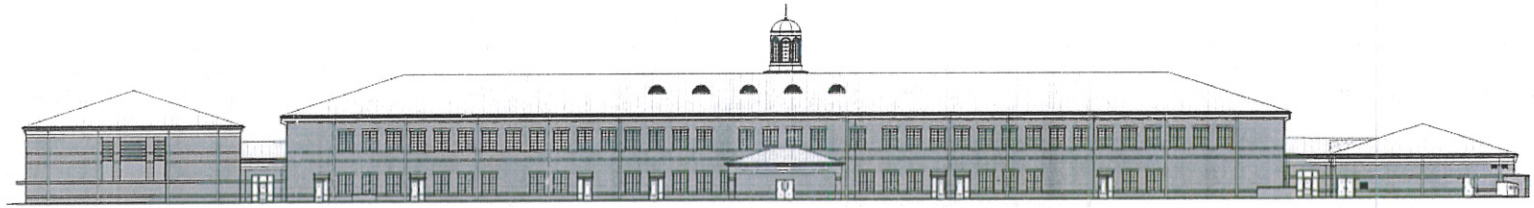


2 A-201 SOUTH ELEVATION - OVERALL
1/16" = 1'-0"



4 A-201 NORTH ELEVATION - OVERALL
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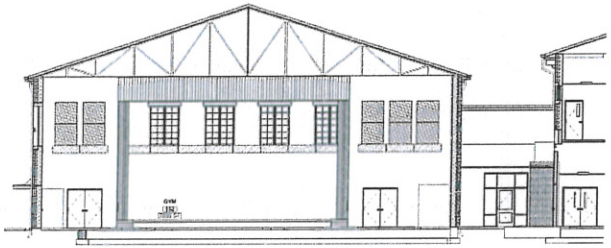
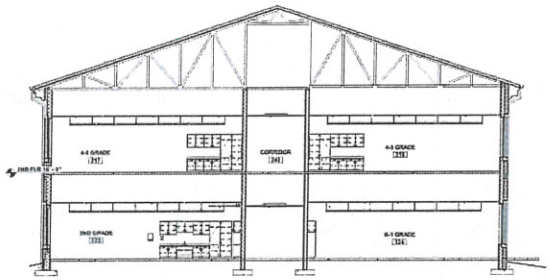
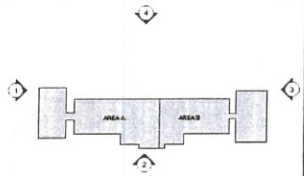


6 A-201 BUILDING SECTION - GYM & PLATFORM
1/8" = 1'-0"



7 A-201 SECTION THROUGH CLASSROOMS
1/8" = 1'-0"



KEYPLAN
NO SCALE

SCHEMATIC DESIGN

PENDER COUNTY SCHOOLS

PENDERLEAD K-8 SCHOOL

PENDERLEA, NC

ENERGY STAR PARTNER

ID	DATE	DESCRIPTION
ISSUE DATE		01-06-16
PROJECT #		01505.000
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CHECKED BY		LB

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OVERALL EXTERIOR ELEVATIONS

A-201

Penderlea School

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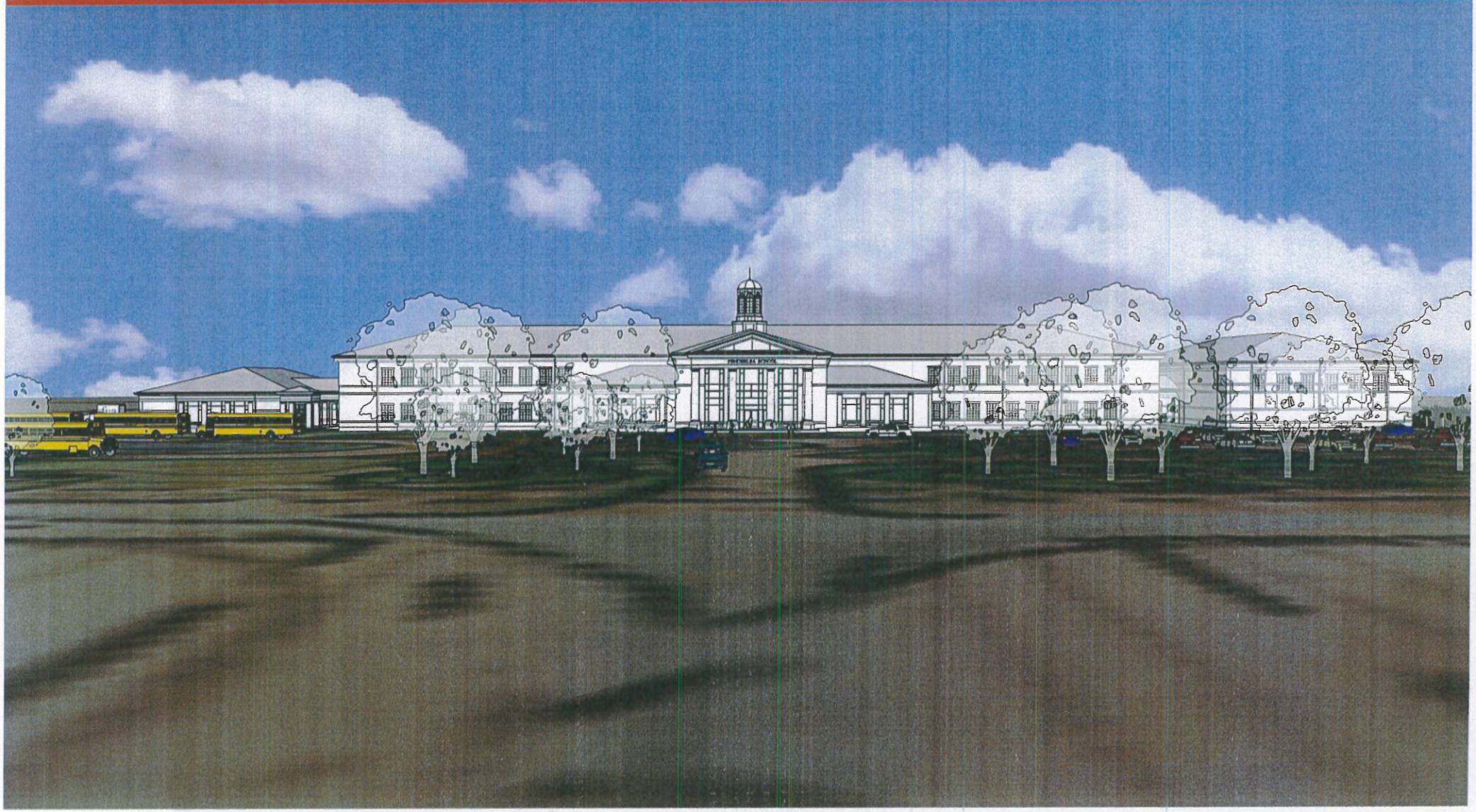

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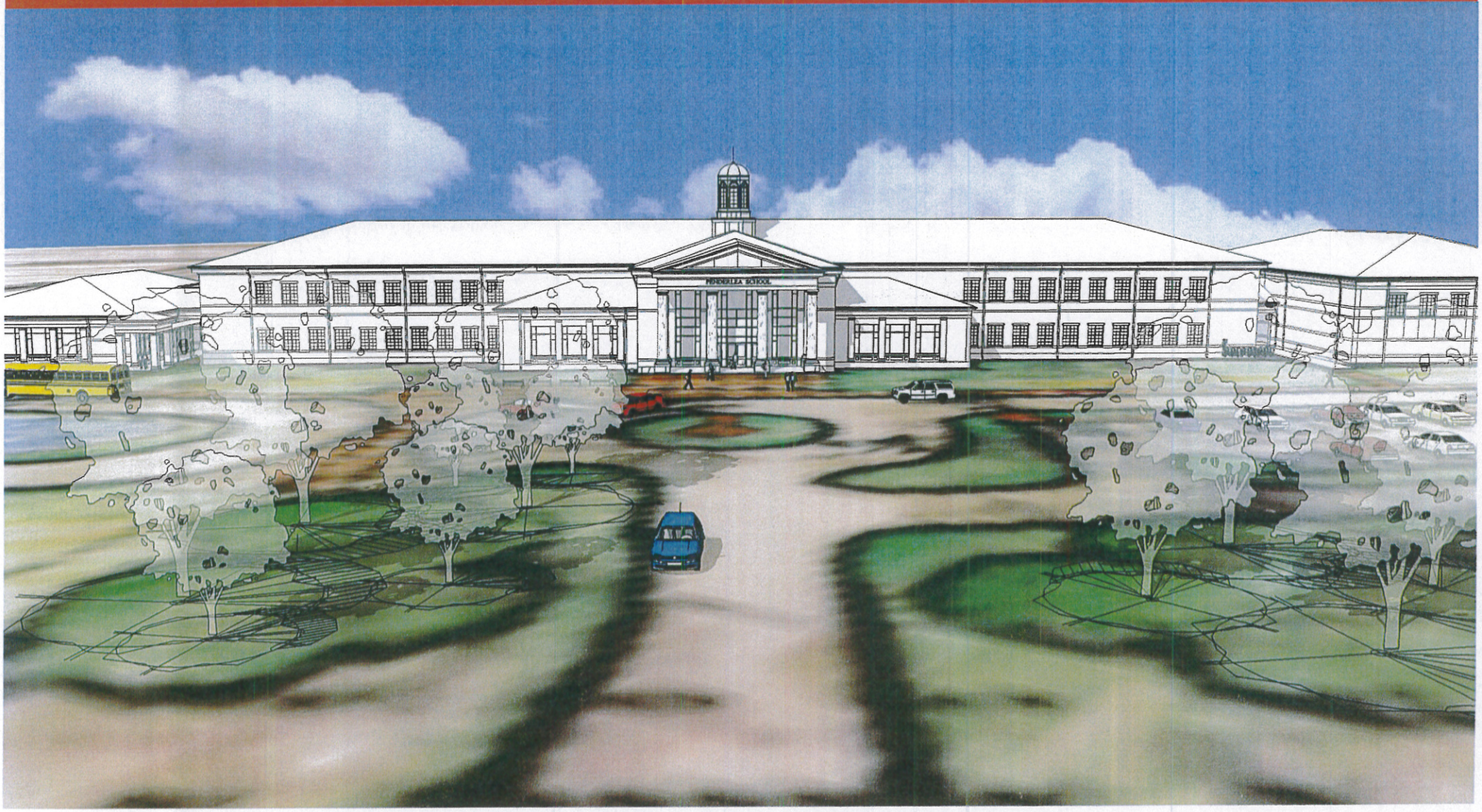

Penderlea School

sfL+a ARCHITECTS

Penderlea School

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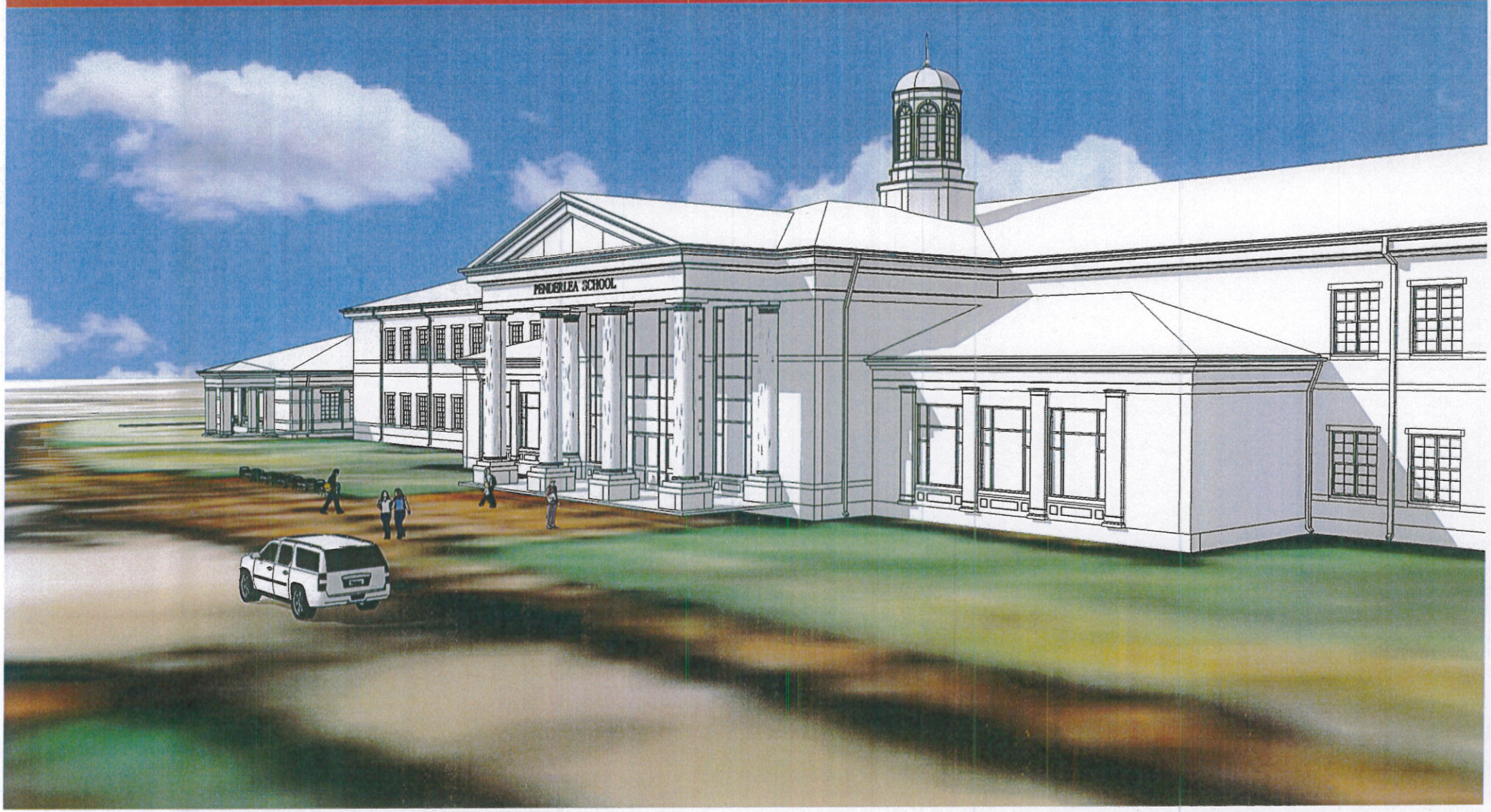

Penderlea School

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Penderlea School

sfL+a ARCHITECTS

Penderlea School

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Currently underway:

- Geotechnical Exploration
  - Site borings – structural analysis and recommendations
  - Seismic Analysis
  - Seasonal High Water Table
  - Infiltration Analysis
- Environmental Site Assessment (ESA)
  - Phase I Environmental
  - Jurisdictional Delineation
- Survey
  - Boundary Information
  - Topographical information
  - Subsurface Utility Information
- Water Supply
  - Flow test (hydrant analysis)
- Conductivity Testing (geothermal system)

Permitting Process:

DPI (Department of Public Instruction)

- Science room design approval
- DPI review/approval

DOI (Department of Insurance -Office of State Fire Marshal)

- Initial review(s) for shell permit approval
- Final approval pending sprinkler design, waterflow test, hydraulics calculations, specifications and sealed layout sheets approval

NCDEQ (North Carolina Department of Environmental Quality (formerly NCDENR

- Department of Health (Kitchen Concessions, as applicable)
- Division of Water Quality (Water Supply Systems; Sewer/Sewer Sewer/Sewer Extensions; Stormwater Management)
- Division of Land Quality (Erosion and Sediment Control; Wetlands & Streams - Section 401 Water Quality Certification (coordinated with US Army Corps of Engineers, see COE);

Penderlea School

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STATEMENT OF PROBABLE CONSTRUCTION COST:

CONCEPT #3 – Construct a complete new facility

Concept #3		Renovation	New Build	Total
Projected Squared Footage for School =====>		0	87,500	87,500
CSI DIVISION CODES		$ -	$ 17,828,801	$ 17,828,801
Division Number	Description of Code	With 8% Inflation ====>		
Division 01	General Requirements	$ -	$ 2,392,833	$ 2,392,833
Division 02	Site Construction		$ 2,880,918	$ 2,880,918
Division 03	Concrete	$ -	$ 786,949	$ 786,949
Division 04	Masonry	$ -	$ 1,092,160	$ 1,092,160
Division 05	Metals	$ -	$ 1,839,658	$ 1,839,658
Division 06	Wood and Plastics	$ -	$ 112,965	$ 112,965
Division 07	Thermal and Moisture Protection	$ -	$ 980,224	$ 980,224
Division 08	Doors and Windows	$ -	$ 690,433	$ 690,433
Division 09	Finishes	$ -	$ 1,290,990	$ 1,290,990
Division 10	Specialties	$ -	$ 310,748	$ 310,748
Division 11	Equipment	$ -	$ 213,075	$ 213,075
Division 12	Furnishings	$ -	$ 311,793	$ 311,793
Division 13	Special Construction	$ -	$ 12,868	$ 12,868
Division 14	Conveying Systems	$ -	$ 47,164	$ 47,164
Division 15	Mechanical	$ -	$ 2,775,571	$ 2,775,571
Division 16	Electrical	$ -	$ 1,673,785	$ 1,673,785
Division 99	Bonds & Insurance	$ -	$ 416,667	$ 416,667

87,500 SF NEW CONSTRUCTION

34,806 SF DEMOLITION

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

metcon BUILDINGS INFRASTRUCTURE

b

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Penderlea School

Pender County Schools

January 12, 2016

CLH DESIGN

metcon BUILDINGS INFRASTRUCTURE

Penderlea School

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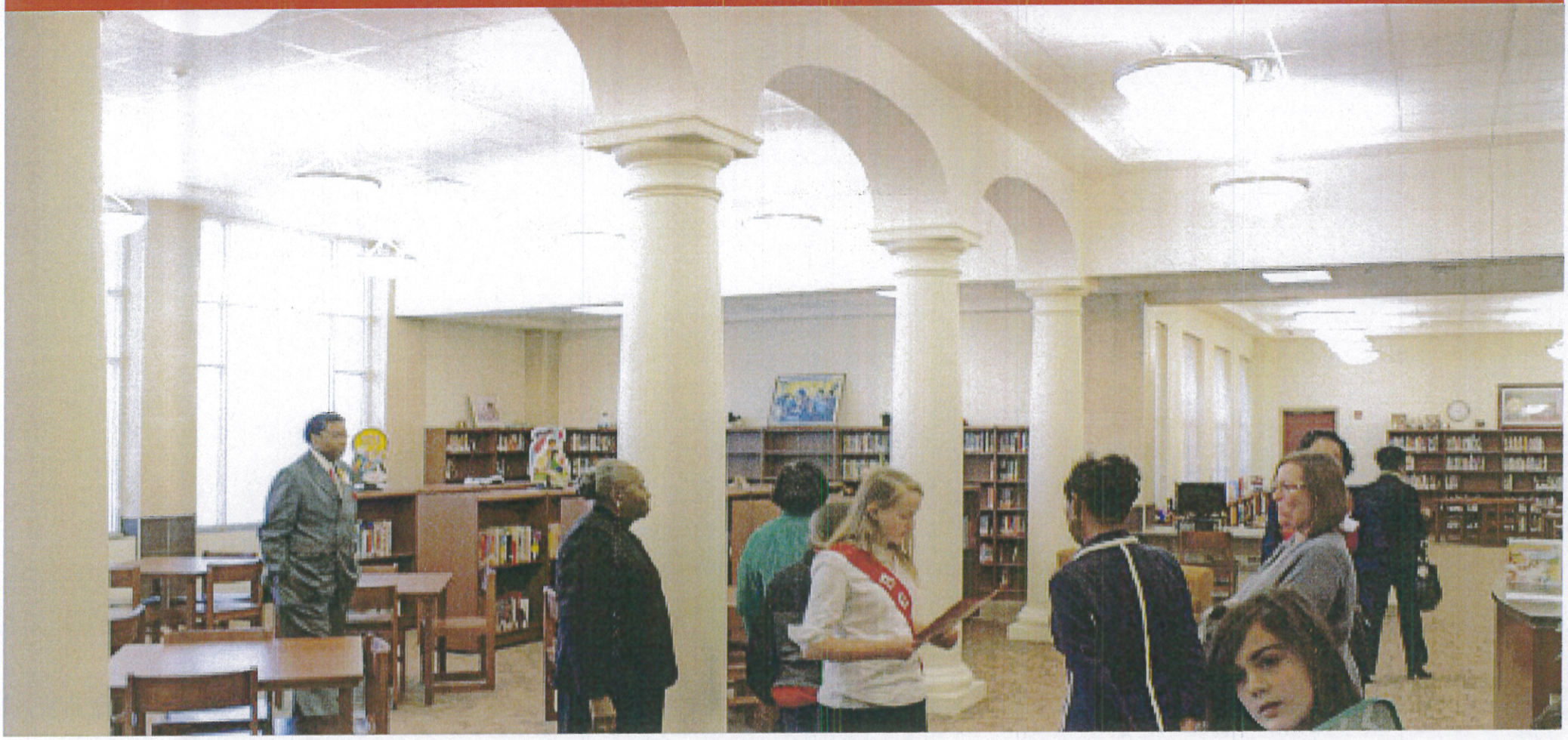

Penderlea School

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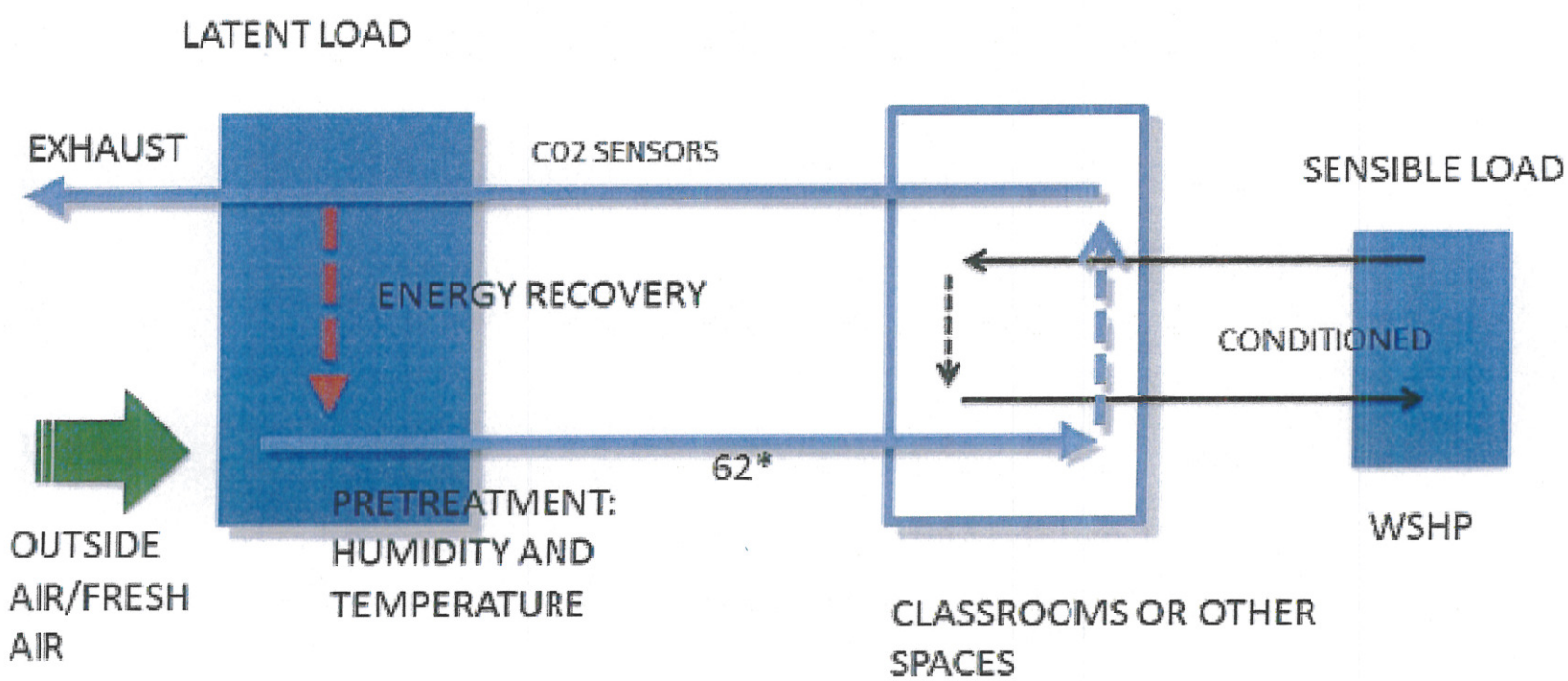
Energy Efficiency:

This facility is designed to meet the requirements of Energy Star. Energy efficiency is estimated to be of 54% better than the ASHRAE 2004 90.1 standard through energy modeling of the designed facility. The system is a water-source heat pump (WSHP) with cooing tower and condensing boiler. It utilizes a dedicated outside air system design to decouple the latent and sensible loads in the building, providing for a minimal treatment of outside air when needed, energy recovery of all exhausted air and individual thermal comfort control of all occupied spaces.

Dedicated Outdoor Air Systems

Decoupling the Building Latent and Sensible Loads Using 100% OA systems



PENDER COUNTY
SCHOOLS

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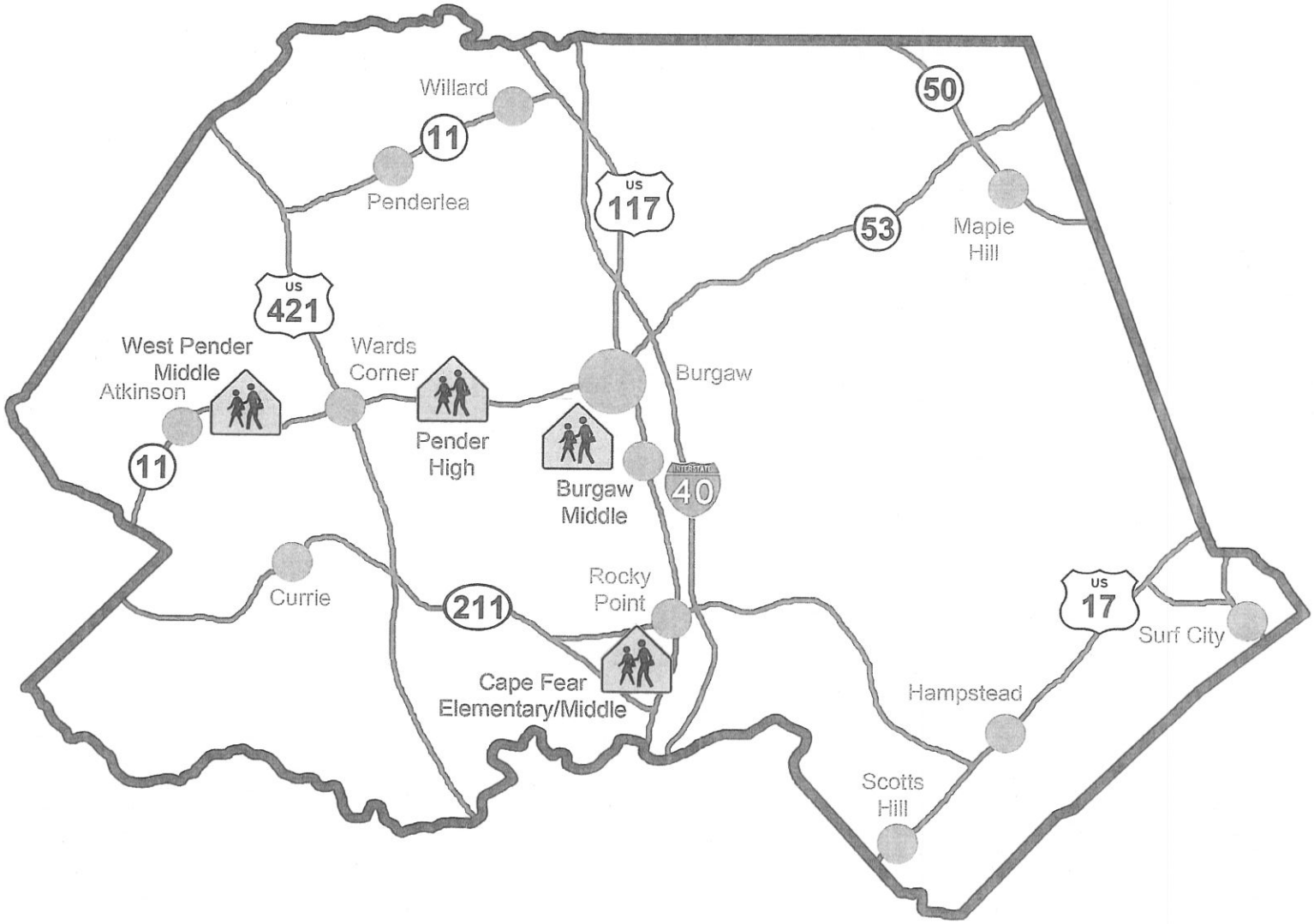
COMPANY

2014 SCHOOL BOND – ADDITIONS & RENOVATIONS
01-12-2016 School Board Meeting
Design Development Presentation



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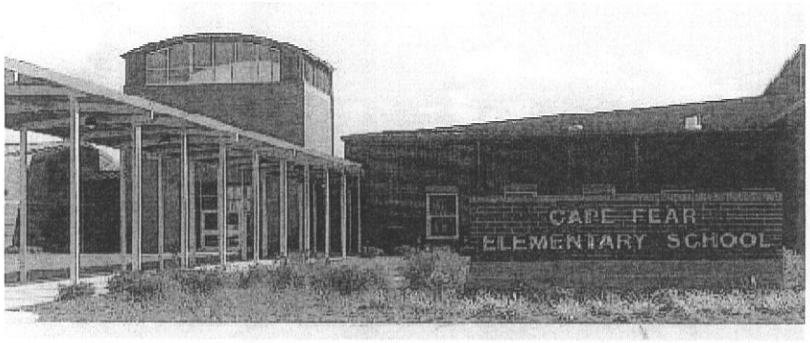
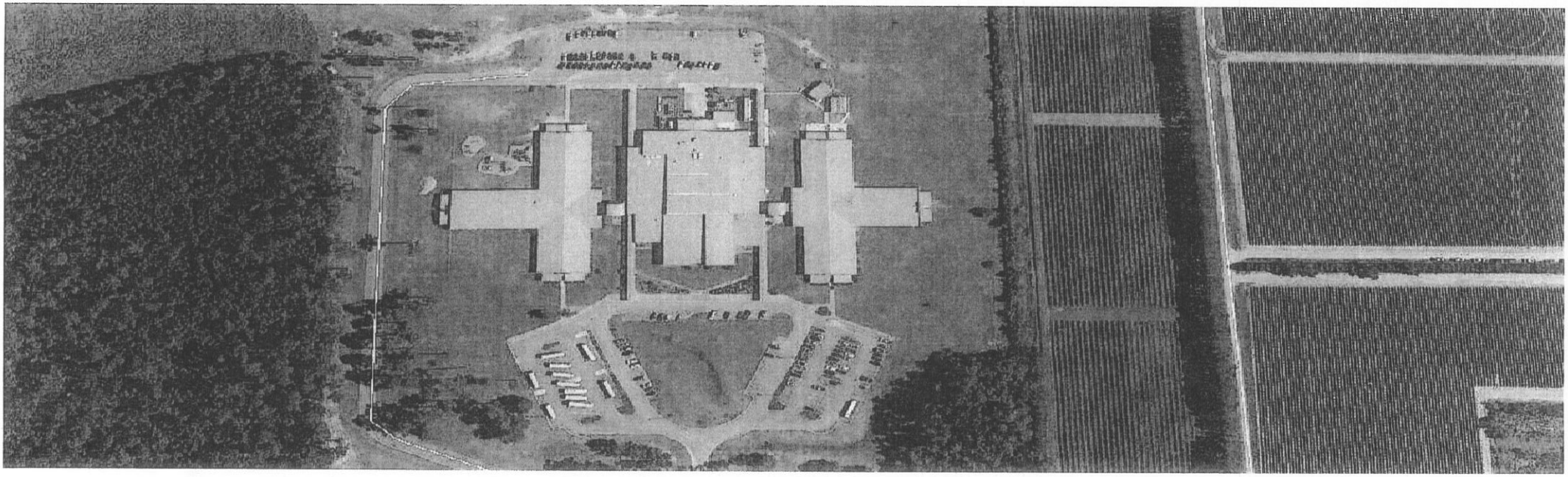
CAPE FEAR ELEM / MIDDLE – ADDITIONS

Classroom Additions - 16 (27,000 SF)
Cafeteria Additions (2) (2,000 SF)





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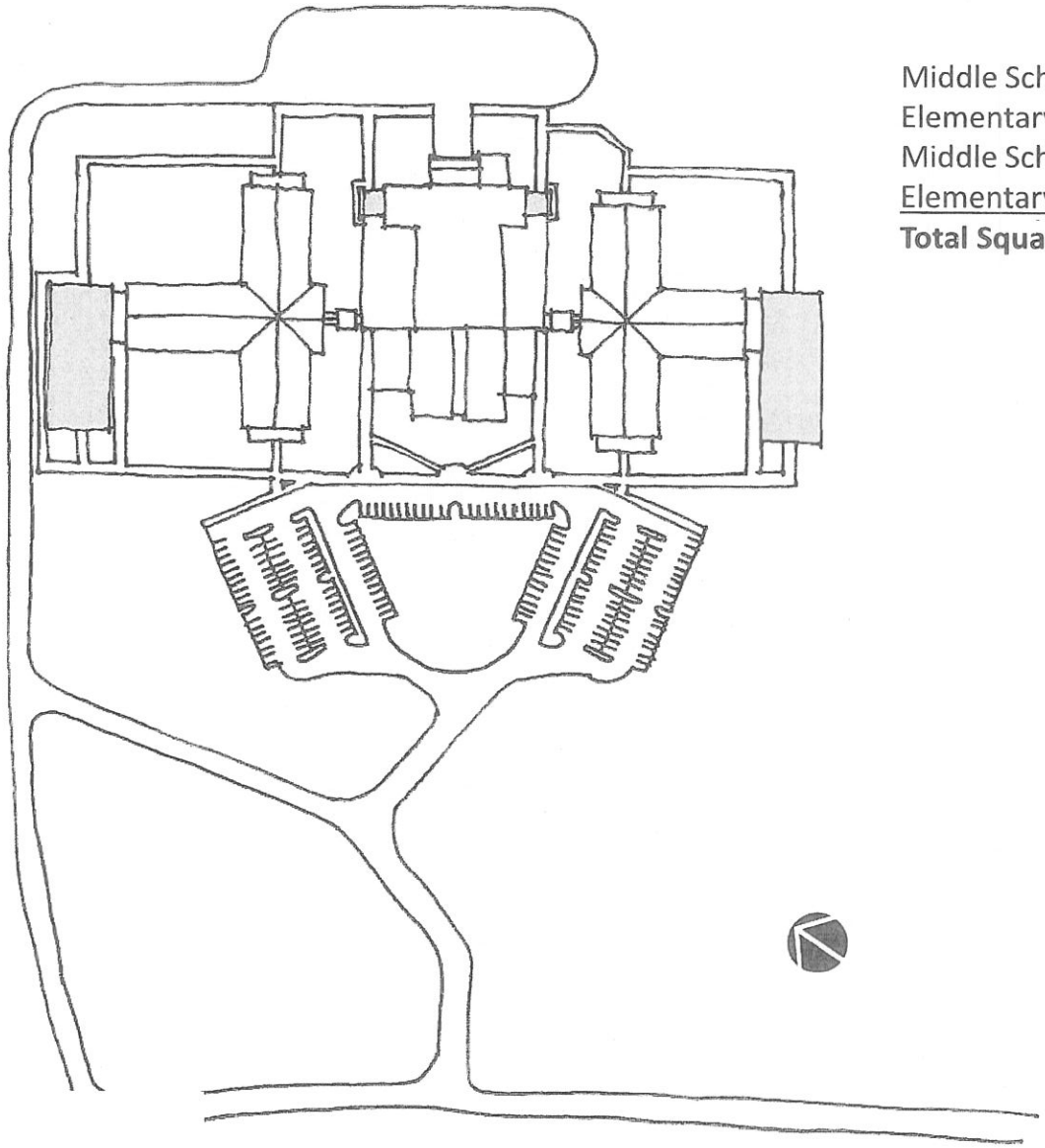

Middle School classroom	12,600
Elementary School classroom	14,900
Middle School cafeteria	1,018
Elementary School cafeteria	1,018
Total Square footage of additions	**29,536**

PENDER COUNTY SCHOOLS

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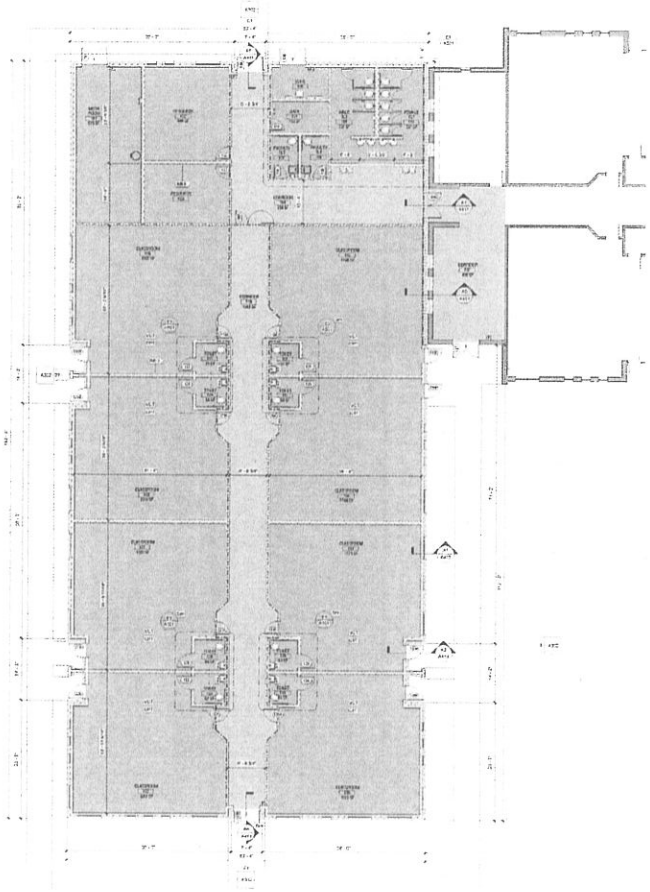
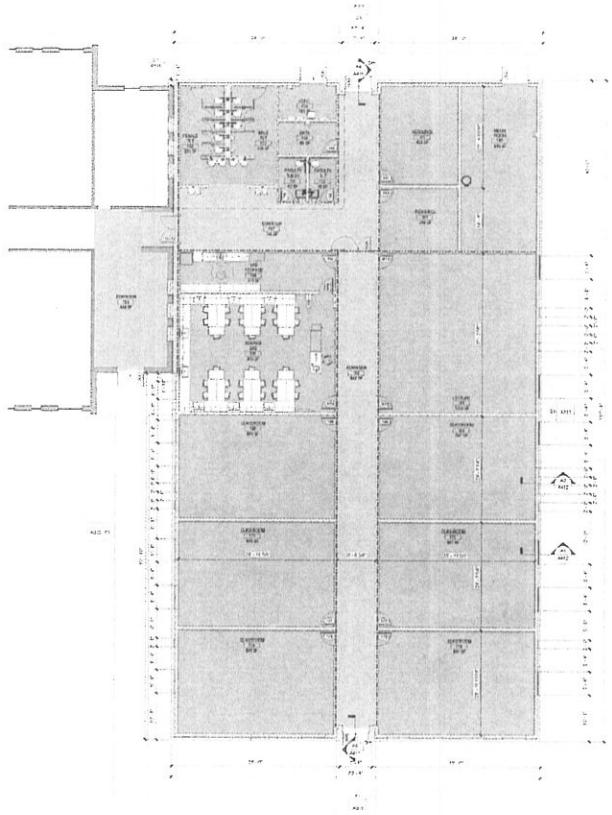
CAPE FEAR ELEM / MIDDLE – ADDITIONS

Elementary School Addition



Middle School Addition



PENDER COUNTY SCHOOLS

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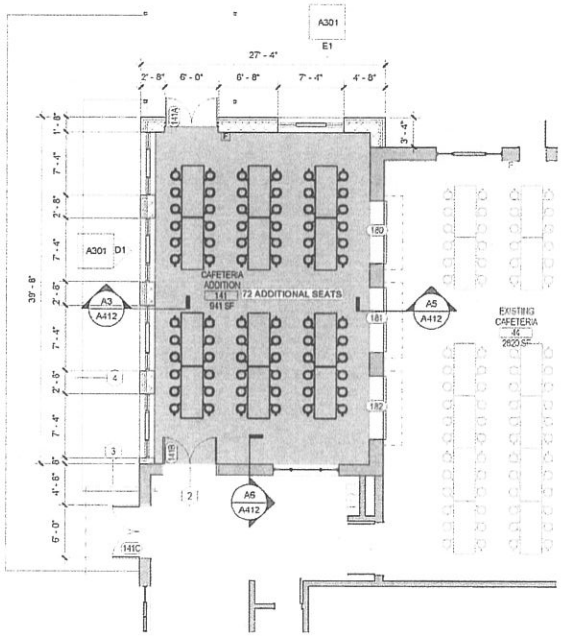
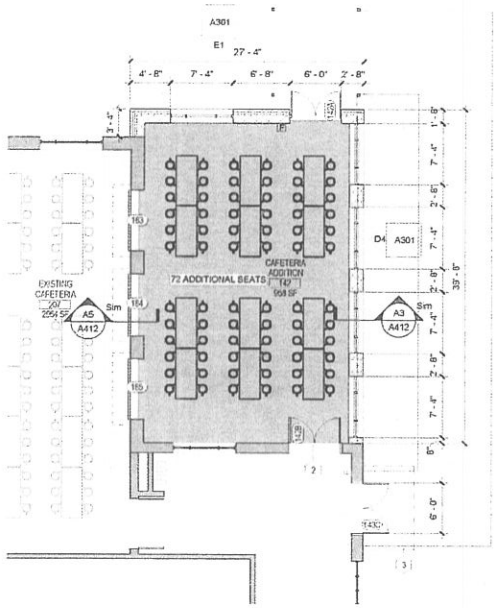
CAPE FEAR ELEM / MIDDLE – ADDITIONS

Elementary School Addition



Middle School Addition



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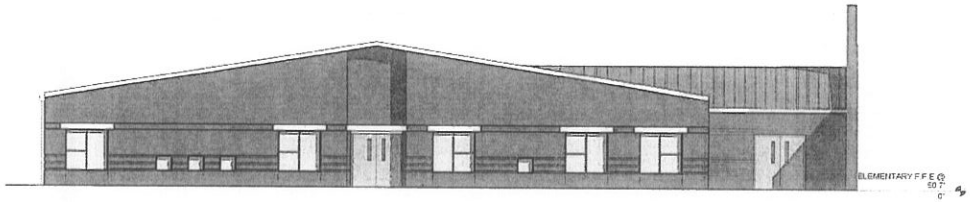
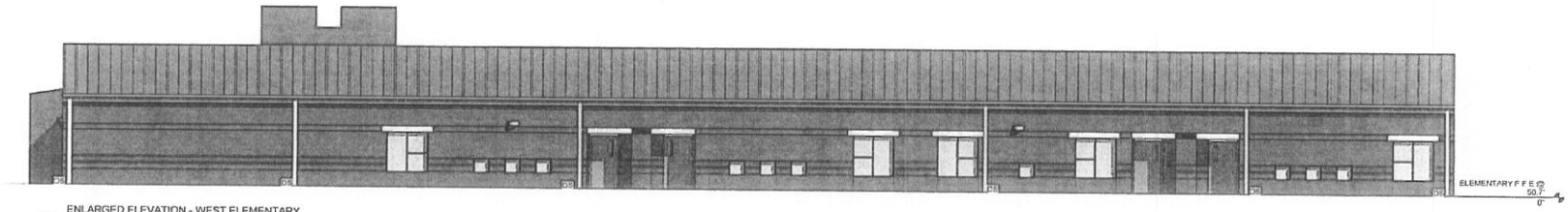
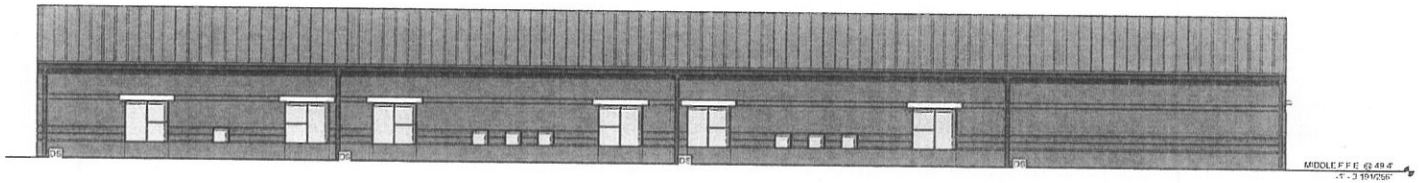
CAPE FEAR ELEM / MIDDLE – ADDITIONS



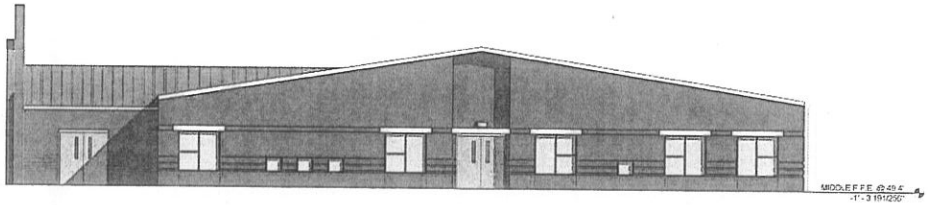
F1 ENLARGED ELEVATION - SOUTH ELEMENTARY ADDITION
A302 1/8" = 1'-0"



D1 ENLARGED ELEVATION - WEST ELEMENTARY ADDITION
A302 1/8" = 1'-0"



B1 ENLARGED ELEVATION - EAST MIDDLE ADDITION



F1 ENLARGED ELEVATION - SOUTH MIDDLE ADDITION
A303 1/8" = 1'-0"

PENDER COUNTY SCHOOLS

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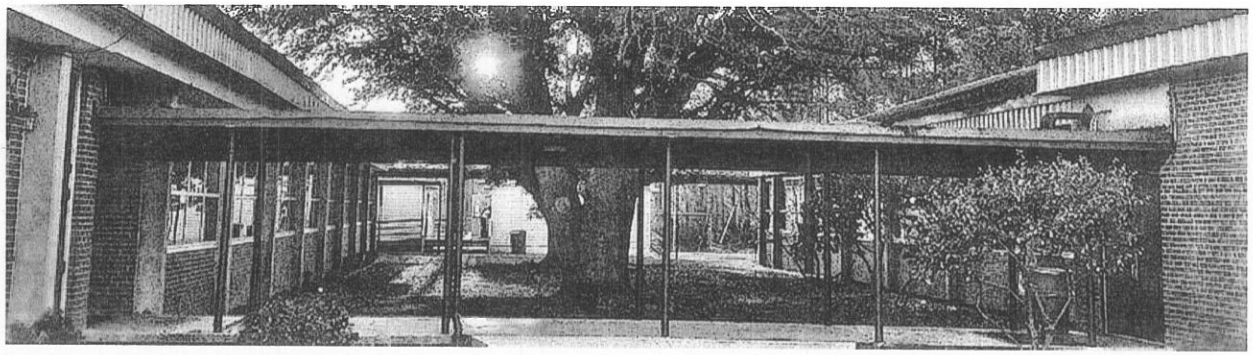
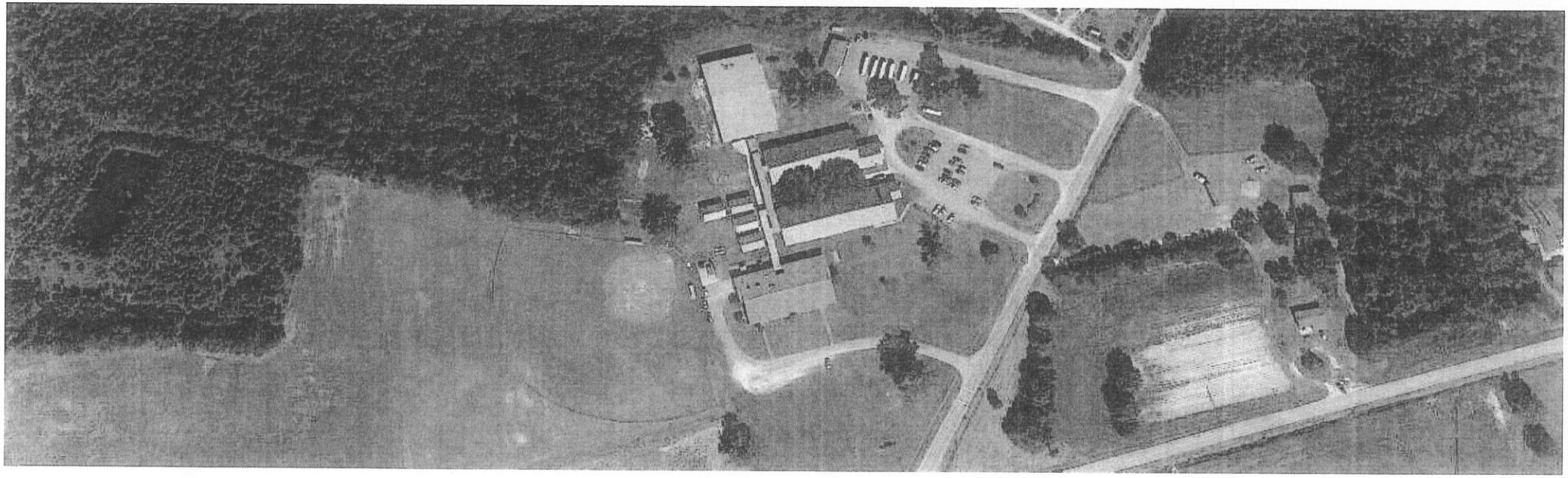
WEST PENDER MIDDLE SCHOOL - ADDITIONS

New Entrance

New Band & Science Building (10,000 SF)

New Doors & Locks





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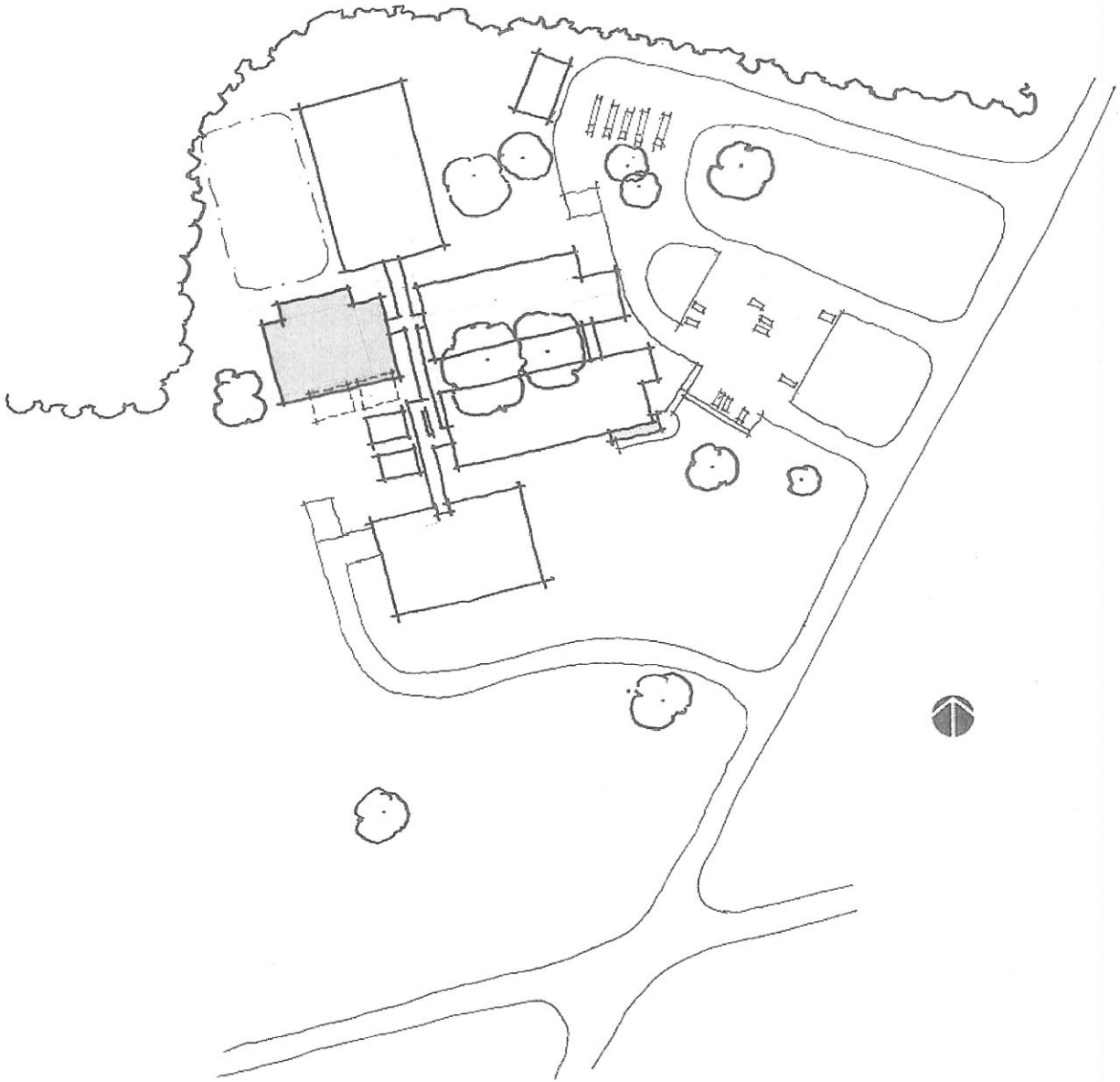
WEST PENDER MIDDLE SCHOOL - ADDITIONS



PENDER COUNTY
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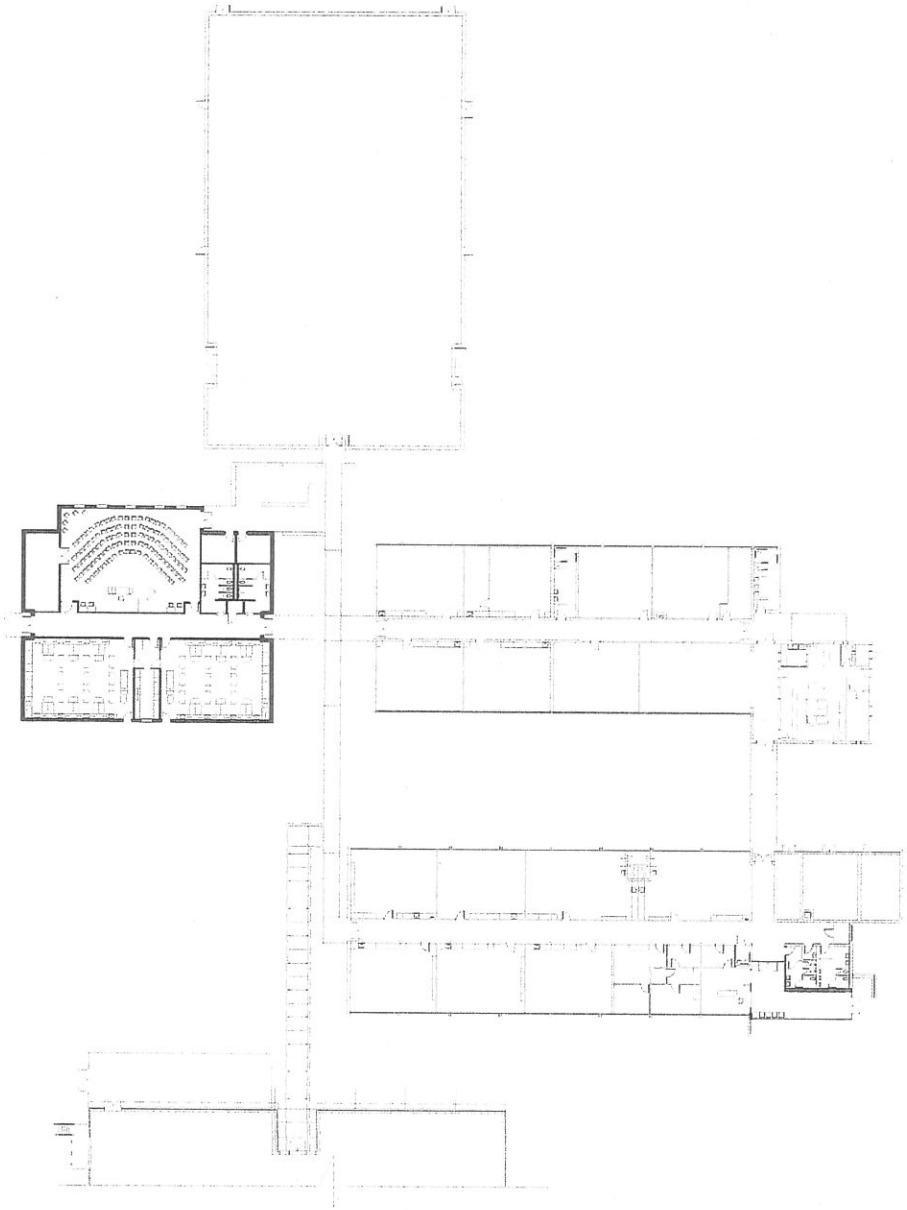

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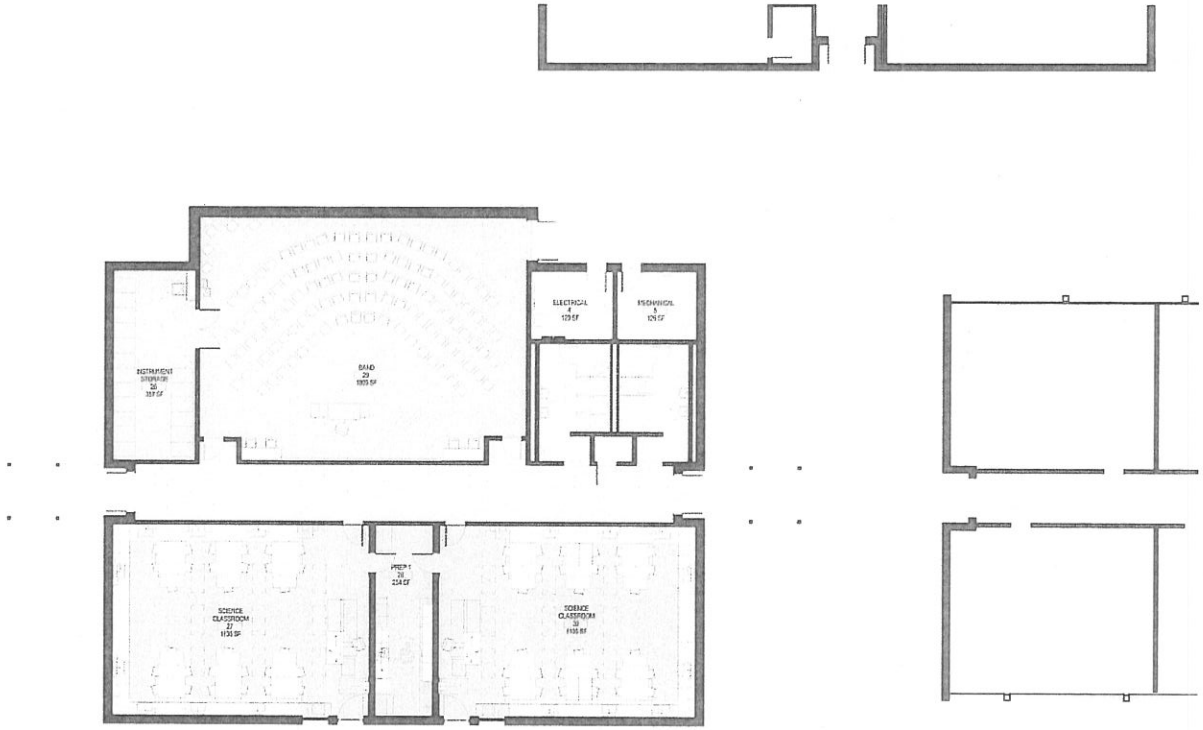

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BARNHILL CONTRACTING COMPANY

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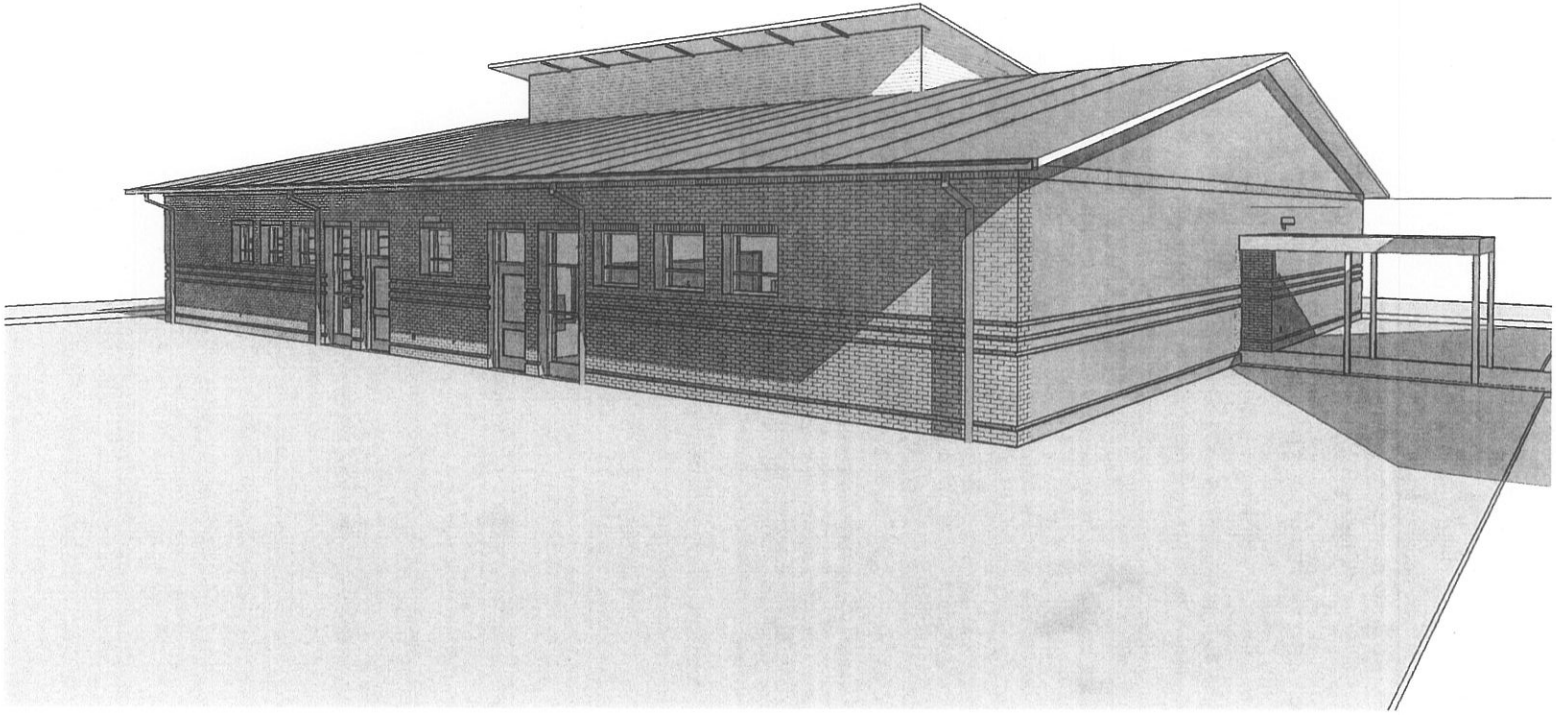
WEST PENDER MIDDLE SCHOOL - ADDITIONS



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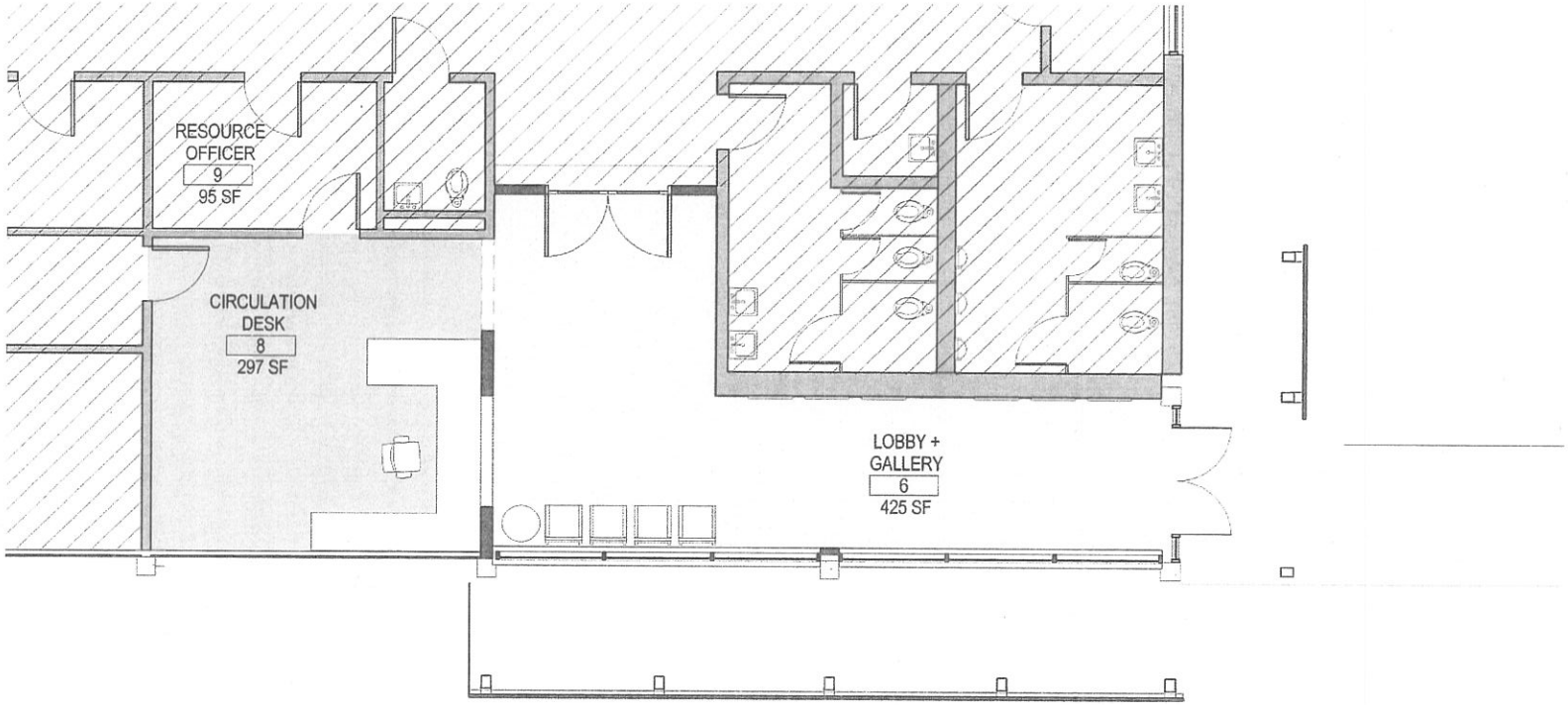
WEST PENDER MIDDLE SCHOOL - ADDITIONS



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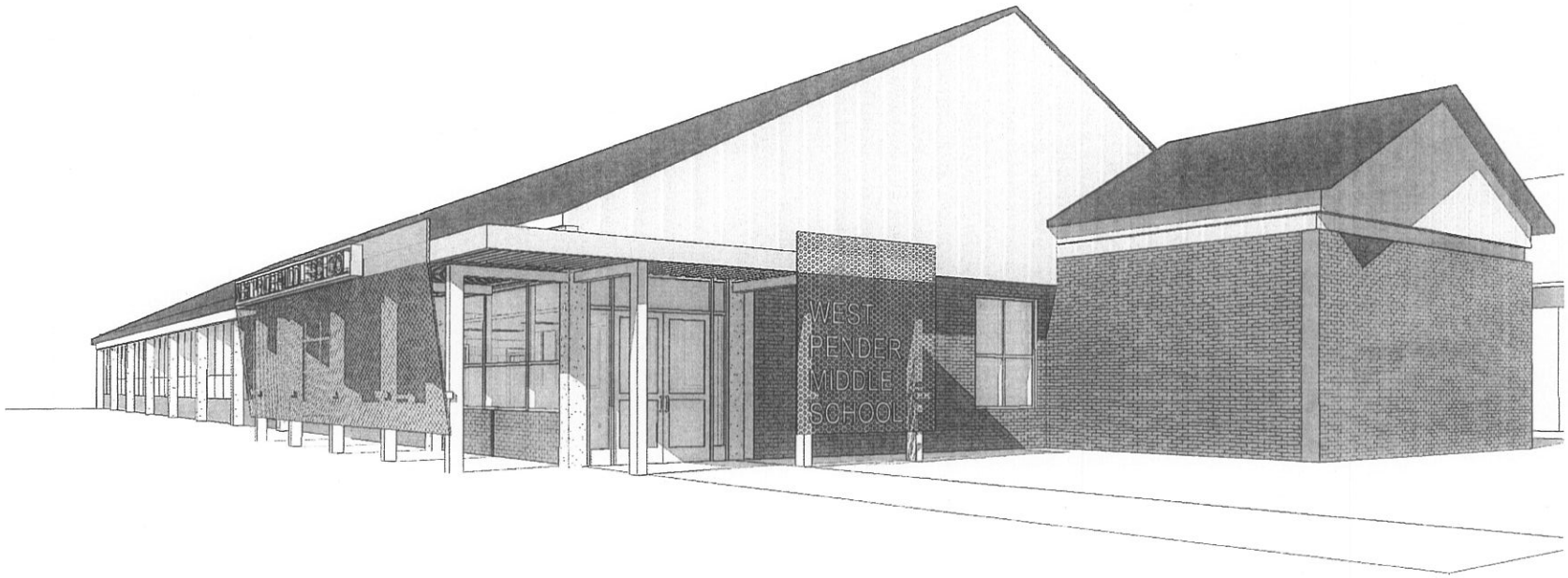
WEST PENDER MIDDLE SCHOOL - ADDITIONS



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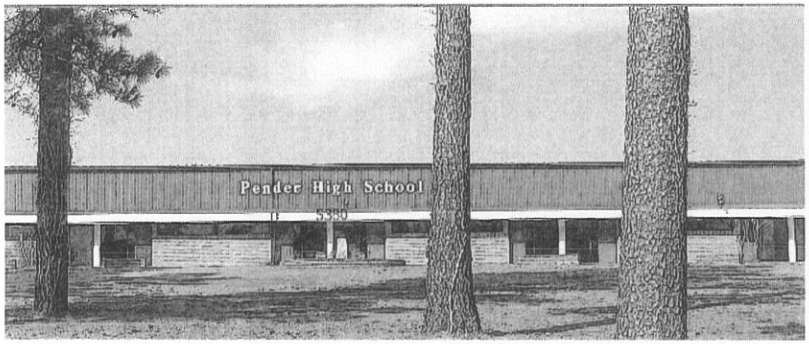
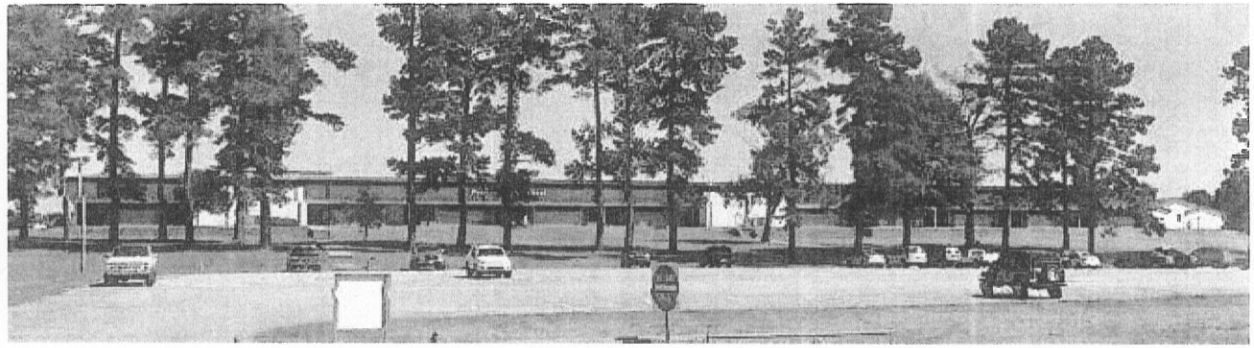
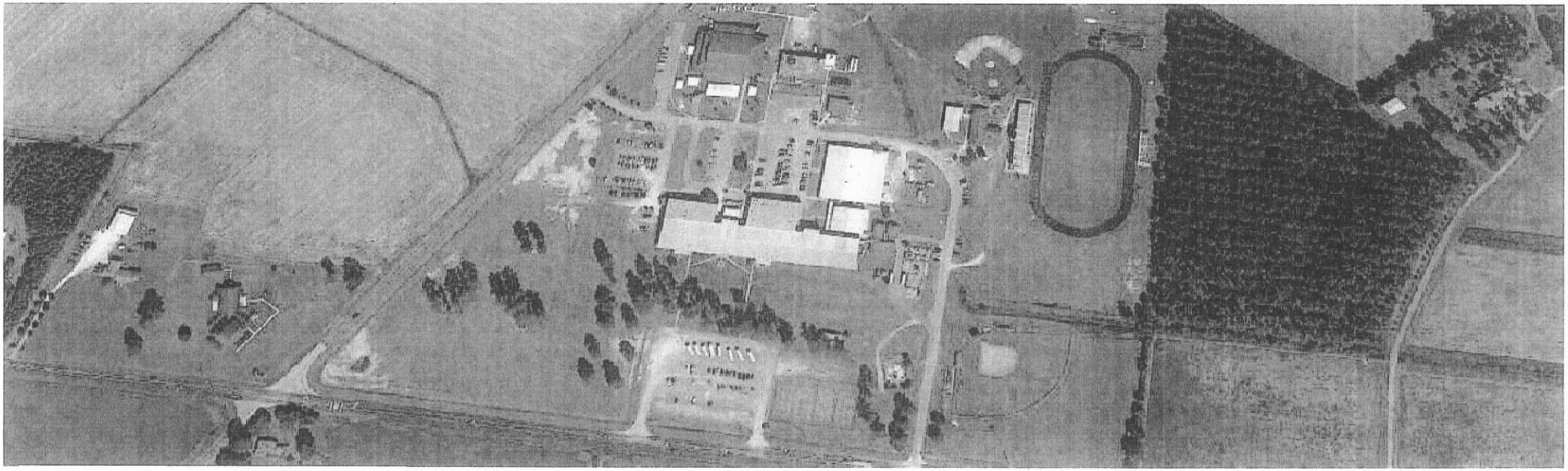
PENDER HIGH SCHOOL - ADDITIONS

New Entrance
New Covered Walkways
New Restrooms
Stadium Improvements







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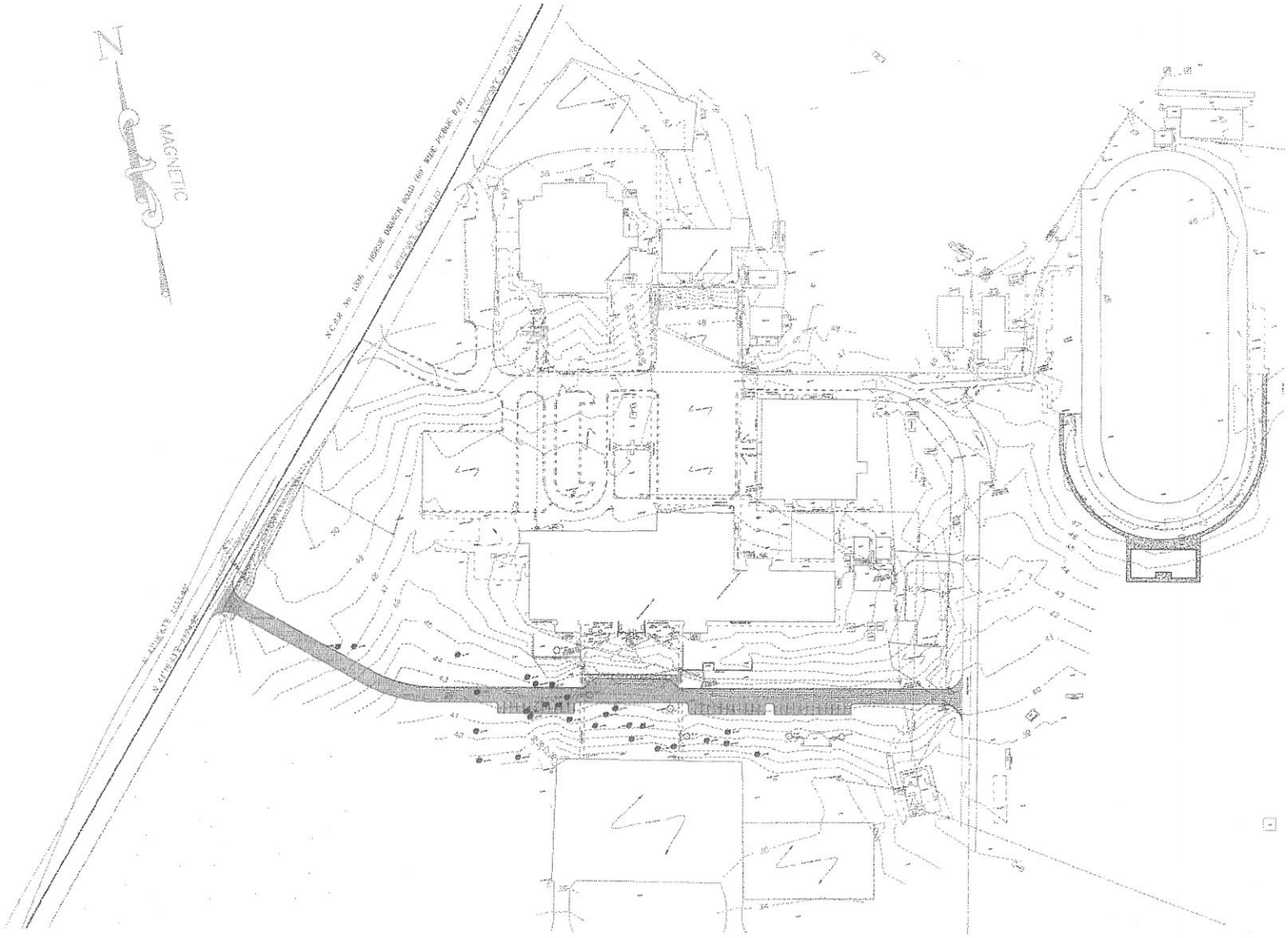
PENDER HIGH SCHOOL - ADDITIONS



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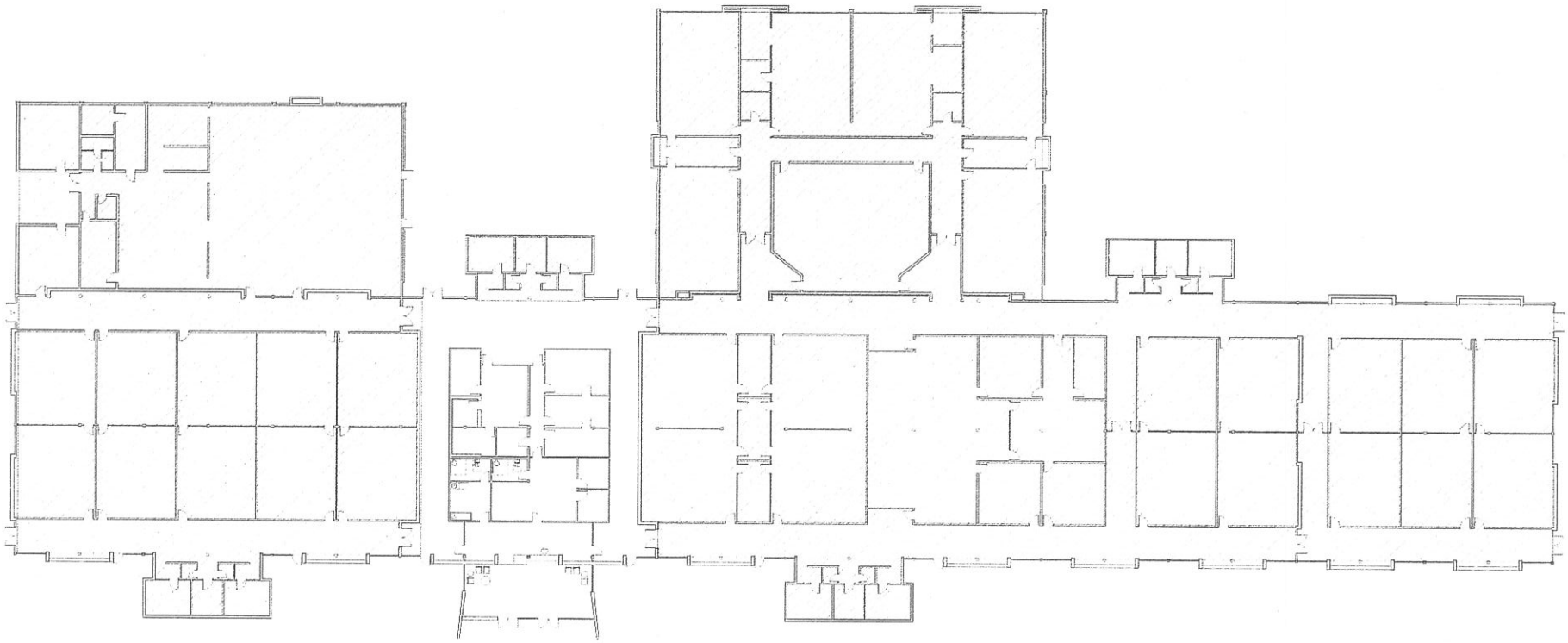

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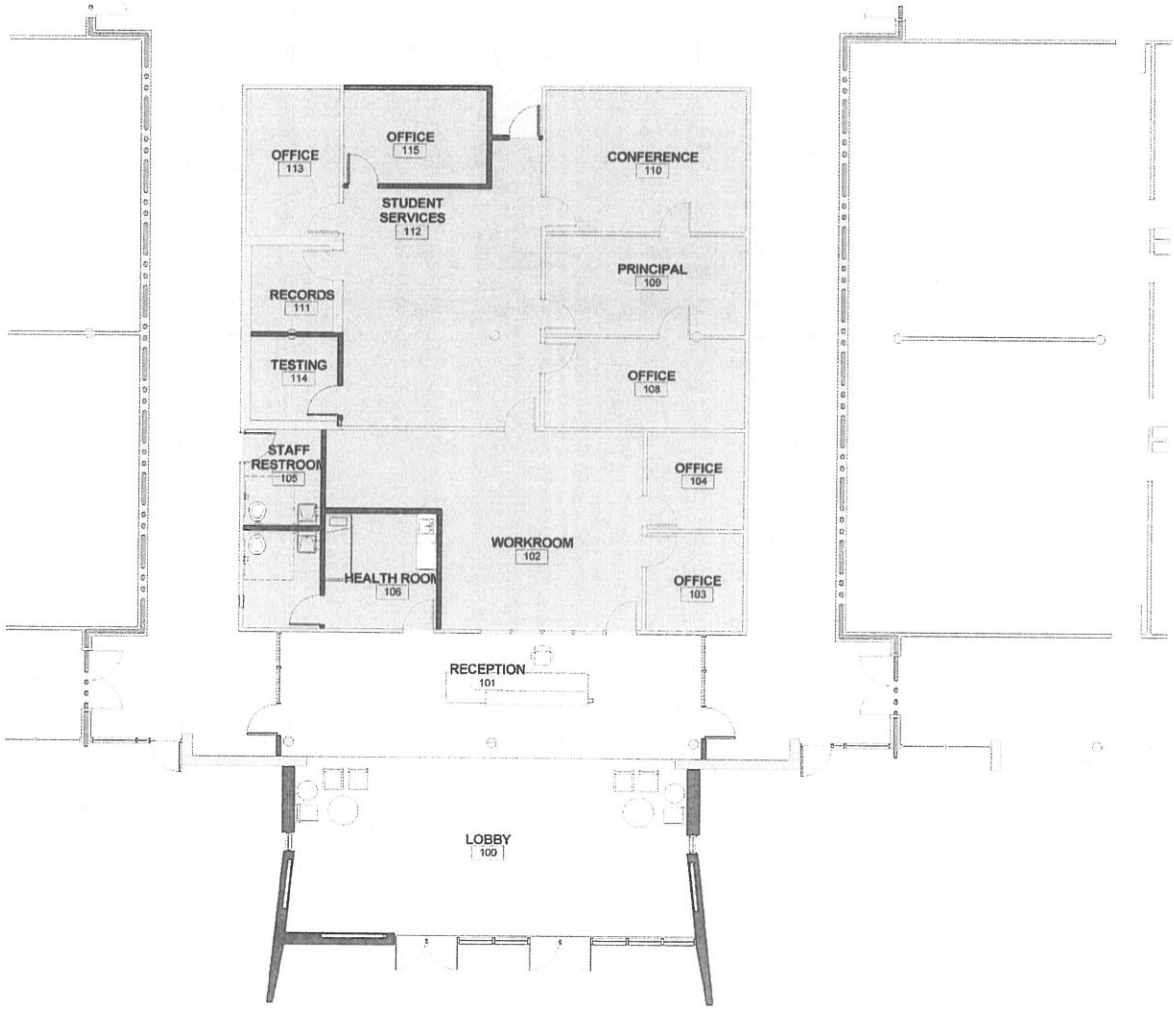

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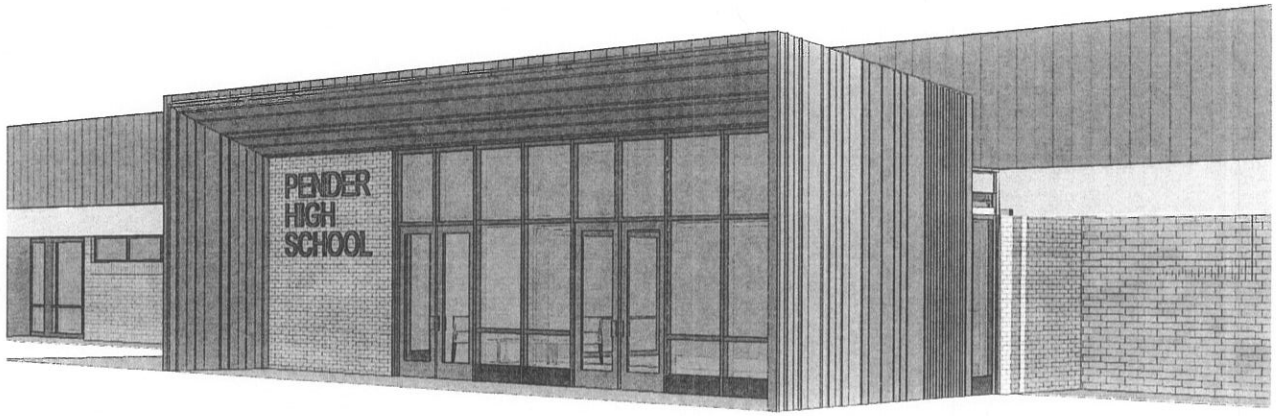

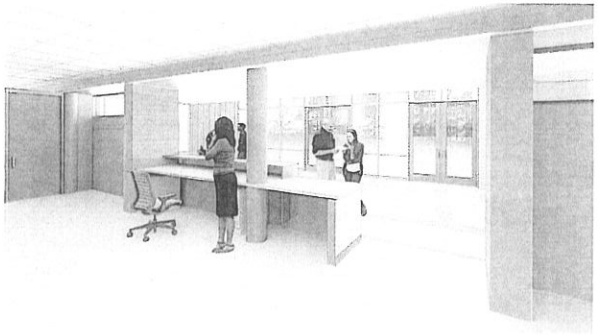

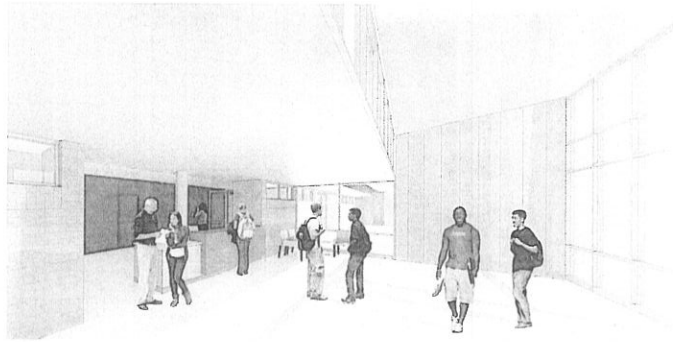

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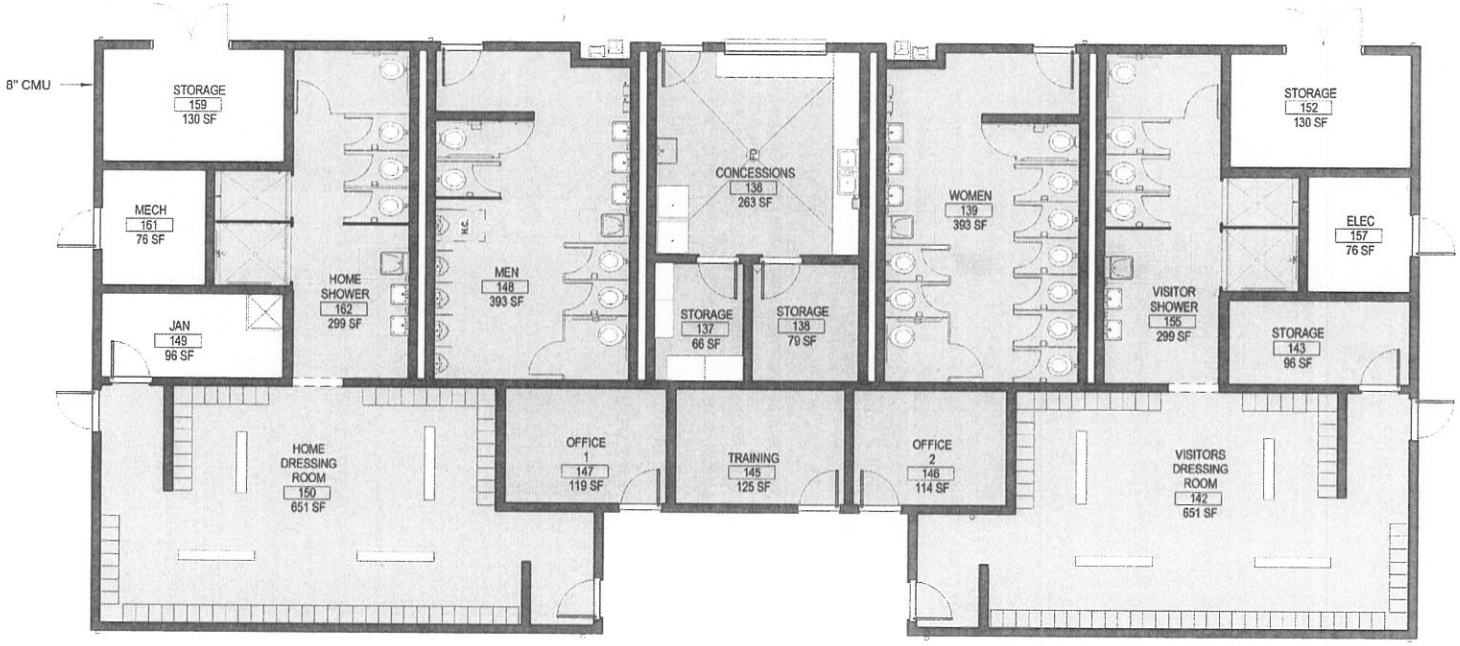

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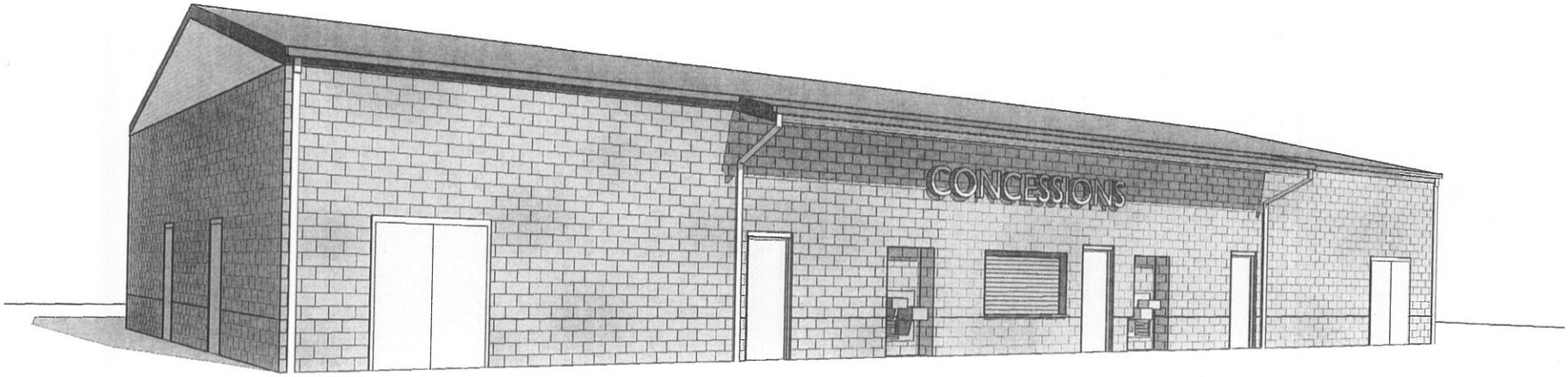
PENDER HIGH SCHOOL - ADDITIONS



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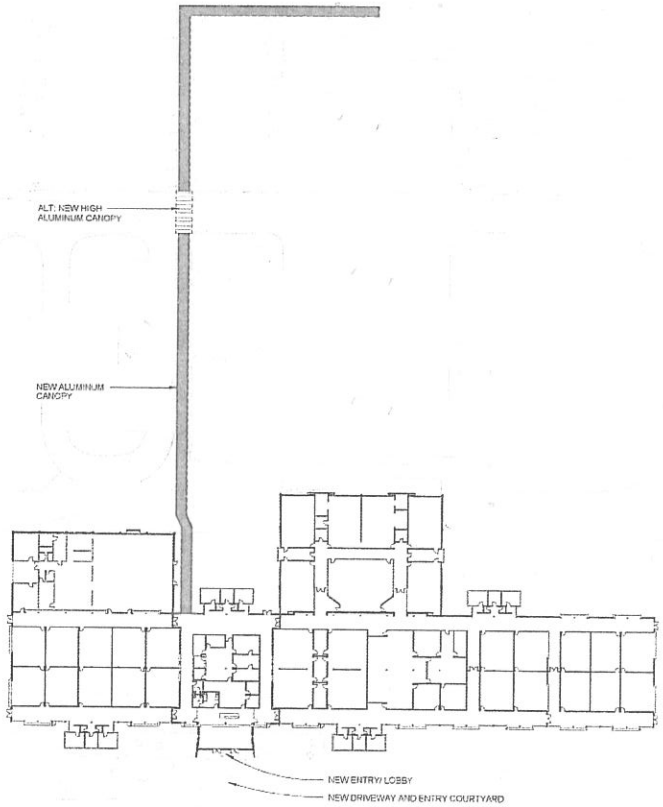

PENDER COUNTY SCHOOLS

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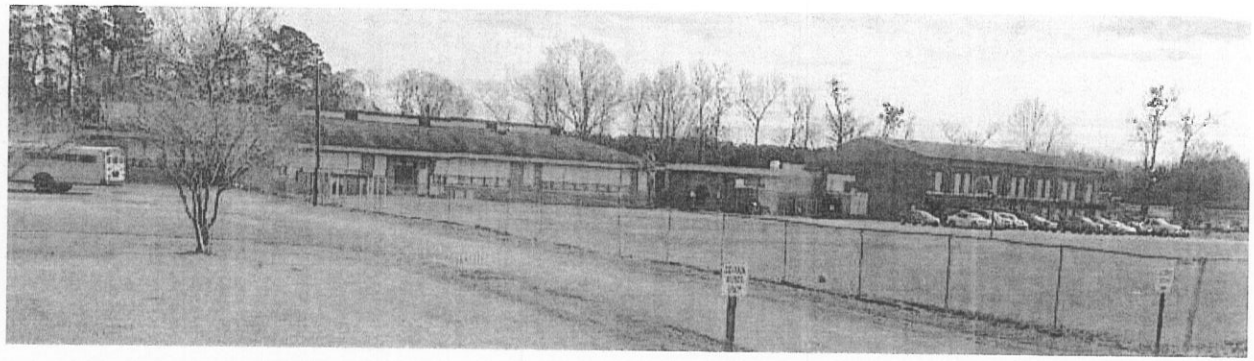
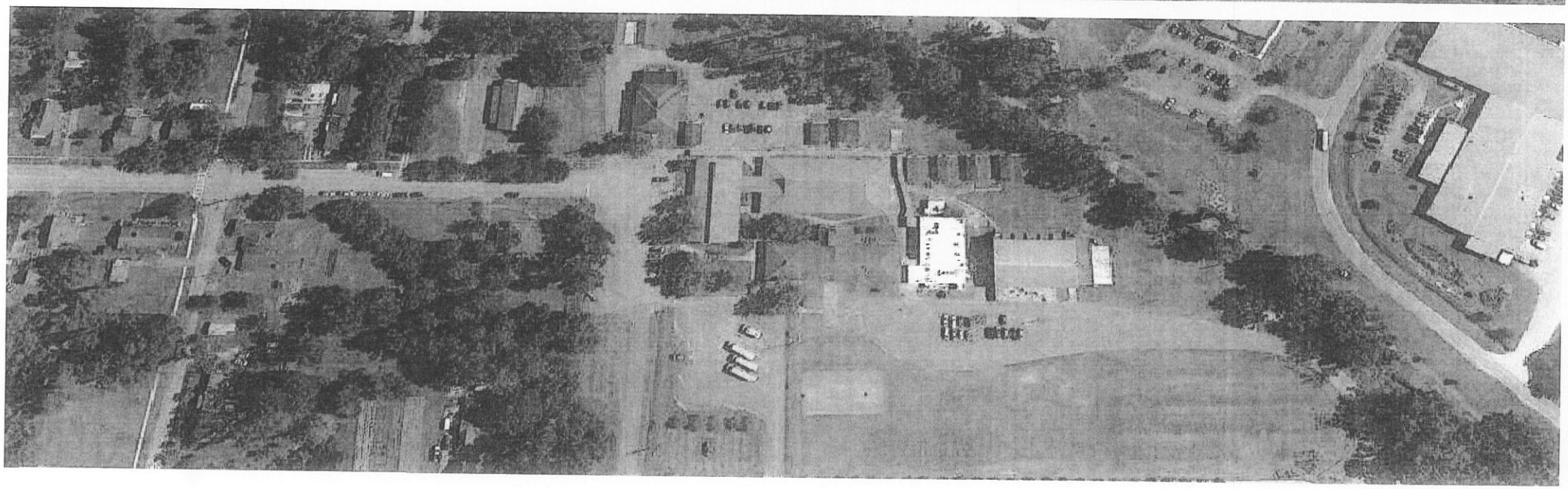
BURGAW MIDDLE SCHOOL - ADDITIONS

New Entrance

New Band & Science Building (10,000 SF)





PENDER COUNTY SCHOOLS

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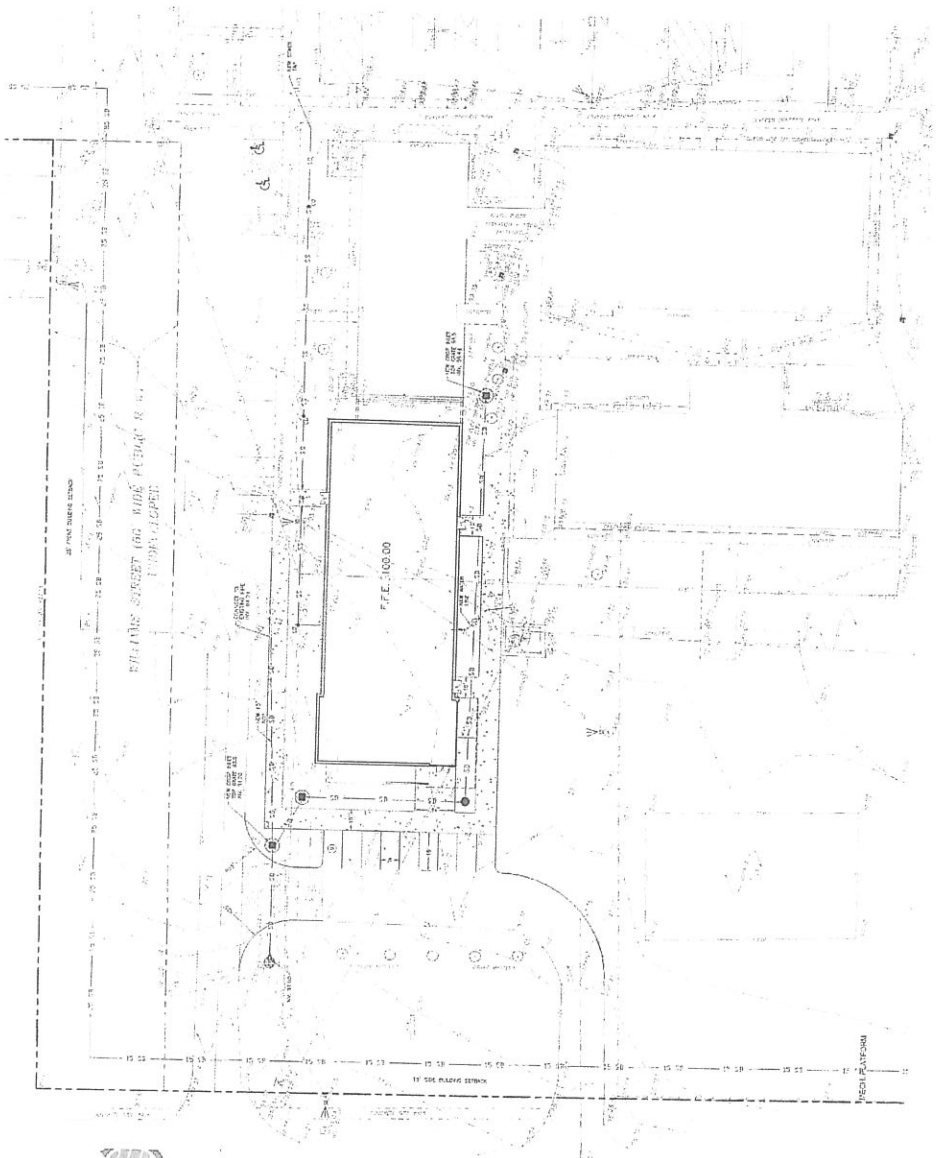
BURGAW MIDDLE SCHOOL - ADDITIONS

New classroom/admin building 10,504 GSF



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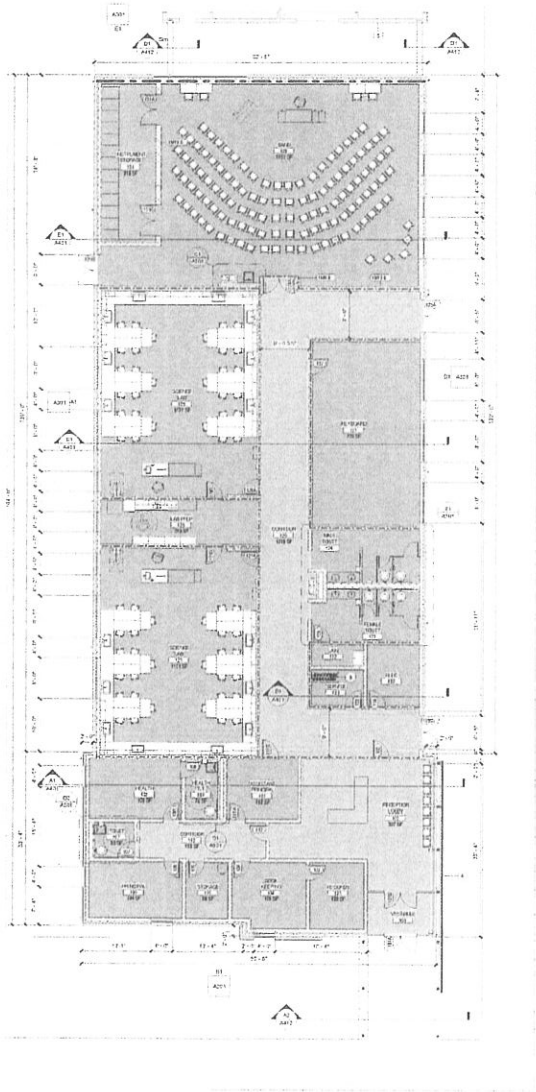
BURGAW MIDDLE SCHOOL - ADDITIONS



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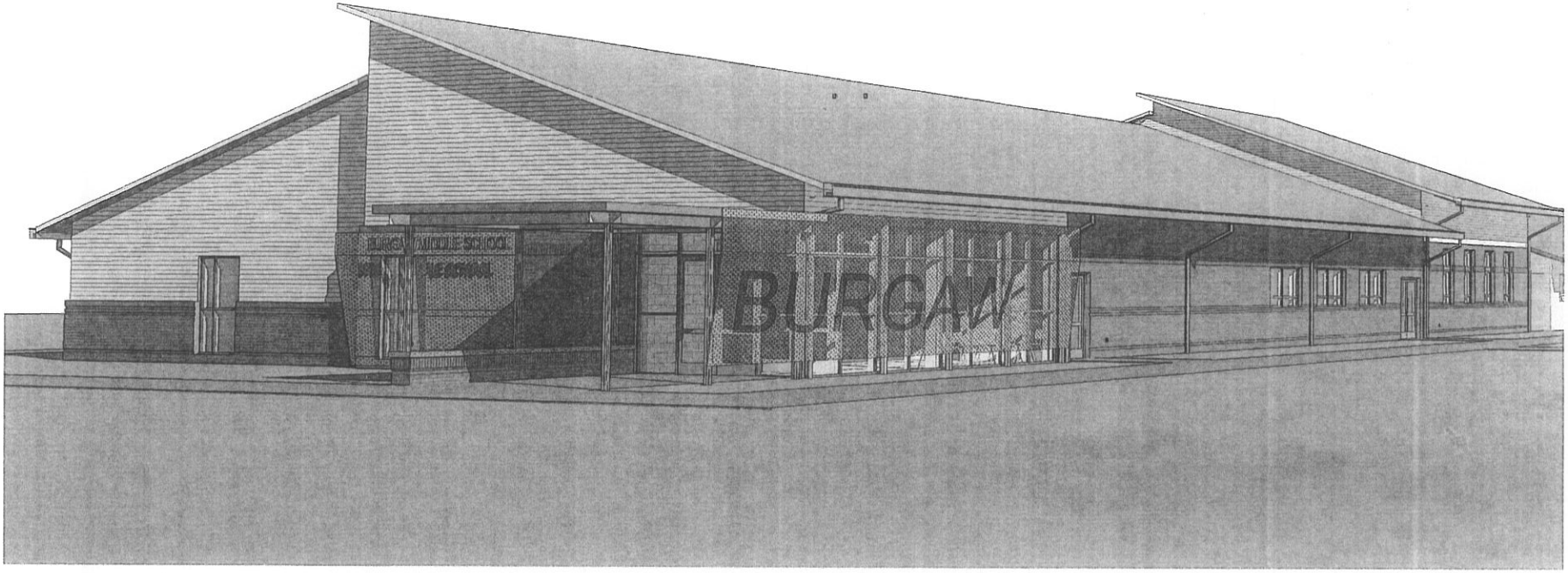

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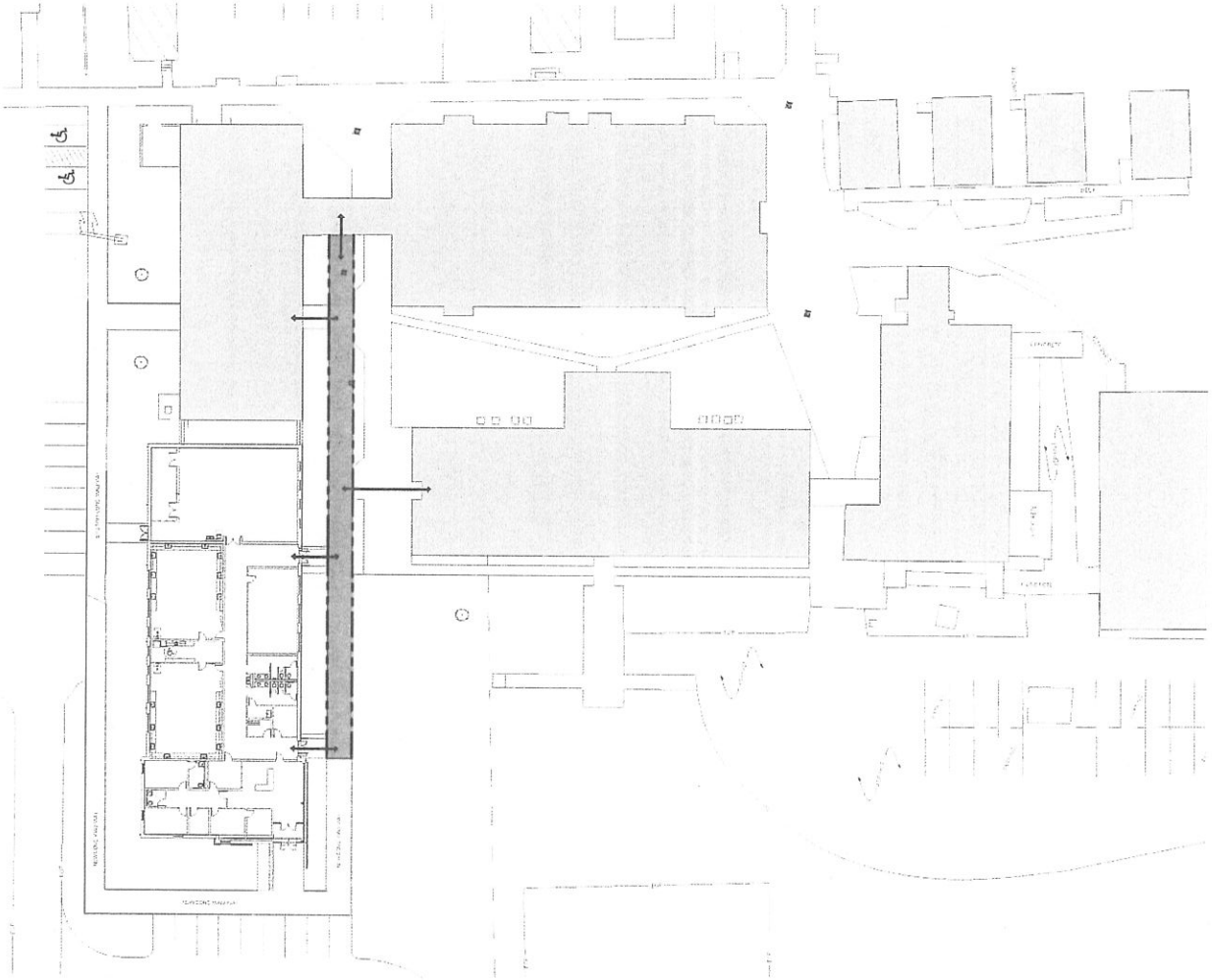
BURGAW MIDDLE SCHOOL - ADDITIONS



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PROJECT BUDGET

PENDER COUNTY SCHOOLS RENOVATIONS AND ADDITIONS PROJECTS

SCHOOL	PROJECT CONSTRUCTION BUDGET	SCHMEATIC DESIGN ESTIMATE	BUDGET STATUS
Cape Fear Elementary	$ 5,020,160.00	$ 5,893,516.00	$ (873,356.00)
West Pender Middle School	$ 2,277,000.00	$ 2,100,221.00	$ 176,779.00
Pender High School	$ 4,834,000.00	$ 4,141,407.00	$ 692,593.00
Burgaw Middle School	$ 2,500,000.00	$ 2,640,091.00	$ (140,091.00)
SD ESTIMATE STATUS	**$ 14,631,160.00**	**$ 14,775,235.00**	**$ (144,075.00)**

NOTE:	
Design Contingency 10%	$ 1,039,335.00
Construction Contingency 1.5%	$ 183,411.00
Escalation .05 % Per Month	$ 244,549.00

PENDER COUNTY SCHOOLS

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PROJECT PACKAGES

Package 1: Cape Fear Elementary / Middle School
West Pender Middle School

Package 2: Pender High School
Burgaw Middle School

PENDER COUNTY SCHOOLS

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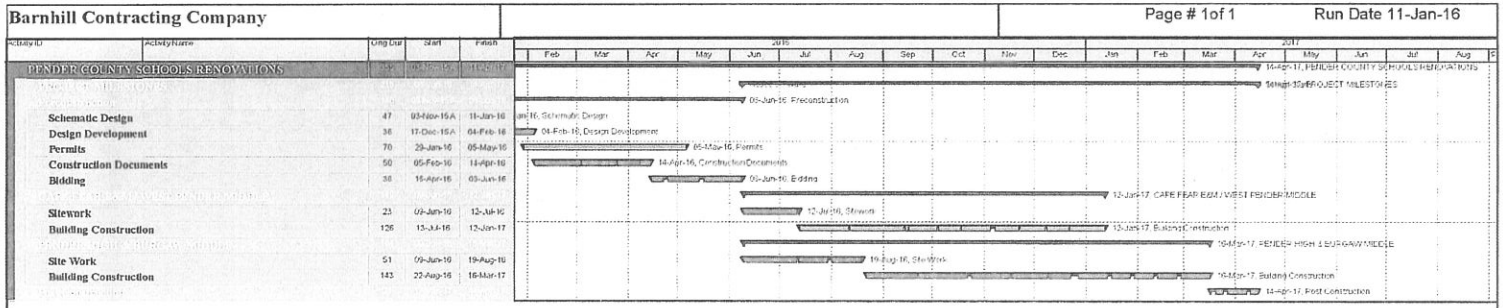
PROJECT SCHEDULE



Schematic Design	Nov 1, 2015
Design Development	Jan 15, 2016
Construction Documents	April 01, 2016
Bidding	April 15 – June 08
Receive bids	May 11, 2016

Remaining Level of Effort
Actual Level of Effort
Actual Work

PENDER COUNTY CLUSTER

PRECONSTRUCTION PROJECT SCHEDULE

BARNHILL CONTRACTING COMPANY

Date	Revision	Checked	Approved
11-Jan-16	Schedule ...		

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