### SARASOTA COUNTY SCHOOL BOARD ENGLEWOOD ELEMENTARY SCHOOL

150 N. McCall Road DEMOLITION OF BUILDING #6 CASTALDI REPORT



October 18, 2018

PREPARED BY

HARVARDJOLLY ARCHITECTURE 6000 Cattlemen Drive, Suite 204, Sarasota, Florida

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#### 3. APPENDIX

I. Maintenance Work Order Log for Building #6

### Goals and Objectives:

The goal of the Sarasota County School Board is to replace Classroom Building #6 on the campus of Englewood Elementary School in Englewood, Florida. Building #6 was an addition built in 1970 on the existing Campus of Englewood Elementary which was built in 1958. The goal is to replace the 48-year old building with the state of art educational facility. Building #6 is a one-story building of 11,277 sq. ft. with 108 existing student stations. The need for a new replacement classroom building are as follows:

The goals are the following:

- Create a building that will provide interstitial spaces above the ceiling that will allow for adequate hvac systems, fire protection, electrical service and communications.
- Provide new right sized ESE Resource rooms and teacher planning that meet SREF standards.
- Provide new right sized classrooms.
- Provide ADA restrooms and casework in classrooms.
- Flexible Meet future educational/technology advances
- Provide High-tech instructional classrooms with wireless networking.
- Provide a building that meets current FBC wind load requirements for structural, doors, and windows.
- Create a 21<sup>st</sup> Century educational learning environment.

### **Objective:**

The objective is to allow the demolition of building #6 to allow the construction of a new classroom building of 108 existing student stations. The findings of the facility condition assessment report have determined that the building has served its useful life. Issues such as building envelope deficiencies, accessibility, wind load deficiencies and failure to meet SREF educational space requirements will be corrected with a new facility.



### Office of Educational Facilities Florida Department of Education

### Room Condition Change Building Replacement/Raze

District/Community College		Contact Person <u>Mark Smith</u>
_S	arasota_County School Board.	Phone <u>941-361-6680</u>
Fa	cility/Campus Name <u>Englewood Elem.</u>	Facility Number (school districts only) 0010
Bu	ilding Number(s) <u>#6</u>	Parcel/Site Number(s) <u>0497-10-0001</u>
Th	is Proposed Project will:	
П	Change the condition of permanent rooms from	satisfactory to unsatisfactory (if yes go to
	Section I and complete certification in Section II	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
	Change the condition of permanent rooms from Section I and complete certification in Section III	unsatisfactory to satisfactory (if yes, go to
	Raze permanent building(s) (if yes, go to Section	
	1 00, 01, 00	1 /
Ľ¥	Replace permanent building(s) (if yes, go to Section	
	Major Capital Outlay Funding Source(s) – Origin	al Building Local Millage
	Major Capital Outlay Funding Source(s) – Replace	ement Building Local Millage
	This form is not required for razing a single, freestanding s	
	multiple small structures on a single campus whose total an	
	must be completed for any structure 750 NSF or greater a	5 5

### A. DISTRICT/COMMUNITY COLLEGE CERTIFICATION

The district/community college must submit this certification document, completed and signed by the appropriate school officials, along with all required or necessary supporting documentation pertaining to the proposed project.

The Sarasota County School Board hereby certifies that:

- I. CONDITION CHANGE: (Not applicable to community colleges)
- II. RAZE/REPLACE PERMANENT BUILDING(S):
  - 1. All fund sources have been researched and no current indebtedness or outstanding debt exists for the building(s) that will be razed and/or replaced.
  - 2. Funding Source(s):
    - a. Original Building: Local Millage
    - b. If replaced:----- Local Millage

- Voters of the district have approved local bonding for the project: Yes/No

   Date of voter approval: N/A
- 4. Imminent danger exists for the building(s) that will be razed and/or replaced.

### III. CERTIFICATION SIGNATURES:

Director of Facilities Planning	
Kathie Ebaugh-Wilson	

Date

Superintendent/President Dr. Todd Bowden Date

Board Chair Mrs. Bridget Ziegler Date

NOTE: Certification is required by the Superintendent and Director of Facilities Planning for room condition changes. Certification is required by the Superintendent/President and Board Chair to raze or replace permanent buildings.

Submit signed form and supporting documents to: Office of Educational Facilities, Room 1054 Florida Department of Education 325 West Gaines Street Tallahassee, Florida 32399-0400

### **Procedures and Processes Instructions:**

- B. CONDITION CHANGE (Not applicable to community colleges)
  - 1. RATIONALE (provide the following information, as appropriate, to justify changing the condition of spaces):
    - i. In order to change the space condition from satisfactory to unsatisfactory the district must certify that the space is no longer physically safe or suitable for occupancy:
      - 1. Unsatisfactory space is typically designated as such due to compromising effects on the structural integrity, safety, or excessive physical deterioration of a building.
      - 2. Typically, space condition should be the same, either satisfactory or unsatisfactory, for all rooms in a permanent building.
      - 3. Space that has been determined to be unsatisfactory should not be occupied.
      - 4. Application of a facility replacement formula, such as the Castaldi generalized formula for modernization or other similar facilities study, does not necessarily mean that the condition of the identified spaces is unsatisfactory. The condition code cannot be changed simply due to the results of a planned replacement unless the integrity of the space meets the criteria identified to classify the space as unsatisfactory.
    - ii. In order to change the space condition from unsatisfactory to satisfactory the district must certify that the space has been successfully reconditioned to meet all applicable regulations regarding occupancy requirements.
  - 2. OEF Review:
    - i. Site visit by OEF staff, when necessary.
    - ii. Concur with district rationale, data, and analyses:
      - 1. Building(s) approved as unsatisfactory; OEF will make the room condition code changes in FISH.
      - 2. Building(s) approved as satisfactory; OEF will make the room condition code changes in FISH.
    - iii. Disagree with district rationale, data, and analyses:
      - 1. Building(s) not approved as unsatisfactory.
      - 2. Building(s) not approved as satisfactory.
  - 3. OEF Notify District of Findings and Decision:
    - i. OEF staff will analyze the district's data along with all supporting documentation, coordinate any further reviews with the district, make a final decision regarding the proposed room condition changes, and provide a timely response either approving or disapproving the proposed room condition changes.

### C. RAZE/REPLACE PERMANENT BUILDING(S)

- 1. RATIONALE (provide the following information, as appropriate, to justify razing/replacing permanent buildings):
  - i. Detailed explanation of need for the proposed project and the expected benefit to the district/community college.
  - ii. General scope of the proposed project.
  - iii. Building age and year of construction.
  - iv. Existing capacity of building(s), include the number of student stations, classrooms, and other instructional spaces.
  - v. Current number of students housed and the projected number of students to be housed in the affected building(s).
  - vi. Current educational plant survey recommendations and capacity.
- vii. What alternatives have been considered besides razing/replacement and why are the alternatives not feasible?
- viii. School board/community college board approval of the concept of razing/replacing permanent buildings.
- ix. Building condition/engineer study (optional).
- x. Impact if the proposed project is not approved.

### OEF Form RCC-BRR – March 2008

xi. Other relevant data; identify any major systems (include date, if applicable) that have been replaced or upgraded, e.g., electrical, HVAC, fire alarm, roof, plumbing, drainage, etc. Provide a general scope of work for any previous remodeling, renovation, and addition, and year completed.

### 2. COST ANALYSIS (Building by Building):

- i. Castaldi Analysis (or other cost analysis formula to support the proposed project).
- ii. The following five questions must be addressed:
  - 1. How many years will modernization extend the useful life of the modernized building(s)?
  - 2. Does the existing building(s) lend itself to improvement, alteration, remodeling, and expansion? If no, explain why not.
  - 3. Explain how a modernized and a replacement building(s) fits into a well-conceived long-range plan of the district/community college?
  - 4. What is the percentage derived by dividing the cost for modernization by the cost for a replacement building?
  - 5. A committee of district officials and independent citizens from outside the school attendance zone has determined that the replacement of the building(s) is financially justified and no other alternative is feasible? (Not applicable to community colleges)
- iii. Detailed scope of work for modernization of the existing building(s).
- iv. FISH building plan and/or schematic drawings of the existing building with FISH room numbers.

### 3. OEF Review:

- i. Site visit by OEF staff, when necessary.
- ii. Educational adequacy review.
- iii. Concur with district/community college rationale, data, and analyses:
  - 2. Recommend replacement of building(s).
  - 3. Recommend razing building(s).
- iv. Disagree with district/community college rationale, data, and analyses:
  - 4. Building(s) not approved to be replaced.
  - 5. Building(s) not approved to be razed.
- 4. OEF Notify District/Community College of Findings and Decision:
  - i. OEF staff will analyze the district's/community college's data along with all supporting documentation, coordinate any further reviews with the district, make a final decision regarding the disposition of the proposed project, and provide a timely response either approving or disapproving the proposed request.

### RATIONALE

### i. NEED FOR REPLACEMENT BUILDING #6

### Existing Classroom Building #6 Issues:

### Architectural / Structural:

The existing classroom Building #6 was built in 1970 and is 48-years old. The building and the systems are outdated and cannot be corrected with remodeling and renovation.

With only an 6" interstitial space between ceiling and roof structure, ductwork, fire protection, electrical and communication systems cannot be installed without limitations. Many building systems over the years have been installed on the surface of walls or on the exterior walls of the building because of lack of interstitial space above the ceiling.

Existing Building does not meet ADA Accessibility standards for restrooms, counters, sinks in classrooms.

Existing Building does meet SREF standards for egress from classrooms with exterior exiting. However, the main corridor egress is disrupted by a teacher planning room that exiting passes through.

Existing building door hardware does not meet current security or ADA requirements.

The building structure being built in 1970 does not meet current FBC for wind-loading for walls and roofs. Renovations of building will not update structural to current FBC wind loads. Current windows and exterior doors do not meet current wind loads..

#### MEP Systems:

The existing HVAC system is Bard units which are mounted to outside walls. There are no mechanical rooms in which to install a new indoor hvac system.

Existing building does not meet current FBC Energy Codes.

Plumbing sanitary system is old and experiences backups. See enclosed work orders.

### Existing Building #6 Educational Program Issues:

Existing classrooms, resource rooms, teacher planning, material storage and ESE programs need to be right-sized and meet square footage per student station as recommended by SREF.

### Benefits of a new Classroom Building:

A new classroom building will provide the Englewood Elementary School with a new 21<sup>st</sup> century, state of art educational facility. Classrooms and teaching support spaces as required by SREF will be met and within recommended square footage requirements.

### ii General Scope of Project

Englewood Elementary School is located at 150 N. McCall Road, Englewood, Florida on 24.39 acres. The original Elementary School was built in 1958. Building #6 was built in 1970 with 11,227 square feet and 108 student stations. The total student stations of Englewood Elementary School are 644 and will not be increased with the replacement of the existing building #6.

The scope of the project is to build a new classroom building of about 13,000 square feet. The new classroom building will allow a fully integrated learning environment for all spaces for a 21<sup>st</sup> Century educational facility.

The New Classroom Building will include the following:

- Six (6) High-tech instructional classroom of 18 student stations each.
- One (1) Resource Classroom
- ESE Resource rooms
- Teacher Planning rooms
- Itinerant Office
- Material storage rooms
- Individual toilets and group restrooms
- Interior mechanical and electrical rooms
- Custodial spaces
- Wireless networking throughout.

The existing classroom building #6 is too small and is not adaptable for expansion to meet the current needs. The existing building's limitations of height, interstitial space above the ceiling, and structural design, limits the ability to meet the building systems of a 21<sup>st</sup> classroom building. The lack of interstitial space above the ceiling because of a low structural system, prevents the installation of new technology, proper distribution of the hvac system, and electrical systems being installed.

The last major renovation of Building #6 was 1985. The lighting system and controls were replaced in 2001.

Building #6 floor plan is outdated, does not meet SREF required square footage for educational spaces, does not comply with all ADA requirements for accessibility. The MEP systems are past their life expectancy and need to be replaced.

### iii. BUILDING AGE AND YEAR OF CONSTRUCTION

Englewood Elementary School is located in Englewood, Florida at 150 N. McCall Road on 24.39 acres. The original school was built in 1959 and Building #6 was built as an addition in 1970. The building originally was built with 2 science rooms, 6 classrooms, 1 resource room, 1 teaching planning, 1 conference room, boys and girls group toilets and teacher's restrooms.

Building #6 – The building was last remodeled in 1985. The building has 11,277 gross square feet with 108 student stations.

### Building Six (#6) Currently consists of the following:

- 001 Textbook Storage 291 sf.
- 002 Resource Classroom 1071 sf.
- 002C Material Storage 187 sf.
- 003 Primary Classroom 880 sf.
- 004 Primary Classroom 1037 sf.
- 004A Material Storage 61 sf.
- 004B Student Toilet 19 sf.
- 005 Itinerant Office 257 sf.
- 005B Teach Planning 114 sf.
- 005C Women Staff Toilet 38 sf.
- 005D Men Staff Toilet 39 sf.
- 005E Boys Group Toilets 191 sf.
- 005F Girls Group Toilets 159 sf.
- 006 Primary Classroom 846 sf.
- 006A Student Toilet 20 sf.
- 006B Vestibule 26 sf.
- 007 Primary Classroom 851 sf.
- 007A Student Toilet 25 sf.
- 007B Vestibule 19 sf.
- 008 Primary Classroom -960 sf.
- 008A Student Toilet 25 sf.
- 008B Vestibule 20 sf.
- 009 Primary Classroom 960 sf.
- 009A Student Toilet 25 sf.
- 009B Vestibule 20 sf.

SARASOTA COUNTY SCHOOL BOARD ENGLEWOOD ELEMENTARY SCHOOL BUILDING #6 150 N. McCall Road Demolition of Building #6 Castaldi Report HARVARD • JOLLY 1938 ARCHITECTURE 2018

- 010 Material Storage 82 sf.
- 011 ESE Resource Room 351 sf.
- 012 Teacher Planning 309 sf.
- 015 Resource Room 351 sf.
- 016 Material Storage 81 sf.
- 017 Corridor 802 sf.
- 017D Corridor 125 sf.
- 017L Corridor 145 sf.
- 018 Custodial Equipment 27 sf.
- 019 Custodial 67 sf.

•

### iv. Building Six (6) Student Stations and Capacity

Room Number	Description of Space	Year Built 1970	Last Remodeled 1987	Square Footage	Student Stations	
001	Textbook Storage			291		
002	Resource Classroom			1071		
002C	Material Storage			187		
003	Primary Classroom			880	18	
004	Primary Classroom			1037	18	
004A	Material Storage			61		
004B	Student Toilet			19		
005	Itinerant Office			257		
005B	Teacher Planning			114		
005C	Women Staff Toilet			38		
005D	Men Staff Toilet			39		
005E	Boys Group Toilet			191		
005F	Girls Group Toilet			159		
006	Primary Classroom			846	18	
006A	Student Toilet			25		
006B	Vestibule			20		
007	Primary Classroom			851	18	
007A	Student Toilet			25		
007B	Vestibule			19		
008	Primary Classroom			960	18	
008A	Student Toilet			25		
008B	Vestibule			20		
009	Primary Classroom			960	18	
009A	Student Toilet			25		
009B	Vestibule			20		
010	Materials Storage			82		
011	ESE Resource Room			351		
012	Teacher Planning			309		
015	Resource Room			351		
016	Material Storage			81		
017	Corridor			802		
017D	Corridor			125		
017L	Corridor			145	T	
018	Custodial Equipment			27	T	
019	Custodial			67	T	
	Walls			747	T	
	TOTAL STUDENT			1	108	
	TOTAL NET SQ. FT.			10,480	T	

### v. Current Student Stations and Projected Student Stations

The Englewood Elementary School current student stations is 644 FISH.

There is no projected growth for 2018, the student stations will remain constant.



### vi. Current Educational Plant Survey Recommendations and Capacity

See Enclosed Educational Plant Five Year Survey Report

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### EDUCATIONAL PLANT FIVE YEAR SURVEY REPORT

**District:** Survey: Survey Status: SARASOTA COUNTY SCHOOL DISTRICT Number 4 - Version 1 Active Approved



### EDUCATIONAL PLANT FIVE YEAR SURVEY REPORT

District:	Survey:	Status:
58-SARASOTA COUNTY SCHOOL DISTRICT	Survey: 4 - Version: 1	Active Approved

### District Name: SARASOTA COUNTY SCHOOL DISTRICT

Survey: Number 4 - Version 1

Facility Name: ENGLEWOOD ELEMENTARY

Address:

### 150 N MCCALL ROAD, ENGLEWOOD

	Existing	Recommended
Capital Outlay Classification	1 - SCHOOL RECOMMENDED FOR CONTINUED USE	1 - SCHOOL RECOMMENDED FOR CONTINUED USE
Facility Use	ELEMENTARY	ELEMENTARY
Low Grade	PRE-KESE	PRE-K E S E
High Grade	GRADE 5	GRADE 5
Comments		<i>N</i>

	Existing	Student Stations Added/Reduced(+ or -)	Recommended
Perm. Stations	644	-18	626
Reloc. Stations	54	0	54
Mod. Stations	0	0	0
Total Stations	698	-18	680
Utilization Factor	100%		100%
School Capacity	698		680
COFTE Student Membership	529		545
Survey Annotation			

			Estimated Total Project Cost		\$894	4,830
\$0	\$0	\$0	\$0	\$894,830	\$0	\$0
New Site Cost	Site Expansion	Site Development	Site Improvement	Remodeling Cost	Renovation Cost	New Construction Cost

### EDUCATIONAL PLANT FIVE YEAR SURVEY REPORT

#### **District:**

Survey:

Status:

SARASOTA COUNTY SCHOOL DISTRICT

Survey: 4 - Version: 1

Active Approved

ENGLEWOOD ELEMENTARY	Parcel	Building	Description	Total NSF	Change In Station Count	Calculated Cost	Cost Per NSF	Cost Per Station
Remodeling 2017	15	6	Removed NSF (10405), Added NSF (9884), Difference NSF (521), Percent (5.01%), Removed Stations (108), Added Stations (90) Remodeling: Adding 5 units of PRIMARY CLASSROOM (K-3) (882 NSF), 2 units of PRIMARY SKILLS LAB (K-3) (882 NSF), 1 unit of RESOURCE ROOM (290 NSF), 1 unit of E S E RESOURCE (380 NSF), 1 unit of TEACHER PLANNING OFFICE (250 NSF), 1 unit of TEXTBOOK STORAGE (300 NSF), 2 units of INSIDE CIRCULATION (400 NSF), 5 units of MATERIAL STORAGE (100 NSF), 2 units of MATERIAL STORAGE (100 NSF), 1 unit of MATERIAL STORAGE (100 NSF), 1 unit of MATERIAL STORAGE (100 NSF), 5 units of OUTSIDE STORAGE (50 NSF), 2 units of STUDENT STORAGE (40 NSF), 1 unit of STUDENT STORAGE (40 NSF), 5 units of OUTSIDE STORAGE (50 NSF), 2 units of STUDENT STORAGE (40 NSF), 1 unit of STUDENT STORAGE (40 NSF), 5 units of STUDENT RESTROOM (BOTH SEXES) (60 NSF), 2 units of STUDENT RESTROOM (BOTH SEXES) (60 NSF) and Removing Room 001 (291 NSF), Room 002 (1071 NSF), Room 004A (61 NSF), Room 003 (805 NSF), Room 004 (1037 NSF), Room 005B (114 NSF), Room 005C (38 NSF), Room 005 (257 NSF), Room 005B (114 NSF), Room 005C (38 NSF), Room 005 (39 NSF), Room 005A (25 NSF), Room 005B (20 NSF), Room 006 (846 NSF), Room 005A (25 NSF), Room 007B (19 NSF), Room 008 (960 NSF), Room 007A (25 NSF), Room 008B (20 NSF), Room 007 (851 NSF), Room 007A (25 NSF), Room 007B (19 NSF), Room 007 (851 NSF), Room 007A (25 NSF), Room 007B (19 NSF), Room 007 (851 NSF), Room 007A (25 NSF), Room 007B (20 NSF), Room 017D (125 NSF), Room 011 (351 NSF), Room 017 (802 NSF), Room 017D (125 NSF), Room 011 (351 NSF), Room 017 (802 NSF), Room 017D (125 NSF), Room 011 (351 NSF), Room 017 (802 NSF), Room 017D (125 NSF), Room 011 (351 NSF), Room 017 (802 NSF), Room 017D (125 NSF), Room 011 (351 NSF), Room 012 (309 NSF), Room 017D (125 NSF), Room 011 (351 NSF), Room 012 (309 NSF), Room 015 (351 NSF), Room 011 (351 NSF), Room 012 (309 NSF), Room 016 (81 NSF), Room 017 (802 NSF), Room 017D (125 NSF), Room 011 (351 NSF), Room 012 (309 NSF), Room 015	-10,405	-18	\$894,830	\$86	\$0

### vii. ALTERNATE STUDIES

School Board of Sarasota County has reviewed three different options for Classroom Building #6. The three options are as follows:

### **OPTION ONE: REMODEL/RENOVATION OF EXISTING CLASSROOM BUILDING #6.**

The existing classroom building is a single-story building with 11,227 sq.ft. The building gross square footage will not increase.

The main advantages of remodeling the existing building is the lower cost of construction.

- 1. Meets ADA requirements.
- 2. Meets current FBC energy codes.
- 3. Provides new mechanical, electrical, and plumbing systems.

The disadvantages of remodeling the existing classroom building are the following:

- 1. The existing building does not have the existing floor to floor height for the hvac ductwork and building systems required.
- 2. The renovation does not provide SREF educational spaces required or the square footage or required by SREF. The remodeled building will be about 2,000 s.f. short of SREF space requirements.
- 3. HVAC equipment rooms will be installed on the outside of the building as currently because of lack of interior mechanical spaces.
- 4. Renovation of interior space does not correct deficiencies of FBC wind load requirements for roof and walls.

### OPTION TWO: REMODEL THE CLASSROOM BUILDING #6 AND ADDITION OF A NEW ADDITION.

The existing classroom building is a single-story building with 11,227 sq.ft. A new addition of 1,500 square feet is added to the existing building.

The main advantages of remodeling and building an addition to the existing classroom building is the lower cost of construction versus a new building.

1. Meets ADA requirements.

6.0

- 2. Meets SREF educational space requirements.
- 3. Meets current FBC energy codes.

The disadvantages of remodeling classroom building #6 and building an addition are the following:

- 1. The existing building does not have the existing floor to floor height for the Hvac ductwork and building systems required.
- 2. If HVAC equipment rooms are created inside to eliminate outdoor hvac units installed on exterior walls, the ceiling is still too low to provide ductwork except soffits along outside walls.

### OPTION THREE: DEMOLISH BUILDING #6 AND BUILD A CLASSROOM BUILDING

The existing classroom building #6 is a single-story building with 11,277 sq.ft. The new classroom building will be a single-story building of 13,691.

The main advantages of a new classroom building are the following:

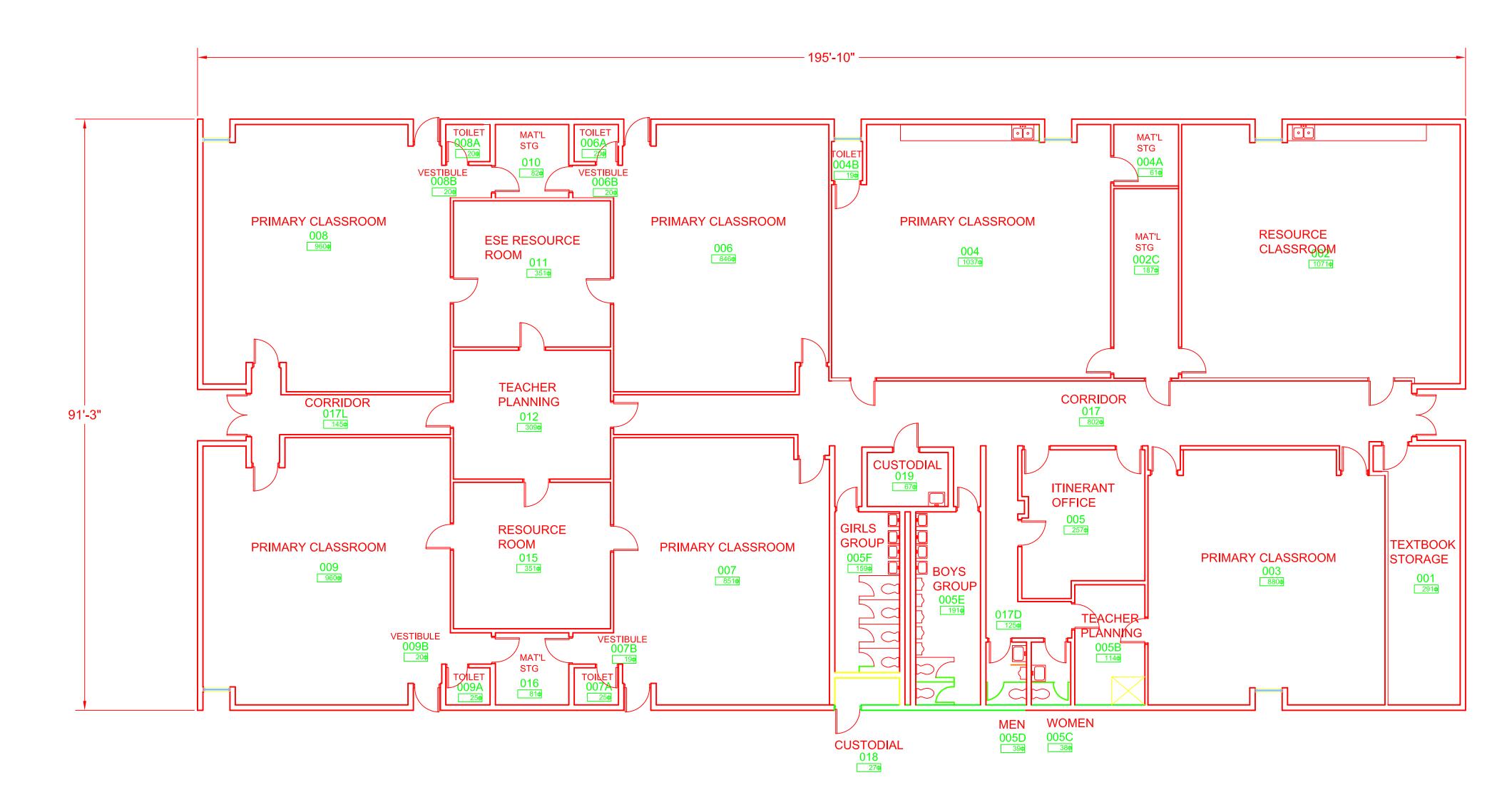
- 1. The new building will have the floor to floor heights required for the hvac, electrical and technology systems to be installed above the ceiling.
- 2. The floor plan will meet SREF educational space requirements and square footages for each space.

Provides 2,414 additional sq. ft.

- 3. The classroom building will meet all ADA requirements.
- 4. The new building will meet the 2017 FBC wind load requirements.
- 5. The new classroom will meet the 21<sup>st</sup> Century educational standards.
- 6. Longer life span of 65 years for new construction versus 25 years for renovations.
- 7. Meet current FBC energy codes.
- 8. Provide better indoor air quality and control with interior hvac system.

The disadvantages of building a classroom building #6 are the following:

1. Initial first cost of construction.





## BUILDING SIX EXISTING FLOOR PLAN

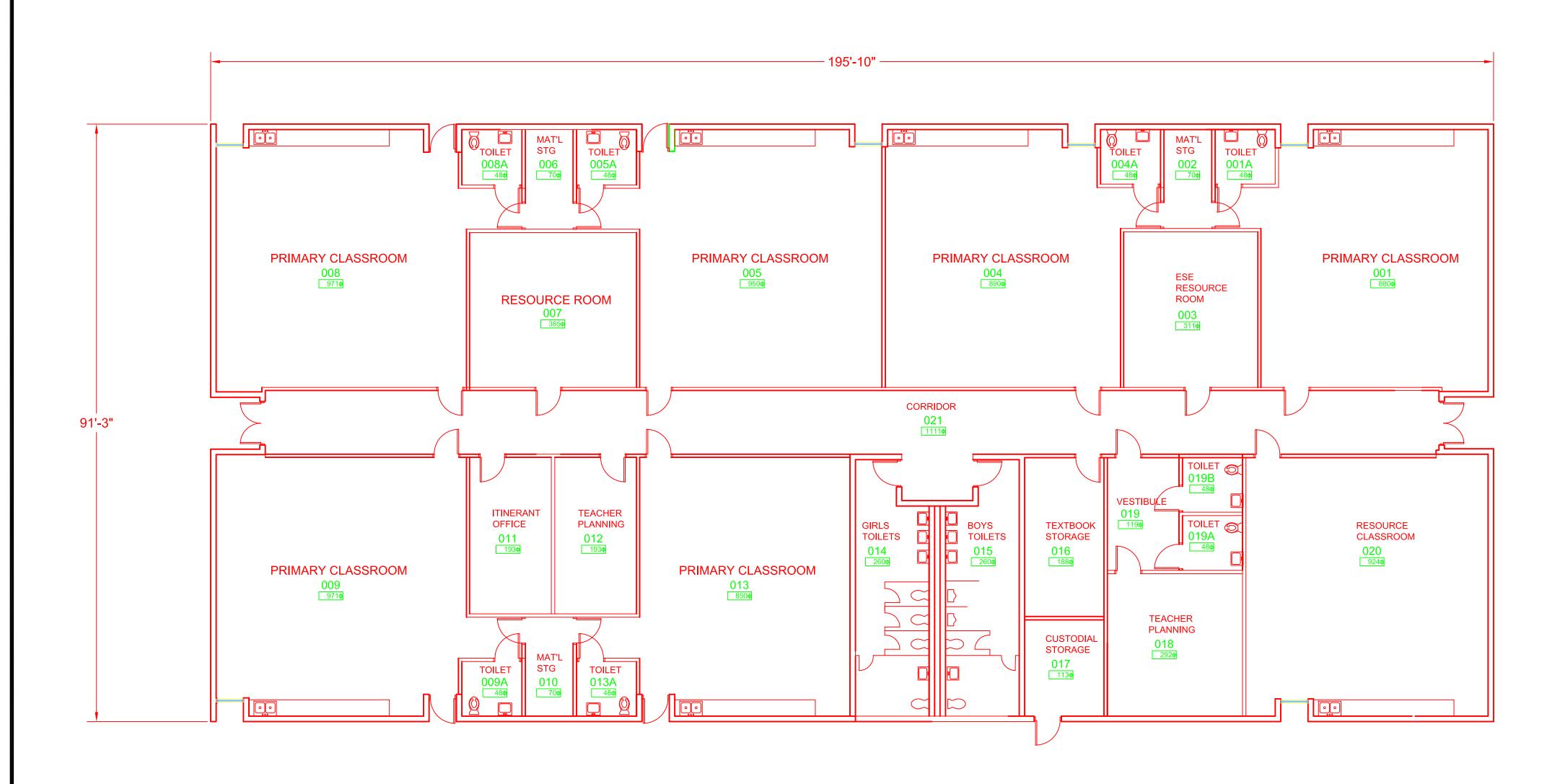
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ROOM

#### SQUARESTUDENTSREFFOOTAGESTATIONSSQ.FT. ROOM DIFF. NAME MARY CLASSROOM 880 SF 18 882 SF -2 SF PRIMARY CLASSROOM 1037 SF 18 882 SF +155 SI PRIMARY CLASSROOM 846 SF 18 882 SF -36 SF PRIMARY CLASSROOM 851 SF 18 882 SF +31 SF PRIMARY CLASSROOM 960 SF 18 882 SF +78 SF PRIMARY CLASSROOM 960 SF 18 +78 SF 882 SF 5,534 SF 108 TOTAL 5,292 SF +242 SF AND BOOK STORAGE TEXTBOOK STORAGE 291 SF 756 SF -465 SF MAT'L STORAGE 187 SF 7 MAT'L MAT'L STORAGE 61 SF STG @ MAT'L STORAGE 82 SF 100 SF MAT'L STORAGE =700 SF 81 SF TOTAL 702 SF 1,456 SF -754 SF AND STAFF TOILETS 7 HC STUDENT TOILET 19 SF TOILETS 38 SF STAFF TOILET @48 SF =336 SF STAFF TOILET 39 SF BOYS GROUP TOILET 191 SF 191 SF **GIRLS GROUP TOILET** 159 SF 159 SF STUDENT TOILET 20 SF STUDENT TOILET 20 SF 20 SF STUDENT TOILET STUDENT TOILET 20 SF TOTAL 526 SF 686 SF -168 SF E ROOMS RESOURCE 1071 SF 882 SF +189 SI ESASBRSOUVRCE ROOM 351 SF 290 SF +61 SF 475 SF RESOURCE ROOM 351 SF -124 SF 1,647 SF +126 SF TOTAL 1,773 SF SUPPORT ITINERANT OFFICE 257 SF 200 SF +50 SF 114 SF TEACHER PLANNING 250 SF -136 SI 309 SF TEACHER PLANNING 250 SF +59 SF TOTAL 680 SF -20 SF 700 SF CUSTODIAL 18 SF EQUIPMENT 67 SF BUILDING 9,228 SF ON CORRIDOR 802 SF CORRIDOR 125 SF 145 SF CORRIDOR 20 SF VESTIBULE 20 SF VESTIBULE 20 SF VESTIBULE 20 SF VESTIBULE 847 SF TOTAL 1,999 SF LDING SF 11,227 SF 9,228 SF X 27% = 2,507 SF GREATER THAN 1,999 SF BUILDING

### THE SCHOOL BOARD OF SARASOTA COUNTY CONSTRUCTION SERVICES DEPARTMENT phone (941) 361-6680 fax (941) 361-6684 DRAWN BY: DMC 8-29-2018 DATE DRAWN: CHK'D BY: BUILDING NO: BUILDING\_NO.#6 FLOOR NO: S.C.S.B. PROJ. NO: SBSC\_PROJ\_# ARCH/ENG. PROJ. NO: ARCH\_PROJ\_# PROJECT PHASE: CONCEPTUAL PHASE SCHEMATIC PHASE DESIGN DEV. PHASE ISSUED FOR BID ISSUED FOR CONST. ISSUED FOR REV. RECORD DRAWINGS PROJECT\_PHASE: PROJECT\_PHASE ARCHITECT/ENGINEER FIRM INFO: HARVARD • JOLLY ARCHITECTURE • INTERIOR DESIGN • LANDSCAPE ARCHITECTURE DESIGN OFFICE 323 Central Ave. Sarasota, FL 34236 941-954-7639 www.HarvardJolly.com AAC000119 ARCHITECT/ENGINEER/DESIGN PROF. OF RECORD: KEY PLAN: PROJECT INFORMATION: ENGLEWOOD ELEMENTARY SCHOOL 150 N. McCALL ROAD ENGLEWOOD, FLORIDA SHEET DESCRIPTION: **EXISTING FLOOR** PLAN DATE PRINTED: PLOT DATE CAD DWG FILE: CAD\_FILE\_NAME SHEET: OREET\_TTL\_# **EXISTING PLAN** Page 16

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11,227 GROSS SQUARE FEET

## BUILDING SIX: RENOVATED FLOOR PLAN

ROOM #	ROOM NAME	SQUARE FOOTAGE	STUDENT STATIONS	SREF SQ.FT.	DIFF
		TOOMOL	onniono	00.111	
PRIMARY					
	OMRIMARY CLASSROOM	880 SF	18	882 SF	-2 S
004	PRIMARY CLASSROOM	890 SF	18	882 SF	+8 S
005	PRIMARY CLASSROOM	950 SF	18	882 SF	+68
800	PRIMARY CLASSROOM	971 SF	18	882 SF	+89
009	PRIMARY CLASSROOM	971 SF	18	882 SF	+89
013	PRIMARY CLASSROOM	850 SF	18	882 SF	-32
	TOTAL	5,512 SF	108	5,292 SF	-220
MATERIA	L AND BOOK STORAGE			7 MAT'L	
002	MAT'L STORAGE	70 SF		STG @	
006	MAT'L STORAGE	70 SF		100 SF	
010	MAT'L STORAGE	70 SF		=700 SF	
016	TEXTBOOK STORAGE	188 SF		750 SF	
010	TOTAL	398 SF		1,450 SF	-1,052
				-,	- ,
	AND STAFF TOILETS	40.05			
001A	STUDENT TOILET	48 SF		8 HC	
004A	STUDENT TOILET	48 SF		TOILETS	
005A	STUDENT TOILET	48 SF		@48 SF	
A800	STUDENT TOILET	48 SF		=384 SF	
009A	STUDENT TOILET	48 SF			
013A	STUDENT TOILET	48 SF			
014	GIRLS GROUP TOILET	260 SF		260 SF	
015	BOYS GROUP TOILET	260 SF		260 SF	
019A	STAFF TOILET	48 SF			
019B	STAFF TOILET	48 SF			
	TOTAL	904 SF		904 SF	+0 SF
RESOUR	CE ROOMS				
020	RESOURCE	924 SF		882 SF	+42 S
003	ESASBREXXIVRCE ROOM	311 SF		290 SF	+21 S
007	RESOURCE ROOM	385 SF		475 SF	-90 S
007	TOTAL	1,620 SF		1,647 SF	-27 S
		.,		.,	
TEACHEF	SUPPORT				
<b>6</b> PACES	ITINERANT OFFICE	193 SF		200 SF	-7 S
012	TEACHER PLANNING	193 SF		250 SF	-57 \$
018	TEACHER PLANNING	292 SF		250 SF	+42
	TOTAL	678 SF		700 SF	-22
017	CUSTODIAL	113 SF			
017					
	AL BUILDING	9,225 SF			
SF					
CIRCULA		440.05			
019	VESTIBULE	119 SF			
021	CORRIDOR	1,111 SF			
WALLS	TOTAL	772 SF			
	TOTAL	1,230 SF			
TOTAL BU	JILDING SF	11,227 SF			
	SF BUILDING 9,225 SF				
			90 SF GREA		

THE SCHOOL BOARD OF SARASOTA COUNTY

CONSTRUCTION SERVICES DEPARTMENT phone (941) 361-6680 fax (941) 361-6684

> DMC 8-29-2018

### DRAWN BY: DATE DRAWN:

CHK'D BY: BUILDING NO: FLOOR NO: S.C.S.B. PROJ. NO: ARCH/ENG. PROJ. NO: PROJECT PHASE: CONCEPTUAL PHASE SCHEMATIC PHASE DESIGN DEV. PHASE ISSUED FOR BID ISSUED FOR CONST. ISSUED FOR REV. RECORD DRAWINGS

PROJECT\_PHASE: # DATE REVISION DESCRIPTION:

ARCHITECT/ENGINEER FIRM INFO:

HARVARD • JOLLY

ARCHITECTURE • INTERIOR DESIGN • LANDSCAPE ARCHITECTURE

DESIGN OFFICE

323 Central Ave. Sarasota, FL 34236 941-954-7639

www.HarvardJolly.com AAC000119

ARCHITECT/ENGINEER/DESIGN PROF. OF RECORD:

BUILDING\_NO.#6

SBSC\_PROJ\_# ARCH\_PROJ\_#

PROJECT INFORMATION: ENGLEWOOD ELEMENTARY SCHOOL 150 N. McCALL ROAD ENGLEWOOD, FLORIDA

SHEET DESCRIPTION:

KEY PLAN:

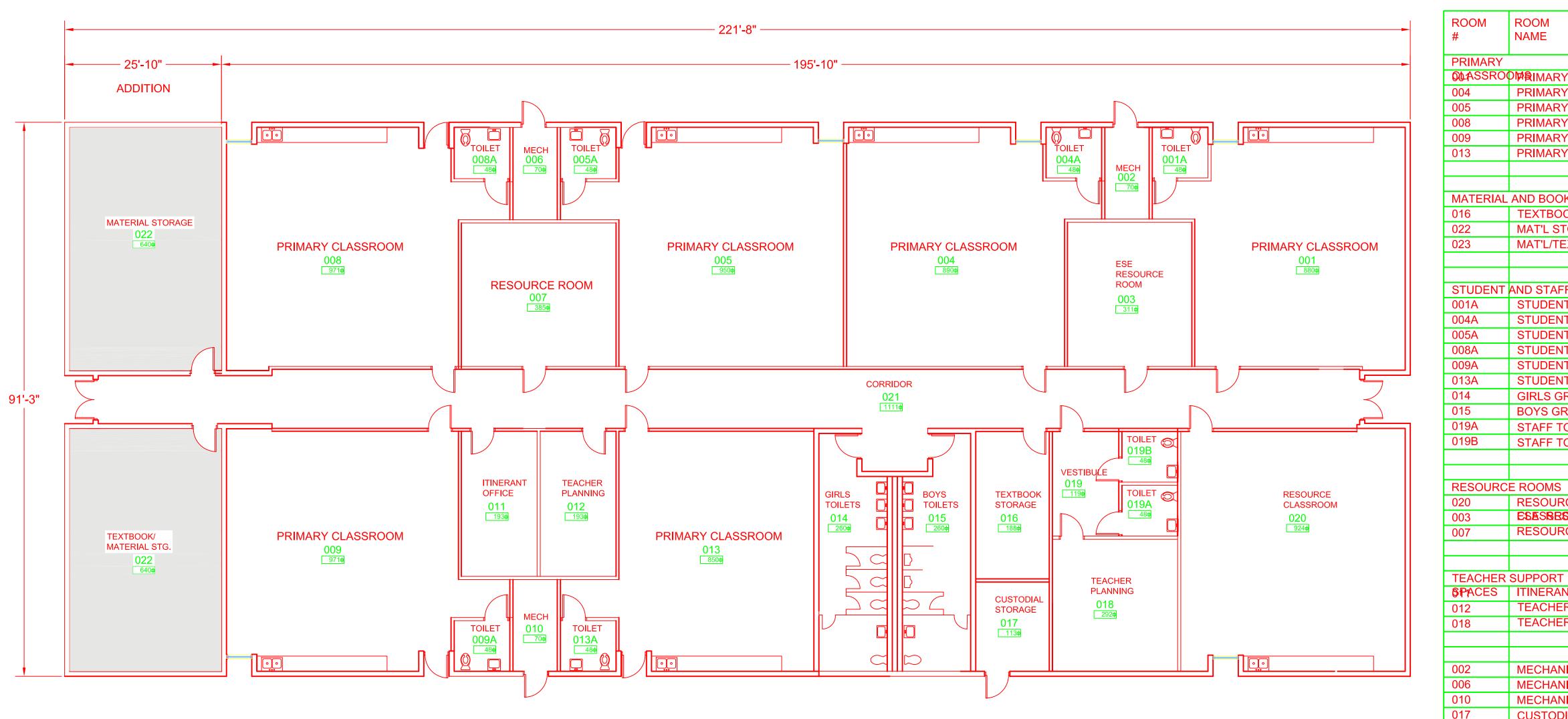
### **BUILDING #6 FLOOR PLAN**

DATE PRINTED: PLOT\_DATE CAD DWG FILE: CAD\_FILE\_NAME

SHEET: OREET\_TTL\_#

**OPTION 1 RENOVATED FLOOR** PLAN Page 17

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## **OPTION 2** BUILDING SIX: RENOVATED FLOOR PLAN WITH ADDITION

12,798 GROSS SQUARE FEET

NET TOTAL BUILDING CIRCULATION 019 021 WALLS TOTAL BUILDING SF TOTAL NSF BUILDING THE SCHOOL BOARD OF SARASOTA COUNTY

CONSTRUCTION SERVICES DEPARTMENT phone (941) 361-6680 fax (941) 361-6684

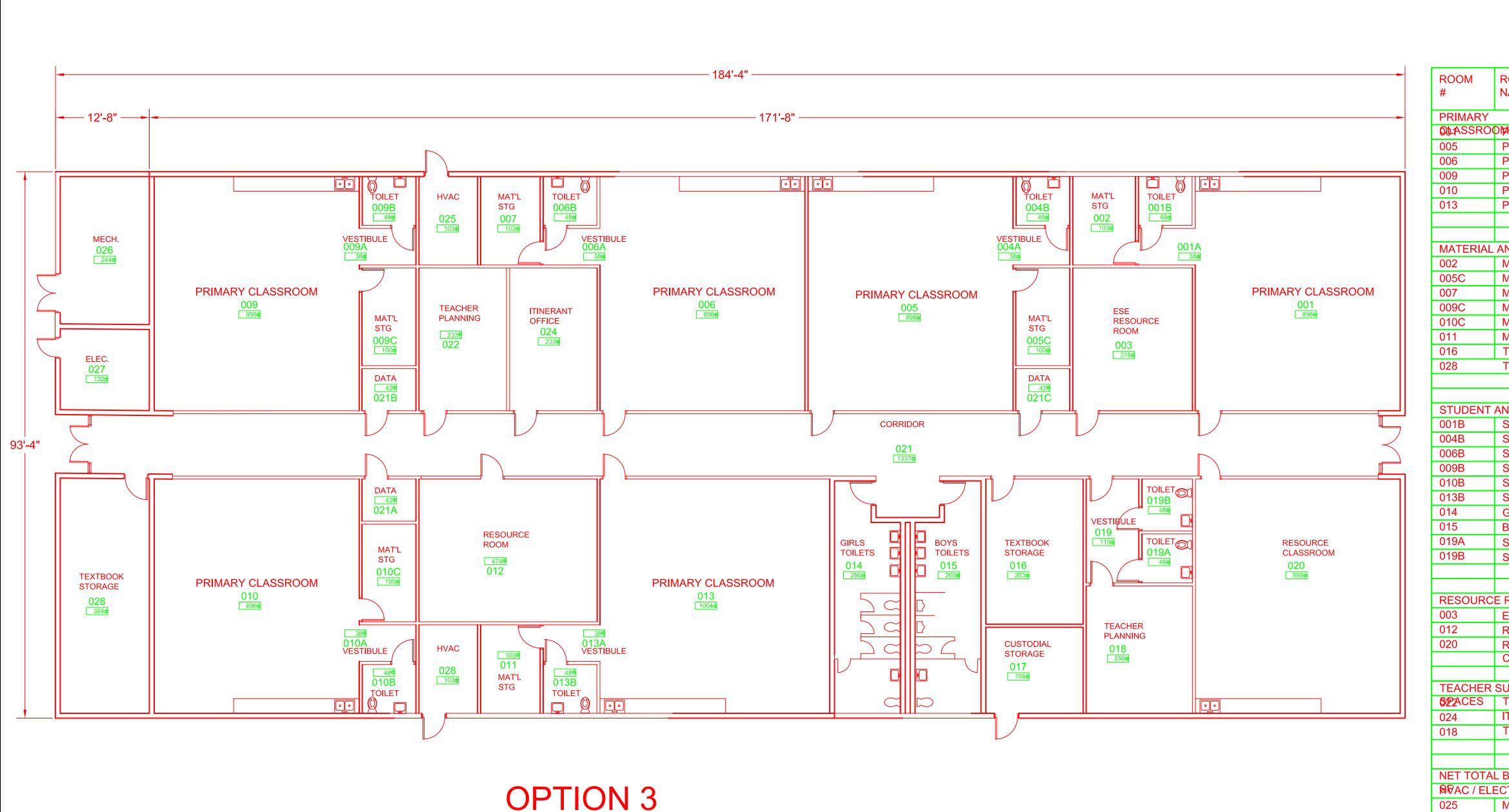
#### SQUARE STUDENT ROOM SREF DIFF. FOOTAGESTATIONS NAME SQ.FT. OLASSRO PARIMARY CLASSROOM 880 SF 882 SF 18 -2 SF 882 SF PRIMARY CLASSROOM 890 SF 18 +8 SF 882 SF PRIMARY CLASSROOM 950 SF 18 +68 SF PRIMARY CLASSROOM 971 SF 18 882 SF +89 SF PRIMARY CLASSROOM 971 SF 18 882 SF +89 SF PRIMARY CLASSROOM 850 SF 18 882 SF -32 SF TOTAL 5,512 SF 108 5,292 SF -220 SF MATERIAL AND BOOK STORAGE TEXTBOOK STORAGE 188 SF 750 SF -562 SF 640 SF 700 SF MAT'L STORAGE -60 SF MAT'L/TEXTBOOK STG 640 SF TOTAL 1,468 SF 1,450 SF +18 SF STUDENT AND STAFF TOILETS STUDENT TOILET 48 SF 8 HC STUDENT TOILET 48 SF TOILETS STUDENT TOILET 48 SF @48 SF =384 SF STUDENT TOILET 48 SF STUDENT TOILET 48 SF STUDENT TOILET 48 SF GIRLS GROUP TOILET 260 SF 260 SF 260 SF 260 SF BOYS GROUP TOILET 48 SF STAFF TOILET 48 SF STAFF TOILET 904 SF 904 SF TOTAL +0 SF 882 SF 924 SF RESOURCE +42 SF ESASBRSOWRCE ROOM 311 SF 290 SF +21 SF **RESOURCE ROOM** 385 SF 475 SF -90 SF TOTAL 1,620 SF 1,647 SF -27 SF 6PACES ITINERANT OFFICE 193 SF 200 SF -7 SF TEACHER PLANNING 193 SF 250 SF -57 SF TEACHER PLANNING 292 SF 250 SF +42 SF TOTAL 678 SF 700 SF -22 SF 70 SF MECHANICAL MECHANICAL 70 SF 70 SF MECHANICAL 113 SF CUSTODIAL 323 SF TOTAL 10,505 SF 119 SF VESTIBULE 1,296 SF CORRIDOR 878 SF TOTAL 2,293 SF 12,798 SF

10,505 SF X 27% = 2,836 SF GREATER THAN 2,293 SF

DRAWN BY: DMC 8-29-2018 DATE DRAWN: CHK'D BY: BUILDING NO: BUILDING\_NO.#6 FLOOR NO: S.C.S.B. PROJ. NO: SBSC\_PROJ\_# ARCH/ENG. PROJ. NO: ARCH\_PROJ\_# PROJECT PHASE: CONCEPTUAL PHASE SCHEMATIC PHASE DESIGN DEV. PHASE ISSUED FOR BID ISSUED FOR CONST. ISSUED FOR REV. RECORD DRAWINGS PROJECT\_PHASE PROJECT\_PHASE ARCHITECT/ENGINEER FIRM INFO: HARVARD • JOLLY ARCHITECTURE • INTERIOR DESIGN • LANDSCAPE ARCHITECTURE DESIGN OFFICE 323 Central Ave. Sarasota, FL 34236 941-954-7639 www.HarvardJolly.com AAC000119 ARCHITECT/ENGINEER/DESIGN PROF. OF RECORD: KEY PLAN: PROJECT INFORMATION: ENGLEWOOD ELEMENTARY SCHOOL 150 N. McCALL ROAD ENGLEWOOD, FLORIDA SHEET DESCRIPTION: **BUILDING #6 FLOOR PLAN** DATE PRINTED: PLOT DATE CAD DWG FILE: CAD\_FILE\_NAME SHEET: OREET\_TTL\_# **OPTION 2** 

**RENOVATED FLOOR** 

PLAN W/ ADDITION Page 18



## **OPTION 3** BUILDING SIX: NEW BUILDING FLOOR PLAN

13,691 GROSS SQUARE FEET

### THE SCHOOL BOARD OF SARASOTA COUNTY

CONSTRUCTION SERVICES DEPARTMENT phone (941) 361-6680 fax (941) 361-6684

ROOM	ROOM	SQUARE	STUDENT	SREF	DIFFERENCE
#	NAME	FOOTAGE	STATIONS		
PRIMARY					
	OMRIMARY CLASSROOM	896 SF	18	882 SF	+14 SF
005	PRIMARY CLASSROOM	896 SF	18	882 SF	+14 SF
006	PRIMARY CLASSROOM	896 SF	18	882 SF	+14 SF
009	PRIMARY CLASSROOM	896 SF	18	882 SF	+14 SF
010	PRIMARY CLASSROOM	896 SF	18	882 SF	+14 SF
013	PRIMARY CLASSROOM	1004 SF	18	882 SF	+122 SF
	TOTAL	5,584 SF	108	5,292 SF	+292 SF
		402.05		400.05	
002 005C	MAT'L STORAGE MAT'L STORAGE	103 SF 100 SF		100 SF 100 SF	+3 SF
0050	MAT'L STORAGE	100 SF 103 SF		100 SF 100 SF	+3 SF
009C	MAT'L STORAGE	100 SF		100 SF	
010C	MAT'L STORAGE	100 SF		100 SF	
011	MAT'L STORAGE	103 SF		100 SF	+3 SF
016	TEXTBOOK STORAGE	263 SF		750 SF	-103 SF
028	TEXTBOOK STORAGE	384 SF			
	TOTAL	1,256 SF		1,350 SF	-94 SF
	AND STAFF TOILETS				
001B	STUDENT TOILET	48 SF		8 HC	
004B	STUDENT TOILET	48 SF		TOILETS	
006B	STUDENT TOILET	48 SF		@48 SF =384 SF	
009B	STUDENT TOILET	48 SF		=384 55	
010B 013B	STUDENT TOILET STUDENT TOILET	48 SF 48 SF			
0136	GIRLS GROUP TOILET	260 SF		260 SF	
015	BOYS GROUP TOILET	260 SF		260 SF	
019A	STAFF TOILET	48 SF		200 01	
019B	STAFF TOILET	48 SF			
	TOTAL	904 SF		904 SF	
RESOURC	E ROOMS	•			
003	ESE RESOURCE ROOM	318 SF		290 SF	+28 SF
012	RESOURCE ROOM	474 SF		475 SF	-1 SF
020	RESOURCE	898 SF		882 SF	+16 SF
	CLASSROOM TOTAL	1,690 SF		1,647 SF	+43 SF
SPACES	SUPPORT TEACHER PLANNING	233 SF	I	250 SF	-17 SF
024	ITINERANT OFFICE	233 SF		200 SF	+33 SF
018	TEACHER PLANNING	256 SF		250 SF	+6 SF
010	TOTAL	722 SF		700 SF	+22 SF
NET TOTA	L BUILDING	10,156 SF			
¶ØØAC / EL	ECTRICAL BUILDING				
025	MECHANICAL	103 SF			
026	MECHANICAL	244 SF			
027	ELECTRICAL	132 SF			
028	MECHANICALL	103 SF			
021A 021B	DATA DATA	42 SF 42 SF			
021B 021C	DATA	42 SF 42 SF			
0210	BATTA	42.01			
	TOTAL	708			
017	CUSTODIAL	156 SF			
	F BUILDING	11,020 SF			
SF					
CIRCULAT					
0.01	VESTIBULES	347 SF			
021	CORRIDOR	1,405 SF			
WALLS		919 SF			
	TOTAL	2,671 SF			
τοται Βι	JILDING SF	13,691 SF			
			I		
TOTAL NS	F BUILDING 10,894 SF	<b>X 27% = 2,94</b> 1	I SF GRFATF	R THAN 2	797 SF
SF				<b></b> ,	

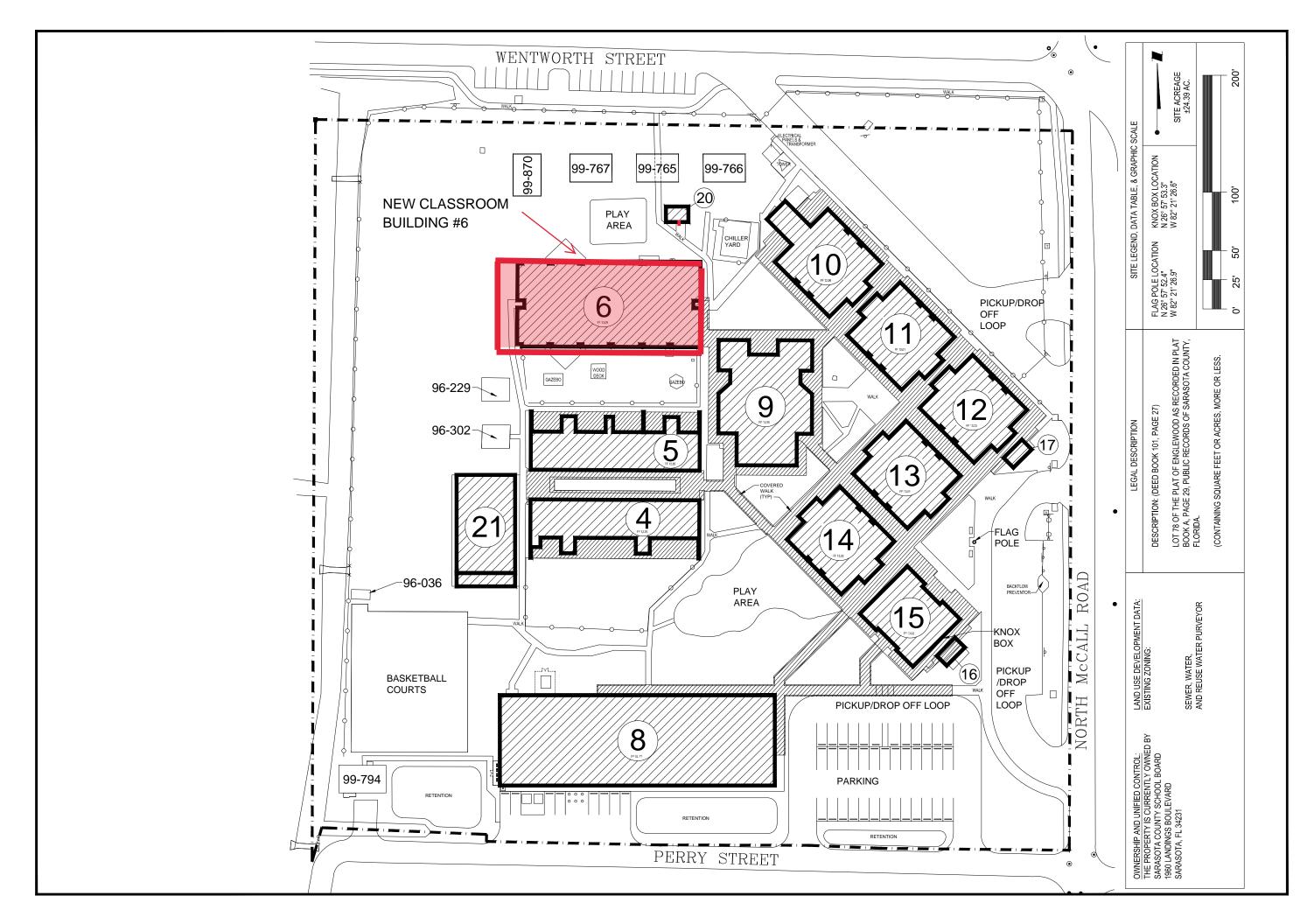
DRAWN BY:	DMC
CHK'D BY:	8-29-2018
BUILDING NO: FLOOR NO:	BUILDING_NO.#6
S.C.S.B. PROJ. NO: ARCH/ENG. PROJ. NO:	SBSC_PROJ_# ARCH_PROJ_#
PROJECT PHASE:	http://tota_/
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ISSUED FOR CONST. ISSUED FOR REV.	
RECORD DRAWINGS	
<b>NSE</b>	
HC	
PRAWING PHASE PROU # DATE	
ARCHITECT/ENGINEER	FIRM INFO:
HARVAR	ND • JOLLY
	DESIGN • LANDSCAPE ARCHITECTURE
Saraso 94	Central Ave. ota, FL 34236 1-954-7639
www.HarvarɑJ	lolly.com AAC000119
ARCHITECT/ENGINEE	R/DESIGN PROF. OF RECORD:
ARCHITECT/ENGINEE	R/DESIGN PROF. OF RECORD:
ARCHITECT/ENGINEEI	R/DESIGN PROF. OF RECORD:
ARCHITECT/ENGINEEI	R/DESIGN PROF. OF RECORD:
ARCHITECT/ENGINEEI	R/DESIGN PROF. OF RECORD:
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ARCHITECT/ENGINEE	R/DESIGN PROF. OF RECORD:
ARCHITECT/ENGINEE	R/DESIGN PROF. OF RECORD:
	R/DESIGN PROF. OF RECORD:
KEY PLAN:	N:
KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE SCHOOL	N: EMENTARY
KEY PLAN: KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE	N: EMENTARY
KEY PLAN: KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE SCHOOL 150 N. McCALL RO	N: EMENTARY
KEY PLAN: KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE SCHOOL 150 N. McCALL RO	N: EMENTARY
KEY PLAN: KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE SCHOOL 150 N. McCALL RO ENGLEWOOD, FLO SHEET DESCRIPTION:	N: EMENTARY DAD DRIDA
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KEY PLAN: KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE SCHOOL 150 N. McCALL RO ENGLEWOOD, FLO SHEET DESCRIPTION:	N: EMENTARY DAD DRIDA
KEY PLAN: KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE SCHOOL 150 N. McCALL RO ENGLEWOOD, FLO SHEET DESCRIPTION: BUILDIN	N: EMENTARY DAD DRIDA
KEY PLAN: KEY PLAN: PROJECT INFORMATION ENGLEWOOD ELE SCHOOL 150 N. McCALL RO ENGLEWOOD, FLO SHEET DESCRIPTION: BUILDIN	N: EMENTARY DAD DRIDA

**NEW BUILDING** 

Page 19

**FLOOR PLAN** 

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### viii. SCHOOL BOARD APPROVAL OF DEMOLIITION AND CONSTRUCTION OF A NEW CLASSROOM BUILDING.

The Sarasota County School Board by board action approved the Castaldi Report on Building #6 of Englewood Elementary School for the demolition and replacement on November 6<sup>th</sup>, 2018.

Page 21

6000 CATTLERIDGE DR., SUITE 204 | SARASOTA, FL 34232 | T. 941.954.7632 | F. 727.894.0502 | www.HARVARDJOLLY.com | AAC000119

### IX. BUILDING CONDITION SURVEY OF BUILDING #6 – ENGLEWOOD ELEMENTARY SCHOOL ENGLEWOOD, FLORIDA

The goal of the Sarasota County School Board is to replace 48-year old Classroom Building #6 with a new classroom facility which will meet the current FBC codes and SREF educational space requirements. The existing student stations of 108 will not increase.

Engineers' Surveys are included in this report for Architectural, Structural, Mechanical, Electrical, and Plumbing. A brief summary of each survey is included below.

### ARCHITECTURAL:

The existing building does not meet the space requirements of SREF for material storage, teacher support spaces such as Itinerant Office, Teacher Planning and mechanical/custodial spaces. The building has no interstitial space between ceiling and bottom of concrete tees for hvac, electrical and security systems. The current building has no insulation of exterior walls other than roof.

**ADA Requirements:** Existing restrooms do not meet ADA accessibility requirements.

**Life Safety Issues**: The existing building's main egress corridor is disrupted by the teacher planning room where staff and students must pass thru to exit to the exterior if a fire is at one end of the corridor. The existing life safety emergency lighting and exits signs are non-compliant with the building code. The existing exterior windows and doors do not meet current hurricane requirements.

### STRUCTURAL:

### Wall Construction:

Wall construction of original school is 8" concrete block reinforced wall system. The existing structure does not meet current wind loads of the 2017 Florida Building Code.

### **Roof structure:**

Original roof is precast concrete tees. The roof structure does not meet the 2017 FBC. Modified roof membrane is installed on roof which slopes to continuous gutters and downspouts.

### HVAC:

The existing building has no interstitial space which allows ductwork for air conditioning and electrical systems. Exterior wall mounted HVAC systems have been installed with exterior wall perimeter soffits. The building does not meet the current FBC energy codes and current ASHRE standards for air quality.

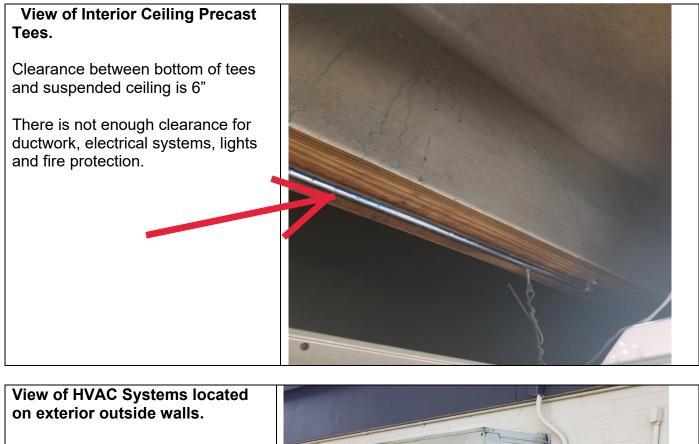
### **ELECTRICAL:**

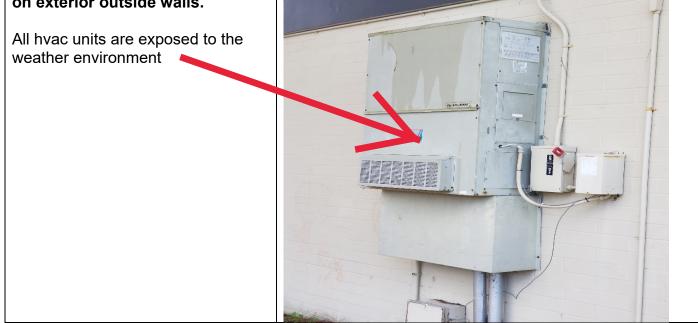
The existing building power system is not code compliant. The existing electrical infrastructure is at or beyond what is generally considered its overall useful life.

### **PLUMBING:**

The existing building plumbing systems is not compliant with the current Florida Building Code and ADA accessibility requirements. Underground sanitary piping is questionable.

### **BUILDING 6 ARCHITECTURAL SURVEY RESULTS**





### View of exterior of building.

View of exterior hvac units on walls.

Building is flush with grade. Needs to be elevated to meet Sarasota County's flood plain requirements



## View of student toilet View of non-compliant ADA toilet. All student and staff toilets do not meet ADA requirements because of inside wheelchair clearances, missing grab bars and hardware.

### View of egress corridor with egress through teacher planning.

Teacher Planning must be relocated to meet FBC for corridor egress



### View of soffit on interior wall for ductwork from outside hvac units.

There is no interstitial space between ceilings and roof structure to adequate air conditioning

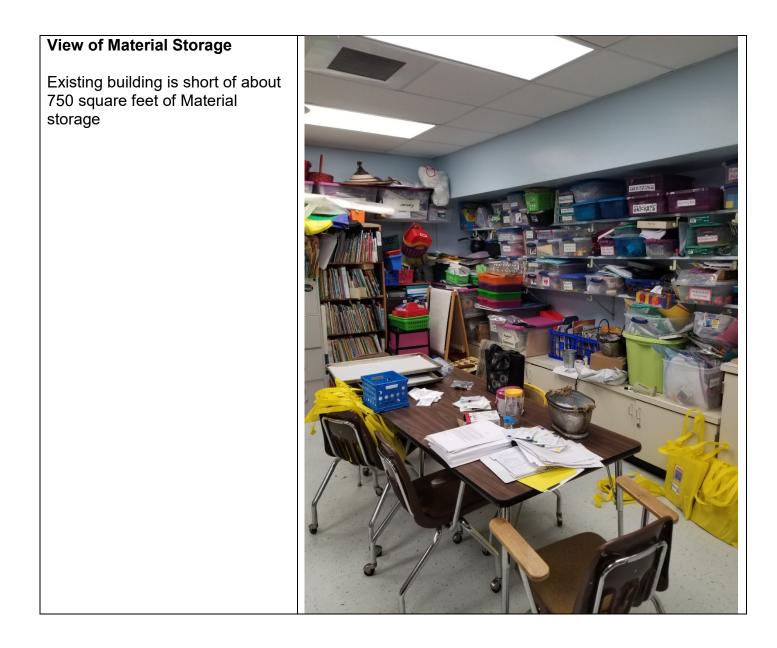


### View of Material Storage

Existing building is short of about 750 square feet of Material storage.



# View of Electrical Existing building has all electrical and, communications surface mounted to walls.



### EXECUTIVE SUMMARY OF ARCHITECTURAL BUILDING 6 SURVEY:

The existing classroom building #6 does not meet ADA's requirements of the FBC. The existing exterior doors and windows do not meet the FBC for hurricane protection. The classroom building is non-complaint with SREF's standards for educational spaces. The requirements cannot be met without providing an addition or eliminating classrooms. The floor to bottom of ceiling structure is too low to allow proper hvac ductwork and sprinklers for the building. Properly designed Interior mechanical, data, and electrical rooms cannot be provided unless educational spaces are eliminated. The existing building has about 2,000 to 3,000 sf. shortfall of required square footage.

1381 Fifth Street Sarasota, Florida 34236 Ph-941-955-4555 Fax-941-955-9333 Email-karl@heesassociates.com



HEES & ASSOCIATES, INC. STRUCTURAL ENGINEERING

September 17, 2018

Mr. Darrell McLain Harvard Jolly Architecture 6000 Cattleridge Drive Sarasota, Florida 34243

### RE: Englewood Elementary Building 6 H&A Job #18HA124

Dear Mr. McClain:

Hees & Associates, Inc. (H&A) visited the above referenced site as requested to make some general observations as to the structural condition of the building and provide a professional opinion as to the building's structural adequacies, as compared to a structure designed using the current building code. The observations and opinions noted are limited to the visible structural components of the building. Neither the noted observations nor anything in this report is intended to address hidden structural, mechanical, electrical, architectural, or code compliance defects. No measurements or in-depth exploration was conducted by H&A. Existing building drawings were provided. They were titled "An Addition to the Englewood Elementary School", dated January 2, 1970, by West & Conyers, Architects & Engineers.

The existing structure is a single-story building and appears to have been constructed with load bearing concrete masonry unit (cmu) walls supporting a precast concrete double tee roof system. The foundation appears to have been constructed with conventionally reinforced concrete spread/strip footings.

Generally speaking, the structural condition observed appears to be commensurate with the building's age; there are some cracks in the masonry walls and concrete elements of the roof, etc. The building was designed in 1970. Up until 1974, it is our understanding, there was no mandatory building code in Florida. There were some jurisdictions that used the Standard Building Code at that time, and there was the South Florida Building Code for Broward and Miami Dade, but the decision to incorporate a code was left up to local building departments. It is unknown to us whether or not Sarasota had incorporated a building code. The drawings available to us made no mention of a building code. If a building code was used, a fastest mile wind speed of 110 mph may have been used for design. Currently for this location, we would use a 3 second gust wind speed of 133 mph. It would be challenging and costly to inspect all the structural elements (from the foundations to the roof) and their connections, analyze them for the current wind speeds, and make corrective/remedial modifications in order to achieve this level of lateral resistance.

Mr. Darrell McClain Page 2 September 17, 2018

Hees & Associates, Inc. appreciates the opportunity to provide you with structural engineering services. Please do not hesitate to call if you have any questions.

Sincerely,

HEES & ASSOCIATES, INC. C.O.A. #27043

Karl F. Hees, P.E., S.I., F.ASCE President 9/17/18 FL P.E. # 59795



This item has been electrically signed and sealed by Karl F. Hees, P.E. on 9/17/18 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

### **BUILDING 6 HVAC SURVEY RESULTS**

HVAC Systems (Overall grade assigned by the Engineer is POOR due to condition and age of existing systems as well as limited space for installation of new code compliant systems)

The building is currently conditioned by ten (10) exterior wall mounted chilled water Bard air conditioning units. Each classroom has an existing temperature sensor that is part of the Trane Building Management System (BMS). Each single hole restroom has a ceiling mounted exhaust fan ducted to an exterior wall cap and there is one roof mounted exhaust fan exhausting the two gang restrooms.



North side of Building 6 showing existing Bard A/C units, Roof mounted exhaust fan and wall cap from restroom ceiling mounted exhaust fan.

#### Air Conditioning.

The ten exterior wall mounted Bard units appear to be manufactured in 1994 and installed in 2001. In accordance with ASHRAE "equipment life expectancy chart" water cooled units have a life expectancy of 15 years so these units are past their useful life.

Each unit has an outdoor air intake grille with no modulating damper to control the amount of outdoor air being introduced to each classroom.

The supply air is ducted within a soffit directly below the ceiling in the classroom and terminates at four (4) supply register. Air volume control is at the supply registers as there are no duct mounted volume dampers. Air is returned to the units through a wall mounted return grille directly in front of the unit resulting in high velocity wind noise. There is limited space above the ceiling to run new ductwork.

Each classroom has a wall mounted temperature sensor that is wired directly to the outdated Trane building management system.

Condensate from each unit is routed via PVC piping to the ground directly below the units.



Exterior wall mounted Bard A/C unit showing damaged outdoor air intake grille and condensate drain.



Interior view of typical classroom showing four supply registers within a soffit below the ceiling and the wall mounted return grille. Bard unit is directly behind the return grille.



Photo shows limited space between lay in ceiling and structure.

#### Exhaust Systems.

Each single hole restroom has an old ceiling mounted exhaust fan ducted to a wall cap mounted on the exterior wall. These fans are controlled by the wall mounted light switch. The fans should be interlocked with the A/C systems so that they automatically switch off during un-occupied periods. If they operate during un-occupied periods they cause the building to be under negative pressure.

The two larger group restrooms are exhausted via a single roof mounted exhaust fan ducted to an exhaust grille in each of the two restrooms. The exhaust grilles are damaged beyond repair.



Ceiling mounted exhaust fan.



Damaged exhaust grille in group restroom.

## EXECUTIVE SUMMARY FOR THE BUILDING 6 HVAC SURVEY RESULTS

The existing building HVAC system is not compliant with the current Florida Building Code. All systems have surpassed their life expectancy and it will not be possible to replace the systems without significant renovations and additions to the building. The lack of ceiling space for ductwork and floor space for energy efficient code compliant AHU's will make it extremely expensive to retrofit this building. The existing wall mounted A/C systems are very loud and not conducive to student learning.

## **BUILDING 6 PLUMBING SURVEY RESULTS**

<u>Plumbing Systems (Overall grade assigned by the Engineer is POOR due to condition and age of existing fixtures</u> and piping as well as limited space for fixture installation in accordance with current ADA requirements).

The building is currently served by two group restrooms (a Girl's Restroom and a Boy's Restroom). There are also five primary classroom unisex restrooms and two staff restrooms (a Men's and a Women's). These restrooms contain a mixture of tank type and flush valve water closets in both wall mount and floor mount configurations. The fixtures themselves are in serviceable condition but in all cases current ADA requirements do not appear to be met. There is currently no hot water provided to any of the restroom lavatories or classroom sinks.



**Figures 1, 2, and 3** - Condition of the fixtures in the Boy's Group Restroom. The fixtures are a mixture of white vitreous china and stainless steel. There is not a designated ADA lavatory or any protective piping covers. The lavatory faucets in this restroom are all of the metering type. There are grab rails at one of the water closets but there is not sufficient space to provide for wheel chair access or turnaround space.



**Figures 4, 5, and 6** - Condition of the fixtures in the Girl's Group Restroom. The fixtures are a mixture of white vitreous china and stainless steel. There is not a designated ADA lavatory or any protective piping covers. The lavatory faucets in this restroom do not appear to be ADA compliant. There are grab rails at one of the water closets but there is not sufficient space to provide for wheel chair access or turnaround space. There also appears to have been a floor repair at the floor drain that could potentially be related to drainage.



**Figures 7, 8, and 9** - These photos show the typical condition of the primary classroom unisex restroom water closets. There are no grab rails or wheelchair access. Figure 8 shows the flush handle to the far side of the water closet away from the access. There is a mixture of flush valves, flush tanks, wall mount water closets, and floor mount water closets. Figure 9 shows potential signs of leakage.



**Figures 10, 11, and 12** - These photos show the typical condition of the primary classroom sinks. The wall mount lavatory is mounted outside the primary classroom unisex restrooms, it does not allow for ADA access and there are no protective piping covers installed. The faucet also does not meet ADA requirements. The classroom sinks are typical of the primary classrooms and to not appear to meet ADA requirements. The photo of the below counter piping shows the mixture of piping materials with apparent galvanic corrosion caused by dissimilar metals.

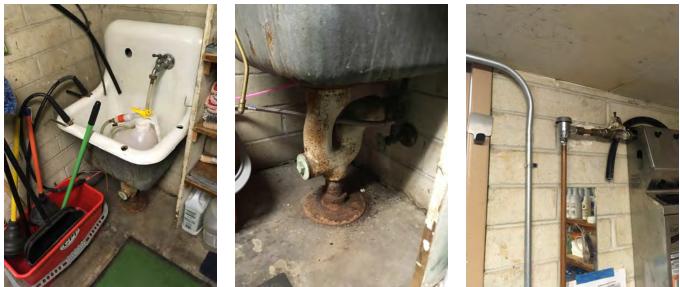


**Figures 13, 14, and 15** - These photos show the typical condition of the staff restrooms. Again, none of the fixtures in either the Women's or the Men's staff restrooms appear to be compliant with current ADA requirements, nor does there appear to be space to address ADA clearance issues.

In addition to the various restrooms and classroom plumbing, there are additional interior plumbing fixtures and piping throughout the classroom building that was noted during a site visit conducted on 09/13/18. There are two interior electric water coolers located in the central corridor of differing manufacturers and/or models. There is a central janitorial closet that contains a service sink with some exposed plumbing that was added to serve a cleaning solution mixing station. In one of the classrooms, there is a closet area that contains washer/dryer hook-ups, a utility sink, and a floor cleanout that was indicated to have a history of sewage back-ups. There is also a countertop stainless steel sink in Room 005B which has a small point-of-use tank type water heater installed below the counter. The condition of these fixtures and systems are addressed in the following photos and commentary.



Figures 16, 17, and 18 - These photos show the locations of the two interior electric water coolers and their condition. The casing on both units show signs of rusting and deterioration.



**Figures 19, 20, and 21** - These photos show the fixtures and piping within Janitor's Closet 019. The service sink is an older style cast iron wall mounted unit and is provided with cold water only. There is also some exposed cold water piping that was installed to serve a cleaning solution station. The vacuum relief valve provided at the unit is badly corroded as shown in the photo.



**Figures 19, 20, and 21** - These photos show the fixtures and piping within a small utility closet off of Classroom 004. There are a set of washing machine hook-ups. Although there appears to be a hot and cold water supply at this location, we did not determine a hot water source. There is a wall mounted molded thermoplastic utility sink provided with cold water only, the utility sink appearing to be in fair condition. There is a floor cleanout located in this room that has a history of sanitary waste line stop-ups and overflows according to the building occupants. The cleanout plug was not removed during the site visit.



**Figures 22, 23, and 24** - These photos show the sink and water heater installed in Room 005B. The sink is a stainless steel countertop model with a single handle faucet. The water heater is a Bosch Model ES 2.5-1M WIR S3100. The water heater is a 2.7 gallon unit with a single 1,440 watt heating element. Both the water heater and sink are in good condition.

Much of the plumbing for this building was added in subsequent building renovations with the added sanitary waste and vent piping and water piping being added, exposed, to the exterior of the building. The exposed piping is a mixture of copper and pvc piping. The added piping mainly serves classroom and miscellaneous sinks that were added on the interior of the building along the exterior walls. The exposed piping is subject to damage. There is also a utility sink and an exterior drinking fountain that was added to the exterior of the building. The following photos and captions describe the condition of the building exterior piping and fixtures.



**Figures 25, 26, and 27** - These photos show the exterior utility sink installation and condition. The piping for both domestic water and sanitary waste and vent is pvc and is exposed to the elements and to damage. The sink is in poor condition and is used as a receptacle for condensate from the adjacent wall mounted A/C unit. There is a hose bib located near the sink which is also served by exposed pvc piping. The sink is vented by an air admittance valve located next to the sink.



**Figures 28, 29, and 30** - These photos show the exterior drinking fountain installation and condition. The piping for both domestic water and sanitary waste and vent is pvc and is exposed to the elements and to damage. There does not appear to be a trap installed for the drinking fountain. The fountain case shows signs of rusting and deterioration. There is a domestic water line that serves an adjacent hose bib. The domestic water line is exposed at grade and subject to damage. The waste piping shows signs of recent repair.



**Figures 31, 32, and 33** - These photos show typical external waste and vent piping that was installed to serve fixtures added in renovations subsequent to the building's original construction. There are several locations where exterior pvc waste piping was added to serve miscellaneous sinks inside the building with venting being done with air admittance valves. The pvc piping is exposed to weather and the elements and is subject to degradation and damage.

## EXECUTIVE SUMMARY FOR THE BUILDING 6 PLUMBING SURVEY RESULTS

The existing building plumbing systems is not compliant with the current Florida Building Code and ADA accessibility requirements. While many of the fixtures appear in serviceable condition, there is a mixture of fixture types, configurations, and manufacturers that makes maintenance more difficult. The below slab sanitary waste piping condition is unknown. The sanitary waste piping appears to be cast iron and based on the age of the building is likely heavily scaled and corroded. Additionally, due to many fixture additions and upgrades over the years, a significant amount of pvc piping is installed on the exterior of the building and is subject to weather degradation and physical damage.

## **BUILDING 6 ELECTRICAL SURVEY RESULTS**

## ELECTRICAL SERVICE/POWER SYSTEM/MAIN PANELBOARD (Overall grade assigned by the Engineer is POOR due to safety concerns and replacement part availability)

The existing building power system is a 400 ampere, 480/277V three phase power system with the electrical feeder originating from the campus main service electrical room (to the east of the chiller plant). The existing electrical gear is manufactured by General Electric and was installed as part of the original construction. Spare parts are beginning to be phased out by the manufacturer and are becoming increasingly more expensive and rare.



The existing electrical gear is currently installed in a custodial closet with limited space. The existing configuration of the electrical gear is not code compliant with regards to working clearances and working space. The lack of working clearances and working space has a direct bearing on the potential safety of facilities personnel when operating and maintaining the existing electrical gear.



According to the best information available to the industry, electrical panelboards expected life is approximately 30 years. Therefore, the existing electrical gear is currently approaching 50% more than would typically be expected.

None of the existing electrical gear is protected with a surge protection devices (SPD) as is typical of recommended standard industry practice. SPDs are recommended in this area of the state due to the frequency and intensity of lightning events.

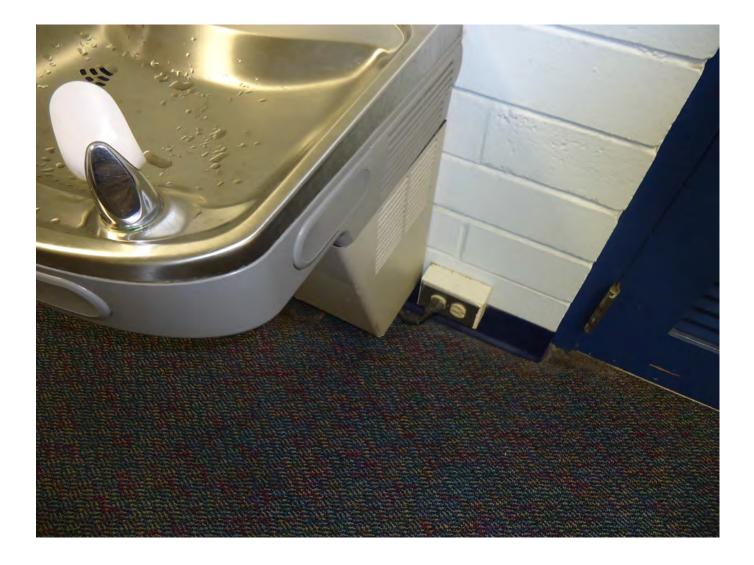
## EXTERIOR POWER SYSTEM (FOR SUPPORT OF MECHANICAL SYSTEMS) (Overall grade assigned by the Engineer is FAIR due to inefficiency concerns)

The existing branch circuits that serve the existing BARD mechanical units have buck transformers (shown to the right of the safety switch in the image below) in order to transform the voltage from a source voltage of 277V single phase to the unit voltage of 208V single phase (branch circuit breakers are three pole). While this arrangement is code compliant, it is inefficient from an electrical standpoint and introduces a potential failure point within the building power system. In addition, at single phase, the available capacity to serve a larger electric strip heat is reduced.



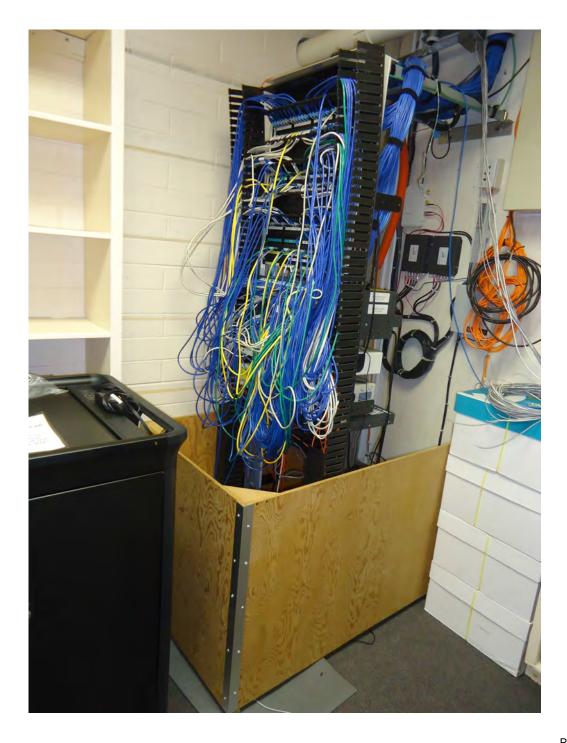
# INTERIOR POWER SYSTEM (CONVENIENCE RECEPTACLES) (Overall grade assigned by the Engineer is POOR due to safety concerns)

The existing classrooms have existing branch circuits with convenience power as was typical for an elementary school without the enhanced level of technology typically found in the majority of school in Sarasota County. Many of the convenience receptacles are not ground fault circuit interrupter (GFCI) type which are now required by code for greater student and staff safety and protection.



#### <u>TECHNOLOGY SYSTEMS INFRASTRUCTURE (Overall grade assigned by the Engineer is POOR due to potential lack of service continuity)</u>

An intermediate distribution frame (IDF) footprint has been 'carved' out of a book storage space in order to provide technology services to this building. In order to maintain the continuity of the technology services to this building, a floor mounted wooden partition was constructed to reduce the likelihood that staff would accidentally run book carts, laptop carts, paper boxes, etc. into the technology rack as shown below. In order to increase the likelihood of continuity for technology services, a dedicated space for technology and security services should be considered.



INTERIOR LIGHTING (Overall grade assigned by the Engineer is POOR due to what appears to be excessive glare in a learning environment and deficient emergency egress lighting)

The majority of the existing lighting is 2 by 4 recessed mounted fixtures with fluorescent lamps. The lighting levels appear to be satisfactory.



However, partially due to how fluorescent lamps change their color temperature over time as they degrade, sometimes the instructional staff most reduce unwanted glare with "expedient" methods to include adding filters to the existing fixture lenses as shown below.



Unfortunately, these "filters" also reduce the aggregate lighting levels below those minimums required by the building code. In addition, the energy efficiency of the overall building is much higher than would be found in a school building designed to the current energy code. In addition, the existing toilet rooms contain fixtures that at the time the school was constructed would be able to fit (dimensionally) in the small toilet rooms. These fixtures, as shown below also contribute to glare and are not recommended for a learning environment by current design standards.



Most of the existing spaces that would typically require emergency egress lighting fixtures do not currently contain a fixture with battery backup (no emergency generator is existing on the campus). Overall, the existing emergency egress lighting appears to be deficient. The existing exit signage appears to be code compliant and not deficient.

### EXTERIOR LIGHTING (Overall grade assigned by the Engineer is POOR due to lack of fixtures)

The existing exterior lighting around the building appears to be deficient with little or no lighting at each exit from the building. The walkways immediately adjacent to the building have little or no lighting and appear to be deficient with no apparent pathway lighting. Current district requirements and standards require security lighting.



#### STRUCTURE LIGHTNING PROTECTION SYSTEM

The existing building does does not have an existing structure lightning protection system.

## EXECUTIVE SUMMARY FOR THE BUILDING 6 ELECTRICAL SURVEY RESULTS

The existing building power system is not code compliant with regards to being maintained and operated in a safe and workmanlike manner. The existing electrical infrastructure is at or beyond what is generally considered its overall useful life with spare parts being increasingly difficult to find and support. The existing classroom lighting lighting levels are satisfactory but the increasing age of the fixtures and lamps appear to be contributing to unwanted glare in certain classrooms. The existing exterior lighting and emergency egress lighting are deficient in terms of lighting levels, quantities and locations and not in compliance with the current code nor conducive for overall campus security goals. The technology systems are in good condition but in a location susceptible to damage by inadvertent staff interference. Overall, the building electrical system has many deficiencies and not considered energy efficient to maintain and operate. SARASOTA COUNTY SCHOOL BOARD ENGLEWOOD ELEMENTARY SCHOOL BUILDING #6 150 N. McCall Road Demolition of Building #6 Castaldi Report

## RATIONALE

## x. IMPACT IF PROJECT IS NOT APPROVED

Englewood Elementary School would be adversely affected if the new classroom is not approved.

- The investment required to operate and renovate the classroom building is a poor investment of capital dollars. The district would serve their students better by building a new classroom building which will allow the building systems for a 21<sup>st</sup> Century.
- The current classroom building is approximately 2,000 square feet undersized to meet SREF space requirements for educational spaces.
- The existing building will not meet the current FBC requirements for wind loads for walls and roofs.
- The failure to build a new classroom will have a serious effect on the students and staff because of the shortage of material storage and teacher support areas.
- The costs to maintain mechanical and electrical system installed on outside of exterior walls are higher and life expectancy of equipment is shorter.

## COST ANALYSIS

## i. CASTALDI FORMULA SURVEY OF BUILDING #6 ENGLEWOOD ELEMENTARY SCHOOL OF SARASOTA COUNTY SCHOOL BOARD

Sarasota County School Board is in the planning stages to build a new 13,691 square foot new classroom building..

HarvardJolly Architecture has evaluated the following three options to remodel or build a new classroom building:

- a) Remode/renovate Classroom Building #6 of 11,227 sf.
- b) Remode/renovate Classroom Building #6 and add an addition of approximately 1,500 sf. for a total of 12,798 sf.
- c) Demolish Building #6 and build a new classroom building of 13,691 sf.

#### Sarasota County School Board has reviewed the following options:

The costs per square foot for remodeling and new construction are the current numbers provided by FDOE.

#### OPTION ONE: REMODEL EXISTING LIBRARY AND BUILD A NEW LIBRARY ADDITION.

1. The existing classroom building #6 was built in 1970 and renovated in 1987. The building's total gross square footage is 11,227. The building would be remodeled at a cost of \$120 per foot for a total of cost of \$1,347,240.

#### OPTION TWO: REMODEL BUILDING # 6 AND BUILD NEW A NEW ADDITION.

1. Remodel Building #6 of 11,227 sf. at a cost of \$120 sf. = \$1,347,240. Build a new addition of 1,500 sf. at a cost of \$220 per sf. = \$330,000.is 22,589 feet. The total cost of the remodel and new addition is \$1,677,240.

#### OPTION THREE: DEMOLISH BUILDING #6 AND BUILD NEW CLASSROOM BUILDING.

 Demolish Building #6 and build a new 13,691 square foot classroom building in its place. Assume demolition costs of Building #6 equals \$100,000. Build a new classroom building of 13,691 sf. at a cost of \$220 per sf. = \$3,012,020.

#### **RECOMMENDATIONS:**

Sarasota County School Board has selected Option 3 to build a new classroom building.

A chart is included that indicates the age, size, and student stations of each building. The chart was compiled from the 2010 Facilities Inventory.

BUILDING	BUILDING	BUILDING	BUILDING	NUMBER OF	STUDENT
NUMBER	USAGE	AGE	SQ. FT.	STORIES	STATIONS
6	EXISTING CLASSROOM	1970	11,227	1	108

#### **CASTALDI FORMULA**

The formula for determining whether a school should be renovated, remodeled, or replaced with new construction is called the CASTALDI Formula. The formula is as follows:

$$\frac{C_{E} + C_{H} + C_{S}}{(L_{M}) (I_{A})} \qquad \frac{R}{L_{R}}$$

 $C_{E}$  = Total costs for education improvements

- C<sub>H</sub> = Total costs for improvements for healthfulness physical, aesthetic, and psychological
- Cs = Total costs for improvements in safety
- L<sub>M</sub> = Estimated use life of modernized school
- I<sub>A</sub> = Estimated index of educational adequacy 0-1
- R = Replacement cost of school considered for renovation
- $L_R$  = Life expectancy of new school

#### **REMODELING OF EXISTING BUILDING**

The CASTALDI Formula will be used on Building #6 as the chart shows below.

Estimated costs for remodeling which would include new hvac systems, fire protection, new finishes, meet new building codes, fire separations, new roofing and thermal insulation, glazing, doors, casework, exterior finishes, new electrical service, new low voltage systems, new technology and structural improvements are estimated at a cost of \$120 per square foot. New construction is estimated at \$220 per square foot. The costs of per square foot numbers are provided by Dept. of Education for the year 2016.

#### **BUILDING SIX – CLASSROOM BUILDING – 1970- 11,227 SQUARE FEET**

$(C_{E} + C_{H} + C_{S})$	> <u>R</u>	<u>\$120 X</u>	<u>11,227</u> > <u>R</u>	
(L <sub>M</sub> ) (I <sub>A</sub> )	L <sub>R</sub>	= (L <sub>M</sub> )	$(I_A)$ $\overline{L_R}$	

The " $I_A$ " (estimated index of educational adequacy 0-1) to be applied to the formula relates to the compromises that may be accepted when renovating the facility. The value of .75 has been assigned to the index of educational adequacy.

$(C_{E} + C_{H} + C_{S})$	> <u>R</u>	<u>\$1,347,240</u> >	<u>R</u>
(L <sub>M</sub> ) (I <sub>A</sub> )	$L_{R}$	= (L <sub>M</sub> ) .75	L <sub>R</sub>

The " $L_{M}$ ", (estimated use life of the remodeled building) to be applied to the formula relates the age of the building subtracted from 65 years, the assumed number of years of life for a building. The remodeled building will not last as long as a new facility. It has been our experience that a remodeled building has a use life of another 25 years.

$$\frac{(C_{E} + C_{H} + C_{S})}{(L_{M})(I_{A})} > \frac{R}{L_{R}} = \frac{\$1,347,240}{(17)(.75)} > \frac{R}{L_{R}}$$

The "R" (cost of replacement of library building) to be applied to the formula relates to the cost to replace the classroom building. The " $L_R$ " (Estimated life of the new facility) to be applied to the formula relates to the number of years the new facility to remain in operation before renovations. The cost of new construction for schools provided by the Dept. of Education is \$220 per sf. ft. The life expectancy of a new building is approximately fifty years. The completed formula is indicated below.

$\frac{(C_{E} + C_{H} + C_{S})}{(L_{M})(I_{A})}$	> <u>R</u> L <sub>R</sub>	=	<u>\$1,347,240</u> 12.75	<u>&gt; \$3,012,020</u> 65
$\frac{(C_{E} + C_{H} + C_{S})}{(L_{M}) (I_{A})}$	> R L <sub>R</sub>	=	\$105,665	> \$46,338

As indicated by the Castaldi Formula, the costs of renovation exceed the value of a new building over its life span. The recommended solution is to build a new classroom building that will have a life span of 50 years or longer. The new classroom building will be built to meet current FBC wind loads for walls and roofs and allow for current and future technology.

## **COST ANALYSIS**

#### ii. QUESTIONS

ii.-1: How many years will modernization extend the useful life of the modernized building.

Answer: It has been HarvardJolly Architeccture's experience that renovations, remodeling or modernization of a building can extend the life span up to 25 years.

## ii.-2: Does the existing building lend itself to improvement, alterations, remodeling and expansion?

Answer: Building #6 is 48 years old, has a concrete brick walls with precast tees roof structure. The building does not allow the structure to be modified to meet current FBC wind loads of roof and wall.

The building was built without air conditioning, has no interstitial space above ceiling to install ductwork, sprinkler system, electrical and security conduit. The building is too small to meet SREF requirements for square footage of allocated spaces.

ii.-3: Explain how a modernized and a replacement building fits into a well-conceived longrange plan of the district.

Answer: The Sarasota County School Board has approved a master plan to individually renovate or replace the existing buildings of the 1959 campus.

The new classroom building will provide the required SREF educational space programs that support the students and staff and will correct all ADA deficiencies. Allows a new 21<sup>st</sup> century educational facility to be built.

ii.-4: What is the percentage derived by dividing the cost for modernization by the cost for a replacement building?

Answer: The Castaldi Analysis for the remodeling cost of Building #6 exceed the costs for a new replacement building.

$(C_{E} + C_{H} + C_{S})$	> R	\$105,665	> \$46,388
( L <sub>M</sub> ) (I <sub>A</sub> )	L <sub>R</sub>	= 232 per	r cent

ii.-5: A committee of district's officials and independent citizens from outside the school attendance zone has determined that the replacement of the building is financially justified and no other alternative is feasible?

Answer: The following groups have approved SCSB's plans to replace building #6 with a new classroom building: Lemon Bay Suncoast Rotary Associates, Old Englewood Dearborn Association, PTO, and SAC.

## COST ANALYSIS

## iii. DETAILED SCOPE OF WORK FOR MODERNIZATION OF EXISTING BUILDING

#### A. Architectural Scope of Work

A complete demolition of the interior building will be required to try to right-size the square footages of spaces and create missing educational spaces as much as the existing footprint of the building will allow. The architectural scope of work will include the following:

- Provide interior wall insulation and framing on the exterior walls for energy codes.
- New interior drywall partitions, doors, frames, and ADA hardware.
- New finishes including floor, base, paint, ceiling tile, and grid.
- New casework, shelving, tackboards, and markerboards.
- Provide new impact resistant exterior doors and windows to meet wind loads.
- Provide new ADA restrooms and accessories.
- Replace roof insulation and re-roof, provide new downspouts and gutters.
- Regrade exterior grade to drain water away from building.
- Provide aluminum walkway covers.

## B. Structural Scope of Work

No scope of work is anticipated unless unknown conditions are found after building interior has bee demolished.

## C. Mechanical Scope of Work

A complete demolition of the existing havc system and equipment will be required. The HVAC scope of work will include the following:

- Replace existing exterior BARD units with new units with new controls.
- Provide modulating dampers to each unit to control the amount of outdoor air being introduced to each classroom.
- Provide new ductwork and returns.
- Provide new exhaust fans to all restrooms.

## D. Electrical Scope of Work

A complete demolition of the existing electrical systems and equipment will be required. The electrical scope of work will include the following:

- New electrical gear with required working clearances and work space
- New surge protection devices to system.
- New branch circuits with conduit and wiring.
- New GFCI electrical receptacles with conduit and wiring.
- New technology, data, and security systems to building.
- New LED lighting throughout building.
- New emergency lighting and exit signs.
- New exterior building and canopies lighting.

#### E. Plumbing Scope of Work

A complete demolition of the existing plumbing system and fixtures will be required. The plumbing scope of work will include the following:

- Provide new ADA complaint toilet and sink fixtures for restrooms.
- New electric water coolers, ADA compliant.
- New janitorial sinks.
- Provide hot water source and piping.
- Install new hot and cold-water piping on the inside of exterior walls, replace old exterior piping.



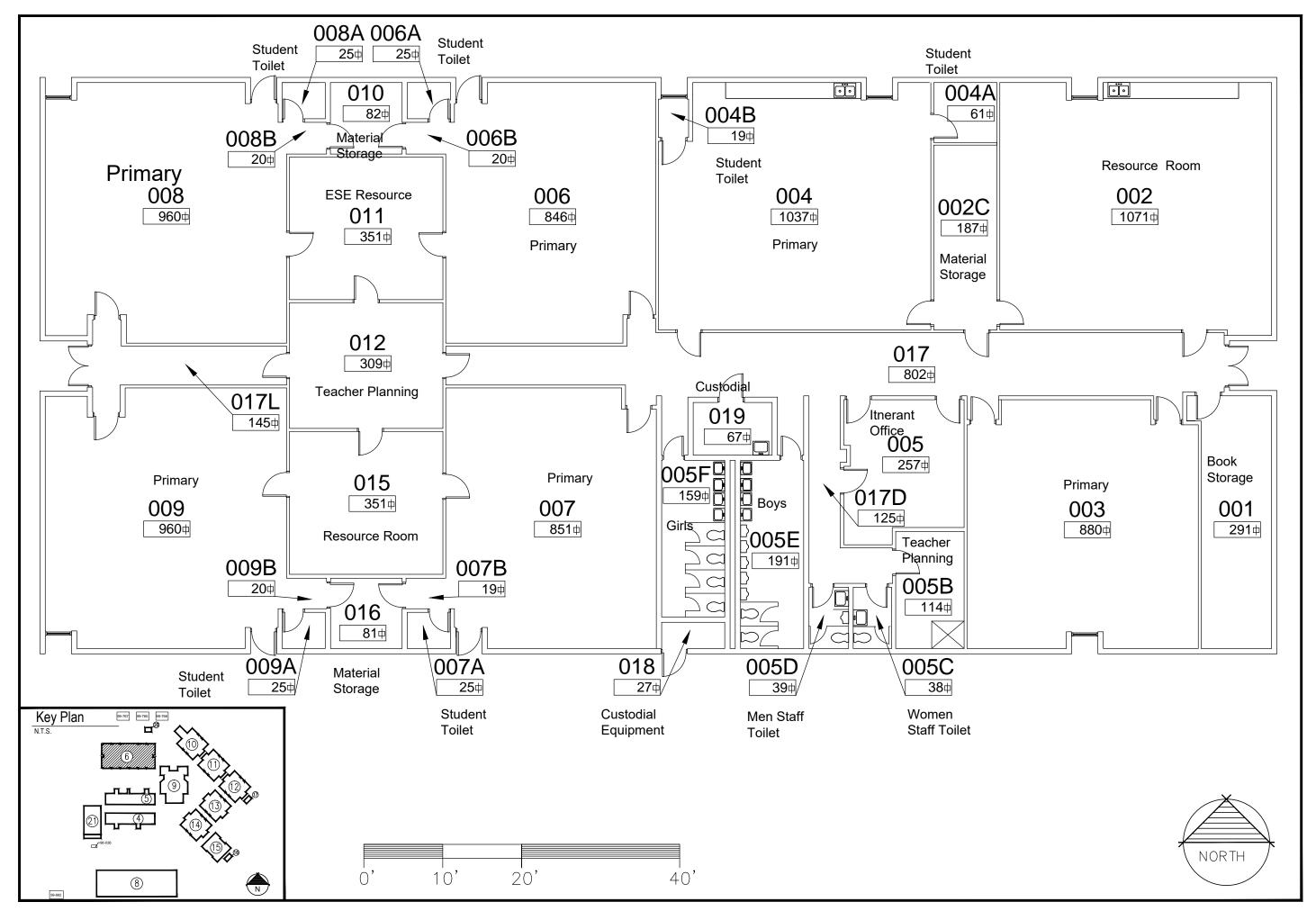
## **COST ANALYSIS**

### iv. FISH BUILDING PLAN OF EXISTING BUILDING

See following FISH building plan.

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## Appendix A

# Work Requests by Fiscal Year and Problem for Building #6 and Englewood Elementary School

Work Requests by Fiscal Year and Problem	Count of	
Туре	wr_id	
2013		68
ACCESS CONTROL INTERIOR LOCK		1
BUILDING EXTERIOR		12
BUILDING INTERIOR   FLOOR		2
CLEANING/DEBRIS DISPOSAL		1
CUSTODIAL SUPPLY ORDER		1
ELECTRICAL		6
HEALTH AND SAFETY   FIRE INSP		1
HVAC		11
HVAC AFTER HOURS A/C REQUEST		7
PAINT		5
PEST CONTROL		3
PLUMBING		17
SECURITY ALARM SYSTEM		1
2014		49
ACCESS CONTROL INTERIOR LOCK		1
BUILDING EXTERIOR		2
CABINETRY		2
ELECTRICAL		7
HVAC		4
HVAC AFTER HOURS A/C REQUEST		4
PAINT		14
PEST CONTROL		2
PLUMBING		13
2015		47
BUILDING EXTERIOR		2
BUILDING INTERIOR   FLOOR		1

ELECTRICAL	15
HVAC	5
HVAC AFTER HOURS A/C REQUEST	4
PAINT	1
PEST CONTROL	5
PLUMBING	14
2016	45
ACCESS CONTROL INTERIOR LOCK	1
BUILDING EXTERIOR	3
BUILDING INTERIOR	2
CABINET	1
ELECTRICAL	2
ELECTRICAL SWITCH	1
ENERGY MGMT   AFTER HRS A/C REQUES	1
HVAC	8
HVAC AFTER HOURS A/C REQUEST	2
HVAC TEMPERATURE	4
KEY REQUEST_OTHER	1
PAINT	2
PEST CONTROL	1
PLUMBING	9
PLUMBING   CLOG	1
PLUMBING	2
PLUMBING TOILET	1
PLUMBING WATER FOUNTAIN	1
SITE	2
2017	45
ACCESS CONTROL   CABINET LOCK	1
BUILDING EXTERIOR   DOOR	1
BUILDING EXTERIOR DOOR HARDWARE	1
BUILDING INTERIOR   FLOOR	2
BUILDING INTERIOR MOUNTED DEVICE	1
CABINET	3
ELECTRICAL   LIGHTING	4
ELECTRICAL POWER OUTAGE	1
ELECTRICAL SWITCH	1
ENERGY MGMT   AFTER HRS A/C REQUES	1
HVAC	1
HVAC NOISE	1
HVAC TEMPERATURE	5
PAINT	1

PAINT INTERIOR	3
PEST CONTROL INSECTS	4
PLUMBING	3
PLUMBING   FAUCET	1
PLUMBING   LEAK	3
PLUMBING   PIPE	1
PLUMBING   TOILET	4
SECURITY OTHER	1
SUPPLY ORDERS	1
2018	71
BUILDING EXTERIOR   DOOR	2
BUILDING EXTERIOR   DOOR HARDWARE	1
BUILDING INTERIOR   DOOR	1
ELECTRICAL   LIGHTING	1
ENERGY MGMT   AFTER HRS A/C REQUES	3
HEALTH AND SAFETY AIR QUALITY	3
HVAC	2
HVAC HUMIDITY	6
HVAC TEMPERATURE	32
PEST CONTROL INSECTS	8
PLUMBING	1
PLUMBING CLOG	4
PLUMBING   FAUCET	1
PLUMBING LEAK	1
PLUMBING   TOILET	3
PLUMBING   WATER FOUNTAIN	1
SITE   DRAINAGE	1
2019	14
BUILDING INTERIOR   DOOR LOCK	1
ELECTRICAL   LIGHTING	1
ENERGY MGMT   AFTER HRS A/C REQUES	1
EQUIPMENT   CUSTODIAL	1
HVAC TEMPERATURE	2
PEST CONTROL INSECTS	2
PLUMBING   FAUCET	2
PLUMBING LEAK	1
PLUMBING URINAL	2
PLUMBING   WATER FOUNTAIN	1
Grand Total	339