COOPERATIVE AGREEMENT TO PROVIDE ENHANCED HURRICANE PROTECTION AREA (EHPA) CAPACITY AT BOOKER HIGHT SCHOOL

This agreement ("Agreement") is made and entered into this ___4th_ day of <u>September</u>__, 2012 by and between the School Board of Sarasota County, Florida, a body corporate under the laws of the State of Florida, ("School Board") and Sarasota County, Florida, a political subdivision of the State of Florida ("County").

WITNESSETH:

WHEREAS, the population growth experienced by the County has resulted in the need for additional hurricane shelters built to the specifications of an Enhanced Hurricane Protection Area (EHPA) capable of sheltering large numbers of residents; and

WHEREAS, the School Board is in the process of designing and constructing additional buildings on the Booker High School campus (the "Project"), which will have the capacity of sheltering approximately 2400 residents; and

WHEREAS, the County desires that the School Board provide certain upgrades in the project as set forth below, expanding upon the minimum required EHPA standards;

NOW, THEREFORE, in consideration of the premises and the covenants herein contained, the School Board and County do mutually covenant and agree as follows:

- 1. The School Board will include the following specifications in the design and construction of the Project, which are in addition to any applicable building requirements of the Florida Building Code 2007, and in consultation with ARC (American Red Cross) 4496, the minimum hurricane shelter criteria used for surveying, evaluating and designating public hurricane shelters. The design wind load will be based on the recommendation of the Florida Building Code and 2012 Statewide Emergency Shelter Plan Appendix C, attached and made a part herein as Exhibit A.
 - a. Upgrade the design wind load from 130 mph to 170 mph as follows:
 - (1) Increase concrete thickness and reinforcement of the concrete tilt wall panels.
 - (2) Upgrade roofing system, exterior doors, frames, hardware and windows to 170 mph wind loading and impact rating.
 - (3) Add tie-downs and enclosures for rooftop equipment on entire structure.
 - (4) Increase electrical capacity to provide additional power, lighting, circuits and panels tied into the emergency power

- system, based upon life safety requirements and ventilation requirements established by the EHPA standards, and increasing the EHPA designation to 100% less the Media Center, Labs, and Administration.
- (5) Install a manual transfer switch available for a mobile, appropriately sized, temporary emergency generator in the main electrical room.
- b. Provide any other design and construction services necessary to increase the wind load from 130 mph to 170 mph and enhance the emergency electrical capacity of the school, subject to mutual agreement by the parties.
- 2. The School Board will use its customary procurement and contracting policies in contracting for the services necessary to design and construct the Project.
- 3. The School Board will allow the use of Booker High School as a general population shelter in the event of natural or other disasters.
- 4. The School Board agrees to reasonable access of County Emergency Management staff to the facilities during times of natural or other disasters necessitating activation of the sheltering process.
- 5. The parties agree to collaborate on the design and construction of the Project in order to meet the expanded requirements beyond an EHPA shelter that will allow increased capacity for sheltering the general population.
- 6. The County shall do the following:
 - a. Utilize only EHPA designated areas of Booker High School for sheltering (Cafeteria, Central Energy Plan, and 2-story Classroom Building #4).
 - b. Provide funding for the EHPA upgrades as set forth in Paragraph 1 above, in an amount not to exceed \$1,004,822 (the "County Contribution"), to be paid in two installments of \$502, 411 each. The first installment is due and payable following receipt and approval of an invoice from the Sarasota County School Board, and the second and final installment is due and payable upon receipt and approval of an invoice from the Sarasota County School Board following completion of the Project and issuance of a certificate of occupancy. The project shall be constructed in

accordance with the plans and specifications set forth in Exhibits B and C, attached and made a part herein.

- 7. The School Board will provide documentation of the procurement process used to procure the Project design and design costs associated with the EHPA upgrades, as well as provide construction plans and construction cost estimates for the Project to the County.
- 8. The School Board will provide status updates to the County on a quarterly basis.
- 9. The School Board will use the funds provided by the County solely for the design and construction of the upgrades defined in Paragraph 1 above for the Project.
- 10. Upon completion of Project construction, the School Board will provide the County with an accounting of design, construction, and related project management costs. Within 60 days of the completion of the construction as evidenced by Certificate of Occupancy, the School Board shall reimburse the County for any difference between the actual cost of design and construction of the EHPA upgrades and the amount of the County Contribution.
- 11. The County shall have the right to conduct a post-audit of all expenditures related to the design and construction of the Project and the School Board agrees to provide access to its records for this purpose.
- 12. To the extent permitted by law, each party shall indemnify and hold harmless the other from and against any and all liabilities, claims, demands, suits, cause of action, losses and expenses including attorney's fees arising or growing out of its use of Booker High School as an emergency shelter as contemplated by this Agreement. Nothing contained herein shall be deemed to constitute a waiver of sovereign immunity on the part of either the County or School Board or to affect, limit or reduce the protection afforded either governmental entity under the provisions of Florida law. Notwithstanding the preceding, neither party shall be liable for the negligent acts or omissions of the other.
- 13. The County and School Board agree that the actual design and construction of the upgrades shall be under the supervision, direction, and inspection of the School Board, subject to approval by the County.
- 14. Any and all notices required or desired to be given pursuant to the terms of this Agreement shall be in writing and delivered as follows:

County: School Board:
Edward J. McCrane Mark Smith
Sarasota County School Board

Administration Building

1660 Ringling Boulevard7895 Fruitville RoadSarasota, Florida 34236Sarasota, FL 34240

15. This Agreement represents the entire agreement between the parties on this subject and no prior or subsequent oral agreements on this subject shall be binding upon either of the parties until reduced to writing and duly executed by the parties.

IN WITNESS WHEREOF, the parties have caused this Cooperative Agreement to be executed by the representative undersigned duly authorized officials as the date and year first above written.

ATTEST:	THE SCHOOL BOARD OF SARASOTA COUNTY, FLORIDA
Clerk	By:Caroline Zucker, Chair
ATTEST:	BOARD OF COUNTY COMMISSIONERS OF SARASOTA COUNTY, FLORIDA
KAREN E. RUSHING, Clerk of Circuit Court and Ex-Officio Clerk of the Board of County Commissioners of	
Sarasota County, Florida	By: Christine Robinson, Chair
By: Deputy Clerk	
Approved as to form and correctness:	
By:County Attorney	
Approved for Legal Content March 18, 2009, by Matthews, Eastmoore, Hardy, Crauwels & Garcia, Attorneys for The School Board of Sarasota County, Florida Signed: ASH	

Exhibit C

2010 Statewide Emergency Shelter Plan



DESIGNING POSSIBILITIES SINCE 1938

STOCKHOLDERS William B. Harvard, Jr., AIA Jeffrey E. Cobble, AIA Michael K. Hart, AIA Ward J. Friszolowski, AlA Steven M. Heiser, AIA Alejandro F. Gonzalez, AIA Yvette V. London, AIA Jack Williams, Jr., AIA Paul N. Schnitzlein, AlA Jacquelyn S. Spears, ASID Leslie D. Brunell. AIA Stephen L. Johnson, AIA Philip L Trezza, Jr., AIA Louis B. Kubler II Charles J. Clees, RLA Howard W. Braukman, AIA Ronald R. Zajac, AIA Maria Harvard Rawls R. John Clees, AIA

November 11, 2011

Ernest F. DuBose II
Project Manager, Construction Services Department
School Board of Sarasota County
7895 Fruitville Road
Sarasota, FL 34240

Re: Booker High School Rebuild – HJ #09059 Enhanced Hurricane Protection Area (EHPA)

Mr. DuBose,

Harvard Jolly is providing the enclosed information to assist the Construction Manager in assigning an estimated construction cost for EHPA space being designed for Booker High School that exceeds the minimum EHPA requirements established in the Florida Building Code.

The pages that follow contain information relative to:

- EHPA Area Calculations 1) the minimum EHPA area required by the Florida Building Code and 2) the amount of EHPA area provided per agreement with Sarasota County Emergency Management, in excess of the required minimum.
- **Structural Systems** Summarizes the impact of increasing the design wind speed by 40 mph.
- Mechanical and Electrical Systems This summarizes the added scope of mechanical and electrical systems due to the excess EHPA area described above.
- EHPA Floor Plans
 - o Building #3 Dining
 - o Building #4 First Floor
 - o Building #4 Second Floor
 - o Building #11 Central Energy Plant (CEP) / Custodial Receiving

Please feel free to call with any questions you may have.

Sincerely,

To.

Stephen L. Johnson, AIA, LEED AP Senior Associate

Cc: Project File

2714 Dr ML King Jr St N St. Petersburg, FL 33704 727-896-4611

www.HarvardJolly.com AAC000119

HJ #09059

Booker High School Rebuild

EHPA Area Calculations

1	REQUIRED	EHPA	Building	square t	feet,	per Florida	Statute:
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Building 1	Administration		3,607 SF
Building 3	Dining		0 SF
Building 4	2 Story Classroom Building		27,983 SF
Building 8	1 Story Classroom Building		11,248 SF
Building 11	Central Energy Plant		1,321 SF
•		Total Required SF:	44,159 SF

2 PROVIDED square feet, per agreement with

Sarasota County Emergency Management:

Building 1 Building 3	Administration Dining	14,795	SF
Building 4	Classroom - 1st and 2nd Floors	59.322	
•		,	
Building 8	1 Story Classroom Building	U	SF
Building 11	Custodial Receiving	5,645	SF
	Total Provided SF:	79,762	SF

3 Square feet provided over the minimum:

WALTER P MOORE

MEMORANDUM

DATE: June 25, 2010 (updated 11/17/2010)

το: Steve Johnson - Harvard Jolly

FROM: Scott Martin - WPM

cc: Richard Temple - WPM

RE: Booker High School Rebuild - EHPA Building Impacts

We understand that three of the buildings on this project – Building 3 (dining), Building 4 (2-story classroom), and Building 11 (C.E.P.) – will act as or will serve public shelters and will be designed using the Enhanced Hurricane Protection Area (EHPA) provisions of the Florida Building Code. The code requires that these buildings will be designed for a base wind speed of 130 mph and an importance factor, I = 1.15. While not required, the code "highly recommends" that EHPA buildings be designed for 40mph over the base wind speed (170 mph) and I = 1.0. We understand the School Board has elected to use this 170 mph wind speed.

Designing for the higher 'base + 40mph' wind speeds will have the following impact on the building structural elements:

- Design wind pressures: Increase by 50%
- Roof Structure:
 - o Joists Spacing decreases from 5'-6" to 4'-0" (an steel weight increase from 3 psf to 4 psf)
 - o Beams Sizes & end connections increase (from 2 psf to 3 psf)
 - o Roof Deck 4" total depth concrete slab will be needed in lieu of roof deck. Deck will change from 1 ½", 20ga roof deck to 1 ½", 20ga form deck topped with 2 ½" of normal-weight concrete (4" total depth slab added)
- Floor Structure: No Change
- Walls:
 - Building 3 Increase wall thickness from 8" CMU with #7@8" to 12" CMU with #6@16"
 - Building 4 Increase reinforcing in 8" CMU from #6@24" to #5@8"
 - Building 11 Increase wall thickness from 8" CMU with #6@8" to 12" CMU with #5@8"
- Foundations: Average size increases of 40%
- Other architectural elements exposed to wind (roofing, glazing, doors, etc.) would need to be designed for the higher wind loads. Costs of these elements will certainly increase.

Please let us know if there are any further questions about the information outlined above.



Engineering Matrix, Inc.

May 16, 2011

Matrix No. 09-0720

Via email to: s.johnson@harvardjolly.com

Mr. Steve Johnson, AIA, LEED®AP Harvard Jolly, Inc. 2714 Ninth Street North St. Petersburg, Florida 33704

RE.

SARASOTA COUNTY SCHOOL BOARD

BOOKER HIGH SCHOOL

EHPA Scopes of Work Exceeding Code Minimum Requirements-Revised

Dear Steve:

Engineering Matrix, Inc. is providing the below narrative to assist the Construction Manager in assigning an estimated construction cost for EHPA infrastructure being designed for Booker High School that exceeds the minimum EHPA requirements established by the Florida Building Code.

The EHPA square footage intended to be included in the design of the Booker HS Rebuild project will exceed the square footage required by the Florida Building Code by an amount roughly equal to the combined square footage of the Dining building's Kitchen and the 2 story CTE Classroom Building's 2nd floor EHPA designated spaces. Therefore, Matrix is providing a description of the Mechanical and Electrical scopes of work associated with these two areas.

A. New two story Classroom Building #4

- The new two story Classroom Building shall have its Mechanical system configured to meet the EHPA requirements of section 423 of the Florida Building Code.
- 2. The 2nd Floor of the 2 story CTE Classroom Building will be equipped with two (2) emergency exhaust fans and two (2) emergency outside air supply fans. Each fan is anticipated to be 40 horsepower in size.
- The emergency exhaust fans will be connected to the main systems return air ductwork and will exhaust to wall mounted louvers located at the ends of the building.
- 4. The emergency outside air fans will be connected to the energy recovery unit supply ductwork and will provide supply air through the mechanical room air handler units and their associated supply ductwork.
- 5. Approximately Thirty (30) Combination fire smoke dampers will be required to allow for the proper sequencing of these fans during an emergency condition.
- 6. The power servicing these fans and dampers shall be provided from dedicated emergency panels capable of being supported by a portable emergency generator.
- 7. Refer to Mechanical details for a schematic drawing of the above described configuration.

2860 Scherer Drive St. Petersburg Florida 33716

(727) 573-4656 Fax (727) 573-3902

www.engmtx.com

email@engmtx.com



- 8. The new two story Classroom Building shall have its Electrical system configured to meet the EHPA requirements of section 423 of the Florida Building Code.
- 9. The 2nd Floor of the 2 story CTE Classroom Building will be equipped dedicated power distribution panelboards for EHPA lighting and mechanical equipment loads which will be tied into the EHPA emergency generator.
- It is anticipated two (2), 300 Amp panelboards, two (2) 30-kVA transformers, two (2) 150 Amp panelboards and their associated conduit, wiring, circuit breakers, etc. will be required to serve the 2nd floor EHPA loads.
- 11. The main, generator distribution panelboard for the building is expected to increase in size from 800 Amps to 1,600 Amps to accommodate the 2nd floor EHPA loads.
- 12. The following is a summary of what loads will be serviced by the EHPA emergency generator:
 - Mechanical ventilation fans to provide outside air ventilation throughout the EHPA spaces in Bldg #4 (first and second floors).
 - Lighting fixtures throughout first and second floors of Bldg #4.
 - Power to service the fire alarm system, phone system, security, and energy management system in Bldg #4.
 - d. Receptacles located in the 1st and 2nd floor corridors of Bldg #4 (5 receptacles per floor for a total of 10 receptacles).
- 13. References have been made above to isolate only the 2nd floor of the new two story Classroom Building in an effort to assist the Contractor in assigning a price tag to the 2nd floor EHPA costs. However, both the 1st and 2nd floors of this building have been designed to the same EHPA Criteria.

B. New Cafeteria Building Kitchen

- The new Cafeteria Building Kitchen shall be connected to the EHPA emergency generator system such that the Kitchen may be fully functional during periods when the campus' normal source of power is interrupted and the EHPA emergency generator is operating.
- 2. It is anticipated one (1), 300 Amp panelboard, one (1) 30-kVA transformer, one (1) 150 Amp panelboard and their associated conduit, wiring, circuit breakers, etc. will be required to serve the Kitchen loads.
- 3. The following is a summary of what loads will be serviced by the EHPA emergency generator:
 - a. Mechanical ventilation fans to provide outside air ventilation throughout the EHPA spaces in Bldg #3.
 - b. Lighting fixtures throughout Bldg #3.
 - c. Kitchen Exhaust Hoods in Bldg #3.
 - d. All Cooking related equipment in Bldg #3.



- e. Power to service the fire alarm system, phone system, security, and energy management system in Bldg #3.
- f. Fifteen receptacles in the Kitchen and all receptacles in the MDF of Bldg #3.
- g. Redundant DX split system serving the MDF in Bldg #3.

C. New Central Energy Plant

- The new Central Energy Plan (CEP) shall provide a location for connection of the portable, EHPA emergency generator. From there a network of electrical distribution equipment, conduit, and wiring will provide generator power to EHPA designated areas.
- 2. It is anticipated one (1), 2,000 Amp Automatic Transfer Switch (ATS), one (1), 2,000 Amp main generator distribution panelboard, and their associated conduit, wiring, circuit breakers, etc. will be required to serve all the EHPA loads. This main generator distribution panelboard is expected to increase in size from 1,000 Amps to 2,000 Amps to accommodate the EHPA loads of the 2nd Floor of the 2 story CTE Classroom Building and the Cafeteria Building Kitchen.
- 3. It is anticipated one (1) 30-kVA transformer and one (1) 150 Amp panelboard and their associated conduit, wiring, circuit breakers, etc. will be required to serve the 120/208 Volt loads at the CEP.
- 4. The following is a summary of what loads will be serviced by the EHPA emergency generator:
 - a. Power to service the fire alarm system, phone system, security, energy management system, in addition to a few select duplex power receptacles in Building #11, as required to support the Emergency Generator
 - b. Lighting fixtures in Bldg #11

If you have any questions, or if further information is required, please feel free to contact our office.

Sincerely,

Engineering Matrix, Inc.

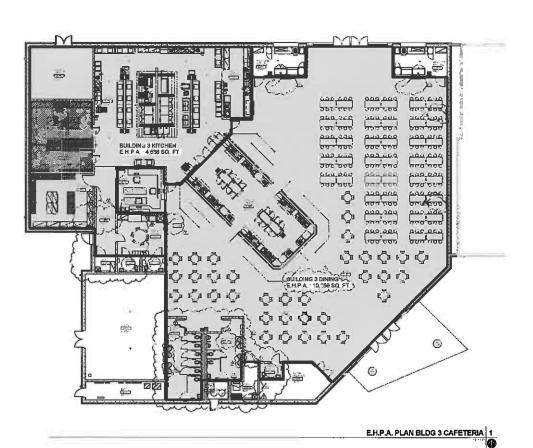
1)4

Gregory F. Bowen, P.E., LEED®AP

Principal

Attachments.........Drawings ME-121-4, ME-122-4, E-601, E-602 and EHPA Ventilation Air Schematic Diagram





FAWLEYIBRYANT 947L

SBSC Booker High School Rebuild

G-112-3

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BUILDING 4 CTE CLASSROOM 1 ST FLCOR E.H.P.A.: 29,696 SQ. FT.

Exhibit A





SBSC Booker High School Rebuild



EHPA PLAN BLDG 4 CTE CLASSROOM 1ST FLOOR 1





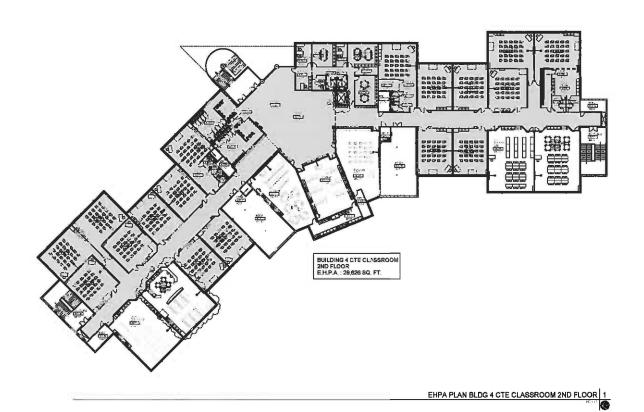
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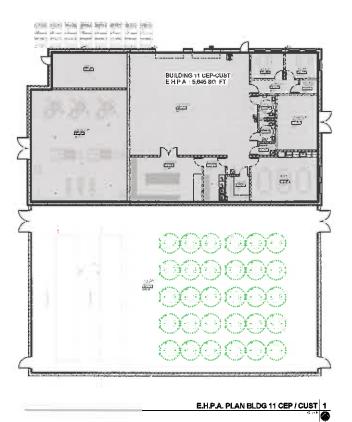


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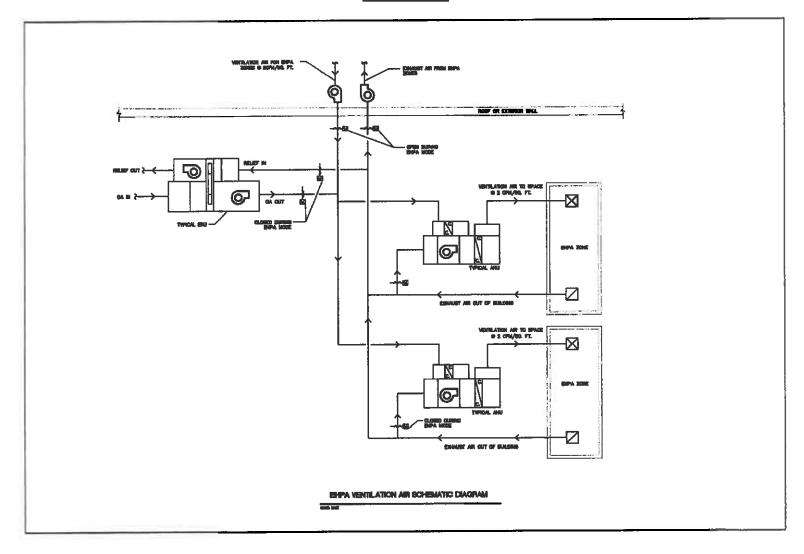
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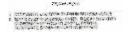


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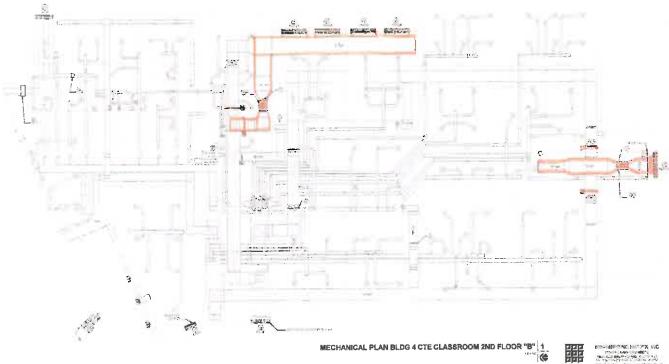
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Exhibit A





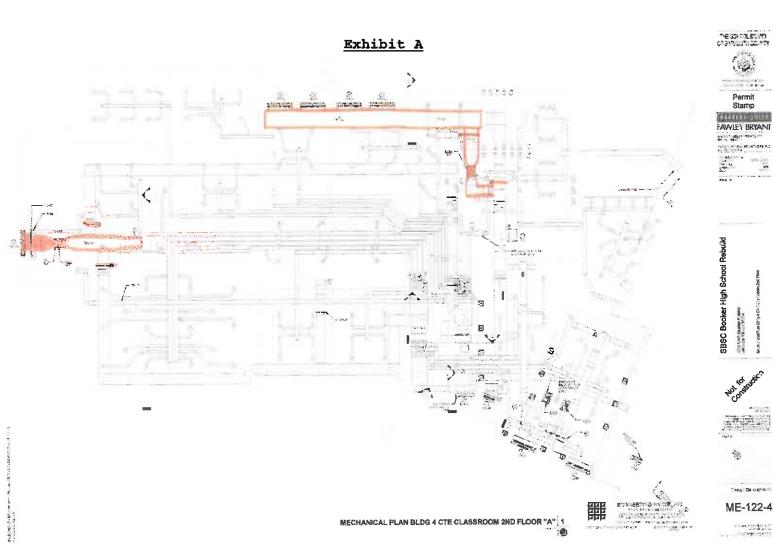




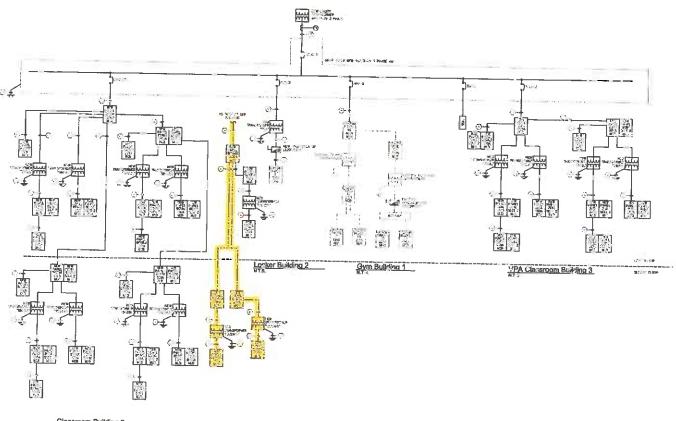


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SBSC Booker High School Rebuild



ME-122-4



Classroom Building 8

SINGLE LINE DIAGRAM - ELECTRICAL









E-601

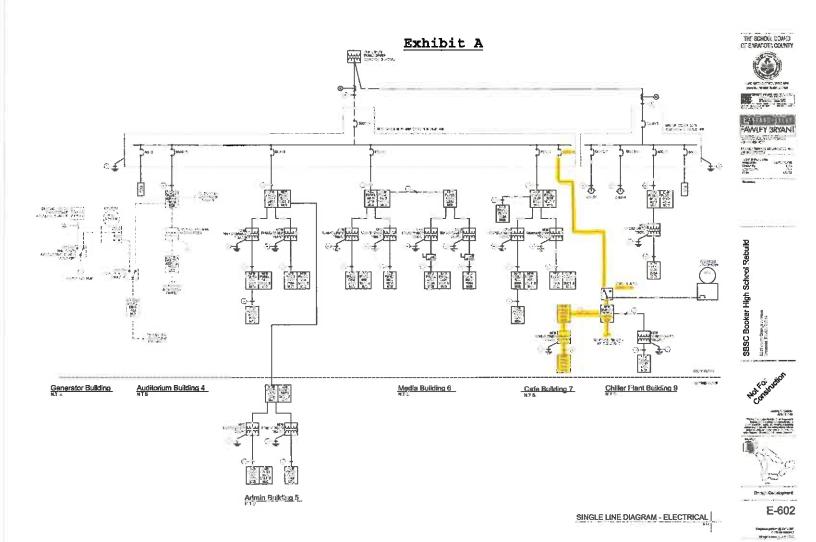


EXHIBIT B

BOOKER HIGH SCHOOL

Estimated Cost for EHPA Shelter Above Requirement

Scope of Work	Quantity	Unit	Budget Unit Cost	Total Cost
Increases for 170 MPH Wind (Above Requirement)		•		
Foundations (40% Increase)				- -
Bidg 3 - Dining	16,595	SF	0.60	9,957
Bldg 4 - Classrooms (Foundation Area Only)	49,705	SF	1.06	52,688
Bldg 11 - CEP	5,667	SF	2.20	12,468
Roof Framing & Concrete				-
Bldg 3 - Dining				-
Steel	16,595	SF	4.00	66,380
Bldg 4 - Classrooms (Roof Area Only)				_
Steel	49,705	SF	4.00	198,820
Bldg 11 - CEP				
Steel	5,667	SF	4.00	22,668
Exterior Walls				- -
Bldg 3 - Dining (Incr. 8" CMU to 12" CMU)	12,620	SF	4.00	50,480
Bldg 4 - Classrooms (Incr. Rebar in Block)	48,302	SF	0.40	19,321
Bldg 11 - CEP (Incr. 8" CMU to 12" CMU)	1,494	SF	4.00	5,976
Roofing	Estimate			40,000
Exterior Doors & Windows	Estimate			125,000
Additional Come for SUDA Above Deguinement				_
Additional Scope for EHPA Above Requirement HVAC	Catimata		 -	175 000
NVAC	Estimate			175,000
Electrical	Estimate			95,000
Total Estimated Construction Cost				873,758
GCs, Insurances, Bond & Fees				131,064
Total Additional Cost				\$1,004,822