CAPITAL PROJECTS

Short-Term Facility Improvement Plan

June, 2021 – August, 2024

September 14, 2021	**Board of Education** **Committee of the Whole Meeting**

Prepared by:

Kenneth E Surma
Assistant Superintendent for Business & Operations/CSBO

Short-Term Facility Improvement Plan: June, 2021 – August, 2024

Facility	Sixth Grade Center & Dome	Balmoral Elementary School	Coretta Scott King Magnet School	Crete Elementary School	Monee Education Center	Talala Elementary School	Early Learning Center	Crete-Monee High School
Square Footage	195,150	62,970	83,750	63,130	25,510	40,700	78,540	326,000
Summer, 2021						**Life Safety Projects & HVAC Prep** $2,300,000	**Life Safety Projects & HVAC Prep** $1,300,000	
2021-22 School Year	**Demolition of Sixth Grade Center & Dome** $2,023,700	**Temporary Cooling Rooms** $245,000	**Temporary Cooling Rooms** $245,000	**Temporary Cooling Rooms** $245,000	**Temporary Cooling Rooms** $245,000			
Summer, 2022		**HVAC Prep** $7,128,888	**Life Safety Projects & HVAC Prep** $5,536,388	**Life Safety Projects & HVAC Prep** $9,090,725	**Life Safety Projects & HVAC Prep** $3,085,775	**Life-Safety, HVAC & Electrical Work** $4,040,050	**Life-Safety, HVAC & Electrical Work** $5,147,450	**LED Lighting** $442,259
Summer, 2023		**Life-Safety, HVAC & Electrical Work** $5,428,588	**Life-Safety, HVAC & Electrical Work** $4,204,813	**Life-Safety, HVAC & Electrical Work** $4,996,775	**Life-Safety, HVAC & Electrical Work** $3,118,238	**Cosmetic Improvements**** $1,300,000	**Cosmetic Improvements**** $2,400,000	
Summer, 2024		**Cosmetic Improvements**** $1,900,000	**Cosmetic Improvements**** $2,400,000	**Cosmetic Improvements**** $1,800,000	**Cosmetic Improvements**** $800,000			

***Cosmetic improvements totaling $10,600,000 are not included in the borrowing recommendation within the Financial Data & Analysis.*

Summary

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Life Safety Projects				
Balmoral Elementary School	$ 140,000		$ 0	$ 140,000
Coretta Scott King Magnet School	$ 1,037,500		$ 982,500	$ 55,000
Crete Elementary School	$ 3,290,500		$ 3,017,500	$ 273,000
Early Learning Center	$ 152,000		$ 152,000	$ 0
Monee Education Center	$ 565,000		$ 447,000	$ 118,000
Talala Elementary School	$ 58,000		$ 58,000	$ 0
Total: Life-Safety Projects	**$ 5,243,000**		**$ 4,657,000**	**$ 586,000**
A/E Fees - 8.5%	$ 445,655		$ 395,845	$ 49,810
Other Fees and Services - 1.0%	$ 52,430		$ 46,570	$ 5,860
Contingency - Design - 2.0%	$ 104,860		$ 93,140	$ 11,720
Contingency - Bidding - 3.0%	$ 157,290		$ 139,710	$ 17,580
Contingency - Construction - 5.0%	$ 262,150		$ 232,850	$ 29,300
Total Cost of Life-Safety Projects	**$ 6,265,385**		**$ 5,565,115**	**$ 700,270**

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Non-Life Safety Projects				
Balmoral Elementary School	$ 10,311,000	$ 200,000	$ 5,819,500	$ 4,291,500
Coretta Scott King Magnet School	$ 7,114,500	$ 200,000	$ 3,537,000	$ 3,377,500
Crete Elementary School	$ 8,409,500	$ 200,000	$ 4,403,500	$ 3,806,000
Early Learning Center	$ 4,050,000		$ 4,050,000	$ 0
Monee Education Center	$ 4,699,500	$ 200,000	$ 2,072,000	$ 2,427,500
Talala Elementary School	$ 3,240,000		$ 3,240,000	$ 0
LED Lighting: Crete-Monee High School	$ 315,665		$ 315,665	
Demolition of the Sixth Grade Center	$ 1,400,000	$ 1,400,000		
Demolition of the Dome	$ 250,000	$ 250,000		$ 0
Total: Non-Life-Safety Projects	**$ 39,790,165**	**$ 2,450,000**	**$ 23,437,665**	**$ 13,902,500**
A/E Fees - 8.5%	$ 3,382,164	$ 208,250	$ 1,992,202	$ 1,181,713
Other Fees and Services - 4.0%	$ 1,591,607	$ 98,000	$ 937,507	$ 556,100
Contingency - Design - 2.0%	$ 795,803	$ 49,000	$ 468,753	$ 278,050
Contingency - Bidding - 3.0%	$ 1,193,705	$ 73,500	$ 703,130	$ 417,075
Contingency - Construction - 5.0%	$ 1,989,508	$ 122,500	$ 1,171,883	$ 695,125
Total Cost of Projects	**$ 48,742,952**	**$ 3,001,250**	**$ 28,711,140**	**$ 17,030,563**

CAPITAL PROJECTS

Balmoral Elementary School

June, 2021 – August, 2024

HEALY BENDER PATTON & BEEN
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2022 Renovation Work
Balmoral Elementary School
Crete, Illinois
Project No. 7-1221-62

Architectural Narrative
Date: 2021-08-17

1.01 GENERAL

A. Balmoral Elementary School is a one story school building that was originally completed in 1960. Additions were constructed in 1967, 1970, and 1998.

B. Area of the existing building and additions is as follows:

1960 Original Building	9,450 sq. ft.
1967 Addition	10,100 sq. ft.
1970 Addition	40,550 sq. ft.
1998 Addition	2,870 sq. ft.
Total	62,970 sq. ft.

C. Exterior walls are constructed of concrete masonry with a brick veneer. Interior walls are generally constructed of concrete masonry.

D. The first floor is a slab on grade.

E. According to the Illinois Report Card, for 2020, student enrollment was 424 students. Student enrollment has been steady over the past five years.

1.02 ASBESTOS ABATEMENT

A. There are asbestos containing materials in the existing building. An environmental consultant will be utilized to assess areas where work is to be performed to determine the extent of existing asbestos containing materials and develop appropriate abatement procedures.

1.03 SELECTIVE DEMOLITION

A. Perform selective demolition work as necessary to accomplish the work, including the removal and proper disposal of items which are exposed and not to remain in use, including but not necessarily limited to slabs, structural items, walls, roofing, flashings, finishes, ceilings, flooring, framing, trim, specialties, equipment, casework, plumbing, mechanical and electrical items, etc.

B. Refer to the MEP/FP System Narrative for additional requirements related to selective demolition.

1.04 CONCRETE

A. Existing floor mounted mechanical items are to be replaced with new floor mounted mechanical items. Where possible, existing concrete housekeeping

pads shall be reused. Where required, provide new concrete housekeeping pads for new floor mounted mechanical items.

B. Provide a new concrete chiller pad for a new exterior chiller.

1.05 MASONRY

A. In locations where existing masonry is to be removed to access piping within walls and/or chases, provide masonry to match existing adjacent in material, size, reinforcing, coursing, finish, and other components to provide a complete and proper installation to match existing.

B. Remove masonry walls at plumbing chase walls to accommodate replacement of existing plumbing piping and then reconstruct masonry walls.

C. Openings in the exterior masonry wall will need to be constructed for outside air louvers for new unit ventilators.

1.06 STRUCTURAL

A. The existing gymnasium is planned to receive (2) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

B. The existing MPR/cafeteria is planned to receive (1) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

C. Where required, provide new steel lintels to support masonry.

1.07 ROOFING

A. The roof was completely replaced with a modified bitumen roof system in 2003.

B. At locations where new rooftop units are to be installed, remove portions of existing roofing to accommodate the installation of new equipment curbs. Remove portion of existing roof deck to allow for supply and return ductwork. After installation of new equipment roof curbs, perform roofing work in accordance with roofing system manufacturer requirements and to provide for proper flashing and to maintain existing roofing warranties.

C. At locations where existing rooftop exhaust fans are to be removed and replaced with new rooftop exhaust fans, perform roofing work in accordance with manufacturer requirements and to maintain existing roofing warranties.

1.08 CAULKING AND SEALANTS

A. Provide exterior elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

C. Provide penetration firestopping at pipe and duct penetrations to resist spread of fire according to requirements indicated; resist passage of smoke and other gases and maintain original fire-resistance rating of construction penetrated.

1.09 CEILINGS

A. Where required, remove existing acoustical ceiling systems, gypsum board

soffits and fluorescent lighting and replace with new acoustical ceiling systems, gypsum board soffits and LED lighting. Locations where branch piping is to be replaced, remove, and reinstall ceilings and lighting to accommodate the work.

B. New acoustical ceiling materials shall match existing.

1.10 PAINTING

A. Paint exposed surfaces of new items including but not limited to masonry, structural steel, gypsum board, ductwork, piping, insulation, and conduit.

B. At wall areas where new materials were used to patch to match existing adjacent materials, entire wall areas shall be painted including exiting previously painted wall areas and areas of new wall materials to match existing adjacent.

C. At areas of existing construction to be painted, perform necessary preparation work to allow for proper application of new painting materials.

D. New paint materials, sheen, and colors to be used should match existing paint materials.

1.11 EQUIPMENT

A. At locations where existing equipment including metal shelving conceals existing piping to be replaced, remove portions of existing equipment to allow for proper replacement of existing piping with new piping.

B. Following installation of new replacement piping, reinstall existing equipment items including metal shelving to match preconstruction conditions.

C. Remove existing toilet partitions and toilet accessories to accommodate replacement of plumbing piping. Provide new toilet partitions and toilet accessories.

D. Remove existing countertops at classroom sink areas to accommodate replacement of existing sinks. Provide new countertops.

1.12 GENERAL CONDITIONS

A. Provide temporary facilities including enclosures, lighting, protections, clean-up, toilet facilities, water, electric.

B. Provide supervision and coordination of trade contractors to complete the work within the project schedule.

1.13 ESTIMATED BUDGET

Estimated Architectural Budget $3,500,000

END

August 16, 2021

Healy Bender Patton & Been Architects

D R A F T

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Balmoral Elementary School
Crete, Illinois

Balmoral Elementary School – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- New boilers and circulating pumps installed in 2012
- Existing constant volume building pumps
- Boiler plant was piped in primary/secondary piping arrangement in 2012.
- Temperature controls are Pneumatic, and the boiler plant has a JCI control panel.
- Piping distribution in the building is heating only.

Existing HVAC system in the building:

- Classrooms have heating only unit ventilators.
- The lunchroom has heating only unit ventilators.
- The gym has a heating only suspended unit ventilator unit.
- Entry has hot water cabinet heaters
- The kitchen exhaust hood system is existing.
- The classroom relief air systems are not provided.

I. System Description: Fire Protection

A. The building does not have a fire protection sprinkler system throughout the building.

B. Provide a fire protection sprinkler system throughout the entire facility.

C. It assumes that there is adequate water pressure, and a fire booster pump is not included in the budget- available water pressures and flow rates will need to be confirmed.

D. A new combination domestic water/Fire protection water service from street to building or providing sprinkler system throughout the entire facility is not included in the budget.

E. A new sprinkler water room will be required for the new domestic/fire sprinkler water services.

Estimated budget	**$280,000.00**

Water storage for well water supply system and fire booster pump is not included.

Additional Scope not included in base work:

Add sprinkler system fire pump:	**$ 45,000.00**
Add fire protection water storage system	**$150,000.00**

II. System Description – Plumbing

Base Work: Not Applicable – no life safety items are listed.

Additional Scope not included in base work:

ADD Replace the existing domestic cold, hot, and hot water return piping mains and piping within existing plumbing chases. Remove and reinstall existing plumbing fixtures.

A. New plumbing fixtures not included.

Estimated Budget	**$ 775,000.00**
Add for new code compliant plumbing fixtures	**$ 130,000.00.**
Add to provide low water consumption fixture upgrade	**$ 35,000.00.**
Add water softener system	**$ 100,000.00.**
Add Replace (22) classroom sinks	**$ 35,000.00.**
Add Replace (3) Janitor closet sinks	**$ 15,000.00.**
Add Replace (7) Electric water Coolers	**$ 35,000.00.**
Add floor drains in (8) toilet rooms	**$ 88,000.00.**
Add to upgrade water heater systems.	**$ 20,000.00**

Budget does not include converting floor mounted water closets to wall hung water closets, new water sprinkler room, cutting and patching of floors for floor

drains or new water main into building, new combine water service into building, removal, and restoration of plumbing chase walls.

III. System Descriptions - Mechanical HVAC:

A. Base Bid work includes Replace toilet exhaust fans in Toilets 30A,31A, 31B and 32A.

Estimated Budget: $ 35,000.00

B. Base Work: New corridor relief air system.

Estimated Budget $ 85,000.00

C. Base Bid work includes labeling the gas main shut off valve.

Estimated Budget $ 500.00

D. Base Bid work includes rearranging the cooking equipment under the kitchen exhaust hood to provide code required overlap.

Estimated Budget $ 1,500.00

Additional Scope not included in base work:

ADD Replace existing constant volume hot water pumps with new variable speed pumping system and 2 base mounted pumps with new Variable speed drives, pressure transducers and two (2) new building hot/chilled water base mounted pumps. $ 50,000.00

Add to provide supplemental air conditioning in MDF room. $ 40,000.00

Add for new DDC temperature control system $325,000.00

Add for (1) New Roof top heating cooling units for Lunchroom $175,000.00

Add for new computer room heating/cooling roof top unit $125,000.00

Add for (2) New Roof top heating cooling units for Gym $280,000.00

Add for new office heating/cooling roof top unit $ 75,000.00

Add for new chiller plant, pumps, piping, and controls $ 450,000.00

SD 201-U Crete Monee- Balmoral Elementary School
Crete, Illinois

Add for Unit Vent Demand control ventilation	**$ 60,000.00**
Add to replace (4) toilet exhaust fans	**$ 40,000.00**
Add for (4) new hot water cabinet heaters at entries	**$ 45,000.00**
Add for (6) new hot water convector heaters in toilet rooms	**$ 75,000.00**
Add for (4) heating/cooling fan coil units	**$ 50,000.00**

Reuse existing hot water boilers.

Demolish the existing hot water supply and return piping distribution system from boiler out to all existing HVAC units.

Provide new 2-pipe hot/chilled water piping distribution sized for heating/future cooling from the boiler room to all existing HVAC units. New variable speed pumps with drives.

Remove and install existing ceilings to remove old piping and install new piping.

Provide vertical and horizontal pipe enclosures where needed.

Drain down old piping system and refill new hot/chilled water heating system, water treatment, and test and balance existing pumps.

Budgets do not include new fan coils, convectors, roof top units, DDC temperature controls, office HVAC system, or chiller plant.

It is assumed that the computer room, gym, main office, and lunchroom will be provided its own roof top unit and not be served from the boiler/chiller plant.

Estimated budget	**$1,000,000.00**

Add for replacing existing heating unit ventilators with (40) new 2 pipe heating /future cooling unit ventilators, new wall louvers, reuse wall openings, drain piping, etc.

$500,000.00

Add test and balance for new HVAC systems	**$ 75,000.00**

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls at new cabinet heaters and wall mounted fan coil units to replace old piping with new, restoration of walls and floors behind unit ventilator pipe enclosures.

IV. System Descriptions – Electrical lighting & Power:

Existing Electrical system summary:

Electrical Equipment:

- The electrical service was recently replaced and is a 120/208V, 3 phase, 4 wire, 2000A main distribution panel fed from a pad mounted utility transformer.

Existing Light Fixtures:

- Most spaces have existing fluorescent light fixtures with T8 bulbs. Most of these fixtures are a mix of recessed troffers and recessed or pendant linear fixtures.

V. System Description: Electrical Systems

A. Demolition:

i. Remove existing electrical connections to various existing mechanical equipment to be removed.

ii. Remove and replace existing distribution panels

B. New Electrical Work:

i. Provide new 480/277V, 3 phase, 4 wire, 2000A service with step down transformer to feed new 120/208V, 3 phase, 4 wire, 1000A distribution panel.

ii. Provide additional step-down transformer to back feed existing distribution equipment.

iii. Provide new electrical connections to new or modified HVAC equipment in base work

iv. Provide two (2) new 120/208V electrical branch panels in classroom wings for new HVAC equipment.

v. Provide new LSI circuit breakers in existing distribution panel.

vi. New electrical room for new electrical service equipment

vii. Upgraded, exterior pad mounted utility transformer will be required.

Estimated budget **$500,000.00**

SD 201-U Crete Monee- Balmoral Elementary School
Crete, Illinois

Additional Scope not included in base work:

Fire Protection

Add power for sprinkler system fire pump:	**$ 30,000.00**

Plumbing

Add power for water softener system	**$ 2,500.00.**
Add power for (7) Electric water Coolers	**$ 14,000.00.**
Add power for water heater systems.	**$ 15,000.00**
ADD power for new variable speed pumping system and 2 base mounted pumps with new Variable speed drives, pressure transducers and two (2) new building hot/chilled water base mounted pumps.	**$ 40,000.00**
Add power for supplemental air conditioning in MDF room.	**$ 7,500.00**
Add power for new DDC temperature control system	**$ 7,000.00**
Add power for (1) New Roof top units for Lunchroom	**$ 7,500.00**
Add power for new computer room roof top unit	**$ 7,500.00**
Add power for (2) New Roof top heating cooling units for Gym	**$ 15,000.00**
Add power for new office heating/cooling roof top unit	**$ 7,500.00**
Add power for new chiller plant and controls	**$ 100,000.00**
Add power for Unit Vent Demand control ventilation	**$ 7,000.00**
Add to replace (4) toilet exhaust fans	**$ 10,000.00**
Add for (4) new hot water cabinet heaters at entries	**$ 20,000.00**
Add for (6) new hot water convector heaters in toilet rooms	**$ 30,000.00**
Add for (4) heating/cooling fan coil units	**$ 30,000.00**

Add for replacing existing heating unit ventilators with (40) new 2 pipe heating /future cooling unit ventilators, new wall louvers, reuse wall openings, drain piping, etc.

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SD 201-U Crete Monee- Balmoral Elementary School
Crete, Illinois

$ 100,000.00

Add new LED lighting in all spaces incl. corridors, classrooms, etc.

$550,000.00

Budgets do not include costs associated with utility modifications or any structural modifications required for cutting and patching, roof, or wall penetrations, etc.

Balmoral Elementary School

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Life Safety Projects				
New Corridor Relief System	$ 85,000			$ 85,000
Hollow Metal Doors - Exterior	$ 35,000			$ 35,000
Hollow Metal Doors - Interior	$ 20,000			$ 20,000
Total: Life-Safety Projects	**$ 140,000**			**$ 140,000**
Non-Life Safety Projects				
Fire Suppression	$ 280,000		$ 280,000	
Fire Pump	$ 45,000		$ 45,000	
Fire Protection Water Storage	$ 150,000		$ 150,000	
Domestic Piping	$ 775,000		$ 775,000	
Code Compliant Fixtures	$ 130,000		$ 130,000	
Low Water Fixtures Add	$ 35,000		$ 35,000	
Water Softener	$ 100,000		$ 100,000	
Replace (22) Classroom Sinks	$ 35,000		$ 35,000	
Replace (7) EWC's	$ 35,000		$ 35,000	
Add Floor Drains to (8) toilet rooms	$ 88,000		$ 88,000	
Upgrade Water Heater Systems	$ 20,000		$ 20,000	
Add (3) new JC Service Sinks	$ 15,000		$ 15,000	
Replace Exhaust in 30A, 31A, 31B and 32A	$ 35,000			$ 35,000
Label Gas Main Shut Off	$ 500			$ 500
Rearrange Cooking Equipment under hood	$ 1,500			$ 1,500
Replace hot water pumps	$ 50,000			$ 50,000
Supplemental AC for MDF Room	$ 40,000			$ 40,000
DDC Controls	$ 325,000			$ 325,000
(1) RTU's at Lunchroom	$ 175,000			$ 175,000
New Computer room RTU	$ 125,000			$ 125,000
(2) RTU's at Gym	$ 280,000			$ 280,000
New office RTU	$ 75,000			$ 75,000
New Chiller, Pumps, Piping	$ 450,000			$ 450,000
UV Demand Ventilation	$ 60,000			$ 60,000
Replace (4) Toilet Exhaust Fans	$ 40,000			$ 40,000
Replace (4) cabinet heaters at entries	$ 45,000			$ 45,000
(6) hot water convectors in toilet rooms	$ 75,000			$ 75,000
(4) heating/cooling FC units	$ 50,000			$ 50,000
Replace hot water piping & pumps	$ 1,000,000		$ 1,000,000	
Replace (40) UV's	$ 500,000			$ 500,000
Test and Balance	$ 75,000			$ 75,000
Upgrade Electrical Service	$ 500,000		$ 500,000	
Power for Fire Pump	$ 30,000		$ 30,000	
Power for Water Softener	$ 2,500		$ 2,500	
Power for (7) EWC's	$ 14,000		$ 14,000	
Power for Water Heater Systems	$ 15,000		$ 15,000	
Power for Replace hot water pumps	$ 40,000			$ 40,000
Power for Supplemental AC for MDF Room	$ 7,500			$ 7,500
Power for DDC Controls	$ 7,500			$ 7,500
Power for (1) RTU's at Lunchroom	$ 7,500			$ 7,500

Balmoral Elementary School

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Power for New Computer room RTU	$ 7,500			$ 7,500
Power for (2) RTU's at Gym	$ 15,000			$ 15,000
Power for New office RTU	$ 7,500			$ 7,500
Power for New Chiller, Pumps, Piping	$ 100,000			$ 100,000
Power for UV Demand Ventilation	$ 7,000			$ 7,000
Power for Replace (4) Toilet Exhaust Fans	$ 10,000			$ 10,000
Power for Replace (4) cabinet heaters at entries	$ 20,000			$ 20,000
Power for (6) hot water convectors in toilet room	$ 30,000			$ 30,000
Power for (4) heating/cooling FC units	$ 30,000			$ 30,000
Power for Replace (40) UV's	$ 100,000			$ 100,000
LED Lighting throughout	$ 550,000		$ 550,000	
Architectural	$ 3,500,000		$ 2,000,000	$ 1,500,000
Temporary Cooling Rooms	$ 200,000	$ 200,000		
Total: Non-Life-Safety Projects	**$ 10,311,000**	**$ 200,000**	**$ 5,819,500**	**$ 4,291,500**
Total Construction Cost	**$ 10,451,000**	**$ 200,000**	**$ 5,819,500**	**$ 4,431,500**
A/E Fees - 8.5%	$ 888,335	$ 17,000	$ 494,658	$ 376,678
Other Fees and Services - 4.0%	$ 418,040	$ 8,000	$ 232,780	$ 177,260
Contingency - Design - 2.0%	$ 209,020	$ 4,000	$ 116,390	$ 88,630
Contingency - Bidding - 3.0%	$ 313,530	$ 6,000	$ 174,585	$ 132,945
Contingency - Construction - 5.0%	$ 522,550	$ 10,000	$ 290,975	$ 221,575
Total Cost of Projects	**$ 12,802,475**	**$ 245,000**	**$ 7,128,888**	**$ 5,428,588**

CAPITAL PROJECTS

Crete Elementary School

June, 2021 – August, 2024

HEALY BENDER PATTON & BEEN
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SENIOR ARCHITECTS
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2022 Renovation Work
Crete Elementary School
Crete, Illinois
Project No. 7-1221-62

Architectural Narrative
Date: 2021-08-11

1.01 GENERAL

A. Crete Elementary School is a two story school building that was originally completed in 1928. Additions were constructed in 1938, 1946, 1949, 1950, 1970, 1977 and 1982.

B. Area of the existing building and additions is as follows:

1971 Original Building	54,340 sq. ft.
1928 Original - Basement	2,060 sq. ft.
1928 Original - First Floor	13,510 sq. ft.
1938 Addition - Lower Level	4,350 sq. ft.
1938 Addition - Upper Level	4,350 sq. ft.
1946 Addition	9,990 sq. ft.
1949 Addition	6,120 sq. ft.
1950 Addition	7,120 sq. ft.
1970 Addition	11,490 sq. ft.
1977 Addition	24,240 sq. ft.
1982 Addition - Lower Level	260 sq. ft.
1982 Addition - Upper Level	260 sq. ft.
Total	83,750 sq. ft.

C. Exterior walls are constructed of concrete masonry with a brick veneer. Interior walls are generally constructed of concrete masonry.

D. The first floor is a slab on grade. Second floor is reinforced concrete slab on steel joists and beams.

E. Provide a new combination domestic water/fire protection water service from the street water main to the building.

F. According to the Illinois Report Card, for 2020, student enrollment was 394 students. Student enrollment has been steady over the past five years.

1.02 ASBESTOS ABATEMENT

A. There are asbestos containing materials in the existing building. An environmental consultant will be utilized to assess areas where work is to be performed to determine the extent of existing asbestos containing materials and develop appropriate abatement procedures.

1.03 SELECTIVE DEMOLITION

A. Perform selective demolition work as necessary to accomplish the work, including the removal and proper disposal of items which are exposed and not to remain in use, including but not necessarily limited to slabs, structural items, walls, roofing, flashings, finishes, ceilings, flooring, framing, trim, specialties, equipment, casework, plumbing, mechanical and electrical items, etc.

B. Refer to the MEP/FP System Narrative for additional requirements related to selective demolition.

1.04 CONCRETE

A. Existing floor mounted mechanical items are to be replaced with new floor mounted mechanical items. Where possible, existing concrete housekeeping pads shall be reused. Where required, provide new concrete housekeeping pads for new floor mounted mechanical items.

B. Provide a new concrete chiller pad for a new exterior chiller.

1.05 MASONRY

A. In locations where existing masonry is to be removed to access piping within walls and/or chases, provide masonry to match existing adjacent in material, size, reinforcing, coursing, finish, and other components to provide a complete and proper installation to match existing.

B. Remove masonry walls at plumbing chase walls to accommodate replacement of existing plumbing piping and then reconstruct masonry walls.

C. Openings in the exterior masonry wall will need to be constructed for outside air louvers for new unit ventilators.

1.06 STRUCTURAL

A. The existing gymnasium is planned to receive (1) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

B. The existing MPR/cafeteria is planned to receive (1) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

C. Where required, provide new steel lintels to support masonry.

1.07 ROOFING

A. Most of the existing roofing is a foam roofing system. The existing foam roof was crack repaired in 2007 and completely recoated in 2010. The roof for the cafeteria area was completely replaced with a 3-ply asphalt built-up roof system in 2009.

B. At locations where new rooftop units are to be installed, remove portions of existing roofing to accommodate the installation of new equipment curbs.

Remove portion of existing roof deck to allow for supply and return ductwork. After installation of new equipment roof curbs, perform roofing work in accordance with roofing system manufacturer requirements and to provide for proper flashing and to maintain existing roofing warranties.

C. At locations where existing rooftop exhaust fans are to be removed and replaced with new rooftop exhaust fans, perform roofing work in accordance with manufacturer requirements and to maintain existing roofing warranties.

1.08 CAULKING AND SEALANTS

A. Provide exterior elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

C. Provide penetration firestopping at pipe and duct penetrations to resist spread of fire according to requirements indicated; resist passage of smoke and other gases and maintain original fire-resistance rating of construction penetrated.

1.09 CEILINGS

A. Where required, remove existing acoustical ceiling systems, gypsum board soffits and fluorescent lighting and replace with new acoustical ceiling systems, gypsum board soffits and LED lighting. Locations where branch piping is to be replaced, remove, and reinstall ceilings and lighting to accommodate the work.

B. New acoustical ceiling materials shall match existing.

1.10 PAINTING

A. Paint exposed surfaces of new items including but not limited to masonry, structural steel, gypsum board, ductwork, piping, insulation, and conduit.

B. At wall areas where new materials were used to patch to match existing adjacent materials, entire wall areas shall be painted including exiting previously painted wall areas and areas of new wall materials to match existing adjacent.

C. At areas of existing construction to be painted, perform necessary preparation work to allow for proper application of new painting materials.

D. New paint materials, sheen, and colors to be used should match existing paint materials.

1.11 EQUIPMENT

A. At locations where existing equipment including metal shelving conceals existing piping to be replaced, remove portions of existing equipment to allow for proper replacement of existing piping with new piping.

B. Following installation of new replacement piping, reinstall existing equipment items including metal shelving to match preconstruction conditions.

C. Remove existing toilet partitions and toilet accessories to accommodate replacement of plumbing piping. Provide new toilet partitions and toilet accessories.

D. Remove existing countertops at classroom sink areas to accommodate replacement of existing sinks. Provide new countertops.

1.12 GENERAL CONDITIONS

A. Provide temporary facilities including enclosures, lighting, protections, clean-up, toilet facilities, water, electric.

B. Provide supervision and coordination of trade contractors to complete the work within the project schedule.

1.13 ESTIMATED BUDGET

Estimated Architectural Budget $3,500,000

END

August 11, 2021

Healy Bender Patton & Been Architects

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Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Crete Elementary School
Crete, Illinois

Crete Elementary School – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- There are two (2) boiler plants in the facility- one (1) steam and one (1) hot water heating.
- Original Steam heating boiler serving the original part of the building
- Steam and condensate piping distribution in the original part of the facility.
- Original hot water heating boiler serving the last classroom addition.
- Original constant speed building pumps.
- Boiler plant is piped in primary piping arrangement with a 3-way mixing valve.
- Temperature controls are Pneumatic
- The steam and hot water piping distribution in the building is heating only.

Existing HVAC system in the building:

- Most classrooms have steam or hot water heating only unit ventilators
- The lunchroom has roof top units
- They Gymnasium has two (2) steam heating air handling units.
- The administration area has appears to have a horizontal unit ventilators with D.X. cooling.
- The north side classrooms and LRC are served by a packaged gas heating/D.X. cooling roof top 10 zone multi-zone unit.
- Entry hot water cabinet heaters.
- The main entry has a unit ventilator.
- Classroom relief air transfers through door grilles into the egress corridor.

I. System Description: Fire Protection

A. Base work: Provide fire protection sprinkler water service and sprinkler system for the entire facility.

B. It assumes that there is adequate water pressure, and a fire booster pump is not included in the budget- available water pressures and flow rates will need to be confirmed.

C. A new combination domestic water/Fire protection water service from street to building or providing sprinkler system throughout the entire facility is not included in the budget.

Add: Sprinkler system throughout the facility: $ 340,000.00

Additional Scope not included in base work:

Add sprinkler system fire pump: $ 45,000.00

II. System Description – Plumbing

A. Base Work: Provide in the floor Grease trap for existing 3-compartment sink in the kitchen.

Estimated budget $10,000.00

B. Base Work: Provide Reduced pressure back flow preventor on incoming domestic water service. It is assumed that there is adequate water pressure and flow, and a domestic water booster pump is not included in the budget.

Estimated Budget $ 7,500.00

C. Base Work: Replace the existing domestic cold, hot, and hot water return piping mains and piping within existing plumbing chases. Remove and reinstall existing plumbing fixtures.

D. It assumes that there is adequate water pressure, and a domestic booster pump is not included in the budget- available water pressures and flow rates will need to be confirmed.

E. A new combination domestic water/Fire protection water service from street to building or providing sprinkler system throughout the entire facility is not included in the budget.

F. New plumbing fixtures not included.

Estimated Budget $950,000.00

Add domestic booster pump system $ 45,000.00

Add for new code compliant plumbing fixtures	**$ 120,000.00**
Add to provide low water consumption fixture upgrade	**$ 40,000.00**
Add water softener system	**$ 75,000.00.**
Add Replace (24) classroom sinks	**$ 48,000.00.**
Add Replace (6) Electric water Coolers	**$ 60,000.00.**
Add floor drains in (8) toilet rooms	**$ 85,000.00.**
Add (2) new water heater systems.	**$ 40,000.00**
Add (5) new janitor closet service sinks	**$ 38,000.00**

Budget does not include converting floor mounted water closets to wall hung water closets, new water sprinkler room, cutting and patching of floors for floor drains or new water main into building, new combine water service into building, removal and restoration of plumbing chase walls.

III. System Descriptions - Mechanical HVAC:

A. Base bid work includes Provide required indicator lamps on power burner control panel.

Estimated budget: **$ 10,000.00**

B. Base Bid work includes Replace toilet exhaust fans in Toilets 24A, 26A, and 45C.

Estimated Budget: **$ 24,000.00**

C. Base Bid Work includes Provide exhaust fans in Janitor's Closet 19 and 51.

Estimated Budget: **$ 20,000.00**

D. Base Bid Work includes Provide kitchen exhaust hood, exhaust fan and fire suppression system above cooking equipment in Kitchen.

Estimated Budget: **$ 35,000.00**

E. Base Bid includes Replace the existing hot water heating piping distribution system with new 2-pipe heating only piping system, new 2-pipe heating only unit ventilators serving the west and north side of the building.

F. Provide new DDC temperature controls for new heating only unit ventilators.

G. Provide vertical and horizontal pipe enclosures where needed.

H. Drain down and refill hot water heating system, water treatment, and test and balance existing HVAC units.

I. Demolish the existing hot water supply and return piping distribution system from boiler out to all existing HVAC units.

J. Budgets do not include new hot water heating boilers, hot water pumps, Media Center multi-zone unit, air handling units, administration HVAC units, cabinet heaters, future heating cooling piping distributions system, or chiller plant.

K. It is assumed that the gym and media center areas will be provided its own roof top unit and not be served from the boiler/chiller plant.

L. Existing toilet room fin-tube and entry cabinet heaters to be provided with new piping.

Estimated budget **$720,000.00**

M. Base Work: New corridor relief air system and new lighting.

Estimated Budget **$ 65,000.00**

N. Base Bid includes Replace the existing steam piping distribution system and associated unit ventilators on the south and east side of the facility with new hot water boilers, boiler pumps, building pumps, heating piping distribution system with new 2-pipe heating only piping system, new 2-pipe heating only unit ventilators, new fan coils to replace steam convectors, serving the south and east side of the building.

O. Provide new DDC temperature controls for new heating only unit ventilators.

P. Provide vertical and horizontal pipe enclosures where needed.

Q. Fill new hot water heating system, water treatment, and test and balance existing HVAC units.

R. Demolish the existing steam supply and return piping distribution system from boiler out to all existing HVAC units.

S. Demolish all steam heating HVAC equipment.

T. Budgets do not include new Media Center multi-zone unit, air handling units, administration HVAC units, cabinet heaters, future heating cooling piping distributions system, or chiller plant.

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U. It is assumed that the gym and media center areas will be provided its own roof top unit and not be served from the boiler/chiller plant.

V. Existing toilet room fin-tube and entry cabinet heaters to be provided with new piping.

Estimated Budget **$ 1,200,000.00**

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls at new cabinet heaters and wall mounted fan coil units to replace old piping with new, restoration of walls and floors behind fin-tube pipe enclosures or enlarging boiler room for additional boilers.

Access to basement boiler room is an issue and will require second egress. Consider consolidation of both boiler rooms to one central boiler room on the main floor.

Additional Scope not included in base work:

Add- new hot water boilers, pumps, VFD's for west side of the facility $300.000.00

Add to provide supplemental air conditioning in MDF room. $ 40,000.00

Add for 2-pipe hot /future chilled water distribution system North and west side. Replacing existing 22-unit vents with new 2 pipe heating /future cooling unit ventilators, louvers in existing openings, new drain piping, additional power panels, etc.
$240,000.00

Add for new DDC temperature control system for southeast side of the facility.
$185,000.00

Add for 2-pipe hot /future chilled water distribution system South and east side. Replacing existing 20-unit vents and 12 fan coil units with new 2 pipe heating /future cooling unit ventilators, louvers in existing openings, new drain piping, additional power panels, etc.

$280,000.00

Add for Unit Vent Demand control ventilation **$ 110,000.00**

Add for New Roof top heating cooling units with energy recovery for Gym
$150,000.00

Add for New Roof top heating cooling unit with energy recovery for Lunchroom
$125,000.00

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Add to replace existing packaged roof top multi-zone unit with new packaged roof top Vav unit, vav boxes with hot water reheat and modify existing zone ductwork distribution for new VAV boxes. $ 125,000.00

Add to replace 13 toilet exhaust fans $ 100,000.00

Add for new chiller plant, pumps, piping, and controls $ 350,000.00

Add- New Variable Refrigerant Flow heating/cooling system with packaged Dedicated Outside Air system roof top unit for main office area. $ 75,000.00

Add test and balance for new HVAC systems $ 125,000.00

Crete Elementary School – Electrical Upgrades

Existing electrical system summary:

Electrical Equipment:

- The electrical service is a multi-main 120/208V, 3 phase, 4 wire, 800A main distribution panel and 600A main distribution panel fed from a pad mounted transformer.
- Boiler Room is full of equipment and additional space is not available for new equipment.
- Existing distribution and branch circuit panelboards are located throughout the facility, but these are mostly full and do not provide additional circuits or capacity for the new HVAC equipment that will be added.

Existing Light Fixtures:

- Most spaces have existing fluorescent light fixtures with T8 bulbs. Most of these fixtures are surface mounted linear fixtures, but some areas also have recessed fixtures.

I. System Descriptions – Electrical Power:

A. Demolition:

1. Remove existing electrical connections to various existing mechanical equipment to be removed.
2. Remove and replace existing distribution panels

B. New Electrical Work:

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1. Provide new 480/277V, 3 phase, 4 wire, 2000A service with step down transformer to feed new 120/208V, 3 phase, 4 wire, 1000A distribution panel. This 1000A panel will back feed the existing equipment.

2. Provide additional step-down transformer to back feed existing distribution equipment.

3. Provide new electrical connections to new or modified HVAC equipment in base work

4. Provide two (2) new 120/208V electrical branch panels in classroom wings for new HVAC equipment.

5. Provide new LSI circuit breakers in existing distribution panel.

6. New electrical room for new electrical service equipment

7. New, exterior pad mounted utility transformer will be required.

Budgets do not include costs associated with utility modifications, addition of new electrical room, new lighting in classrooms, modifications to lighting in corridors or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Estimated Electrical budget.	**$500,000**

Additional Scope not included in base work:

Fire Protection Power	
Add power for sprinkler system fire pump:	**$ 30,000.00**
Plumbing Power	
Add power for domestic booster pump system	**$ 10,000.00**
Add power for water softener system	**$ 2,500.00.**
Add power to Replace (6) Electric water Coolers	**$ 10,000.00.**
Add power for (2) new water heater systems.	**$ 15,000.00**
Mechanical Power	
Add power for new hot water boilers, pumps, VFD's for west side of the facility	**$ 75,000.00**

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Add power for supplemental air conditioning in MDF room.	**$ 7,500.00**
Add power for replacement of 22 unit ventilators	**$ 35,000.00**
Add power for new DDC temperature control system	**$ 7,000.00**
Add power for 20 unit vents and 12 fan coil units	**$ 45,000.00**
Add power for New Roof top units for Gym	**$ 22,500.00**
Add power for New Roof top unit for Lunchroom	**$ 7,500.00**
Add to replace existing packaged roof top multi-zone unit with new packaged roof top Vav unit, vav boxes with hot water reheat and modify existing zone ductwork distribution for new VAV boxes.	**$ 35,000.00**
Add power to replace 13 toilet exhaust fans	**$ 27,500.00**
Add power for new chiller plant, pumps, piping, and controls	**$ 100,000.00**
Add power for roof top unit for main office area.	**$ 15,000.00**
Add new LED lighting in all spaces incl. corridors, classrooms, etc.	**$ 600,000.00**

Budgets do not include costs associated with utility modifications or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Crete Elementary School

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Life Safety Projects				
Conrete ramps and metal railings	$ 90,000		$ 90,000	
Door swing	$ 8,000			$ 8,000
Wall construction	$ 20,000		$ 20,000	
Repair concrete	$ 20,000		$ 20,000	
Wood hollw doors - interior	$ 45,000			$ 45,000
Hollow metal doors - exterior	$ 90,000			$ 90,000
Grease Trap for 3-Compartment Sink	$10,000		$10,000	
Backflow Preventor	$7,500		$7,500	
Domestic Piping	$950,000		$950,000	
Indicator Lamps on Burner Control Panel	$10,000			$10,000
Exhaust Fans for JC 19 and 51	$20,000			$20,000
New Kitchen Hood, Fire Suppression	$35,000			$35,000
Replace Hot Water HVAC Piping & Pumps	$720,000		$720,000	
New Corridor Relief System	$65,000			$65,000
Replace Steam HVAC Piping & Pumps	$1,200,000		$1,200,000	
Total: Life-Safety Projects	**$ 3,290,500**		**$ 3,017,500**	**$ 273,000**
Non-Life Safety Projects				
Fire Suppression	$340,000		$340,000	
Fire Pump	$45,000		$45,000	
Domestic Booster Pump	$45,000		$45,000	
Code Compliant Fixtures	$120,000		$120,000	
Low Water Fixtures Add	$40,000		$40,000	
Water Softner	$75,000		$75,000	
Replace (24) Classroom Sinks	$48,000		$48,000	
Replace (6) EWC's	$60,000		$60,000	
Add Floor Drains to (8) toilet rooms	$85,000		$85,000	
(2) New Water Heater Systems	$40,000		$40,000	
Add (5) new JC Service Sinks	$38,000		$38,000	
Replace Exhaust in 24A, 26A, 45C	$24,000			$24,000
New Boilers, Pumps, VFD's for West Side	$300,000		$300,000	
Supplemental AC for MDF Room	$40,000			$40,000
Replace (22) UV's for North and West Sides	$240,000			$240,000
DDC Controls	$185,000			$185,000
Replace (20) UV's + (12) FC's for S and E Sides	$280,000			$280,000
UV Demand Ventilation	$110,000			$110,000
(1) RTU at Gym	$150,000			$150,000
(1) RTU's at Lunchroom	$125,000			$125,000
Replace MZU with VAV Unit and Ductwork	$125,000			$125,000
Replace (13) Exhaust Fans	$100,000			$100,000
New Chiller, Pumps, Piping	$350,000			$350,000
New VRF and DOAS for Main Office	$75,000			$75,000
Test and Balanace	$125,000			$125,000
Upgrade Electrical Service	$500,000		$500,000	
Power for Fire Pump	$30,000		$30,000	
Power for Domestic Booster Pump	$10,000		$10,000	
Power for Water Softner	$2,500		$2,500	
Power for (6) EWC's	$10,000		$10,000	
Power for (2) New Water Heater Systems	$15,000		$15,000	

Crete Elementary School

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Power for HVAC Equipment for West Side	$75,000			$75,000
Power for Supplemental AC for MDF Room	$7,500			$7,500
Power for (22) UV's	$35,000			$35,000
Power for DDC Controls	$7,000			$7,000
Power for (20 UV's and (12) FC's	$45,000			$45,000
Power for (1) RTU at Gym	$22,500			$22,500
Power for (1) RTU's at Lunchroom	$7,500			$7,500
Power for Replace MZU with VAV Unit and Ductw	$35,000			$35,000
Power for Replace (13) Exhaust Fans	$27,500			$27,500
Power for New Chiller, Pumps, Piping	$100,000			$100,000
Power for New VRF and DOAS for Main Office	$15,000			$15,000
LED Lighting Throughout	$600,000		$600,000	
Architectural	$3,500,000		$2,000,000	$1,500,000
Temporary Cooling Rooms	$200,000	$200,000		
Total: Non-Life-Safety Projects	**$ 8,409,500**	**$ 200,000**	**$ 4,403,500**	**$ 3,806,000**
Total Construction Cost	**$ 11,700,000**	**$ 200,000**	**$ 7,421,000**	**$ 4,079,000**
A/E Fees - 8.5%	$ 994,500	$ 17,000	$ 630,785	$ 346,715
Other Fees and Services - 4.0%	$ 468,000	$ 8,000	$ 296,840	$ 163,160
Contingency - Design - 2.0%	$ 234,000	$ 4,000	$ 148,420	$ 81,580
Contingency - Bidding - 3.0%	$ 351,000	$ 6,000	$ 222,630	$ 122,370
Contingency - Construction - 5.0%	$ 585,000	$ 10,000	$ 371,050	$ 203,950
Total Cost of Projects	**$ 14,332,500**	**$ 245,000**	**$ 9,090,725**	**$ 4,996,775**

CAPITAL PROJECTS

Coretta Scott King Magnet School

June, 2021 – August, 2024

HEALY BENDER PATTON & BEEN
ARCHITECTS

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SENIOR ARCHITECTS
Scott A. Rihel
Jody A. Woodley

2022 Renovation Work
Coretta Scott King Magnet School
University Park, Illinois
Project No. 7-221-55

Architectural Narrative
Date: 2021-07-08

1.01 GENERAL

A. Coretta Scott King Magnet School is a one story school building that was originally completed in 1971. One addition was constructed in 1973.

B. Area of the existing building and additions is as follows:

1971 Original Building	54,340 sq. ft.
1973 Addition	8,790 sq. ft.
Total	63,130 sq. ft.

C. Exterior walls are constructed of concrete masonry with a brick veneer. Interior walls are generally constructed of concrete masonry.

D. The first floor is a slab on grade.

E. Provide a new combination domestic water/fire protection water service from the street water main to the building.

F. According to the Illinois Report Card, for 2020, student enrollment was 272 students. Student enrollment has been slightly declining over the past five years.

1.02 ASBESTOS ABATEMENT

A. There are asbestos containing materials in the existing building. An environmental consultant will be utilized to assess areas where work is to be performed to determine the extent of existing asbestos containing materials and develop appropriate abatement procedures.

1.03 SELECTIVE DEMOLITION

A. Perform selective demolition work as necessary to accomplish the work, including the removal and proper disposal of items which are exposed and not to remain in use, including but not necessarily limited to slabs, structural items, walls, roofing, flashings, finishes, ceilings, flooring, framing, trim, specialties, equipment, casework, plumbing, mechanical and electrical items, etc.

B. Refer to the MEP/FP System Narrative for additional requirements related to selective demolition.

1.04 CONCRETE

A. Existing floor mounted mechanical items are to be replaced with new floor mounted mechanical items. Where possible, existing concrete housekeeping pads shall be reused. Where required, provide new concrete housekeeping pads

for new floor mounted mechanical items.

B. Provide a new concrete chiller pad for a new exterior chiller.

1.05 MASONRY

A. In locations where existing masonry is to be removed to access piping within walls and/or chases, provide masonry to match existing adjacent in material, size, reinforcing, coursing, finish, and other components to provide a complete and proper installation to match existing.

B. Remove masonry walls at plumbing chase walls to accommodate replacement of existing plumbing piping and then reconstruct masonry walls.

C. Openings in the exterior masonry wall will need to be constructed for outside air louvers for new unit ventilators.

D. Construct a small addition to accommodate the new sprinkler room and fire pump.

1.06 STRUCTURAL

A. The existing gymnasium is planned to receive (2) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

B. The existing MPR/cafeteria is planned to receive (2) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

C. Where required, provide new steel lintels to support masonry.

1.07 ROOFING

A. Existing roofing is a modified bitumen roofing system over rigid insulation on metal deck on bar joist roof structure installed in 2004.

B. At locations where new rooftop units are to be installed, remove portions of existing roofing to accommodate the installation of new equipment curbs. Remove portion of existing roof deck to allow for supply and return ductwork. After installation of new equipment roof curbs, perform roofing work in accordance with manufacturer requirements and to provide for proper flashing and to maintain existing roofing warranties.

C. At locations where existing rooftop exhaust fans are to be removed and replaced with new rooftop exhaust fans, perform roofing work in accordance with manufacturer requirements and to maintain existing roofing warranties.

1.08 CAULKING AND SEALANTS

A. Provide exterior elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

C. Provide penetration firestopping at pipe and duct penetrations to resist spread of fire according to requirements indicated; resist passage of smoke and other gases and maintain original fire-resistance rating of construction penetrated.

1.09 CEILINGS

A. Where required, remove existing acoustical ceiling systems, gypsum board soffits and fluorescent lighting and replace with new acoustical ceiling systems, gypsum board soffits and LED lighting. Locations where branch piping is to be replaced, remove, and reinstall ceilings and lighting to accommodate the work.

B. New acoustical ceiling materials shall match existing.

1.10 PAINTING

A. Paint exposed surfaces of new items including but not limited to masonry, structural steel, gypsum board, ductwork, piping, insulation, and conduit.

B. At wall areas where new materials were used to patch to match existing adjacent materials, entire wall areas shall be painted including exiting previously painted wall areas and areas of new wall materials to match existing adjacent.

C. At areas of existing construction to be painted, perform necessary preparation work to allow for proper application of new painting materials.

D. New paint materials, sheen, and colors to be used should match existing paint materials.

1.11 EQUIPMENT

A. At locations where existing equipment including metal shelving conceals existing piping to be replaced, remove portions of existing equipment to allow for proper replacement of existing piping with new piping.

B. Following installation of new replacement piping, reinstall existing equipment items including metal shelving to match preconstruction conditions.

C. Remove existing toilet partitions and toilet accessories to accommodate replacement of plumbing piping. Provide new toilet partitions and toilet accessories.

D. Remove existing countertops at classroom sink areas to accommodate replacement of existing sinks. Provide new countertops.

1.12 GENERAL CONDITIONS

A. Provide temporary facilities including enclosures, lighting, protections, clean-up, toilet facilities, water, electric.

B. Provide supervision and coordination of trade contractors to complete the work within the project schedule.

1.13 ESTIMATED BUDGET

Estimated Architectural Budget $1,500,000 - $2,000,000.

END

July 7, 2020

Healy Bender Patton and Bean Architects **DRAFT**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Coretta Scott King
Crete, Illinois

Coretta Scott King School – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- New boilers and circulating pumps installed in 2005
- New building pumps with VFDs installed in 2005
- Boiler plant was piped in primary/secondary piping arrangement in 2005.
- Temperature controls are Pneumatic, and the boiler plant has a JCI control panel.
- Piping distribution in the building is heating only.

Existing HVAC system in the building:

- Most classrooms have heating only unit ventilators or fan coil units.
- The lunchroom has heating only unit ventilators.
- The gym has a heating only suspended air handling unit.
- Entry hot water cabinet heaters
- The kitchen exhaust hood system was replaced in 2014.
- The classroom relief air systems were installed in 2014.

I. System Description: Fire Protection

A. The building does not have a fire protection sprinkler system throughout the building.

B. Provide a fire protection sprinkler system throughout the entire facility.

C. It assumes that there is adequate water pressure, and a fire booster pump is not included in the budget- available water pressures and flow rates will need to be confirmed.

D. A new combination domestic water/Fire protection water service from street to building or providing sprinkler system throughout the entire facility is not included in the budget.

E. A new sprinkler water room will be required for the new domestic/fire sprinkler

water services.

Estimated budget **$280,000.00**

Additional Scope not included in base work:

Add sprinkler system fire pump: **$ 45,000.00**

II. System Description – Plumbing

A. Base Work: Provide in the floor Grease trap for existing 3-compartment sink in the kitchen.

Estimated Budget **$ 7,500.00**

B. Base Work: Replace the existing domestic cold, hot, and hot water return piping mains and piping within existing plumbing chases. Remove and reinstall existing plumbing fixtures.

C. New plumbing fixtures not included.

Estimated Budget **$ 850,000.00**

Additional Scope not included in base work:

Add for new code compliant plumbing fixtures **$ 120,000.00.**

Add to provide low water consumption fixture upgrade **$ 35,000.00.**

Add water softener system **$ 100,000.00.**

Add Replace (26) classroom sinks **$ 52,000.00.**

Add Replace (10) Electric water Coolers **$ 50,000.00.**

Add floor drains in (5) single use toilet rooms **$ 55,000.00.**

Add to consolidate water heater systems to a central distribution system with hot water return piping. **$ 250,000.00**

Budget does not include converting floor mounted water closets to wall hung water closets, new water sprinkler room, cutting and patching of floors for floor drains or new water main into building, room for new centralized water heating system, new combine water service into building, removal and restoration of plumbing chase walls.

III. System Descriptions - Mechanical HVAC:

SD 201-U Crete Monee- Coretta Scott King
Crete, Illinois

A. Base Work: Existing boilers boiler pumps to be reused.

B. Replace existing Power Saver Bell & Gossett variable speed pumping system and 2 base mounted pumps with new Variable speed drives, pressure transducers and two (2) new building hot/chilled water base mounted pumps.

C. Demolish the existing hot water supply and return piping distribution system from boiler out to all existing HVAC units.

D. Provide new 2-pipe hot/chilled water piping distribution sized for heating/future cooling from the boiler room to all existing HVAC units.

E. Remove and install existing ceilings to remove old piping and install new piping.

F. Provide vertical and horizontal pipe enclosures where needed.

G. Drain down old piping system and refill new hot/chilled water heating system, water treatment, and test and balance existing pumps.

H. Budgets do not include new unit ventilators, roof top units, fan coils, DDC temperature controls, office HVAC system, or chiller plant.

I. It is assumed that the gym and lunchroom will be provided its own roof top unit and not be served from the boiler/chiller plant.

J. Existing entry cabinet heaters to be provided with new piping.

Estimated budget	**$975,000.00**
Additional Scope not included in base work:	
Add for replacing existing heating unit ventilators with (35) new 2 pipe heating /future cooling unit ventilators, new wall louvers, reuse wall openings, drain piping, et. .	**$425,000.00**
Add for (20) heating/cooling fan coil units	**$220,000.00**
Add for new DDC temperature control system	**$275,000.00**
Add for Unit Vent Demand control ventilation	**$ 75,000.00**
Add for (2) New Roof top heating cooling units for Lunchroom	**$150,000.00**
Add for (2) New Roof top heating cooling units for Gym	**$250,000.00**

SD 201-U Crete Monee- Coretta Scott King
Crete, Illinois

Add for new office heating/cooling fan coil unit	**$ 95,000.00**
Add for (4) new hot water cabinet heaters at entries	**$ 40,000.00**
Add to replace (8) toilet exhaust fans	**$ 90,000.00**
Add for new chiller plant, pumps, piping, and controls	**$ 450,000.00**
Add test and balance for new HVAC systems	**$ 75,000.00**

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls at new cabinet heaters and wall mounted fan coil units to replace old piping with new, restoration of walls and floors behind unit ventilator pipe enclosures.

IV. System Descriptions – Electrical lighting & Power:

Existing Electrical system summary:

Electrical Equipment:

- New electrical service installed in 2009 is a 480/277V, 3 phase, 4 wire, 1600A main distribution panel fed from a pad mounted utility transformer.

Existing Light Fixtures:

- Most spaces have existing fluorescent light fixtures with T8 bulbs. Most of these fixtures are a mix of recessed troffers and recessed or pendant linear fixtures.

V. System Description: Electrical Systems

A. The building has a sufficiently sized electrical distribution panel for the addition of new HVAC equipment.

B. The main circuit breaker in the distribution panel should be revised to a 100% rated circuit breaker.

C. Wire sizes for the secondary feeder from the utility transformer to the main distribution panel appear to be undersized and in need of replacement.

Estimated budget **$50,000.00**

Additional Scope not included in base work:

Add for disconnecting/reconnecting power for (35) new unit ventilators, new wall louvers, reuse wall openings, drain piping, et. **$50,000.00**

July 7, 2020

Healy Bender Patton and Bean Architects **DRAFT**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Coretta Scott King
Crete, Illinois

Add power for (20) heating/cooling fan coil units	**$30,000.00**
Add power for new DDC temperature control system	**$7,500.00**
Add power for (2) New Roof top heating cooling units for Lunchroom	**$15,000.00**
Add power for (2) New Roof top heating cooling units for Gym	**$15,000.00**
Add power for new office heating/cooling fan coil unit	**$ 7,500.00**
Add power for centralized water heater	**$10,000.00**
Add power for (4) new hot water cabinet heaters at entries	**$ 7,500.00**
Add for disconnecting/reconnecting power for (8) toilet exhaust fans	**$15,000.00**
Add power for new chiller plant, pumps, piping, and controls	**$75,000.00**
Add new LED lighting in all spaces incl. corridors, classrooms, etc.	**$525,000.00**

Budgets do not include costs associated with utility modifications or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Coretta Scott King Magnet School

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Life Safety Projects				
Code Compliant Handrails	$ 3,000		$ 3,000	
Concrete Exterior egress ramps	$ 80,000		$ 80,000	
Grease Trap	$ 7,500		$ 7,500	
Reduced pressure back flow	$ 7,000		$ 7,000	
Domestic Piping	$ 850,000		$ 850,000	
Ceiling air transfer plenum	$ 55,000			$ 55,000
Kitchen exhaust hood	$ 35,000		$ 35,000	
Total: Life-Safety Projects	**$ 1,037,500**		**$ 982,500**	**$ 55,000**
Non-Life Safety Projects				
Fire Suppression	$ 280,000		$ 280,000	
Fire Pump	$ 45,000		$ 45,000	
Code Compliant Fixtures	$ 120,000		$ 120,000	
Low Water Fixtures Add	$ 35,000		$ 35,000	
Water Softner	$ 100,000		$ 100,000	
Replace (26) Classroom Sinks	$ 52,000		$ 52,000	
Replace (10) EWC's	$ 50,000		$ 50,000	
Add Floor Drains to (5) toilet rooms	$ 55,000		$ 55,000	
Consolidate Water Heater System	$ 250,000		$ 250,000	
Replace HVAC Piping & Pumps	$ 975,000		$ 975,000	
Replace (35) UV's	$ 425,000			$ 425,000
Replace (20) Fan Coil Units	$ 220,000			$ 220,000
DDC Controls	$ 275,000			$ 275,000
UV Demand Ventilation	$ 75,000			$ 75,000
(2) RTU's at Lunchroom	$ 150,000			$ 150,000
(2) RTU's at Gym	$ 250,000			$ 250,000
Office Fan Coil Unit	$ 95,000			$ 95,000
(4) Cabinet Heaters at Entries	$ 40,000			$ 40,000
Replace (8) Exhaust Fans	$ 90,000			$ 90,000
New Chiller, Pumps, Piping	$ 450,000			$ 450,000
Test and Balanace	$ 75,000			$ 75,000
Electrical Work	$ 50,000		$ 50,000	
(35) UV Disconnects	$ 50,000			$ 50,000
(20) Fan Coil Disconnects	$ 30,000			$ 30,000
DDC Power	$ 7,500			$ 7,500
(2) RTU's at Lunchroom Power	$ 15,000			$ 15,000
(2) RTU's at Gym Power	$ 15,000			$ 15,000
Office Fan Coil Unit Power	$ 7,500			$ 7,500
Centralized Water Heater Power	$ 10,000			$ 10,000
(4) Cabinet Heaters Poer	$ 7,500			$ 7,500
(8) Exhaust Fans Power	$ 15,000			$ 15,000
New Chiller, Pumps Power	$ 75,000			$ 75,000
LED Lighting Throughout	$ 525,000		$ 525,000	
Architectural	$ 2,000,000		$ 1,000,000	$ 1,000,000
Architectural	$ 200,000	$ 200,000		
Total: Non-Life-Safety Projects	**$ 7,114,500**	**$ 200,000**	**$ 3,537,000**	**$ 3,377,500**
Total Construction Cost	**$ 8,152,000**	**$ 200,000**	**$ 4,519,500**	**$ 3,432,500**
A/E Fees - 8.5%	$ 692,920	$ 17,000	$ 384,158	$ 291,763
Other Fees and Services - 4.0%	$ 326,080	$ 8,000	$ 180,780	$ 137,300
Contingency - Design - 2.0%	$ 163,040	$ 4,000	$ 90,390	$ 68,650
Contingency - Bidding - 3.0%	$ 244,560	$ 6,000	$ 135,585	$ 102,975
Contingency - Construction - 5.0%	$ 407,600	$ 10,000	$ 225,975	$ 171,625
Total Cost of Projects	**$ 9,986,200**	**$ 245,000**	**$ 5,536,388**	**$ 4,204,813**

CAPITAL PROJECTS

Monee Education Center

June, 2021 – August, 2024

HEALY BENDER PATTON & BEEN
ARCHITECTS

PRINCIPALS
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Scott A. Rihel
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2022 Renovation Work
Monee Education Center
Monee, Illinois
Project No. 7-1221-62

Architectural Narrative
2021-08-11

1.01 GENERAL

A. Monee Education Center is a one story school building that was originally completed in 1950. Additions were constructed in 1954, 1958, and 1970.

B. Area of the existing building and additions is as follows:

1971 Original Building	10, 830 sq. ft.
1954 Addition	4,950 sq. ft.
1958 Addition	7,180 sq. ft.
1970 Addition	2,550 sq. ft.
Total	25,510 sq. ft.

C. Exterior walls are constructed of concrete masonry with a brick veneer. Interior walls are generally constructed of concrete masonry.

D. The first floor is a slab on grade. Second floor is reinforced concrete slab on steel joists and beams.

E. Provide a new combination domestic water/fire protection water service from the street water main to the building.

F. According to the District website, Monee Education Center provides a unique educational environment that provides our students the opportunity to complete appropriate grade level classes with support and dignity. This alternative setting accommodates students that might benefit from having smaller class sizes, online courses, support groups and non-traditional teaching methods. Enrollment of the school is not presented on the website.

1.02 ASBESTOS ABATEMENT

A. There are asbestos containing materials in the existing building. An environmental consultant will be utilized to assess areas where work is to be performed to determine the extent of existing asbestos containing materials and develop appropriate abatement procedures.

1.03 SELECTIVE DEMOLITION

A. Perform selective demolition work as necessary to accomplish the work, including the removal and proper disposal of items which are exposed and not to remain in use, including but not necessarily limited to slabs, structural items, walls, roofing, flashings, finishes, ceilings, flooring, framing, trim, specialties,

equipment, casework, plumbing, mechanical and electrical items, etc.

B. Refer to the MEP/FP System Narrative for additional requirements related to selective demolition.

1.04 CONCRETE

A. Existing floor mounted mechanical items are to be replaced with new floor mounted mechanical items. Where possible, existing concrete housekeeping pads shall be reused. Where required, provide new concrete housekeeping pads for new floor mounted mechanical items.

B. Provide a new concrete chiller pad for a new exterior chiller.

1.05 MASONRY

A. In locations where existing masonry is to be removed to access piping within walls and/or chases, provide masonry to match existing adjacent in material, size, reinforcing, coursing, finish, and other components to provide a complete and proper installation to match existing.

B. Remove masonry walls at plumbing chase walls to accommodate replacement of existing plumbing piping and then reconstruct masonry walls.

C. Openings in the exterior masonry wall will need to be constructed for outside air louvers for new unit ventilators.

1.06 STRUCTURAL

A. The existing gymnasium is planned to receive (1) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

B. The existing MPR/cafeteria is planned to receive (2) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

C. Where required, provide new steel lintels to support masonry.

1.07 ROOFING

A. The roof was completely replaced with a new modified bitumen roof in 2005.

B. At locations where new rooftop units are to be installed, remove portions of existing roofing to accommodate the installation of new equipment curbs. Remove portion of existing roof deck to allow for supply and return ductwork. After installation of new equipment roof curbs, perform roofing work in accordance with roofing system manufacturer requirements and to provide for proper flashing and to maintain existing roofing warranties.

C. At locations where existing rooftop exhaust fans are to be removed and replaced with new rooftop exhaust fans, perform roofing work in accordance with manufacturer requirements and to maintain existing roofing warranties.

1.08 CAULKING AND SEALANTS

A. Provide exterior elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint

substrates.

C. Provide penetration firestopping at pipe and duct penetrations to resist spread of fire according to requirements indicated; resist passage of smoke and other gases and maintain original fire-resistance rating of construction penetrated.

1.09 CEILINGS

A. Where required, remove existing acoustical ceiling systems, gypsum board soffits and fluorescent lighting and replace with new acoustical ceiling systems, gypsum board soffits and LED lighting. Locations where branch piping is to be replaced, remove, and reinstall ceilings and lighting to accommodate the work.

B. New acoustical ceiling materials shall match existing.

1.10 PAINTING

A. Paint exposed surfaces of new items including but not limited to masonry, structural steel, gypsum board, ductwork, piping, insulation, and conduit.

B. At wall areas where new materials were used to patch to match existing adjacent materials, entire wall areas shall be painted including exiting previously painted wall areas and areas of new wall materials to match existing adjacent.

C. At areas of existing construction to be painted, perform necessary preparation work to allow for proper application of new painting materials.

D. New paint materials, sheen, and colors to be used should match existing paint materials.

1.11 EQUIPMENT

A. At locations where existing equipment including metal shelving conceals existing piping to be replaced, remove portions of existing equipment to allow for proper replacement of existing piping with new piping.

B. Following installation of new replacement piping, reinstall existing equipment items including metal shelving to match preconstruction conditions.

C. Remove existing toilet partitions and toilet accessories to accommodate replacement of plumbing piping. Provide new toilet partitions and toilet accessories.

D. Remove existing countertops at classroom sink areas to accommodate replacement of existing sinks. Provide new countertops.

1.12 GENERAL CONDITIONS

A. Provide temporary facilities including enclosures, lighting, protections, clean-up, toilet facilities, water, electric.

B. Provide supervision and coordination of trade contractors to complete the work within the project schedule.

1.13 ESTIMATED BUDGET

Estimated Architectural Budget $1,500,000

END

August 11, 2020

Healy Bender Patton & Been Architects

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Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Monee Educational Center
Monee, Illinois

Monee Educational Center – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- New boilers and circulating pumps installed in 2005
- New building pumps with VFDs installed in 2005- they are having operational issues.
- Boiler plant was piped in primary/secondary piping arrangement in 2005.
- Temperature controls are Pneumatic, and the boiler plant has a JCI control panel.
- Piping distribution in the building is heating only.

Existing HVAC system in the building:

- Most classrooms have heating only fin-tube.
- The lunchroom has heating only fin-tube.
- The gym has a heating only fin-tube.
- Entry hot water cabinet heaters

I. System Description: Fire Protection

A. Base work: Provide limited fire protection sprinkler water service and sprinkler system for gymnasium stage.

B. It assumes that there is adequate water pressure, and a fire booster pump is not included in the budget- available water pressures and flow rates will need to be confirmed.

C. A new combination domestic water/Fire protection water service from street to building or providing sprinkler system throughout the entire facility is not included in the budget.

D. A new sprinkler water room will be required for the new domestic/fire sprinkler water services.

Estimated budget Gym Stage **$30,000.00**

Add to sprinkler system throughout the facility: $85,000.00

Additional Scope not included in base work:

Add sprinkler system fire pump: $ 45,000.00

II. System Description – Plumbing

A. Base Work: Provide a reduced backflow preventor on domestic water service.

Estimated Budget $ 7,500.00

B. Base Work: Replace the existing domestic cold, hot, and hot water return piping mains and piping within existing plumbing chases. Remove and reinstall existing plumbing fixtures.

C. It assumes that there is adequate water pressure, and a domestic booster pump is not included in the budget- available water pressures and flow rates will need to be confirmed.

D. A new combination domestic water/Fire protection water service from street to building or providing sprinkler system throughout the entire facility is not included in the budget.

E. New plumbing fixtures not included.

Estimated Budget $ 250,000.00

Additional Scope not included in base work:

Add domestic booster pump system $ 45,000.00

Add for new code compliant plumbing fixtures $ 25,000.00.

Add to provide low water consumption fixture upgrade $ 7,000.00.

Add water softener system $ 50,000.00.

Add Replace (6) classroom sinks $ 12,000.00.

Add Replace (2) Electric water Coolers $ 10,000.00.

Add floor drains in (7) toilet rooms $ 75,000.00.

Add new water heater systems. $ 15,000.00

Add (2) new janitor closet service sinks $ 15,000.00

Budget does not include converting floor mounted water closets to wall hung water closets, new water sprinkler room, cutting and patching of floors for floor drains or new water main into building, new combine water service into building, removal and restoration of plumbing chase walls.

III. System Descriptions - Mechanical HVAC:

A. Base Work: Replace the existing hot water supply and return piping distribution system from boiler plant sized for heating only in the boiler room to all existing HVAC units.

B. Existing boilers shall be reused.

C. Remove and install existing ceilings to remove old piping and install new piping.

D. Provide vertical pipe enclosures where needed.

E. Drain down and refill hot water heating system, water treatment, and test and balance existing HVAC units.

F. Demolish the existing hot water supply and return piping distribution system from boiler out to all existing HVAC units.

G. Budgets do not include new unit ventilators, DDC temperature controls, future heating cooling piping distributions system, or chiller plant.

H. It is assumed that the gym and lunchroom will be provided its own roof top unit and not be served from the boiler/chiller plant.

I. Existing entry cabinet heaters to be provided with new piping.

J. Existing toilet room cabinet heaters to be provided with new piping.

K. Replace existing Power Saver Bell & Gossett variable speed pumping system and 2 base mounted pumps with new Variable speed drives, pressure transducers and two (2) new building hot/chilled water base mounted pumps.

Estimated budget **$375,000.00**

L. Provide new kitchen make up air system

Estimated budget **$40,000.00**

M. Provide new kitchen exhaust hood, exhaust fan and fire suppression system above existing cooking equipment.

SD 201-U Crete Monee- Monee Educational Center
Monee, Illinois

Estimated budget	**$35,000.00**

N. Provide new Janitor closet exhaust fan and ductwork.

Estimated budget	**$8,000.00**

Additional Scope not included in base work:

Add for replacing existing fin-tube and heating unit ventilators with (14) new 2 pipe heating /future cooling unit ventilators, new wall louvers, reuse wall openings, drain piping,

et.	**$375,000.00**
Add for (10) heating/cooling fan coil units	**$120,000.00**
Add for new DDC temperature control system	**$160,000.00**
Add for Unit Vent Demand control ventilation	**$ 30,000.00**
Add for (2) New Roof top heating cooling units for Lunchroom	**$120,000.00**
Add for (1) New Roof top heating cooling units for Gym	**$150,000.00**
Add for new office heating/cooling fan coil unit	**$ 95,000.00**
Add for new computer room heating/cooling roof top unit	**$ 75,000.00**
Add for (4) new hot water cabinet heaters at entries	**$ 40,000.00**
Add to replace (3) toilet exhaust fans	**$ 30,000.00**
Add for new chiller plant, pumps, piping, and controls	**$ 225,000.00**
Add test and balance for new HVAC systems	**$ 35,000.00**
Add to provide supplemental air conditioning in MDF room.	**$ 40,000.00**

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls at new cabinet heaters and wall mounted fan coil units to replace old piping with new, restoration of walls and floors behind fin-tube pipe enclosures.

August 11, 2020

Healy Bender Patton & Been Architects

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Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Monee Educational Center
Monee, Illinois

Monee Educational Center – Electrical Upgrades

Existing electrical system summary:

Electrical Equipment:

- The electrical service is a 120/208V, 3 phase, 4 wire, 800A main distribution panel fed from a pole mounted transformer.

Existing Light Fixtures:

- Most spaces have existing fluorescent light fixtures with T8 bulbs. Most of these fixtures are surface mounted linear fixtures.
- Boiler Room is full of equipment and additional space is not available for new equipment.
- Existing distribution and branch circuit panelboards are located throughout the facility, but these are mostly full and do not provide additional circuits or capacity for the new HVAC equipment that will be added.

I. System Descriptions – Electrical Power:

A. Demolition:

1. Remove existing electrical connections to various existing mechanical equipment to be removed.

B. New Electrical Work:

1. Provide new 480/277V, 3 phase, 4 wire, 1,600A service with step down transformer to feed new 120/208V, 3 phase, 4 wire, 1000A distribution panel. This 1000A panel will back feed the existing equipment.
2. Provide additional step-down transformer to back feed existing distribution equipment.
3. Provide new electrical connections to new or modified HVAC equipment in base work
4. Provide two (2) new 120/208V electrical branch panels in classroom wings for new HVAC equipment.
5. Provide new LSI circuit breaker in existing 800A distribution panel.
6. New electrical room for new electrical service equipment

7. New, exterior pad mounted utility transformer will be required.

Budgets do not include costs associated with utility modifications, addition of new electrical room, new lighting in classrooms, modifications to lighting in corridors or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Estimated Electrical budget.	**$400,000**

Additional Scope not included in base work:

Fire Protection Power	
Add power for sprinkler system fire pump:	**$ 30,000.00**
Plumbing Power	
Add power for domestic booster pump system	**$ 10,000.00**
Add power for water softener system	**$ 2,500.00.**
Add power for (2) Electric water Coolers	**$ 3,000.00.**
Add power for new water heater systems.	**$ 15,000.00**
Mechanical Power	
Add power for disconnecting/reconnecting (14) new unit ventilators	**$25,000.00**
Add power for (10) heating/cooling fan coil units	**$15,000.00**
Add power for new DDC temperature control system	**$7,500.00**
Add power for (2) New Roof top units for Lunchroom	**$15,000.00**
Add power for (1) New Roof top heating cooling units for Gym	**$7,500.00**
Add power for new office heating/cooling fan coil unit	**$ 7,500.00**
Add power for new computer room heating/cooling roof top unit	**$ 7,500.00**
Add power for (4) new hot water cabinet heaters at entries	**$ 7,500.00**
Add power to replace (3) toilet exhaust fans	**$ 7,500.00**
Add power for new chiller plant, pumps, piping, and controls	**$ 75,000.00**

August 11, 2020

Healy Bender Patton & Been Architects **D R A F T**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Monee Educational Center
Monee, Illinois

Add to provide supplemental air conditioning in MDF room. $ 7,500.00

Add new LED lighting in all spaces incl. corridors, classrooms, etc. $ 225,000.00

Budgets do not include costs associated with utility modifications or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Monee Education Center

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Life Safety Projects				
Hollow Metal Doors - Interior	$25,000			$25,000
Interior Ramp	$10,000			$10,000
Fire Suppression - Stage + Bldg	$115,000		$115,000	
Reduced pressure back flow	$7,000		$7,000	
Domestic Piping	$300,000		$300,000	
New Kitchen Make-up Air System	$40,000			$40,000
New Kitchen Hood, Fire Suppression	$35,000			$35,000
New JC Exhaust Fan and Ductwork	$8,000			$8,000
Replace Heating Piping	$25,000		$25,000	
Total: Life-Safety Projects	**$ 565,000**		**$ 447,000**	**$ 118,000**
Non-Life Safety Projects				
Fire Pump	$ 45,000		$ 45,000	
Backflow Preventor	$ 7,500		$ 7,500	
Domestic Booster Pump	$ 45,000		$ 45,000	
Code Compliant Fixtures	$ 25,000		$ 25,000	
Low Water Fixtures Add	$ 7,000		$ 7,000	
Water Softner	$ 50,000		$ 50,000	
Replace (6) Classroom Sinks	$ 12,000		$ 12,000	
Replace (2) EWC's	$ 10,000		$ 10,000	
Add Floor Drains to (7) toilet rooms	$ 75,000		$ 75,000	
New Water Heater System	$ 15,000		$ 15,000	
Add (2) new JC Service Sinks	$ 15,000		$ 15,000	
Replace HVAC Piping & Pumps	$ 375,000		$ 375,000	
Replace fintube for (14) UV's	$ 375,000			$ 375,000
Replace (10) Fan Coil Units	$ 120,000			$ 120,000
DDC Controls	$ 160,000			$ 160,000
UV Demand Ventilation	$ 30,000			$ 30,000
(2) RTU's at Lunchroom	$ 120,000			$ 120,000
(1) RTU at Gym	$ 150,000			$ 150,000
Office Fan Coil Unit	$ 95,000			$ 95,000
New Computer Room RTU	$ 75,000			$ 75,000
(4) Cabinet Heaters at Entries	$ 40,000			$ 40,000
Replace (3) Exhaust Fans	$ 30,000			$ 30,000
New Chiller, Pumps, Piping	$ 225,000			$ 225,000
Test and Balanace	$ 35,000			$ 35,000
Supplemental AC for MDF Room	$ 40,000			$ 40,000
Upgrade Electrical Service	$ 400,000		$ 400,000	
Power for Fire Pump	$ 30,000		$ 30,000	
Power for Domestic Booster Pump	$ 10,000		$ 10,000	
Power for Water Softner	$ 2,500		$ 2,500	
Power for (2) EWC's	$ 3,000		$ 3,000	
Power for New Water Heater System	$ 15,000		$ 15,000	
Power for (14) UV's	$ 25,000			$ 25,000
Power for (10) Fan Coil Units	$ 15,000			$ 15,000
Power for DDC Controls	$ 7,500			$ 7,500

Monee Education Center

Renovation Projects

Description	Cost	2021-22	Summer, 2022	Summer, 2023
Power for (2) RTU's at Lunchroom	$ 15,000			$ 15,000
Power for (1) RTU at Gym	$ 7,500			$ 7,500
Power for Office Fan Coil Unit	$ 7,500			$ 7,500
Power for New Computer Room RTU	$ 7,500			$ 7,500
Power for (4) Cabinet Heaters at Entries	$ 7,500			$ 7,500
Power for (3) Exhaust Fans	$ 7,500			$ 7,500
Power for New Chiller, Pumps, Piping	$ 75,000			$ 75,000
Power for Supplemental AC for MDF Room	$ 7,500			$ 7,500
LED Lighting Throughout	$ 225,000		$ 225,000	
Architectural	$ 1,500,000		$ 750,000	$ 750,000
Temporary Cooling Rooms	$ 200,000	$ 200,000		
Total: Non-Life-Safety Projects	**$ 4,699,500**	**$ 200,000**	**$ 2,072,000**	**$ 2,427,500**
Total Construction Cost	**$ 5,264,500**	**$ 200,000**	**$ 2,519,000**	**$ 2,545,500**
A/E Fees - 8.5%	$ 447,483	$ 17,000	$ 214,115	$ 216,368
Other Fees and Services - 4.0%	$ 210,580	$ 8,000	$ 100,760	$ 101,820
Contingency - Design - 2.0%	$ 105,290	$ 4,000	$ 50,380	$ 50,910
Contingency - Bidding - 3.0%	$ 157,935	$ 6,000	$ 75,570	$ 76,365
Contingency - Construction - 5.0%	$ 263,225	$ 10,000	$ 125,950	$ 127,275
Total Cost of Projects	**$ 6,449,013**	**$ 245,000**	**$ 3,085,775**	**$ 3,118,238**

CAPITAL PROJECTS

Talala Elementary School

June, 2021 – August, 2024

HEALY BENDER PATTON & BEEN
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2022 Mechanical Work
Talala Elementary School
University Park, Illinois
Project No. 7-221-54

Architectural Narrative
Date: 2021-07-08

1.01 GENERAL

A. Talala Elementary School is a one story school building that was originally completed in 1960. One small addition was constructed in 1967.

B. Area of the existing building and additions is as follows:

1960 Original Building	37,390 sq. ft.
1967 Addition	3,310 sq. ft.
Total	40,700 sq. ft.

C. Exterior walls are constructed of concrete masonry with a brick veneer. Interior walls are generally constructed of concrete masonry.

D. The first floor is a slab on grade.

E. The building will be fully sprinklered.

F. According to the Illinois Report Card, for 2020, student enrollment was 273 students. Student enrollment has been slightly declining over the past five years.

1.02 ASBESTOS ABATEMENT

A. There are asbestos containing materials in the existing building. An environmental consultant will be utilized to assess areas where work is to be performed to determine the extent of existing asbestos containing materials and develop appropriate abatement procedures.

1.03 SELECTIVE DEMOLITION

A. Perform selective demolition work as necessary to accomplish the work, including the removal and proper disposal of items which are exposed and not to remain in use, including but not necessarily limited to slabs, structural items, walls, roofing, flashings, finishes, ceilings, flooring, framing, trim, specialties, equipment, casework, plumbing, mechanical and electrical items, etc.

B. Refer to the MEP System Narrative for additional requirements related to selective demolition.

1.04 CONCRETE

A. Existing floor mounted mechanical items are to be replaced with new floor mounted mechanical items. Where possible, existing concrete housekeeping pads shall be reused. Where required, provide new concrete housekeeping pads for new floor mounted mechanical items.

B. Provide a new concrete chiller pad for a new exterior chiller.

C. Provide a new concrete pad for the electrical transformer.

1.05 MASONRY

A. In locations where existing masonry is to be removed to access piping within walls and/or chases, provide masonry to match existing adjacent in material, size, reinforcing, coursing, finish, and other components to provide a complete and proper installation to match existing.

B. Openings in the exterior masonry wall will need to be constructed for outside air louvers for new unit ventilators.

C. Construct a small addition to accommodate the new electrical service equipment.

1.06 STRUCTURAL

A. The existing gymnasium is planned to receive (2) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

B. The existing main office and MPR/cafeteria are planned to receive (2) new packaged gas heating/ D.X. cooling roof top unit with ductwork. To accommodate the new rooftop unit, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop unit.

C. Where required, provide new steel lintels to support masonry.

1.07 ROOFING

A. Existing roofing is a modified bitumen roofing system over rigid insulation on metal deck on bar joist roof structure installed in 2006.

B. At locations where new rooftop units are to be installed, remove portions of existing roofing to accommodate the installation of new equipment curbs. Remove portion of existing roof deck to allow for supply and return ductwork. After installation of new equipment roof curbs, perform roofing work in accordance with manufacturer requirements and to provide for proper flashing and to maintain existing roofing warranties.

C. At locations where existing rooftop exhaust fans are to be removed and replaced with new rooftop exhaust fans, perform roofing work in accordance with manufacturer requirements and to maintain existing roofing warranties.

1.08 CAULKING AND SEALANTS

A. Provide exterior elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

C. Provide penetration firestopping at pipe and duct penetrations to resist spread of fire according to requirements indicated; resist passage of smoke and other gases and maintain original fire-resistance rating of construction penetrated.

1.09 CEILINGS

A. Where required, remove existing acoustical ceiling systems, gypsum board soffits and fluorescent lighting and replace with new acoustical ceiling systems, gypsum board soffits and LED lighting. Locations where branch piping is to be replaced, remove, and reinstall ceilings and lighting to accommodate the work.

B. New acoustical ceiling materials shall match existing.

1.10 PAINTING

A. Paint exposed surfaces of new items including but not limited to masonry, structural steel, gypsum board, ductwork, piping, insulation, and conduit.

B. At wall areas where new materials were used to patch to match existing adjacent materials, entire wall areas shall be painted including exiting previously painted wall areas and areas of new wall materials to match existing adjacent.

C. At areas of existing construction to be painted, perform necessary preparation work to allow for proper application of new painting materials.

D. New paint materials, sheen, and colors to be used should match existing paint materials.

1.11 EQUIPMENT

A. At locations where existing equipment including metal shelving conceals existing piping to be replaced, remove portions of existing equipment to allow for proper replacement of existing piping with new piping.

B. Following installation of new replacement piping, reinstall existing equipment items including metal shelving to match preconstruction conditions.

1.12 GENERAL CONDITIONS

A. Provide temporary facilities including enclosures, lighting, protections, clean-up, toilet facilities, water, electric.

B. Provide supervision and coordination of trade contractors to complete the work within the project schedule.

1.13 ESTIMATED BUDGET

Estimated Architectural Budget $750,000 - $1,000,000.

END

July 7, 2021

Healy Bender Patton and Bean Architects **DRAFT**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Talala and Early Learning Center Air Conditioning
Crete, Illinois

Talala Elementary School – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- New boilers and circulating pumps installed in 2005
- New building pumps with VFDs installed in 2005
- Boiler plant was piped in primary/secondary piping arrangement in 2005.
- Temperature controls are Pneumatic, and the boiler plant has a JCI control panel.
- New 2-pipe hot water heating with future chilled water cooling installed in 2021.

Existing HVAC system in the building:

- Most classrooms have fin-tube heating.
- Two (2) classrooms and the lunchroom have heating only unit ventilators.
- The gym has fin-tube and a heating only unit ventilator.
- Entry hot water cabinet heaters
- Office has a hot water heating / D.X. cooling fan coil unit with duct distribution.

I. System Descriptions - Mechanical HVAC:

A. Demolition:

1. Remove the existing classroom fin-tube, old heating piping, pneumatic temperature controls, and fin-tube cover.
2. Remove heating only unit ventilators in Lunchroom 37, gymnasium 10, entry corridor 34 and kindergarten classrooms 24 and 25.
3. Remove hot water heated entry cabinet heaters.
4. Remove existing fin-tube on gym walls and replace with new hot water fin-tube.
5. Remove exiting hot water heating/ D.X. cooling fan coil unit, ductwork, remote condensing unit, refrigerant piping, etc. in main office.
6. Kitchen exhaust hood system to remain.

7. Remove existing non-functional toilet exhaust fans.

8. Remove remaining hot water radiators in offices.

B. New HVAC Work:

1. Replace existing Power Saver Bell & Gossett variable speed pumping system and 2 base mounted pumps with new Variable speed drives, pressure transducers and two (2) new building hot/chilled water base mounted pumps.

2. New 2-pipe hot/chilled unit ventilators with demand control ventilation and new outside air intake louvers, wall openings in classrooms window wall and break room- 25 total.

3. New roof mounted classroom relief hoods for unit ventilator relief- 25 total.

4. Four (4) new 2 pipe heating /cooling fan coils for toilet rooms 31, 32, 40, & 41.

5. Six (6) new 2-pipe heating/cooling fan coils for Gym office 10A, office 45 and corridors 29 and 48.

6. Two (2) new packaged gas heating /D.X. Cooling roof top units for the gym.

7. New packaged gas heating /D.X. Cooling roof top unit for the main office with new ductwork.

8. New packaged gas heating /D.X. Cooling roof top unit for the lunchroom with new ductwork.

9. Four new hot water heating cabinet heaters at Entries 26, 35, and 49. Modify wall opening for new cabinet heaters. Cut and patch wall for new branch piping.

10. Four new exhaust fans as needed for toilet rooms.

11. New air-cooled packaged chiller on boiler room roof or grade. New chilled water pump and piping to boiler room hot/chilled piping mains.

12. New Web based Direct Digital temperature controls for all new HVAC equipment.

13. Replace the existing hot water supply and return piping branch piping in classrooms with new hot/chilled branch piping to new unit ventilator units.

14. Remove and install existing ceilings to remove old piping and install new piping.

15. Provide pipe enclosures where needed.

16. Drain down and refill hot/chilled piping system, water treatment, and test and

balance existing HVAC units.

17. New HVAC equipment start up.

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls to new cabinet heaters and wall mounted fan coil units to replace old piping with new, restoration of walls and floors behind fin-tube pipe enclosures.

Estimated HVAC budget **$1,840,000.00**

Talala Elementary School – Electrical upgrades

Existing Electrical system summary:

- The MDP is a 120/208V, 3 phase, 4 wire, 800A electrical service in Boiler Room 38 fed from utility transformer in the adjacent Electrical Vault. The MDP was replaced in 2008. A 120/208V, 3 phase, 4 wire panel (PP-1) is fed from a 200A disconnect tapped after the main disconnect.
- Boiler Room 38 is full of equipment and additional space is not available for new equipment.
- Existing distribution and branch circuit panelboards are located throughout the facility, but these are mostly full and do not provide additional circuits or capacity for the new HVAC equipment that will be added.

II. System Descriptions – Electrical Power:

A. Demolition:

1. Remove existing electrical connections to various existing mechanical equipment to be removed.
2. Remove existing electrical utility transformer and transformer vault.

B. New Electrical Work:

1. Provide new 480/277V, 3 phase, 4 wire, 1,600A service with step down transformer to feed new 120/208V, 3 phase, 4 wire, 1000A distribution panel. This 1000A panel will back feed the existing equipment.
2. Provide new electrical connections to new or modified HVAC equipment including chiller, roof top units, etc.

3. Provide two (2) new 120/208V electrical branch panels in classroom wings for new HVAC equipment.

4. Provide new LSI circuit breaker in existing 800A distribution panel.

5. New electrical room for new electrical service equipment

6. New, exterior pad mounted utility transformer will be required.

Budgets do not include costs associated with utility and utility vault modifications, addition of new electrical room, new lighting in classrooms, modifications to lighting in corridors or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Estimated Electrical budget. **$400,000**

July 7, 2021

Healy Bender Patton and Bean Architects **DRAFT**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Talala and Early Learning Center Air Conditioning
Crete, Illinois

Early Learning Center – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- New hot water heating boilers 2021
- New Variable speed building pumps 2021
- New primary/ secondary building pumping pipe loop 2021.
- Temperature controls are Pneumatic.
- New 2-pipe hot/chilled water piping distributions- 2021

Existing HVAC system in the building:

- Most classrooms have heating only unit ventilators.
- The gym and lunchroom have heating only air handling units
- The two (2) administration areas have hot water heating DX cooling furnace systems.
- Locker rooms have heating only small air handling units and fan coil units.
- Entry hot water cabinet heaters
- There is a few cooling only roof top units that serve a few rooms.
- The main Welcome Center entry has a package heating/cooling packaged roof top unit.

I. System Descriptions - Mechanical HVAC:

A. Demolition:

1. Remove the existing classroom unit ventilators, old heating piping on wall, pneumatic temperature controls, and pipe cover. Remove additional fin-tube in classrooms.

2. Remove heating only air handling units in the main gym and lunchroom.

3. Remove hot water fan coil units in old locker rooms.

4. Remove hot water heated entry cabinet heaters.

5. Remove five (5) exiting hot water heating/ D.X. cooling fan coil unit, ductwork, remote condensing unit, refrigerant piping, etc. in main office areas.

6. Kitchen exhaust hood system to remain.

7. Existing packaged roof top unit serving Welcome Center to remain.

8. Existing cooling only roof top unit serving Conference room 35 to remain.

9. Remove existing non-functional toilet exhaust fans.

B. New HVAC Work:

7. New 2-pipe hot/chilled unit ventilators with demand control ventilation and new outside air intake louvers, reuse existing wall openings in classrooms- 28-unit vents total.

8. New roof mounted classroom relief hoods for unit ventilator relief- 28 total.

9. Eight (8) new 2 pipe heating /cooling fan coils for toilet rooms 33, 34, 68, 70, 76, 77, 94, & 95.

10. Twenty-one (21) new 2-pipe heating/cooling fan coils for Serving, Kitchen, (6) offices, (7) storage rooms, (3) I Girls Locker room area, (3) in Boys Locker room area. 45 and corridors 29 and 48.

11. Two (2) new packaged gas heating /D.X. Cooling roof top units for the gym.

12. Two (2) New Variable refrigerant Flow systems with packaged gas heating /D.X. Cooling DOAS roof top unit with ductwork for the north and south District Office.

13. New packaged gas heating /D.X. Cooling roof top unit for the Multi-purpose /lunchroom with new ductwork.

14. Six (6) new hot water heating cabinet heaters at Entries 6, 60, 67, 73 and 92. Modify wall opening for new cabinet heaters. Cut and patch wall for new branch piping.

15. Four new exhaust fans as needed for toilet rooms.

16. New air-cooled packaged chiller on boiler room roof or grade. New chilled water

pump and piping to boiler room hot/chilled piping mains.

17. New Web based Direct Digital temperature controls for all new HVAC equipment.

18. Replace the existing hot water supply and return piping branch piping in classrooms with new hot/chilled branch piping to new unit ventilator units.

19. Provide pipe enclosures where needed.

20. Drain down and refill hot/chilled piping system, water treatment, and test and balance existing HVAC units.

21. New HVAC equipment start up.

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls to replace old piping with new to new cabinet heaters and wall mounted fan coil units, restoration of walls and floors behind unit ventilator pipe enclosures.

Estimated HVAC budget **$2,600,000.00**

Early Learning Center – Electrical Upgrades

Existing Electrical system summary:

- The main distribution panel is a 120/208V, 3 phase, 4 wire, 2,000A electrical service in Gymnasium Storage 54 fed from a utility transformer in the adjacent Electrical Vault. It was upgraded in 2011.

- Existing distribution and branch circuit panelboards are located throughout the facility, but these are mostly full and do not provide additional circuits or capacity for the new HVAC equipment that will be added.

II. System Descriptions – Electrical Power:

a. Demolition:

i. Remove existing electrical connections to various existing mechanical equipment to be removed.

ii. Remove existing electrical utility transformer and convert the transformer vault to a new electrical room.

b. New Electrical Work:

July 7, 2021

Healy Bender Patton and Bean Architects **DRAFT**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Talala and Early Learning Center Air Conditioning
Crete, Illinois

i. Provide new 480/277V, 3 phase, 4 wire, 1,600A service with step down transformer to feed existing 120/208V, 3 phase, 4 wire, 2,000A distribution panel. New distribution panel shall be installed in the former transformer vault.

ii. Provide new electrical connections to new or modified HVAC equipment including chiller, roof top units, etc.

iii. Provide two (2) new 120/208V electrical branch panels in classroom wings for new HVAC equipment.

iv. Remove and replace various conduits to existing classroom equipment that is hanging off the walls.

v. New, exterior pad mounted utility transformer will be required.

Budgets do not include costs associated with utility and utility vault modifications, new lighting in classrooms, modifications to lighting in corridors or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Estimated Electrical budget. $450,000

Talala Elementary School

Renovation Projects

Description	Cost	Summer, 2022	Summer, 2023
Life Safety Projects			
Metal handrails on stairs	$ 1,500	$ 1,500	
Handrails on stage stairs	$ 1,500	$ 1,500	
Exhaust Hood - Kitchen	$ 35,000	$ 35,000	
Stairs, handrails and landings at stage storage	$ 20,000	$ 20,000	
Total: Life-Safety Projects	**$ 58,000**	**$ 58,000**	**$ 0**
Non-Life Safety Projects			
HVAC System	$ 1,840,000	$ 1,840,000	
Electrical Work	$ 400,000	$ 400,000	
Architectural	$ 1,000,000	$ 1,000,000	
Total: Non-Life-Safety Projects	**$ 3,240,000**	**$ 3,240,000**	**$ 0**
Total Construction Cost	**$ 3,298,000**	**$ 3,298,000**	**$ 0**
A/E Fees - 8.5%	$ 280,330	$ 280,330	$ 0
Other Fees and Services - 4.0%	$ 131,920	$ 131,920	$ 0
Contingency - Design - 2.0%	$ 65,960	$ 65,960	$ 0
Contingency - Bidding - 3.0%	$ 98,940	$ 98,940	$ 0
Contingency - Construction - 5.0%	$ 164,900	$ 164,900	$ 0
Total Cost of Projects	**$ 4,040,050**	**$ 4,040,050**	**$ 0**

CAPITAL PROJECTS

Early Learning Center

June, 2021 – August, 2024

HEALY BENDER PATTON & BEEN
ARCHITECTS

PRINCIPALS
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SENIOR ARCHITECTS
Scott A. Rihel
Jody A. Woodley

2022 Mechanical Work
Early Learning Center
Crete, Illinois
Project No. 7-221-53

Architectural Narrative
Date: 2021-07-08

1.01 GENERAL

A. The Early Learning Center is a one story school building that was originally completed in 1963. Two small additions were constructed in 1974 and 1982.

B. Area of the existing building and additions is as follows:

1963 Original Building	73,270 sq. ft.
1974 Addition	1,980 sq. ft.
1982 Addition	3,290 sq. ft.
Total	78,540 sq. ft.

C. Exterior walls are constructed of concrete masonry with a brick veneer. Interior walls are generally constructed of concrete masonry.

D. The first floor is a slab on grade.

E. The building will be fully sprinklered.

F. According to the Illinois Report Card, for 2020, student enrollment was 181 students. Student enrollment has been static over the past three years.

1.02 ASBESTOS ABATEMENT

A. There are asbestos containing materials in the existing building. An environmental consultant will be utilized to assess areas where work is to be performed to determine the extent of existing asbestos containing materials and develop appropriate abatement procedures.

1.03 SELECTIVE DEMOLITION

A. Perform selective demolition work as necessary to accomplish the work, including the removal and proper disposal of items which are exposed and not to remain in use, including but not necessarily limited to slabs, structural items, walls, roofing, flashings, finishes, ceilings, flooring, framing, trim, specialties, equipment, casework, plumbing, mechanical and electrical items, etc.

B. Refer to the MEP System Narrative for additional requirements related to selective demolition.

1.04 CONCRETE

A. Existing floor mounted mechanical items are to be replaced with new floor mounted mechanical items. Where possible, existing concrete housekeeping pads shall be reused. Where required, provide new concrete housekeeping pads for new floor mounted mechanical items.

B. Provide a new concrete chiller pad for a new exterior chiller.

1.05 MASONRY

A. In locations where existing masonry is to be removed to access piping within walls and/or chases, provide masonry to match existing adjacent in material, size, reinforcing, coursing, finish, and other components to provide a complete and proper installation to match existing.

1.06 STRUCTURAL

A. The existing gymnasium is planned to have (2) existing heating only units replaced with (2) new packaged gas heating/ D.X. cooling roof top units. To accommodate the new rooftop units, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop units.

B. The existing MPR/cafeteria is planned to have (1) existing heating only units replaced with (1) new packaged gas heating/ D.X. cooling roof top unit with ductwork. To accommodate the new rooftop unit, provide structural upgrades and required reinforcement and steel angle frames to existing roof structure to accommodate the new rooftop unit.

C. Where required, provide new steel lintels to support masonry.

1.07 ROOFING

A. Existing roofing is a modified bitumen roofing system over rigid insulation on metal deck on bar joist roof structure installed in 2003.

B. At locations where new rooftop units are to be installed, remove portions of existing roofing to accommodate the installation of new equipment curbs. Remove portion of existing roof deck to allow for supply and return ductwork. After installation of new equipment roof curbs, perform roofing work in accordance with manufacturer requirements and to provide for proper flashing and to maintain existing roofing warranties.

C. At locations where existing rooftop exhaust fans are to be removed and replaced with new rooftop exhaust fans, perform roofing work in accordance with manufacturer requirements and to maintain existing roofing warranties.

1.08 CAULKING AND SEALANTS

A. Provide exterior elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

C. Provide penetration firestopping at pipe and duct penetrations to resist spread of fire according to requirements indicated; resist passage of smoke and other gases and maintain original fire-resistance rating of construction penetrated.

1.09 CEILINGS

A. Where required, remove existing acoustical ceiling systems, gypsum board soffits and fluorescent lighting and replace with new acoustical ceiling systems, gypsum board soffits and LED lighting. Locations where branch piping is to be replaced, remove, and reinstall ceilings and lighting to accommodate the work.

B. New acoustical ceiling materials shall match existing.

1.10 PAINTING

A. Paint exposed surfaces of new items including but not limited to masonry, structural steel, gypsum board, ductwork, piping, insulation, and conduit.

B. At wall areas where new materials were used to patch to match existing adjacent materials, entire wall areas shall be painted including exiting previously painted wall areas and areas of new wall materials to match existing adjacent.

C. At areas of existing construction to be painted, perform necessary preparation work to allow for proper application of new painting materials.

D. New paint materials, sheen, and colors to be used should match existing paint materials.

1.11 EQUIPMENT

A. At locations where existing equipment including metal shelving conceals existing piping to be replaced, remove portions of existing equipment to allow for proper replacement of existing piping with new piping.

B. Following installation of new replacement piping, reinstall existing equipment items including metal shelving to match preconstruction conditions.

1.12 GENERAL CONDITIONS

A. Provide temporary facilities including enclosures, lighting, protections, clean-up, toilet facilities, water, electric.

B. Provide supervision and coordination of trade contractors to complete the work within the project schedule.

1.13 ESTIMATED BUDGET

Estimated Architectural Budget $750,000 - $1,000,000.

END

July 7, 2021

Healy Bender Patton and Bean Architects **DRAFT**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Talala and Early Learning Center Air Conditioning
Crete, Illinois

Talala Elementary School – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- New boilers and circulating pumps installed in 2005
- New building pumps with VFDs installed in 2005
- Boiler plant was piped in primary/secondary piping arrangement in 2005.
- Temperature controls are Pneumatic, and the boiler plant has a JCI control panel.
- New 2-pipe hot water heating with future chilled water cooling installed in 2021.

Existing HVAC system in the building:

- Most classrooms have fin-tube heating.
- Two (2) classrooms and the lunchroom have heating only unit ventilators.
- The gym has fin-tube and a heating only unit ventilator.
- Entry hot water cabinet heaters
- Office has a hot water heating / D.X. cooling fan coil unit with duct distribution.

I. System Descriptions - Mechanical HVAC:

A. Demolition:

1. Remove the existing classroom fin-tube, old heating piping, pneumatic temperature controls, and fin-tube cover.
2. Remove heating only unit ventilators in Lunchroom 37, gymnasium 10, entry corridor 34 and kindergarten classrooms 24 and 25.
3. Remove hot water heated entry cabinet heaters.
4. Remove existing fin-tube on gym walls and replace with new hot water fin-tube.
5. Remove exiting hot water heating/ D.X. cooling fan coil unit, ductwork, remote condensing unit, refrigerant piping, etc. in main office.
6. Kitchen exhaust hood system to remain.

7. Remove existing non-functional toilet exhaust fans.

8. Remove remaining hot water radiators in offices.

B. New HVAC Work:

1. Replace existing Power Saver Bell & Gossett variable speed pumping system and 2 base mounted pumps with new Variable speed drives, pressure transducers and two (2) new building hot/chilled water base mounted pumps.

2. New 2-pipe hot/chilled unit ventilators with demand control ventilation and new outside air intake louvers, wall openings in classrooms window wall and break room- 25 total.

3. New roof mounted classroom relief hoods for unit ventilator relief- 25 total.

4. Four (4) new 2 pipe heating /cooling fan coils for toilet rooms 31, 32, 40, & 41.

5. Six (6) new 2-pipe heating/cooling fan coils for Gym office 10A, office 45 and corridors 29 and 48.

6. Two (2) new packaged gas heating /D.X. Cooling roof top units for the gym.

7. New packaged gas heating /D.X. Cooling roof top unit for the main office with new ductwork.

8. New packaged gas heating /D.X. Cooling roof top unit for the lunchroom with new ductwork.

9. Four new hot water heating cabinet heaters at Entries 26, 35, and 49. Modify wall opening for new cabinet heaters. Cut and patch wall for new branch piping.

10. Four new exhaust fans as needed for toilet rooms.

11. New air-cooled packaged chiller on boiler room roof or grade. New chilled water pump and piping to boiler room hot/chilled piping mains.

12. New Web based Direct Digital temperature controls for all new HVAC equipment.

13. Replace the existing hot water supply and return piping branch piping in classrooms with new hot/chilled branch piping to new unit ventilator units.

14. Remove and install existing ceilings to remove old piping and install new piping.

15. Provide pipe enclosures where needed.

16. Drain down and refill hot/chilled piping system, water treatment, and test and

balance existing HVAC units.

17. New HVAC equipment start up.

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls to new cabinet heaters and wall mounted fan coil units to replace old piping with new, restoration of walls and floors behind fin-tube pipe enclosures.

Estimated HVAC budget **$1,840,000.00**

Talala Elementary School – Electrical upgrades

Existing Electrical system summary:

- The MDP is a 120/208V, 3 phase, 4 wire, 800A electrical service in Boiler Room 38 fed from utility transformer in the adjacent Electrical Vault. The MDP was replaced in 2008. A 120/208V, 3 phase, 4 wire panel (PP-1) is fed from a 200A disconnect tapped after the main disconnect.
- Boiler Room 38 is full of equipment and additional space is not available for new equipment.
- Existing distribution and branch circuit panelboards are located throughout the facility, but these are mostly full and do not provide additional circuits or capacity for the new HVAC equipment that will be added.

II. System Descriptions – Electrical Power:

A. Demolition:

1. Remove existing electrical connections to various existing mechanical equipment to be removed.
2. Remove existing electrical utility transformer and transformer vault.

B. New Electrical Work:

1. Provide new 480/277V, 3 phase, 4 wire, 1,600A service with step down transformer to feed new 120/208V, 3 phase, 4 wire, 1000A distribution panel. This 1000A panel will back feed the existing equipment.
2. Provide new electrical connections to new or modified HVAC equipment including chiller, roof top units, etc.

3. Provide two (2) new 120/208V electrical branch panels in classroom wings for new HVAC equipment.

4. Provide new LSI circuit breaker in existing 800A distribution panel.

5. New electrical room for new electrical service equipment

6. New, exterior pad mounted utility transformer will be required.

Budgets do not include costs associated with utility and utility vault modifications, addition of new electrical room, new lighting in classrooms, modifications to lighting in corridors or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Estimated Electrical budget. **$400,000**

Early Learning Center – HVAC upgrades

Existing HVAC system summary:

Boiler plant:

- New hot water heating boilers 2021
- New Variable speed building pumps 2021
- New primary/ secondary building pumping pipe loop 2021.
- Temperature controls are Pneumatic.
- New 2-pipe hot/chilled water piping distributions- 2021

Existing HVAC system in the building:

- Most classrooms have heating only unit ventilators.
- The gym and lunchroom have heating only air handling units
- The two (2) administration areas have hot water heating DX cooling furnace systems.
- Locker rooms have heating only small air handling units and fan coil units.
- Entry hot water cabinet heaters
- There is a few cooling only roof top units that serve a few rooms.
- The main Welcome Center entry has a package heating/cooling packaged roof top unit.

I. System Descriptions - Mechanical HVAC:

A. Demolition:

1. Remove the existing classroom unit ventilators, old heating piping on wall, pneumatic temperature controls, and pipe cover. Remove additional fin-tube in classrooms.

2. Remove heating only air handling units in the main gym and lunchroom.

3. Remove hot water fan coil units in old locker rooms.

4. Remove hot water heated entry cabinet heaters.

5. Remove five (5) exiting hot water heating/ D.X. cooling fan coil unit, ductwork, remote condensing unit, refrigerant piping, etc. in main office areas.

6. Kitchen exhaust hood system to remain.

7. Existing packaged roof top unit serving Welcome Center to remain.

8. Existing cooling only roof top unit serving Conference room 35 to remain.

9. Remove existing non-functional toilet exhaust fans.

B. New HVAC Work:

7. New 2-pipe hot/chilled unit ventilators with demand control ventilation and new outside air intake louvers, reuse existing wall openings in classrooms- 28-unit vents total.

8. New roof mounted classroom relief hoods for unit ventilator relief- 28 total.

9. Eight (8) new 2 pipe heating /cooling fan coils for toilet rooms 33, 34, 68, 70, 76, 77, 94, & 95.

10. Twenty-one (21) new 2-pipe heating/cooling fan coils for Serving, Kitchen, (6) offices, (7) storage rooms, (3) I Girls Locker room area, (3) in Boys Locker room area. 45 and corridors 29 and 48.

11. Two (2) new packaged gas heating /D.X. Cooling roof top units for the gym.

12. Two (2) New Variable refrigerant Flow systems with packaged gas heating /D.X. Cooling DOAS roof top unit with ductwork for the north and south District Office.

13. New packaged gas heating /D.X. Cooling roof top unit for the Multi-purpose /lunchroom with new ductwork.

14. Six (6) new hot water heating cabinet heaters at Entries 6, 60, 67, 73 and 92. Modify wall opening for new cabinet heaters. Cut and patch wall for new branch piping.

15. Four new exhaust fans as needed for toilet rooms.

16. New air-cooled packaged chiller on boiler room roof or grade. New chilled water

pump and piping to boiler room hot/chilled piping mains.

17. New Web based Direct Digital temperature controls for all new HVAC equipment.

18. Replace the existing hot water supply and return piping branch piping in classrooms with new hot/chilled branch piping to new unit ventilator units.

19. Provide pipe enclosures where needed.

20. Drain down and refill hot/chilled piping system, water treatment, and test and balance existing HVAC units.

21. New HVAC equipment start up.

Budgets do not include structural supports for chiller and roof top units, etc. roof work for new roof mounted equipment, cutting and patching of existing walls to replace old piping with new to new cabinet heaters and wall mounted fan coil units, restoration of walls and floors behind unit ventilator pipe enclosures.

Estimated HVAC budget **$2,600,000.00**

Early Learning Center – Electrical Upgrades

Existing Electrical system summary:

- The main distribution panel is a 120/208V, 3 phase, 4 wire, 2,000A electrical service in Gymnasium Storage 54 fed from a utility transformer in the adjacent Electrical Vault. It was upgraded in 2011.

- Existing distribution and branch circuit panelboards are located throughout the facility, but these are mostly full and do not provide additional circuits or capacity for the new HVAC equipment that will be added.

II. System Descriptions – Electrical Power:

a. Demolition:

i. Remove existing electrical connections to various existing mechanical equipment to be removed.

ii. Remove existing electrical utility transformer and convert the transformer vault to a new electrical room.

b. New Electrical Work:

July 7, 2021

Healy Bender Patton and Bean Architects **DRAFT**

Millies Engineering Group, Inc., Engineers

SD 201-U Crete Monee- Talala and Early Learning Center Air Conditioning
Crete, Illinois

i. Provide new 480/277V, 3 phase, 4 wire, 1,600A service with step down transformer to feed existing 120/208V, 3 phase, 4 wire, 2,000A distribution panel. New distribution panel shall be installed in the former transformer vault.

ii. Provide new electrical connections to new or modified HVAC equipment including chiller, roof top units, etc.

iii. Provide two (2) new 120/208V electrical branch panels in classroom wings for new HVAC equipment.

iv. Remove and replace various conduits to existing classroom equipment that is hanging off the walls.

v. New, exterior pad mounted utility transformer will be required.

Budgets do not include costs associated with utility and utility vault modifications, new lighting in classrooms, modifications to lighting in corridors or any structural modifications required for cutting and patching, roof or wall penetrations, etc.

Estimated Electrical budget. $450,000

Early Learning Center

Renovation Projects

Description	Cost	Summer, 2022	Summer, 2023
Life Safety Projects			
Doors and Frames - Interior	$ 7,000	$ 7,000	
Hollow metal doors and frames - Interior	$ 50,000	$ 50,000	
Exhaust Hood - Kitchen	$ 35,000	$ 35,000	
Ceiling transfer air plenum	$ 60,000	$ 60,000	
Total: Life-Safety Projects	**$ 152,000**	**$ 152,000**	**$ 0**
Non-Life Safety Projects			
HVAC System	$ 2,600,000	$ 2,600,000	
Electrical Work	$ 450,000	$ 450,000	
Architectural	$ 1,000,000	$ 1,000,000	
Total: Non-Life-Safety Projects	**$ 4,050,000**	**$ 4,050,000**	**$ 0**
Total Construction Cost	**$ 4,202,000**	**$ 4,202,000**	**$ 0**
A/E Fees - 8.5%	$ 357,170	$ 357,170	$ 0
Other Fees and Services - 4.0%	$ 168,080	$ 168,080	$ 0
Contingency - Design - 2.0%	$ 84,040	$ 84,040	$ 0
Contingency - Bidding - 3.0%	$ 126,060	$ 126,060	$ 0
Contingency - Construction - 5.0%	$ 210,100	$ 210,100	$ 0
Total Cost of Projects	**$ 5,147,450**	**$ 5,147,450**	**$ 0**

CAPITAL PROJECTS

Crete Monee High School

June, 2021 – August, 2024

CRETE-MONEE BOARD OF EDUCATION
Board of Education Regular Meeting – September 21, 2021
Approval to Submit an Application for the ISBE School Maintenance Project Grant

Prepared by: Kenneth Surma, Assistant Superintendent of Business/CSBO

The Issue:

The **School Maintenance Project Grant (SMPG)** is a dollar for dollar state matching grant program providing awards up to $50,000 to grantees exclusively for the maintenance or upkeep of buildings or structures for educational purposes. Ongoing operational costs, including in-house labor for SMPG projects not contracted out, cannot be included for any School Maintenance Project Grant. A project may involve different types of work on a single building or structure or may involve a single type of work (e.g., new roofing or windows) on several buildings or structures. There is no limit to the cost of a project; however, grant awards shall not exceed $50,000 per grant award, and applicants shall provide a match from local funds equal to the grant amount requested. An applicant must not obligate funds or begin work on any of the projects listed on the application prior to submission of the application in IWAS. However, submission of the application does not guarantee a grant will be approved or awarded. All project activities must be expended or legally obligated within two years of disbursement by the State. If funds have been obligated by the grantee but not fully expended two years after disbursement, ninety (90) calendar days will be given to liquidate all obligations.

Justification:

The opp01tunity to receive a $50,000 grant will assist the district in funding the installation and replace of all exterior and interior lighting fixtures at Crete-Monee High School with LED lights.

Board Policy and Past Practices:

The application for the Grant supports Board of Education Policy 4:30 Revenue and Investments.

Strategic Plan:

The recommendation supports Goals Five and Six of the strategic plan:

- Provide our students with equitable, safe and well-maintained facilities.
- Provide our financial resources to meet our short and long-term goals.

Community Impact:

The replacement and installation of new LED lighting provides a modernization of the electrical lighting at Crete-Monee High School and will save maintenance and operational costs in the future.

Financial Impact:

It is estimated that the total cost of the project would be:

Estimated Cost of Exterior Lights	$41,165

Estimated Costs of Exterior Light Installation	$19,400
Total Cost of Exterior Lights and Installation	**$60,565**
Estimated Cost of Interior Lights	$273,274
Estimated Costs of Interior Light Installation	$108,420
Total Cost of Interior Lights and Installation	**$381,694**
Total Cost of Exterior and Interior Lights and Installation	**$442,259**
Estimated Rebate on Exterior Lights	-$16,110
Estimated Rebate on Interior Lights	-$102,064
Total Estimated Rebate	**-$118,174**
School Maintenance Project Grant	**-$50,000**
Estimated Final Cost of Project	**$274,085**

By relacing all of the existing lights with LED lighting, it is estimated that the annual electric cost will be reduced by $20,000. Additionally, with each fixture having a 15-year life expectancy, replacement cost will also be reduced.

Due to the scope of the project, a Request for Proposals will need to be published prior to contracting for the work.

Recommendation:

The administration is recommending the approval to submit an application for the Illinois State Board of Education School Maintenance Project Grant.

Timeline for Decision:

September 21, 2021

Emium Lighting LLC
451 Oakwood Road
Lake Zurich, IL 60047

773-383-0194
www.emium.com

Monday, August 30, 2021
Quote # 21083024

Crete Monee High School
Interior LED Light Retrofit Quote

Bill To:
Crete Monee School District 201
1500 Sangamon St
Crete, IL 60417

Ship To:
Crete Monee School District 201
1500 Sangamon St
Crete, IL 60417

Quantity	*Description*	*Unit Price*	*Ext Price*
3834	EL-ZY-PNL-2X2-36W-DM-4000K Emium 2 ft by 2 ft LED Panel Light, 4000K, 100-277VAC, Dimmable, UL and DLC listed	$63.00	$241,542.00
200	EL-ZY-PNL-1X4-30W-DM-4000K Emium 1 ft by 4 ft LED Panel Light, 4000K, 100-277VAC, Dimmable, UL and DLC listed	$68.00	$13,600.00
448	EL-ZY-T8N-15W1200-DIAB-4000K Emium 4 ft LED T8 Tube, 4000K, 100-277VAC, UL and DLC listed	$11.00	$4,928.00
48	EL-CR-2G11-18W-5000K Emium LED 2G11, 18 watts, 100-277VAC, UL and DLC Listed	$28.00	$1,344.00
501	EL-VL-PLH-12W-AB 4000K-gx24q Emium LED PL Horizontal Gx24q,12W 4000K 100-277VAC, UL and DLC listed	$19.00	$9,519.00
10	EL-ZY-A19-9W-4000K Emium LED A19, 4000K, 100-277VAC, UL and DLC listed	$5.00	$50.00
45	EL-ZY-A21-12W-4000K Emium LED A21, 4000K, 100-277VAC, UL and DLC listed	$7.00	$315.00
9	EL-MC-TP-03-60-4000K Emium 4 ft LED Tri Proof, 5000K, 100-277VAC, UL and DLC listed	$146.00	$1,314.00
4	EL-TL-CB-22W-4000K-E39 Emium LED 22W Corn Bulb, Mogul Base, Ballast Bypass, 100-277VAC, UL and DLC listed	$53.00	$212.00

Annual Cost Savings - $231,890.22
ComEd Incentives - $102,064
1st Year Savings Equipment Total - $333,954.22
ROI - 0.81 Years

Equipment Total	***$272,824.00***
Freight	***$450.00***
Total	***$273,274.00***

ComEd Rebate after Installation ***$102,064.00***

Notes:

1. Payment: Upon receipt of equipment
2. Delivery: 30 days ARO
3. Emium LED light engines carry a 5 year manufacturer's warranty.
4. Quote is valid for 60 days from the date above

Maverick Lighting Solutions

2609 W 106th Pl
Chicago, IL 60655
Phone: 773-779-2297
Cell: 312-401-8006

email: Jim@MaverickLightingSolutions.com

Proposal

08242021-2D

INVOICE SUBMITTED TO	PHONE	DATE
Keith McLean		**08/024/2021**
STREET	JOB NAME	
	Crete Monee High School	
CITY. STATE AND ZIP	JOB LOCATION	
	1500 Sangamon, Crete, IL	
	PURCHASE / WORK ORDER NUMBERS	

	Electrician Hours	Helper Hours	Travel	Rental	
Trip 1:					

Labor to install 2872- 2x2 LED fixtures, bypass 1264- fixtures, and install LED lamps. Will propose. NOTE: This is a preliminary quote. Once the design is approved, the fixture count and cost of the proposal may change.

Trip 3:				

Quantity	Item Description	Price	Amount
1	Misc Material	15,000.00	15,000.00

Travel	
Rental	
Labor	**93,420.00**
Materials	**15,000.00**
Tax Exempt	
Job Total	**$108,420.00**

Emium Lighting Energy and Cost Savings Calculator

Crete Monee High School Outdoor LED Lighting

Electrical Energy Savings in Light Generation

Area	Product		Qty	Energy Consumption (Watts per Lamp)	Electrical Energy Use (Total watts per hour)	Hours of Use per Year	Annual Energy Consumption (KWH)	Annual Energy Savings (KWH) with Emium LED	Electricity Cost per Year (@0.097/KWH)	Estimated Annual Maintenance Cost	Annual Operating Cost	Annual Savings with Emium LED	Watts reduced
400W	400W MH	400W	60	455	27,300	4,380	119,574		$11,598.68	$2,400.00	$13,998.68		18,300
	Emium LED Parking Lot Light	150W	60	150	9,000	4,380	39,420	80,154	$3,823.74	$0.00	$3,823.74	**$10,174.94**	
175W	175W MH	175W	96	215	20,640	4,380	90,403		$8,769.11	$3,840.00	$12,609.11		13,920
	Emium LED Parking Lot Light	70W	96	70	6,720	4,380	29,434	60,970	$2,855.06	$0.00	$2,855.06	**$9,754.05**	
					Sub-Total: Reduction in energy consumption per year (KWH)			**141,124**					32,220
											Sub-Total: Reduction in annual operating costs	**$19,928.99**	TOTAL

Total Annual Energy Reduction (KWH)	***141,124***
Annual Operating Cost Reduction	***$19,928.99***
Com Ed Standard Prescriptive Rebate ***(one time only, estimated)***	***$16,110.00***
Immediate 1st year Operating Cost Reduction	***$36,038.99***
Cost of Equipment	***$41,165.00***
Return on Investment (ROI)	***1.26 years***

10 Year Real Savings

Year 1 cost reduction	$36,038.99
Year 2 cost reduction	$19,928.99
Year 3 cost reduction	$19,928.99
Year 4 cost reduction	$19,928.99
Year 5 cost reduction	$19,928.99
Year 6 cost reduction	$19,928.99
Year 7 cost reduction	$19,928.99
Year 8 cost reduction	$19,928.99
Year 9 cost reduction	$19,928.99
Year 10 cost reduction	$19,928.99
Total	***$215,399.89***

NOTE: This assumes that there will be no increase in the cost of electricity over the next 10 years. From a historical perspective, electrical energy rates have gone up approximately 35% in the past decade.

emium
emium lighting, see differently

These are real hard dollar savings that are a product of simple calculations based on the lower power consumption and lower maintenance costs of Emium LED lighting. There are also many other savings and advantages inherent with our lighting:

- No inventory required. You won't be changing out any light bulb for more than 5 years (some much longer).
- Reduced administrative costs associated with the purchasing and stocking of replacement bulbs.
- Eliminate the labor time and cost necessary to replace bulbs.
- Eliminate the need for specialized equipment required to reach certain fixtures to replace bulbs.

Emium Lighting LLC
451 Oakwood Road
Lake Zurich, IL 60047

773-383-0194
www.emium.com

Wednesday, August 25, 2021
Quote # 21082426

Crete Monee High School
Outdoor LED Light Retrofit

Bill To:

Crete Monee School District 201
1500 Sangamon St
Crete, IL 60417

Ship To:

Crete Monee School District 201
1500 Sangamon St
Crete, IL 60417

Quantity	*Description*	*Unit Price*	*Ext Price*
94	EL-MS-SL-70W-27V-5000K-D-SQ-T5 Emium LED Parking Area Fixture, 70 watts, 100-277VAC, dark bronze housing and square pole mount, UL and DLC Listed	$202	$18,988.00
	Drive Lighting		
48	EL-MS-SL-150W-27V-5000K-D-SQ-T5 Emium LED Parking Area Fixture, 150 watts, 100-277VAC, dark bronze housing and Square Pole mount, UL and DLC Listed	$338	$16,224.00
	Parking Lot Lighting		
10	EL-MS-SL-150W-27V-5000K-D-SP-T5 Emium LED Parking Area Fixture, 150 watts, 100-277VAC, dark bronze housing and Square Pole mount, UL and DLC Listed	$338	$3,380.00
	Flood Lights shining on school		
2	EL-MS-SL-150W-27V-5000K-D-SP-T3 Emium LED Parking Area Fixture, 150 watts, 100-277VAC, dark bronze housing and Square Pole mount, UL and DLC Listed	$338	$676.00
	Flag Pole Lights		
35	EL-TL-CB-22W-5000K-Medium Emium LED Corn Bulb, 22 watts, 100-277VAC, UL and DLC Listed	$53	$1,855.00
35	ComEd Instant Rebate	-$20	-$700.00
	Triangle Accent Lighting		
18	EL-CR-2G11-18W-5000K Emium LED 2G11, 18 watts, 100-277VAC, UL and DLC Listed	$23	$414.00
18	ComEd Instant Rebate	-$4	-$72.00
	Skinny Sconce Accent Lighting		

The implementation of solid state LED lighting contained in this proposal will save approximately ***141,000 KWH*** of electricity annually!

Additionally the cost savings (electricity and maintenance) associated with this implementation will pay for the cost of purchasing the products in roughly 15 months.

Equipment Total	***$40,765.00***
Freight	***$400.00***
Total	***$41,165.00***
ComEd Rebate after Installation	***$16,110.00***

Notes:

1. Payment: Upon receipt of equipment
2. Delivery: 30 days ARO
3. Emium LED light engines carry a 5 year manufacturer's warranty.
4. Quote is valid for 60 days from the date above

Maverick Lighting Solutions

2609 W 106th Pl
Chicago, IL 60655
Phone: 773-779-2297
Cell: 312-401-8006

email: Jim@MaverickLightingSolutions.com

Proposal

08252021-1

INVOICE SUBMITTED TO	PHONE	DATE
Keith McLean		**08/25/2021**
STREET	JOB NAME	
	Crete Monee High School	
CITY. STATE AND ZIP	JOB LOCATION	
	1500 Sangamon, Crete, IL	
	PURCHASE / WORK ORDER NUMBERS	
	Exterior	

	Electrician Hours	Helper Hours	Travel	Rental	
Trip 1:				**$1,600.00**	

Labor to replace 94- pole lights for the drive lighting, 48- pole lights for the parking lot, 10- lights for the flood lights, 2- lights for the flag pole, bypass ballasts for 35- triangle accent lights and install LED lamps, and bypass ballasts for 18- skinny sconce lights and install LED lamps. Will propose.

Trip 3:			

Quantity	Item Description	Price	Amount
1	Misc Material	1,000.00	1,000.00

Travel	
Rental	**1,600.00**
Labor	**16,800.00**
Materials	**1,000.00**
Tax Exempt	
Job Total	**$19,400.00**

CAPITAL PROJECTS

Financial Data & Analysis

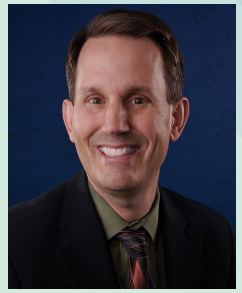
June, 2021 – August, 2024

Cosmetic improvements totaling $10,600,000 are not included in the borrowing recommendation within the Financial Data & Analysis.

PMA™ SECURITIES

Crete-Monee CUSD 201-U

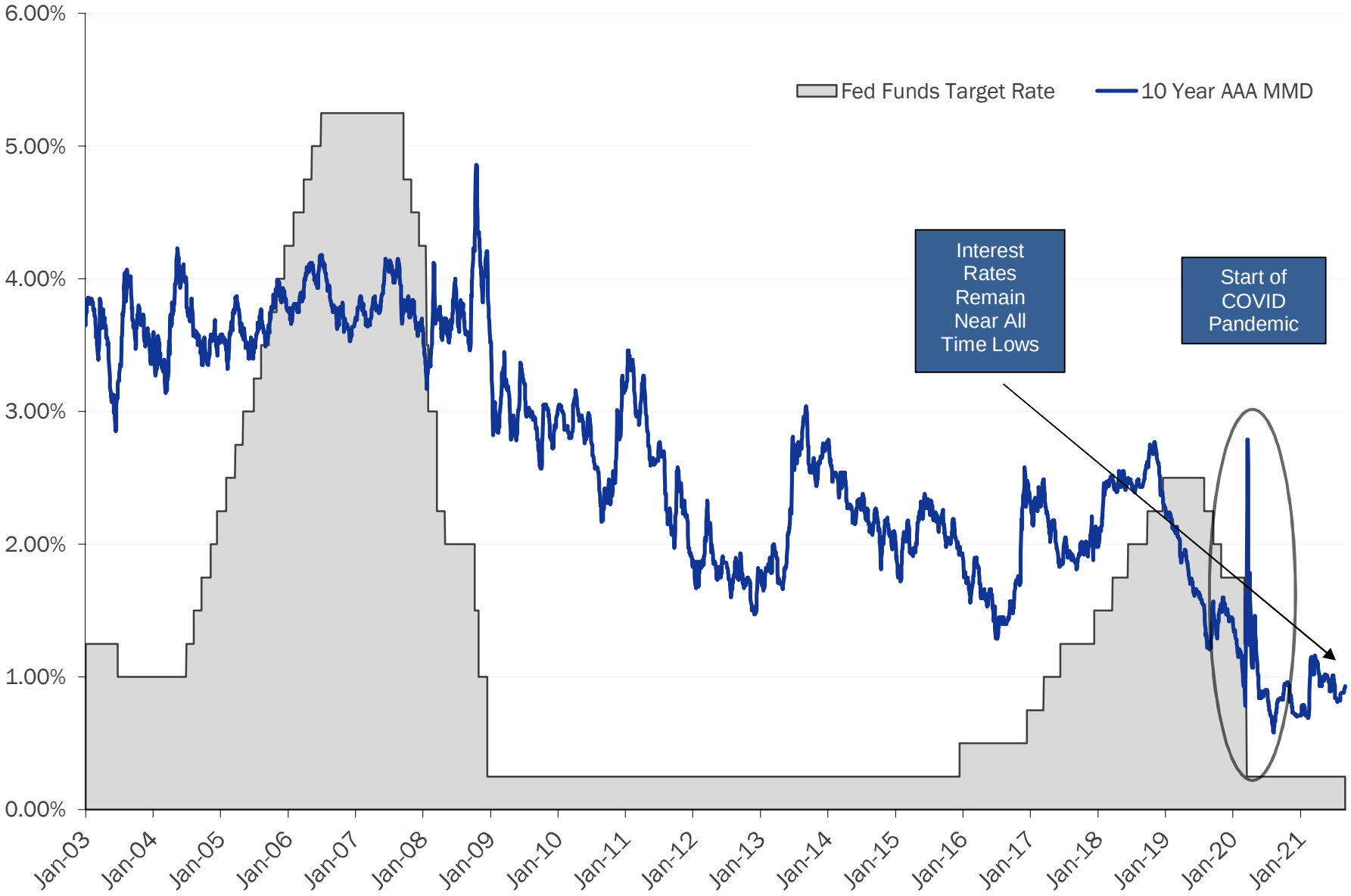
Market Update, District Debt Overview, and Capital Needs Analysis



Robert Lewis
Senior Vice President, Managing Director
PMA Securities, LLC

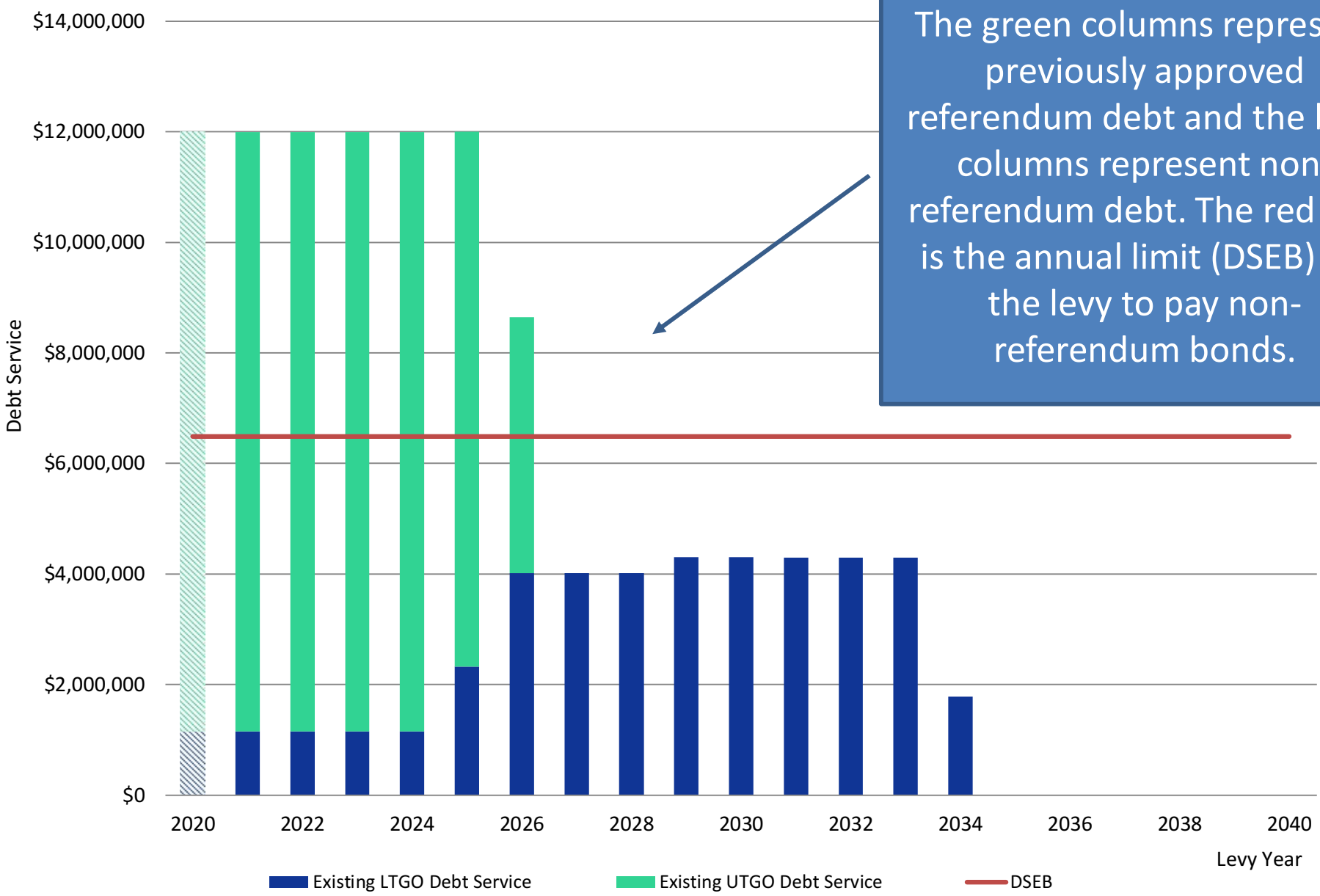
September 3, 2021

Historical Tax-Exempt Rates



*The Municipal Market Data "MMD" is a AAA municipal bond market index produced by TM3. As of September 1, 2021

Current Debt Service Levy



The green columns represent previously approved referendum debt and the blue columns represent non-referendum debt. The red line is the annual limit (DSEB) for the levy to pay non-referendum bonds.

Plan Finance of Highlights

- Key Assumptions:
  - $49 million netted for construction projects
  - The long-term financing would be a mixture of working cash bonds and funding bonds to pay off an interim financing (e.g. debt certificate). See next slide for more details
  - Debt service maintained at $12 million annually through 2025, as it is currently structured, and then reduced to $10 million until the final payment io the original referendum approved bonds in levy year 2030
  - Analysis assumes current market rates plus 0.5%

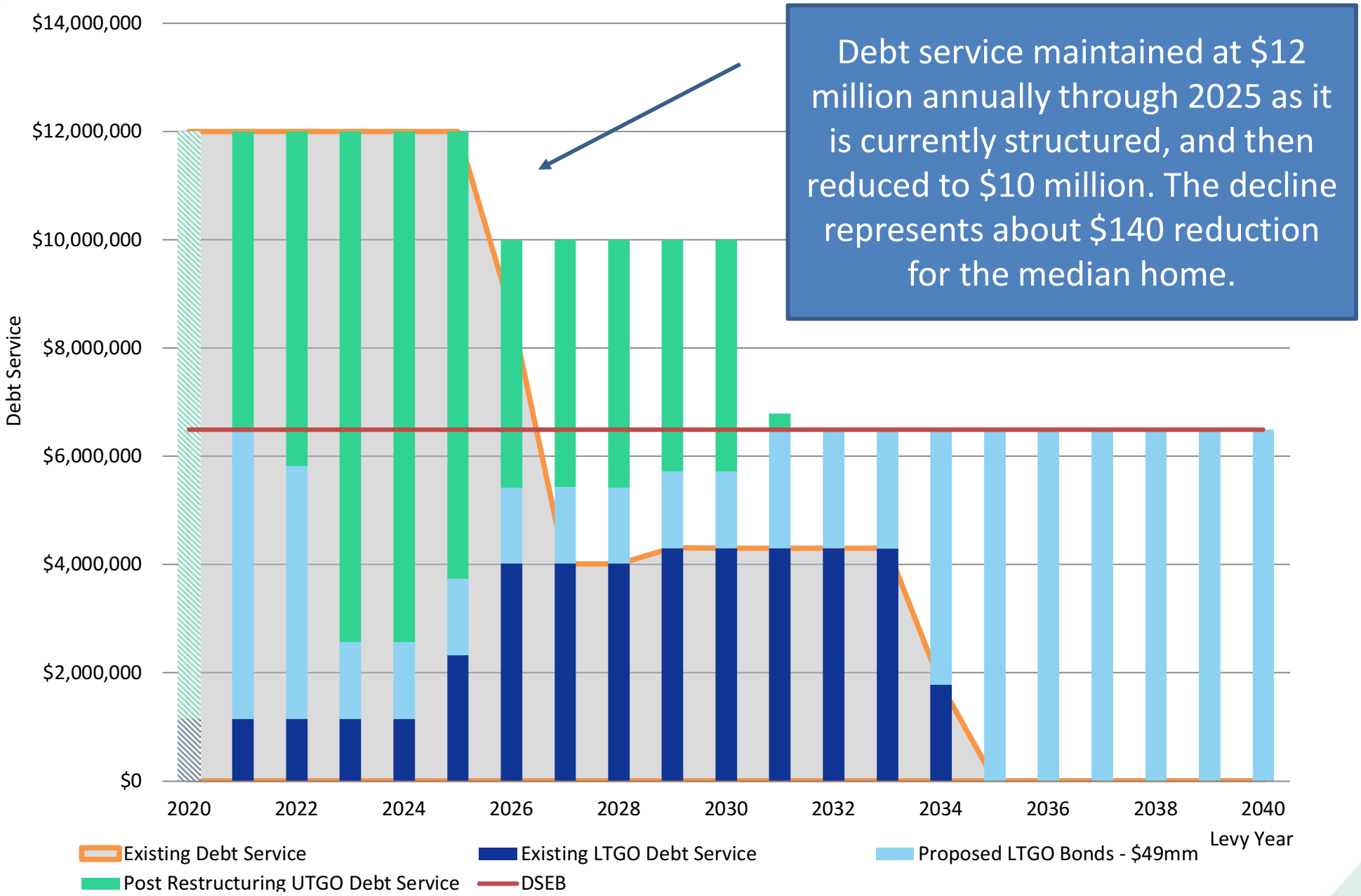
Plan Finance of Highlights (continued)

- The levy for *non-referendum* GO bonds needs to fit within the District's Debt Service Extension Base or DSEB (see redline on the next slide):
  - *Working Cash Bonds*
    - Bond proceeds are abated (permanent transfer) to the O&M fund and then transferred to the capital projects fund
    - Pursuant to a separate formula, the District can issue up to $26.6 million of working cash bonds payable from the DSEB
    - The District used this type of bond in 2020
  - *Funding Bonds*
    - *Pays off a claim or liability like a debt certificate*
    - The District used this type of bond in 2016

- *All Non-Referendum Bonds* require a Bond Issue Notification Act (BINA) hearing which is similar to a budget hearing

- *Funding Bonds and Working Cash Bonds* also require a 30-day petition process in lieu of a direct referendum
  - If 10% of the registered voters sign the petition it has to go to referendum
  - For the 2020 Working Cash bonds, 10% of registered voters equaled 2,358

Debt Service - $49 million of New Money



Sample Timeline of Key Events

October 19	Board adopts Resolution Authorizing the Sale of the Debt Certificates
November 1	Debt Certificates sold; delegates approve the final sale
November 2	President signs Order calling for Bond Issue Notification Act (BINA) hearing
November 12	Debt Certificates close
November 16	Board adopts Notice of Intent Resolution and conducts BINA hearing
December 20	30 Day Petition Period Ends
January 18	Board approves parameter resolution authorizing the sale;
January 19	Bonds sold; delegates approve final sale
February 9	Bonds close

Disclosure

The information contained herein is solely intended to suggest/discuss potentially applicable financing applications and is not intended to be a specific buy/sell recommendation, nor is it an official confirmation of terms. Any terms discussed herein are preliminary until confirmed in a definitive written agreement.

The analysis or information presented herein is based upon hypothetical projections and/or past performance that have certain limitations. No representation is made that it is accurate or complete or that any results indicated will be achieved. In no way is past performance indicative of future results. Changes to any prices, levels, or assumptions contained herein may have a material impact on results. Any estimates or assumptions contained herein represent our best judgment as of the date indicated and are subject to change without notice. Examples are merely representative and are not meant to be all-inclusive. The information set forth herein was gathered from sources which we believe, but do not guarantee, to be accurate. Neither the information, nor any options expressed, constitute a solicitation by us for purposes of sale or purchase of any securities or commodities. Investment/financing decisions by market participants should not be based on this information.

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v01.08.21

Appendix

Outstanding Debt Service (Detail)

		Non-Referendum Debt Service / DSEB						Referendum Bonds Debt Service						
Levy Year	Fiscal Year	$14,405,000 GO Limited Tax School Bonds, Series 2016C	$6,210,000 Taxable GO Limited Tax School Bonds, Series 2020A	$10,175,000 GO Limited Tax School Bonds, Series 2020B	Total	Non Referendum Debt Service Extension Base	Remaining Margin	$45,297,698 Series 2004 CAB School Bonds	$6,796,780 Series 2005 CAB School Bonds	$9,495,269 Series 2006 CAB School Bonds	$11,580,000 GO Refunding School Bonds, Series 2016B	$3,510,000 Taxable GO Refunding School Bonds, Series 2020C	Total	Total General Obligation Bonds Debt Service
~~2018~~	~~2020~~	~~$ 613,200~~	~~$ -~~	~~$ -~~	~~$ 613,200~~	~~$ 6,490,000~~	~~$5,876,800~~	~~$ 9,885,000~~	~~$ -~~	~~$ 920,000~~	~~$ 579,000~~	~~$ -~~	~~$ 11,384,000~~	~~$ 11,997,200~~
~~2019~~	~~2021~~	~~613,200~~	~~-~~	~~-~~	~~613,200~~	~~6,490,000~~	~~5,876,800~~	~~9,570,000~~	~~-~~	~~1,235,000~~	~~579,000~~	~~-~~	~~11,384,000~~	~~11,997,200~~
2020	2022	613,200	131,784	408,131	1,153,114	6,490,000	5,336,886	8,720,000	-	1,500,000	557,500	68,565	10,846,065	11,999,179
2021	2023	613,200	131,419	407,000	1,151,619	6,490,000	5,338,381	8,595,000	-	1,625,000	557,500	68,375	10,845,875	11,997,494
2022	2024	613,200	131,419	407,000	1,151,619	6,490,000	5,338,381	8,420,000	-	1,800,000	557,500	68,375	10,845,875	11,997,494
2023	2025	613,200	131,419	407,000	1,151,619	6,490,000	5,338,381	-	3,820,000	6,400,000	557,500	68,375	10,845,875	11,997,494
2024	2026	613,200	131,419	407,000	1,151,619	6,490,000	5,338,381	-	7,935,000	1,235,000	1,607,500	68,375	10,845,875	11,997,494
2025	2027	1,788,200	131,419	407,000	2,326,619	6,490,000	4,163,381	-	-	-	9,605,000	68,375	9,673,375	11,999,994
2026	2028	1,784,450	1,821,419	407,000	4,012,869	6,490,000	2,477,131	-	-	-	1,050,000	3,578,375	4,628,375	8,641,244
2027	2029	1,787,950	1,818,498	407,000	4,013,448	6,490,000	2,476,552	-	-	-	-	-	-	4,013,448
2028	2030	1,783,200	1,822,584	407,000	4,012,784	6,490,000	2,477,216	-	-	-	-	-	-	4,012,784
2029	2031	1,784,000	1,063,899	1,457,000	4,304,899	6,490,000	2,185,101	-	-	-	-	-	-	4,304,899
2030	2032	1,787,600	-	2,515,000	4,302,600	6,490,000	2,187,400	-	-	-	-	-	-	4,302,600
2031	2033	1,783,800	-	2,514,000	4,297,800	6,490,000	2,192,200	-	-	-	-	-	-	4,297,800
2032	2034	1,782,800	-	2,514,600	4,297,400	6,490,000	2,192,600	-	-	-	-	-	-	4,297,400
2033	2035	1,784,400	-	2,511,600	4,296,000	6,490,000	2,194,000	-	-	-	-	-	-	4,296,000
2034	2036	1,778,400	-	-	1,778,400	6,490,000	4,711,600	-	-	-	-	-	-	1,778,400
2035	2037	-	-	-	-	6,490,000	6,490,000	-	-	-	-	-	-	-
2036	2038	-	-	-	-	6,490,000	6,490,000	-	-	-	-	-	-	-
2037	2039	-	-	-	-	6,490,000	6,490,000	-	-	-	-	-	-	-
2038	2040	-	-	-	-	6,490,000	6,490,000	-	-	-	-	-	-	-
2039	2041	-	-	-	-	6,490,000	6,490,000	-	-	-	-	-	-	-
2040	2042	-	-	-	-	6,490,000	6,490,000	-	-	-	-	-	-	-
Total DS From Current FY:		$ 20,910,800	$ 7,315,277	$ 15,176,331	$43,402,408			$ 25,735,000	$11,755,000	$12,560,000	$ 14,492,500	$ 3,988,814	$ 68,531,314	$ 111,933,722

Outstanding Principal

Levy Year	Fiscal Year	$45,297,698 Series 2004 CAB School Bonds	$6,796,780 Series 2005 CAB School Bonds	$9,495,269 Series 2006 CAB School Bonds	$11,580,000 GO Ref. School Bonds, Series 2016B	$14,405,000 GO Limited Tax School Bonds, Series 2016C	$6,210,000 Taxable GO Limited Tax School Bonds, Series 2020A	$10,175,000 GO Limited Tax School Bonds, Series 2020B	$3,510,000 Taxable GO Refunding School Bonds, Series 2020C	Total	Ending Principal Balance	Cumulative Principal Retirement as Percent of Total
2020	2022	$ 2,238,686	$ -	$ 722,610	$ -	$ -	$ -	$ -	$ -	$ 2,961,296	$ 58,351,955	4.83%
2021	2023	2,040,195	-	746,558	-	-	-	-	-	2,786,753	55,565,203	9.37%
2022	2024	1,847,853	-	775,368	-	-	-	-	-	2,623,221	52,941,982	13.65%
2023	2025	-	1,534,570	2,466,752	-	-	-	-	-	4,001,322	48,940,659	20.18%
2024	2026	-	3,007,762	482,897	1,050,000	-	-	-	-	4,540,659	44,400,000	27.58%
2025	2027	-	-	-	9,100,000	1,175,000	-	-	-	10,275,000	34,125,000	44.34%
2026	2028	-	-	-	1,000,000	1,230,000	1,690,000	-	3,510,000	7,430,000	26,695,000	56.46%
2027	2029	-	-	-	-	1,295,000	1,720,000	-	-	3,015,000	23,680,000	61.38%
2028	2030	-	-	-	-	1,355,000	1,760,000	-	-	3,115,000	20,565,000	66.46%
2029	2031	-	-	-	-	1,410,000	1,040,000	1,050,000	-	3,500,000	17,065,000	72.17%
2030	2032	-	-	-	-	1,470,000	-	2,150,000	-	3,620,000	13,445,000	78.07%
2031	2033	-	-	-	-	1,525,000	-	2,235,000	-	3,760,000	9,685,000	84.20%
2032	2034	-	-	-	-	1,585,000	-	2,325,000	-	3,910,000	5,775,000	90.58%
2033	2035	-	-	-	-	1,650,000	-	2,415,000	-	4,065,000	1,710,000	97.21%
2034	2036	-	-	-	-	1,710,000	-	-	-	1,710,000	-	100.00%
2035	2037	-	-	-	-	-	-	-	-	-	-	100.00%
2036	2038	-	-	-	-	-	-	-	-	-	-	100.00%
2037	2039	-	-	-	-	-	-	-	-	-	-	100.00%
Total DS From Current FY:		$ 6,126,734	$ 4,542,332	$ 5,194,185	$11,150,000	$14,405,000	$ 6,210,000	$ 10,175,000	$ 3,510,000	$ 61,313,251		
	Purpose:	Building	Building	Building	Advance Refunding 04/05 CABs	Funding	Working Cash	Working Cash	Advance Refunding			
	Callable:	N/A	N/A	N/A	01/01/26	01/01/26	N/A	01/01/28	N/A			
Interest Rate/Yield:		5.40-5.80%	4.65-4.70%	4.50-4.80%	5.00%	4.00-5.00%						

School Bond Options

The estimated WC capacity in 2024 is $15.4 million

Payable from a separate tax levy.

Payable from operating funds.

	Working Cash Bonds	Funding Bonds	Tort Funding Bonds	Life Safety Bonds	Building Bonds	Debt/Lease Certificates	Alternate Revenue Bonds
Purpose	- Capital projects - Cashflow	- Capital projects - Pay claims	- Pay tort judgments or settlements	- Life safety projects	- School construction & renovation	- Capital projects	- Capital projects
Referendum Requirement	30-day notice period	30-day notice period	No	No	Yes	No	30-day notice period
Separate Tax Levy Available	Yes	Yes	Yes	Yes	Yes	No; paid from Operations	Yes; paid from Operations or other source
Subject to Debt Service Extension Base	Only if capped	Only if capped	Only if capped	Only if capped	No	No	No
Public Hearing Required (BINA)	Yes	Yes	Yes	Yes		No	Yes
Final Maturity Limit	20 years	20 years	20 years	20 years	20 years	20 years	40 years
Subject to Debt Limit	No	No	Yes	Yes	Yes	Yes	No (as long as levy is not accessed)
Other Restrictions	Principal limited by a working cash formula	Often a 2-step process involving initial issuance of deb certificates				Lease required for new building	Revenue coverage tests may apply

Debt Service - $49 million of New Money (detail)

		Non-Referendum Debt Service / DSEB							Referendum Bonds Debt Service							
Levy Year	Fiscal Year	$14,405,000 GO Limited Tax School Bonds, Series 2016C	$6,210,000 Taxable GO Limited Tax School Bonds, Series 2020A	$10,175,000 GO Limited Tax School Bonds, Series 2020B	Proposed GO Limited Tax School Bonds, Series 2022 (1)	Total	Non Referendum Debt Service Extension Base	Remaining Margin	$45,297,698 Series 2004 CAB School Bonds	$6,796,780 Series 2005 CAB School Bonds	$9,495,269 Series 2006 CAB School Bonds	$11,580,000 GO Refunding School Bonds, Series 2016B	$3,510,000 Taxable GO Refunding School Bonds, Series 2020C	Proposed Taxable GO Refunding School Bonds, Series 2022 (1)	Total	Total General Obligation Bonds Debt Service
~~2018~~	~~2020~~	~~$ 613,200~~	~~$ -~~	~~$ -~~	~~$ -~~	~~$ 613,200~~	~~$ 6,490,000~~	~~$ 5,876,800~~	~~$ 9,885,000~~	~~$ -~~	~~$ 920,000~~	~~$ 579,000~~	~~$ -~~	~~$ -~~	~~$ 11,384,000~~	~~$ 11,997,200~~
~~2019~~	~~2021~~	~~613,200~~	~~-~~	~~-~~	~~-~~	~~613,200~~	~~6,490,000~~	~~5,876,800~~	~~9,570,000~~	~~-~~	~~1,235,000~~	~~579,000~~	~~-~~	~~-~~	~~11,384,000~~	~~11,997,200~~
2020	2022	613,200	131,784	408,131	-	1,153,114	6,490,000	5,336,886	8,720,000	-	1,500,000	557,500	68,565	-	10,846,065	11,999,179
2021	2023	613,200	131,419	407,000	5,333,594	6,485,213	6,490,000	4,787	2,980,000	-	1,625,000	448,000	68,375	390,958	5,512,333	11,997,546
2022	2024	613,200	131,419	407,000	4,667,975	5,819,594	6,490,000	670,406	3,435,000	-	1,800,000	448,000	68,375	426,500	6,177,875	11,997,469
2023	2025	613,200	131,419	407,000	1,412,775	2,564,394	6,490,000	3,925,606	-	2,090,000	6,400,000	448,000	68,375	426,500	9,432,875	11,997,269
2024	2026	613,200	131,419	407,000	1,412,775	2,564,394	6,490,000	3,925,606	-	6,205,000	1,235,000	1,498,000	68,375	426,500	9,432,875	11,997,269
2025	2027	1,788,200	131,419	407,000	1,412,775	3,739,394	6,490,000	2,750,606	-	-	-	7,765,500	68,375	426,500	8,260,375	11,999,769
2026	2028	1,784,450	1,821,419	407,000	1,412,775	5,425,644	6,490,000	1,064,356	-	-	-	567,000	3,578,375	426,500	4,571,875	9,997,519
2027	2029	1,787,950	1,818,498	407,000	1,412,775	5,426,223	6,490,000	1,063,777	-	-	-	-	-	4,571,500	4,571,500	9,997,723
2028	2030	1,783,200	1,822,584	407,000	1,412,775	5,425,559	6,490,000	1,064,441	-	-	-	-	-	4,571,165	4,571,165	9,996,724
2029	2031	1,784,000	1,063,899	1,457,000	1,412,775	5,717,674	6,490,000	772,326	-	-	-	-	-	4,281,861	4,281,861	9,999,535
2030	2032	1,787,600	-	2,515,000	1,412,775	5,715,375	6,490,000	774,625	-	-	-	-	-	4,281,026	4,281,026	9,996,401
2031	2033	1,783,800	-	2,514,000	2,187,775	6,485,575	6,490,000	4,425	-	-	-	-	-	303,290	303,290	6,788,865
2032	2034	1,782,800	-	2,514,600	2,190,650	6,488,050	6,490,000	1,950	-	-	-	-	-	-	-	6,488,050
2033	2035	1,784,400	-	2,511,600	2,192,475	6,488,475	6,490,000	1,525	-	-	-	-	-	-	-	6,488,475
2034	2036	1,778,400	-	-	4,708,250	6,486,650	6,490,000	3,350	-	-	-	-	-	-	-	6,486,650
2035	2037	-	-	-	6,489,950	6,489,950	6,490,000	50	-	-	-	-	-	-	-	6,489,950
2036	2038	-	-	-	6,485,150	6,485,150	6,490,000	4,850	-	-	-	-	-	-	-	6,485,150
2037	2039	-	-	-	6,489,050	6,489,050	6,490,000	950	-	-	-	-	-	-	-	6,489,050
2038	2040	-	-	-	6,486,125	6,486,125	6,490,000	3,875	-	-	-	-	-	-	-	6,486,125
2039	2041	-	-	-	6,486,375	6,486,375	6,490,000	3,625	-	-	-	-	-	-	-	6,486,375
2040	2042	-	-	-	6,489,450	6,489,450	6,490,000	550	-	-	-	-	-	-	-	6,489,450
Total DS From Current FY:		$ 20,910,800	$ 7,315,277	$ 15,176,331	$ 71,509,019	$ 114,911,427			$ 15,135,000	$ 8,295,000	$ 12,560,000	$ 11,732,000	$ 3,988,814	$ 20,532,299	$ 72,243,113	$ 187,154,540

(1) Rates based upon market conditions as of August 31, 2021 and recent bond sales which PMA believes to be accurate and reliable, plus 0.50%.

NOTE: Scenarios where a greater portion of the overall debt is issued in advance of the expenditures of the proceeds will likely result in higher fees earned by the investment manager of the debt proceeds.