

Debt Issue – MEP Renovations

November 16, 2022



Goals of Infrastructure Renovations

- Address aging building equipment that is past life expectancy and in many cases replacement parts are no longer in production (*minimal mechanical, plumbing, and electrical work completed throughout the years*)
- Improve classroom and building environment (lighting, ventilation, temperature, hot water etc.)
- Improve efficiency of the systems and realize an energy usage savings
- Minimize required repairs in-house and contracted, to realize a monetary savings
- Set all the buildings up to be able to operate effectively for at least the next 20 years with minimal to no required infrastructure upgrades
- Maximize long term value of every project and all money put into the projects.

Typical Infrastructure Project Scope

- Upgrade original lighting to LED fixtures (interior and exterior)
- Upgrade original electrical infrastructure as required
- Upgrade original heating, ventilation, and air conditioning system (addition of air conditioning where required)
- Upgrade domestic hot water system as required
- Upgrade fire sprinkler system as required
- Upgrade fire alarm system as required
- Upgrade security system as required
- Upgrade building automation system (temperature controls)
- Upgrade other misc. items (clocks, intercom, cameras, food service equipment, walk-in coolers/freezers, etc.)
- Maintain all roofs under warranty (coating, restorative, or new)

Timeline

- **FEBRUARY 2018** - STANTEC COMPLETED A DISTRICT WIDE STUDY (AVAILABLE ON THE WEBSITE)
- **JULY 2018** – FIRST LONG RANGE FACILITIES PLANNING COMMITTEE MEETING (MET 9 TIMES)
 - PURPOSE TO REVIEW STANTEC REPORT WITH OTHER INFORMATION TO DEVELOP LONG RANGE PLAN TO ADDRESS AGING INFRASTRUCTURE AND FUNDING
- **DECEMBER/JANUARY 2018** – (2) MEETINGS TO DISCUSS PLAN, OPTIONS WITH CHESTNUT HILL AND RIDGEFIELD (CLOSURE/SELLING)
- **MARCH 2019** – TOWNHALL TO DISCUSS LONG TERM PLAN AND LIFE EXPECTANCY REPORT
- **MAY 2019** – RECOMMENDATIONS FROM THE LONG RANGE COMMITTEE TO THE BOARD
 - BOARD DIRECTED ADMINISTRATION TO MOVE FORWARD WITH MEP RENOVATION OF ALL BUILDINGS EXCEPT MCDOWELL AND MIHS, NO SCHOOL CLOSURE AND ISSUE DEBT NOT TO EXCEED \$60M
- **FALL OF 2019 (8 MEETINGS TOTAL)** – MULTIPLE PRESENTATIONS REGARDING DEBT ISSUANCE, SCOPE OF PROJECTS AND FINANCIAL IMPACT LONG TERM
- **JUNE 2019 THROUGH CURRENT DAY** – BOARD APPROVED ENGINEERING CONTRACTS, BIDS AND BOND FINANCIAL REPORTS. ANNUALLY DISCUSS LONG RANGE PLAN DURING BUDGET PRESENTATIONS
- **JANUARY 2021** – APPROVED FINANCIAL ADVISOR TO ISSUE SECOND PHASE OF DEBT FROM LONG RANGE PLAN
- **RESOURCES (ON THE MTSD WEBSITE UNDER THE MAINTENANCE DEPARTMENT):**
 - STANTEC REPORT
 - EQUIPMENT LIFE EXPECTANCY REPORT
 - LONG RANGE FACILITIES PLANNING COMMITTEE INFORMATION



Life Expectancy – MHS

MCDOWELL HIGH SCHOOL	Built in 1953						
Roof	Warranty Thru - No Warranty/2028/2041						
Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life
<i>Boilers (Pulsating-Steel Water-Tube)</i>	2007	15	25	21	24	25	10
<i>Unit Ventilators</i>	1988	34	20	37	20	N/A	-14
<i>Air Handling Units</i>	1988	34	N/A	26	25	N/A	-9
<i>Air Handling Units (2014)</i>	2014	8	N/A	26	25	N/A	17
<i>HVAC Ductwork</i>	1988	34	30	N/A	30	N/A	-4
<i>Diffusers/Grilles and Registers</i>	1988	34	27	N/A	27	N/A	-7
<i>(Air Distribution) Terminal Units</i>	1988	34	20	N/A	25	N/A	-9
<i>Unit Heaters (Steam/Hot Water)</i>	1988	34	20	N/A	20	N/A	-14
<i>Exhaust Fans</i>	1988	34	20	16	20	N/A	-18
<i>Insulation Ductwork/Piping</i>	1988	34	24	N/A	24	N/A	-10
<i>(Base) Mounted HW Pumps</i>	1988	34	20	20	25	N/A	-9
<i>HVAC HW Piping System</i>	1988	34	N/A	N/A	30	N/A	-4
<i>Building Temperature Controls (Pneumatic)</i>	1988	34	15	N/A	20	N/A	-14
<i>Valve Actuators (Self Contained)</i>	1988	34	15	N/A	10	N/A	-24
<i>Water Heaters</i>	1988	34	N/A	15	10	N/A	-19
<i>Plumbing Fixtures</i>	1988	34	N/A	N/A	20	N/A	-14
<i>Domestic Water Piping System</i>	1988	34	N/A	N/A	30	N/A	-4
<i>Emergency Generator</i>	1988	34	N/A	N/A	20	30	-4
<i>Branch Panel boards</i>	1988	34	N/A	N/A	30	50	-4
<i>Electric Transformers</i>	1988	34	30	N/A	30	N/A	-4
<i>Low Voltage Wiring</i>	1988	34	N/A	N/A	20	N/A	-14
<i>Main Switchboard</i>	2014	8	N/A	N/A	25	50	42
<i>Light Fixtures</i>	2014	8	N/A	N/A	20	N/A	12

Note: Information from 2019 report, Database service life (ASHRAE), (BOMA), & Stantech report are (3) sources for average life expectancy information included as part of this report.



Building Enhancements

- Provide dual level lighting control with individual dimming for all classrooms and support spaces.
- Provide a more comfortable, reliable, and controlled temperature and humidity in all district occupied spaces (including addition of air conditioning at select schools).
- Provide reliable domestic hot water system and end point equipment for building occupants.
- Upgrade security system (intrusion, monitoring, exterior lighting and cameras) to be consistent and uniform across the school district for enhanced security.
- Enhance the learning environment through other infrastructure upgrades (enhanced fiber network, new clocks, updated kitchens, updated and expanded intercom coverage, etc.)



McDowell High School Project – Summary

- Infrastructure renovation like all other projects we have completed to date (will include air conditioning throughout the entire school)
- Address unused auditorium space
 - Provide innovative flexible collaboration space for all students
 - Provide Upgrade and increase size of autistic support and life skills support
- Upgrade library and surrounding spaces
- Relocate café to be more open to students and to be utilized for concessions at sporting events
 - Incorporate a school store into the new layout
 - Create breakout spaces within the new media center
- Centralize/upgrade technology education at McDowell high school
 - Relocate programs from McDowell intermediate and create innovative instructional spaces
- Relocate/upgrade child development program to McDowell Intermediate high school from McDowell high school
- Provide lighting of the bus parking lot
- Update portions of McDowell High School roof that are now out of warranty
- Centralize/upgrade home economics at McDowell Intermediate high school
 - Relocate programs from McDowell high school to McDowell Intermediate and create innovative instructional spaces



McDowell High School Project – Wood Shop



McDowell High School Project – Café Entrance



McDowell High School Project – Café



McDowell High School Project – Media Center



McDowell High School Project – Auditorium Space



McDowell High School Project – Auditorium Space



McDowell High School Project – Auditorium Space



McDowell High School Project – Auditorium Space



McDowell High School Project – Exterior



McDowell High School Project – Exterior



McDowell Intermediate – Family Consumer Science



McDowell High School – Bid

(MTSD) ESTIMATED COST: **\$34.6M**

BID COST: **\$39.6M**

WHY WERE THE BIDS SO HIGH?

- MATERIAL & EQUIPMENT COSTS HAVE INCREASED SUBSTANTIALLY
- LABOR COST INCREASE
- (3) YEAR PROJECT WITH MULTIPLE PHASES – PLANNED TO PROVIDE MINIMAL DISRUPTION TO INSTRUCTION
- NUMEROUS CONSTRUCTION PROJECTS IN THE AREA
- MANPOWER SHORTAGE



McDowell High School - Alternates

Alternate #1: Savings of **\$0.8M** - Library infrastructure work only (café is not moved or expanded)

Alternate #2: Savings of **\$2M** - Auditorium infrastructure work only (stage is still renovated for AS/LS)

Alternate #3: Savings of **\$0.3M** - Removal of all work associated with the new East Vestibule. (access remains as is for AS/LS.

Alternate #4: Savings of **\$0.3M** - Façade for Auditorium modified.

Alternate #5: Savings of **\$0.1M** - Removal of skylight in auditorium commons

Alternate #6: Add of **\$1.4M** - Adjust schedule to begin project in the summer of 2024 (instead of 2023).



McDowell High School - Alternate #6

Why award the bid now, but not begin work until May 2024?

- Will ensure all equipment is obtained before construction starts, which reduces the chances of the project not completing in the specified timeline (added costs, impact to students and staff, etc.) All items we experienced this last fall at both Walnut Creek and McDowell Intermediate HS.
- Easier phasing plan for the school district and contractors, which reduces the chances of the project not completing as per the specified timeline – this is due to the consolidation of programs needing to line up between McDowell High School and McDowell Intermediate's schedule, which is already set.
- Award of this project and Tracy in the summer of 2023 will mean we are trying to complete the most amount of work we have ever attempted in a summer (20% more that summer of 2022).



Tracy Elementary School – Bid

(MTSD) ESTIMATED COST: **\$4.7M**

ACTUAL COST: **\$6M**

Scope of Work: Infrastructure Project

Alternate #1: Add **\$0.2M** - Adjust schedule to begin project in the summer of 2024 (instead of 2023).



Baseball/Softball Field – Bid

(Architect/Engineer) ESTIMATED COST: **\$3.2M**

ACTUAL COST: **\$4.4M**

Scope of Work: Turf the baseball field and softball field complete and provide lighting for all of the hanlon complex (includes basketball, tennis, practice field, baseball field, and softball field).

Remove Lighting Complete: Savings of **\$1.3M** (still need base electrical for cameras)

Remove Lighting for basketball, tennis, and practice field: Savings of **\$0.4M**



Security Camera – Bid

ACTUAL COST: **\$167,050**

Scope of Work: Add (102) security cameras district wide to meet district standard camera coverage for each school building.



Safety Upgrade – Bid

ACTUAL COST: **\$1.6M** (\$700K funded by grants)

Scope of Work: Provide security systems in buildings that have not been renovated, hardwire all components, provide door sounders at all doors, provide panic buttons in all schools, and upgrade the door access system. This project will standardize all buildings on a single security system platform and provide uniform security measures at all buildings.

Alternate #1: Savings of \$301K Removal of the door sounders and hardwiring of all components (reliability of system).

Alternate #2: Savings of \$51K Removal of security systems for West Storage Warehouse, Bus Repair Garage, Food Warehouse, and First Student Building (All buildings at Millcreek Education Center location).



Change Order Summary

Recap of 2021 Projects:

Total Cost of Bid Projects (Capital Reserve & Capital Projects): 3.4% total

E&O: 1.1%

MTSD Changes: 0.2%

Unforeseen: 0.5%

BIU: 1.6%

Recap of 2022 Projects:

Total Cost of Bid Projects (Capital Reserve & Capital Projects): current total 1.6%

E&O: 0.8%

MTSD Changes: 0.5%

Unforeseen: 0.3%

BIU: 0%



District Savings (2020 to Today)

<u>Description</u>	<u>Total</u>
Change Orders (5%)	2M
Commissioning (\$1/ sq. ft.)	1M
Construction Administration/Design Fees (6%)	2.2M
Construction Management (5%)	3M
(Percentages used for savings calculations are based on industry standards)	
Total Savings	8.2M

Savings (In Thousands)

<u>Description</u>	<u>2020-21</u>	<u>2019-20</u>	<u>2018-19</u>	<u>2017-18</u>	<u>4 Year Variance</u>	<u>% Change</u>
Contracted Services	282.52	394.81	250.02	385.03	102.51	26.62%
Water	162.83	179.75	191.13	193.77	30.94	15.97%
Natural Gas	280.15	268.60	322.87	314.74	34.59	10.99%
Electric	919.04	1,020.21	1,109.79	1,150.54	231.50	20.12%
Supplies	206.02	363.21	350.33	398.01	191.98	48.24%
Total	1,644.54	1,863.37	1,873.81	2,044.08	399.54	19.55%

Factors considered in generate savings include negotiated rates, volume consumption and renovations.

Energy Savings

2019 vs 2020 – Reduced EUI by 10.6% (Average = 78 kBtu/ft²)

2020 vs 2021 – Reduced EUI by 15.9% (Average = 67.3 kBtu/ft²)

2021 vs 2022 – 67.1 vs 67.3 kBtu/ft²*

*First summer with Air Conditioning at Ridgefield (22% increase in energy usage) and Chestnut Hill (21% increase in energy usage). Have made changes to the system to dehumidify the buildings and keep RH% below 60% at all buildings.

Site EUI (Energy Use Intensity - kBtu/ft²) – total energy used divided by gross floor area



Description of Bond Related Items (Inc. Est. Change Order/FS Equipment/Misc)	Amount In Millions
2020 Renovations (Education Center, Grandview & Roof Restoration at TR/WL/MEC & Other)	\$11,407
2021 Renovations (CH/WL/BV/RG & New Roof GV/MIHS/MHS/RG/Bus Garage & Roof Restoration WC & Window Replacement WC)	25,986
2022 Renovations (WC/MIHS & Window Replacement RG/WC)	41,097
2023 Renovations (TR/MHS & Roof Restoration MHS)	48,897
2024 Renovations (Asbury & Asbury Roof)	8,402
Total	\$135,789
Vo-Tech (\$12.2M less GF Contribution)	\$5,801
Baseball/Softball Field	3,179
Baseball/Softball Field Lights (additional \$400K for all of Hanlon Complex)	1,096
Brick Pointing or Water Proofing Exterior of Buildings	2,750
Replace Windows at CH, BV, MIHS & RG	1,500
Adjust McDowell to Start in 2024	1,355
Total	\$15,681
Grand Total	\$151,470
Estimate for Cosmetic Updates (carpet, paint, floors, bathrooms & cabinetry)	\$11,000,000

Options

Existing bond funding allows the completion of all projects but McDowell. The McDowell project includes:

- Needed infrastructure upgrades/adds air conditioning
- Upgrades LS & AS spaces, consolidates/upgrades Technology wing at MHS, updates Library/café, utilizes auditorium space for flexible instruction and upgrades/consolidates FCS at MIHS

Option 1: Issue debt in January 2024 and proceed with projects as planned with McDowell starting in the summer of 2024.

Option 2: Issue debt in January 2027.

- Allows for investment market to settle.
- Tax increases projected less and may receive additional State subsidy or include cost reductions to offset annual debt costs.
- We would have an issue with naming rights and the timing of the renovation.
- Less students would take advantage of project as project delayed for 3 years.
- Potential for project to cost much more with inflation.



<u>Description</u>	<u>McD Starting in 2024</u>	<u>McD Starting in 2027</u>
Bond Issues	\$113,441	\$113,441
Interest Earned/Other/ESSER Funding	4,593	4,593
Future Interest (estimated at 3%)	1,989	2,548
HAAS Naming Rights	350	350
Total	\$120,373	\$120,932
2020/2021/2022 Projects, Tracy, Est. Asbury & Vo-Tech	\$102,461	\$102,461
Replace Windows CH, BV, MIHS, RG & Brick Pointing	4,250	4,250
Baseball/Softball Field (No Lights)	3,179	3,179
Baseball/Softball Field Lights	1,096	1,096
McDowell	40,484	
Total	\$151,470	\$110,986
Total Net	(\$31,097)	\$9,946



Options

<u>Description</u>	<u>McD Starting in 2024</u>	<u>*McD Starting in 2027</u>
Total Net	(\$31,097)	\$9,946
Remove Baseball/Softball Field Lights (only fields)	1,096	?
Bond Issue in January of 2024	\$30,001	
Estimated – Bid McDowell Auditorium/Tech Ed Wing Furniture/MIHS Change Order (would use CP funds as well)		9,946
Total		-

*All existing work completed by end of the summer 2025



Debt Costs

Issue Debt in 2024 (\$30M)

<u>Year</u>	<u>Existing</u>	<u>New</u>	<u>Variance</u>
2024	8,719	8,982	-263
2025	7,848	9,390	-1,542
2026	7,846	9,392	-1,546
2027	7,847	9,393	-1,546
2028	7,616	9,191	-1,575

Issue Debt in 2027 (\$33M)

<u>Year</u>	<u>Existing</u>	<u>New</u>	<u>Variance</u>
2024	8,719	8,725	-6
2025	7,848	7,850	-2
2026	7,846	8,134	-288
2027	7,847	9,329	-1,482
2028	7,616	9,334	-1,718

If we issue debt in 2024, annual cost for General Fund is \$1.3M.

Debt Length is 22 years. Longer the debt, more interest paid.

If debt issued in 2027, by 2036 our debt payment would be \$8.477M.



FORECAST ASSUMPTIONS

- Projected index presented by Independent Fiscal Office
- Salaries increased from 2-3% - added 13 positions
- PSERS projected annual increase
- Healthcare increase of 3%
- New debt
- Millions in new curriculum resources
- Cyber Tuition increased
- Increase in IT lease
- Transportation increase of 3.3%
- How or what will change forecasted outcomes?
 - Federal money
 - Labor negotiations
 - Healthcare costs
 - Adjust debt amount, length of debt
 - State funding
 - Transportation
 - Cyber enrollment (min. \$9K savings per student)



General Fund | Projection Summary

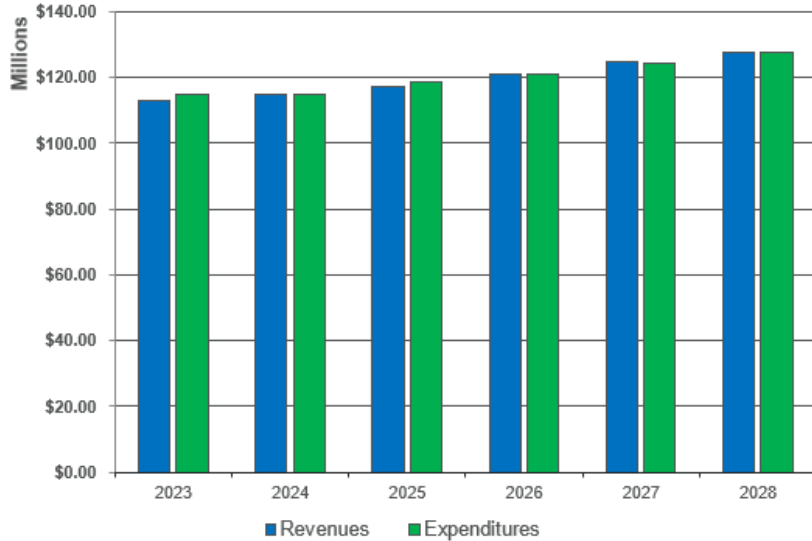
January 2024 Issue

	BUDGET 2023	2024	%Δ	2025	%Δ	2026	%Δ	2027	%Δ	2028	%Δ
REVENUE											
Local	\$72,697,744	\$76,005,546	4.55%	\$79,066,618	4.03%	\$82,315,794	4.11%	\$85,508,370	3.88%	\$87,761,958	2.64%
State	\$33,711,737	\$35,208,242	4.44%	\$35,466,348	0.73%	\$36,257,475	2.23%	\$36,725,153	1.29%	\$37,425,955	1.91%
Federal	\$6,255,145	\$3,715,069	-40.61%	\$2,453,199	-33.97%	\$2,477,301	0.98%	\$2,502,126	1.00%	\$2,527,696	1.02%
Other Financing Sources	\$40,000	\$80,000	100.00%	\$80,000	0.00%	\$80,000	0.00%	\$80,000	0.00%	\$80,000	0.00%
TOTAL REVENUE	\$112,704,626	\$115,008,857	2.04%	\$117,066,165	1.79%	\$121,130,570	3.47%	\$124,815,649	3.04%	\$127,795,609	2.39%
EXPENDITURES											
Salary and Benefit Costs	\$80,232,424	\$81,076,958	1.05%	\$83,003,410	2.38%	\$85,675,206	3.22%	\$88,367,708	3.14%	\$91,054,546	3.04%
Other	\$34,643,600	\$33,887,996	-2.18%	\$35,481,890	4.70%	\$35,289,575	-0.54%	\$35,892,340	1.71%	\$36,364,102	1.31%
TOTAL EXPENDITURES	\$114,876,025	\$114,964,954	0.08%	\$118,485,300	3.06%	\$120,964,782	2.09%	\$124,260,048	2.72%	\$127,418,648	2.54%
SURPLUS / DEFICIT	(\$2,171,399)	\$43,903		(\$1,419,135)		\$165,789		\$555,601		\$376,961	
BEGINNING FUND BALANCE	\$17,729,252	\$15,557,853		\$15,601,757		\$14,182,622		\$14,348,411		\$14,904,012	
PROJECTED YEAR END BALANCE	\$15,557,853	\$15,601,757		\$14,182,622		\$14,348,411		\$14,904,012		\$15,280,973	
Tax Increase %	4.00%	4.90%		4.90%		4.30%		4.00%		2.50%	
FUND BALANCE AS % OF EXPENDITURES	13.54%	13.57%		11.97%		11.86%		11.99%		11.99%	
FUND BALANCE AS # OF MONTHS OF EXPEND.	1.63	1.63		1.44		1.42		1.44		1.44	

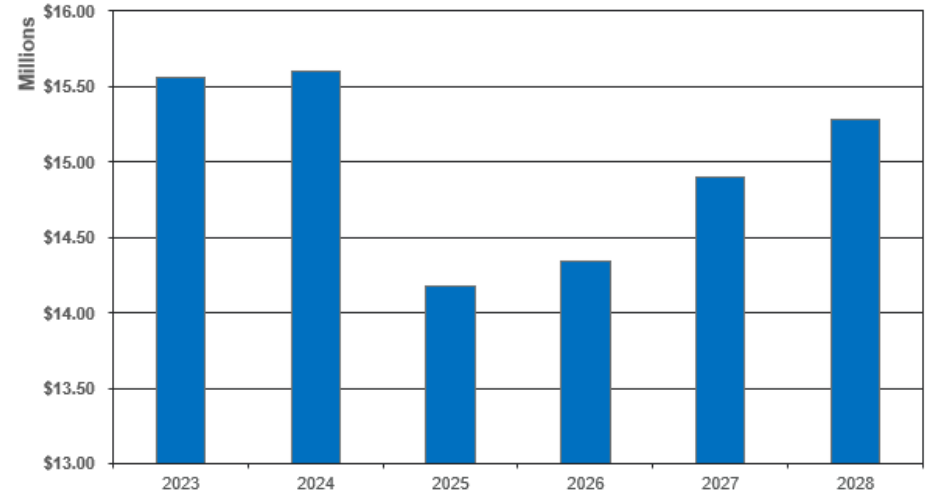


FORECAST – GENERAL FUND ISSUE DEBT 2024

REVENUES VS. EXPENDITURES



YEAR-END FUND BALANCES



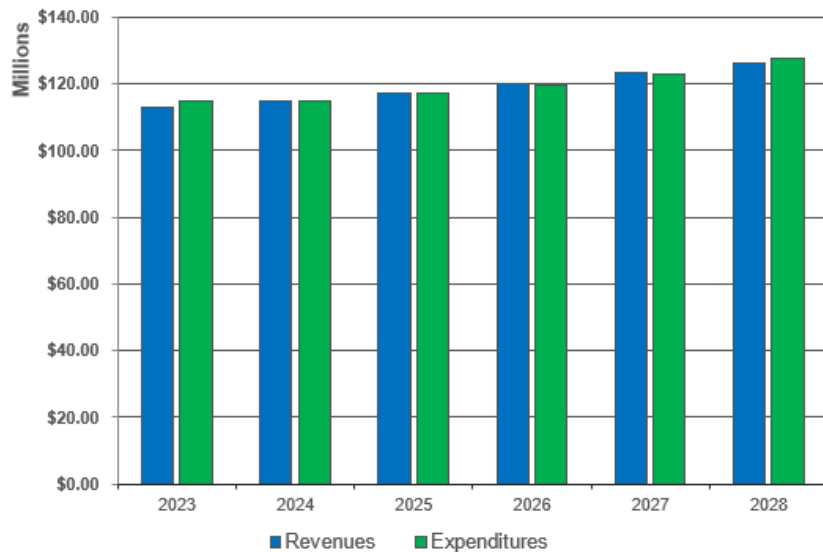
General Fund | Projection Summary

January 2027 Issue

	BUDGET 2023	2024	%Δ	2025	%Δ	2026	%Δ	2027	%Δ	2028	%Δ
REVENUE											
Local	\$72,697,744	\$76,005,546	4.55%	\$79,066,618	4.03%	\$81,394,745	2.94%	\$83,799,002	2.95%	\$86,283,722	2.97%
State	\$33,711,737	\$35,208,242	4.44%	\$35,466,348	0.73%	\$36,257,475	2.23%	\$36,725,153	1.29%	\$37,425,955	1.91%
Federal	\$6,255,145	\$3,715,069	-40.61%	\$2,453,199	-33.97%	\$2,477,301	0.98%	\$2,502,126	1.00%	\$2,527,696	1.02%
Other Financing Sources	\$40,000	\$80,000	100.00%	\$80,000	0.00%	\$80,000	0.00%	\$80,000	0.00%	\$80,000	0.00%
TOTAL REVENUE	\$112,704,626	\$115,008,857	2.04%	\$117,066,165	1.79%	\$120,209,522	2.69%	\$123,106,280	2.41%	\$126,317,372	2.61%
EXPENDITURES											
Salary and Benefit Costs	\$80,232,424	\$81,076,958	1.05%	\$83,003,410	2.38%	\$85,675,206	3.22%	\$88,367,708	3.14%	\$91,054,546	3.04%
Other	\$34,643,600	\$33,887,996	-2.18%	\$33,981,890	0.28%	\$33,789,575	-0.57%	\$34,392,340	1.78%	\$36,514,102	6.17%
TOTAL EXPENDITURES	\$114,876,025	\$114,964,954	0.08%	\$116,985,300	1.76%	\$119,464,782	2.12%	\$122,760,048	2.76%	\$127,568,648	3.92%
SURPLUS / DEFICIT	(\$2,171,399)	\$43,903		\$80,865		\$744,740		\$346,233		(\$1,251,276)	
BEGINNING FUND BALANCE	\$17,729,252	\$15,557,853		\$15,601,757		\$15,682,622		\$16,427,362		\$16,773,595	
PROJECTED YEAR END BALANCE	\$15,557,853	\$15,601,757		\$15,682,622		\$16,427,362		\$16,773,595		\$15,522,319	
Tax Increase %	4%	4.90%		4.90%		2.90%		2.90%		2.90%	
FUND BALANCE AS % OF EXPENDITURES	13.54%	13.57%		13.41%		13.75%		13.66%		12.17%	
FUND BALANCE AS # OF MONTHS OF EXPEND.	1.63	1.63		1.61		1.65		1.64		1.46	

FORECAST – GENERAL FUND ISSUE DEBT 2027

REVENUES VS. EXPENDITURES



YEAR-END FUND BALANCES

