



DIRECTIVE 2020-022

May 7, 2020

Re: CONSIDERATION OF A REQUEST BY BOWLING GREEN STATE UNIVERSITY TO PLEDGE FEES IN SUPPORT OF A DEBT ISSUANCE NOT TO EXCEED \$35,000,000 TO REFUND OUTSTANDING DEBT TO RESTRUCTURE THE SERIES 2017A BONDS

Ohio Revised Code §3345.11 enables a state university or college to issue general receipts obligation bonds in the manner provided by and subject to the applicable provisions of Ohio Revised Code §3345.12.

§381.390 of Am. Sub. H.B. 166 of the 133rd General Assembly requires that any new pledge of fees to secure bonds or notes of a state college or university be approved by the Chancellor of the Ohio Department of Higher Education.

Pursuant to Ohio Revised Code, Bowling Green State University has demonstrated the following:

- The proposed project is essential to fulfilling institutional goals.
- The institution's Board of Trustees approved a resolution authorizing this bond issuance during their September 27, 2020 meeting.
- The institution's proposal complies with §3345.11 and §3345.12.

Agency staff reviewed the request and posted its recommendations to the Department of Higher Education's web site for purposes of providing a period of public comment before final approval by the Chancellor. The materials posted for comment and the request to pledge fees are attached to this document.

Based on my review of staff recommendations, I hereby approve the request to pledge fees by Bowling Green State University in support of general receipts obligation bonds in an aggregate amount not to exceed \$35,000,000. Furthermore, any increase in fees to support this issuance shall not be exempt from any future restraint to increases in undergraduate instructional and general fees imposed by the General Assembly.

This directive will take effect immediately.

Randy Gardner
Chancellor

mlc

Bowling Green State University Fee Pledge

Bowling Green State University is requesting to pledge fees to support the refunding of \$35 million of debt. The debt issuance will provide a refunding of Series 2017A bonds which is a direct purchase bond held by a single bank. There is no new debt being issued.

The current interest rate is 1.60% locked in for four years, through June 2021. BGSU has negotiated a new rate of 1.51% locked in for ten years. The new rate provides a five-year deferral on principal payments as did the original issuance. Based on current rates and assumptions about eventually locking in a rate in 2030 the refunding is projected to provide net present value savings over the life of the debt. However, there will be an increase in gross costs due to the extended deferral of principal. As with the original issuance, the University intends to retire the debt by 2049.

BGSU had \$272.3 million of outstanding debt at the end of FY 2019. Their SB 6 Composite Score in FY 2019 is 3.3. Since this refunding will not increase the University's debt, this issuance will not negatively impact their SB 6 score.

Analysis

- 1) Does the request provide an overview and project descriptions with supporting documentation?
NA, proposed debt will support a refunding of 2017 debt and is projected to generate NPV savings of roughly \$0.4 million to the University.

- 2) Does the proposal provide a projected cost break down?
NA

- 3) Does the proposal specify that the project(s) will have no direct impact on student tuition and fees?

BGSU affirms in their request that: "The proposed debt issuance will have no direct impact on student tuition and fees. While Bowling Green State University may use unrestricted student fee revenues to support the debt service, the tuition and fees that are included in the legislatively controlled cap are not expected to increase as a direct result of this action."

- 4) Does the proposal include a financial ratio analysis?

Composite Scores below:

FY2015	FY2016	FY2017	FY2018	FY2019*
3.4	3.9	3.1	3.3	3.3

* Refunding would not have impacted Composite score if debt had been issued in FY 19.

- 5) Does the proposal provide a financial outlook and bond rating? Also, does the proposal discuss change in plant debt?

- BGSU's current rating from Standard & Poor's is A+/Stable and from Moody's is A1/Stable.
- BG had outstanding debt - \$272.3 million at the end of FY 2019. Their Viability ratio was 66.6%; which generates a score of 3 on this ratio.

**Bowling Green State University
Fee Pledge Request - \$35,000,000**



**Submitted to the Ohio Department of Higher Education
April 21, 2020**

Bowling Green State University Fee Pledge Request - \$35,000,000

Project Overview

Bowling Green State University requests the authority to pledge fees in support of a fixed-rate tax exempt refinancing of its outstanding Series 2017A bonds. The University's Series 2017A bonds is a direct purchase bond held by a single bank. The current interest rate is 1.60%, which is a fixed rate that was locked for an initial 4-year term through June 1, 2021. At that time, the bond becomes due for renewal and the interest rate and other terms are subject to change, exposing the University to interest rate risk at June 1, 2021.

As a result of significant favorable market movement that occurred in January and February 2020, the University decided to evaluate an early renewal and re-pricing rather than waiting until the renewal date in 2021. This pursuit has resulted in the University receiving favorable renewal terms, including a 10-year term (significantly longer than the initial 4-years), a modified amortization schedule containing a similar initial principal deferral period, and a fixed rate that is lower the current interest rate.

Bowling Green State University would like to eliminate the imminent interest rate risk now and is requesting authorization to proceed with the refinancing of its Series 2017A bonds.

Fee Impact

The proposed debt issuance will have no direct impact on student tuition and fees. While Bowling Green State University may use unrestricted student fee revenues to support the debt service, the tuition and fees that are included in the legislatively controlled cap are not expected to increase as a direct result of this action.

Financial Ratio Analysis

Through the 1997 enactment of Senate Bill 6, the 122nd General Assembly established a standardized method for monitoring the financial health of Ohio's state-assisted colleges and universities. Subsequently, the administrative rules used to guide the implementation of S.B. 6 identified three financial ratios to evaluate an institution's fiscal health. The rules also established threshold factors for ranges of ratios, and created a weighted score of the threshold factors, termed the *composite score*, which provides a summary statistic to evaluate an institution's financial stability. The ratios and composite score are described in greater detail below, including how Bowling Green State University performed when these measures are applied to its FY 2015 through FY 2019 audited financials. The ratios shown indicate how BGSU performed when the measures are applied against the audited financials, excluding the impact of GASB 68 and GASB 75.

*NOTE: The refunding of the Series 2017A bonds does not impact the financial ratios of the University as no additional debt is being issued. However, in the fall, BGSU submitted and received approval for a \$25.0 million new money bond issue. The University opted to issue \$20 million in January rather than the approved \$25.0 million. The second set of FY 2019 data shown in *italics* reflect the ratios and composite score when \$20.0 million in new debt and the corresponding debt service are added to the calculations. Other factors not taken into account here include the future retirement of existing debt obligations and future changes in revenues and expenses.

1. Viability Ratio

The viability ratio is defined as expendable net assets divided by plant debt. This ratio is a measure of an institution's ability to retire its long-term debt using available current resources. A viability ratio in excess of 100% indicates that the institution has expendable fund balances in excess of its plant debt. Pursuant to this analysis, a viability ratio of 60% or greater is considered good, while a ratio below 30% might be a cause for concern. Bowling Green State University's viability ratios for FY 2015 through FY 2019 are as follows:

<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY2018</u>	<u>FY 2019</u>	<u>FY 2019*</u>
119%	82%	82%	63%	67%	62%

2. Primary Reserve Ratio

The primary reserve ratio is defined as expendable net assets divided by total operating expenses. This ratio is one measure of an institution's ability to continue operating at current levels without future revenues. Pursuant to the S.B. 6 analysis, a ratio of 10% or greater is considered good, while a ratio below 5% would be a cause for concern. Bowling Green State University's primary reserve ratios for FY 2015 through FY 2019 are as follows:

<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY2018</u>	<u>FY 2019</u>	<u>FY2019*</u>
45.2%	44.0%	47.7%	43.8%	46.4%	46.4%

3. Net Income Ratio

The net income ratio represents the change in total net assets divided by total revenues. This ratio is an important measure of an institution's financial status in terms of current year operations. A negative net income ratio results when an institution's current year expenses exceed its current year revenues. A positive net income ratio indicates that the institution experienced a net increase in current year fund balances. Bowling Green State University's net income ratios for FY 2015 through 2019 are as follows:

<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY2018</u>	<u>FY 2019</u>	<u>FY 2019*</u>
-1.5%	+6.3%	+6.9%	-4.2%	+0.2%	+0.2%

4. Composite Score

The ratios are translated into a single composite score by assigning individual scores to ranges of ratios, weighting the individual scores and summing the weighted scores. The primary reserve score is weighted more heavily than is the viability ratio, which in turn is weighted more heavily than the net income ratio. This scoring process effectively emphasizes the need for campuses to have strong expendable fund balances, manageable plant debt and a positive operating balance.

The minimum acceptable composite score is any score above 1.75. Institutions with composite scores at or below this level merit special monitoring, and would be placed on fiscal watch if the ratio analysis yielded a composite score at or below this level for two consecutive years. The

highest possible score is a 5.0. Bowling Green State University's composite scores have been above the minimum threshold:

<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY2018</u>	<u>FY 2019</u>	<u>FY2019*</u>
3.4	3.9	3.9	3.1	3.3	3.3

Financial Outlook and Bond Rating

According to its FY 2019 audited financial report, Bowling Green State University's financial position remains strong, having reported total assets of \$886.9 million, and liabilities of \$617.7 million (including the impact of GASB 68 & 75); liabilities of \$348.6 million (excluding the impact of GASB 68 & 75).

The University's existing debt has received relatively high marks from independent bond-rating agencies. This past year, Bowling Green State University's long-term debt rating of A1 and A+ by Moody's Investors Service and Standard and Poor's Global Ratings respectively, were confirmed with a stable outlook.

These ratings indicate that the University's ability to meet its debt obligations is considered strong, as shown in Moody's and S&P's scale below.

Bowling Green State University contracts with Blue Rose Capital Advisors for financial advisory services. One of the services that Blue Rose provides under the terms of the agreement is a comprehensive review of the university's debt position and future debt plans with the Board of Trustees via an annual workshop. The purpose of this workshop is to ensure the Board is informed and aware of the impact of the pending debt on the University's ratio, how the rating agency will view the debt and any impact they might have on the University's ratings.

Long-Term Bonds				
Moody's			S & P	Description
Aaa1	Aaa2	Aaa3	AAA	Best quality with little or no investment risk.
Aa1	Aa2	Aa3	AA	High quality with low investment risk.
A1	A2	A3	A	High quality with moderate investment risk.
Baa1	Baa2	Baa3	BBB	Good quality with some investment risk.
Ba1	Ba2	Ba3	BB	Medium quality with some investment risk.
B1	B2	B3	B	Medium quality with higher investment risk.
Caa1	Caa2	Caa3	CCC	Low quality and susceptible to default.
Ca1	Ca2	Ca3	CC	Low quality and highly vulnerable to default.
C1	C2	C3	C	Lowest quality and extremely vulnerable to default.
-	-	-	D	In payment default (S&P rating only).

Proposed Financing

The bank offered BGSU a 1.51% interest rate on March 25, 2020. Since then, market developments have caused credit spreads and bank costs of funds to increase, and the 1.51% offered rate is meaningfully lower than the rate that we could secure in the current marketplace. The bank has informed us that the fixed rate would be at least 20 basis points higher if we were to receive a re-quoted rate now. Fortunately, the bank is willing to hold the 1.51% rate for BGSU so long as we proceed toward a closing of this transaction. As a result, the included debt service comparison assumes the old debt maintains the fixed rate of 1.60% through June 1, 2021, and then re-prices to 1.71% thereafter (which represents the 20 bps above the currently quoted 1.51% rate).

Two scenarios are provided below. The first assumes we are able to lock-in the 1.51% compared to the anticipated rate of 1.71% rate for 30 years. In this scenario, both the 10-year term (through the next renewal date) and the 30-year term (through maturity) demonstrate PV savings. The second scenario assumes the rate moves to 3.00% for each period beyond the 10-year term through final maturity. A comprehensive debt comparison is also shown below on a fiscal year basis.

Scenario 1

Bowling Green State University												
2017A Debt Service Comparison												
Level Debt Service after Year 5, 10-year Comparison												
Date	Series 2017A Current				PV DS	Series 2017A - Re-Issued (V1)				PV DS	Difference	PV Cost/Savings
	Principal	Coupon	Interest	Total P+I		Principal	Coupon	Interest	Total P+I			
6/1/2020												
12/1/2020	750,000.00	1.60%	280,000.00	1,030,000.00	1,019,801.98	-	1.51%	264,250.00	264,250.00	261,633.66	765,750.00	758,168.32
6/1/2021	-	1.60%	274,000.00	274,000.00	268,601.12	-	1.51%	264,250.00	264,250.00	259,043.23	9,750.00	9,557.89
12/1/2021	935,000.00	1.71%	292,837.50	1,227,837.50	1,191,726.98	-	1.51%	264,250.00	264,250.00	256,478.45	963,587.50	935,248.53
6/1/2022	-	1.71%	284,843.25	284,843.25	273,728.76	-	1.51%	264,250.00	264,250.00	253,939.06	20,593.25	19,789.71
12/1/2022	950,000.00	1.71%	284,843.25	1,234,843.25	1,174,910.98	-	1.51%	264,250.00	264,250.00	251,424.81	970,593.25	923,486.17
6/1/2023	-	1.71%	276,720.75	276,720.75	260,683.46	-	1.51%	264,250.00	264,250.00	248,935.45	12,470.75	11,748.01
12/1/2023	970,000.00	1.71%	276,720.75	1,246,720.75	1,162,838.95	-	1.51%	264,250.00	264,250.00	246,470.75	982,470.75	916,368.21
6/1/2024	-	1.71%	268,427.25	268,427.25	247,888.06	-	1.51%	264,250.00	264,250.00	244,030.44	4,177.25	3,857.62
12/1/2024	985,000.00	1.71%	268,427.25	1,253,427.25	1,146,058.45	-	1.51%	264,250.00	264,250.00	241,614.30	989,177.25	904,444.15
6/1/2025	-	1.71%	260,005.50	260,005.50	235,379.59	-	1.51%	264,250.00	264,250.00	239,222.08	(4,244.50)	(3,842.49)
12/1/2025	1,000,000.00	1.71%	260,005.50	1,260,005.50	1,129,372.81	1,160,000.00	1.51%	264,250.00	1,424,250.00	1,276,589.05	(164,244.50)	(147,216.24)
6/1/2026	-	1.71%	251,455.50	251,455.50	223,153.99	-	1.51%	255,492.00	255,492.00	226,736.18	(4,036.50)	(3,582.19)
12/1/2026	1,015,000.00	1.71%	251,455.50	1,266,455.50	1,112,787.08	1,180,000.00	1.51%	255,492.00	1,435,492.00	1,261,313.13	(169,036.50)	(148,526.05)
6/1/2027	-	1.71%	242,777.25	242,777.25	211,207.22	-	1.51%	246,583.00	246,583.00	214,518.08	(3,805.75)	(3,310.86)
12/1/2027	1,030,000.00	1.71%	242,777.25	1,272,777.25	1,096,306.02	1,195,000.00	1.51%	246,583.00	1,441,583.00	1,241,706.76	(168,805.75)	(145,400.74)
6/1/2028	-	1.71%	233,970.75	233,970.75	199,535.23	-	1.51%	237,560.75	237,560.75	202,596.86	(3,590.00)	(3,061.63)
12/1/2028	1,050,000.00	1.71%	233,970.75	1,283,970.75	1,084,156.00	1,215,000.00	1.51%	237,560.75	1,452,560.75	1,226,509.60	(168,590.00)	(142,353.60)
6/1/2029	-	1.71%	224,993.25	224,993.25	188,098.25	-	1.51%	228,387.50	228,387.50	190,935.90	(3,394.25)	(2,837.65)
12/1/2029	1,065,000.00	1.71%	224,993.25	1,289,993.25	1,067,778.90	1,235,000.00	1.51%	228,387.50	1,463,387.50	1,211,304.24	(173,394.25)	(143,525.34)
6/1/2030	25,250,000.00	1.71%	215,887.50	25,465,887.50	20,870,427.28	29,015,000.00	1.51%	219,063.25	29,234,063.25	23,958,614.88	(3,768,175.75)	(3,088,187.60)
Total	35,000,000.00		5,149,112.00	40,149,112.00	34,164,441.12	35,000,000.00		5,061,859.75	40,061,859.75	33,513,616.91	87,252.25	650,824.21

Bowling Green State University

2017A Debt Service Comparison

Level Debt Service after Year 5, Constant Rates Through Maturity

Date	Series 2017A Current				PV DS	Series 2017A -Re-Issued (V1)				PV DS	Difference	PV Cost/Savings
	Principal	Coupon	Interest	Total P+I		Principal	Coupon	Interest	Total P+I			
6/1/2020												
12/1/2020	750,000.00	1.60%	280,000.00	1,030,000.00	1,019,801.98	-	1.51%	264,250.00	264,250.00	261,633.66	765,750.00	758,168.32
6/1/2021	-	1.60%	274,000.00	274,000.00	268,601.12	-	1.51%	264,250.00	264,250.00	259,043.23	9,750.00	9,557.89
12/1/2021	935,000.00	1.71%	292,837.50	1,227,837.50	1,191,726.98	-	1.51%	264,250.00	264,250.00	256,478.45	963,587.50	935,248.53
6/1/2022	-	1.71%	284,843.25	284,843.25	273,728.76	-	1.51%	264,250.00	264,250.00	253,939.06	20,593.25	19,789.71
12/1/2022	950,000.00	1.71%	284,843.25	1,234,843.25	1,174,910.98	-	1.51%	264,250.00	264,250.00	251,424.81	970,593.25	923,486.17
6/1/2023	-	1.71%	276,720.75	276,720.75	260,683.46	-	1.51%	264,250.00	264,250.00	248,935.45	12,470.75	11,748.01
12/1/2023	970,000.00	1.71%	276,720.75	1,246,720.75	1,162,838.95	-	1.51%	264,250.00	264,250.00	246,470.75	982,470.75	916,368.21
6/1/2024	-	1.71%	268,427.25	268,427.25	247,888.06	-	1.51%	264,250.00	264,250.00	244,030.44	4,177.25	3,857.62
12/1/2024	985,000.00	1.71%	268,427.25	1,253,427.25	1,146,058.45	-	1.51%	264,250.00	264,250.00	241,614.30	989,177.25	904,444.15
6/1/2025	-	1.71%	260,005.50	260,005.50	235,379.59	-	1.51%	264,250.00	264,250.00	239,222.08	(4,244.50)	(3,842.49)
12/1/2025	1,000,000.00	1.71%	260,005.50	1,260,005.50	1,129,372.81	1,160,000.00	1.51%	264,250.00	1,424,250.00	1,276,589.05	(164,244.50)	(147,216.24)
6/1/2026	-	1.71%	251,455.50	251,455.50	223,153.99	-	1.51%	255,492.00	255,492.00	226,736.18	(4,036.50)	(3,582.19)
12/1/2026	1,015,000.00	1.71%	251,455.50	1,266,455.50	1,112,787.08	1,180,000.00	1.51%	255,492.00	1,435,492.00	1,261,313.13	(169,036.50)	(148,526.05)
6/1/2027	-	1.71%	242,777.25	242,777.25	211,207.22	-	1.51%	246,583.00	246,583.00	214,518.08	(3,805.75)	(3,310.86)
12/1/2027	1,030,000.00	1.71%	242,777.25	1,272,777.25	1,096,306.02	1,195,000.00	1.51%	246,583.00	1,441,583.00	1,241,706.76	(168,805.75)	(145,400.74)
6/1/2028	-	1.71%	233,970.75	233,970.75	199,535.23	-	1.51%	237,560.75	237,560.75	202,596.86	(3,590.00)	(3,061.63)
12/1/2028	1,050,000.00	1.71%	233,970.75	1,283,970.75	1,084,156.00	1,215,000.00	1.51%	237,560.75	1,452,560.75	1,226,509.60	(168,590.00)	(142,353.60)
6/1/2029	-	1.71%	224,993.25	224,993.25	188,098.25	-	1.51%	228,387.50	228,387.50	190,935.90	(3,994.25)	(3,527.65)
12/1/2029	1,065,000.00	1.71%	224,993.25	1,289,993.25	1,067,778.90	1,235,000.00	1.51%	228,387.50	1,463,387.50	1,211,304.24	(173,394.25)	(143,525.34)
6/1/2030	-	1.71%	215,887.50	215,887.50	176,929.41	-	1.51%	219,063.25	219,063.25	179,532.08	(3,175.75)	(2,602.67)
12/1/2030	1,080,000.00	1.71%	215,887.50	1,295,887.50	1,051,522.21	1,250,000.00	1.51%	219,063.25	1,469,063.25	1,192,042.24	(173,175.75)	(140,520.03)
6/1/2031	-	1.71%	206,653.50	206,653.50	166,024.64	-	1.51%	209,625.75	209,625.75	168,412.53	(2,972.25)	(2,387.89)
12/1/2031	1,100,000.00	1.71%	206,653.50	1,306,653.50	1,039,366.80	1,270,000.00	1.51%	209,625.75	1,479,625.75	1,176,956.15	(172,972.25)	(137,589.36)
6/1/2032	-	1.71%	197,248.50	197,248.50	155,346.24	-	1.51%	200,037.25	200,037.25	157,542.56	(2,788.75)	(2,196.33)
12/1/2032	1,115,000.00	1.71%	197,248.50	1,312,248.50	1,023,249.97	1,290,000.00	1.51%	200,037.25	1,490,037.25	1,161,884.03	(177,788.75)	(138,634.06)
6/1/2033	-	1.71%	187,715.25	187,715.25	144,925.18	-	1.51%	190,297.75	190,297.75	146,918.99	(2,582.50)	(1,993.81)
12/1/2033	1,135,000.00	1.71%	187,715.25	1,322,715.25	1,011,088.73	1,310,000.00	1.51%	190,297.75	1,500,297.75	1,146,833.49	(177,882.50)	(135,744.76)
6/1/2034	-	1.71%	178,011.00	178,011.00	134,725.06	-	1.51%	180,407.25	180,407.25	136,538.62	(2,396.25)	(1,813.57)
12/1/2034	1,150,000.00	1.71%	178,011.00	1,328,011.00	995,134.61	1,330,000.00	1.51%	180,407.25	1,510,407.25	1,131,811.81	(182,396.25)	(136,677.20)
6/1/2035	-	1.71%	168,178.50	168,178.50	124,775.48	-	1.51%	170,365.75	170,365.75	126,398.25	(1,287.25)	(1,022.77)
12/1/2035	1,170,000.00	1.71%	168,178.50	1,338,178.50	982,995.34	1,350,000.00	1.51%	170,365.75	1,520,365.75	1,116,825.93	(182,187.25)	(133,830.59)
6/1/2036	-	1.71%	158,175.00	158,175.00	115,041.33	-	1.51%	160,173.25	160,173.25	116,494.66	(1,998.25)	(1,453.34)
12/1/2036	1,190,000.00	1.71%	158,175.00	1,348,175.00	970,824.96	1,370,000.00	1.51%	160,173.25	1,530,173.25	1,101,882.46	(181,998.25)	(131,057.50)
6/1/2037	-	1.71%	148,000.50	148,000.50	105,520.41	-	1.51%	149,829.75	149,829.75	106,824.62	(1,829.25)	(1,304.21)
12/1/2037	1,210,000.00	1.71%	148,000.50	1,358,000.50	958,631.84	1,390,000.00	1.51%	149,829.75	1,539,829.75	1,086,987.68	(181,829.25)	(128,355.85)
6/1/2038	-	1.71%	137,655.00	137,655.00	96,210.51	-	1.51%	139,335.25	139,335.25	97,384.88	(1,680.25)	(1,174.37)
12/1/2038	1,230,000.00	1.71%	137,655.00	1,367,655.00	946,423.96	1,415,000.00	1.51%	139,335.25	1,554,335.25	1,075,607.61	(186,680.25)	(129,183.65)
6/1/2039	-	1.71%	127,138.50	127,138.50	87,109.37	-	1.51%	128,652.00	128,652.00	88,146.35	(1,513.50)	(1,036.98)
12/1/2039	1,245,000.00	1.71%	127,138.50	1,372,138.50	930,817.14	1,435,000.00	1.51%	128,652.00	1,563,652.00	1,060,734.09	(191,513.50)	(129,916.95)
6/1/2040	-	1.71%	116,493.75	116,493.75	78,243.39	-	1.51%	117,817.75	117,817.75	79,132.66	(1,324.00)	(889.27)
12/1/2040	1,265,000.00	1.71%	116,493.75	1,381,493.75	918,697.64	1,455,000.00	1.51%	117,817.75	1,572,817.75	1,045,928.69	(191,324.00)	(127,231.05)
6/1/2041	-	1.71%	105,678.00	105,678.00	69,580.39	-	1.51%	106,832.50	106,832.50	70,340.54	(1,154.50)	(760.14)
12/1/2041	1,290,000.00	1.71%	105,678.00	1,395,678.00	909,842.38	1,480,000.00	1.51%	106,832.50	1,586,832.50	1,034,455.98	(191,154.50)	(124,613.60)
6/1/2042	-	1.71%	94,648.50	94,648.50	61,090.45	-	1.51%	95,658.50	95,658.50	61,742.34	(1,010.00)	(651.90)
12/1/2042	1,310,000.00	1.71%	94,648.50	1,404,648.50	897,647.53	1,500,000.00	1.51%	95,658.50	1,595,658.50	1,019,713.41	(191,010.00)	(122,065.88)
6/1/2043	-	1.71%	83,448.00	83,448.00	52,799.86	-	1.51%	84,333.50	84,333.50	53,360.14	(885.50)	(560.28)
12/1/2043	1,330,000.00	1.71%	83,448.00	1,413,448.00	885,472.89	1,525,000.00	1.51%	84,333.50	1,609,333.50	1,008,187.91	(195,885.50)	(122,715.02)
6/1/2044	-	1.71%	72,076.50	72,076.50	44,706.20	-	1.51%	72,819.75	72,819.75	45,167.21	(743.25)	(461.01)
12/1/2044	1,350,000.00	1.71%	72,076.50	1,422,076.50	873,324.50	1,545,000.00	1.51%	72,819.75	1,617,819.75	993,534.19	(195,743.25)	(120,209.69)
6/1/2045	-	1.71%	60,534.00	60,534.00	36,807.02	-	1.51%	61,155.00	61,155.00	37,184.61	(621.00)	(377.59)
12/1/2045	1,370,000.00	1.71%	60,534.00	1,430,534.00	861,208.13	1,570,000.00	1.51%	61,155.00	1,631,155.00	981,985.71	(200,621.00)	(120,777.58)
6/1/2046	-	1.71%	48,820.50	48,820.50	29,099.85	-	1.51%	49,301.50	49,301.50	29,386.56	(481.00)	(286.70)
12/1/2046	1,395,000.00	1.71%	48,820.50	1,443,820.50	852,080.04	1,595,000.00	1.51%	49,301.50	1,644,301.50	970,395.21	(200,481.00)	(118,315.16)
6/1/2047	-	1.71%	36,893.25	36,893.25	21,557.22	-	1.51%	37,259.25	37,259.25	21,771.08	(366.00)	(213.86)
12/1/2047	1,415,000.00	1.71%	36,893.25	1,451,893.25	839,961.01	1,620,000.00	1.51%	37,259.25	1,657,259.25	958,771.01	(205,366.00)	(118,810.00)
6/1/2048	-	1.71%	24,795.00	24,795.00	14,202.58	-	1.51%	25,028.25	25,028.25	14,336.18	(233.25)	(133.61)
12/1/2048	1,440,000.00	1.71%	24,795.00	1,464,795.00	830,727.42	1,645,000.00	1.51%	25,028.25	1,670,028.25	947,121.10	(205,233.25)	(116,393.68)
6/1/2049	-	1.71%	12,483.00	12,483.00	7,009.37	-	1.51%	12,608.50	12,608.50	7,079.84	(125.50)	(70.47)
12/1/2049	1,460,000.00	1.71%	12,483.00	1,472,483.00	818,632.98	1,670,000.00	1.51%	12,608.50	1,682,608.50	935,453.11	(210,125.50)	(116,820.14)
Total	35,000,000.00		9,694,292.00	44,694,292.00	33,613,367.87	35,000,000.00		9,664,000.00	44,664,000.00	32,445,808.57	30,292.00	1,167,559.30

Bowling Green State University

Pro Forma Debt Service Comparison, Constant Rates Through Maturity

Fiscal Year	BGSU Other Debt Service	Original Debt Service (1.60%)		Reissuance Comparisons (1.51%)	
		2017A Original Debt Service @1.71% Starting 2021		V1 Level Debt Service after Year 5	
		2017A DS	Total Pro Forma DS	2017A DS	Total Pro Forma DS
2021	\$14,818,409	\$1,304,000	\$16,122,409	\$528,500	\$15,346,909
2022	14,774,927	1,512,681	16,287,608	528,500	15,303,427
2023	14,714,150	1,511,564	16,225,714	528,500	15,242,650
2024	14,655,239	1,515,148	16,170,387	528,500	15,183,739
2025	14,602,693	1,513,433	16,116,126	528,500	15,131,193
2026	14,542,562	1,511,461	16,054,023	1,679,742	16,222,304
2027	14,482,997	1,509,233	15,992,230	1,682,075	16,165,072
2028	14,428,707	1,506,748	15,935,455	1,679,144	16,107,851
2029	14,458,942	1,508,964	15,967,906	1,680,948	16,139,890
2030	14,392,167	1,505,881	15,898,048	1,682,451	16,074,618
2031	14,405,156	1,502,541	15,907,697	1,678,689	16,083,845
2032	15,452,255	1,503,902	16,956,157	1,679,663	17,131,918
2033	15,374,156	1,499,964	16,874,120	1,680,335	17,054,491
2034	15,301,521	1,500,726	16,802,247	1,680,705	16,982,226
2035	15,211,795	1,496,190	16,707,985	1,680,773	16,892,568
2036	15,228,763	1,496,354	16,725,117	1,680,539	16,909,302
2037	15,039,794	1,496,176	16,535,970	1,680,003	16,719,797
2038	14,960,092	1,495,656	16,455,748	1,679,165	16,639,257
2039	14,686,984	1,494,794	16,181,778	1,682,987	16,369,971
2040	12,813,384	1,488,632	14,302,016	1,681,470	14,494,854
2041	12,842,928	1,487,172	14,330,100	1,679,650	14,522,578
2042	12,882,693	1,490,327	14,373,020	1,682,491	14,565,184
2043	12,921,338	1,488,097	14,409,435	1,679,992	14,601,330
2044	12,962,915	1,485,525	14,448,440	1,682,153	14,645,068
2045	13,006,332	1,482,611	14,488,943	1,678,975	14,685,307
2046	8,364,810	1,479,355	9,844,165	1,680,457	10,045,267
2047	3,729,601	1,480,714	5,210,315	1,681,561	5,411,162
2048	3,775,867	1,476,688	5,252,555	1,682,288	5,458,155
2049	1,469,450	1,477,278	2,946,728	1,682,637	3,152,087
2050	1,472,900	1,472,483	2,945,383	1,682,609	3,155,509
Total	\$377,773,527	\$44,694,292	\$422,467,819	\$44,664,000	\$422,437,527

Assumes a constant rate is held through final maturity.

Scenario 2

Bowling Green State University
 2017A Debt Service Comparison
 Level Debt Service after Year 5

Date	Series 2017A Current				PV DS	Series 2017A - Re-issued (V1)				PV DS	Difference	PV Cost/Savings
	Principal	Coupon	Interest	Total P+I		Principal	Coupon	Interest	Total P+I			
6/1/2020												
12/1/2020	750,000.00	1.60%	280,000.00	1,030,000.00	1,019,801.98	-	1.51%	264,250.00	264,250.00	261,633.66	765,750.00	758,168.32
6/1/2021	-	1.60%	274,000.00	274,000.00	268,601.12	-	1.51%	264,250.00	264,250.00	259,043.23	9,750.00	9,557.89
12/1/2021	935,000.00	1.71%	292,837.50	1,227,837.50	1,191,726.98	-	1.51%	264,250.00	264,250.00	256,478.45	963,587.50	935,248.53
6/1/2022	-	1.71%	284,843.25	284,843.25	273,728.76	-	1.51%	264,250.00	264,250.00	253,939.06	20,593.25	19,789.71
12/1/2022	950,000.00	1.71%	284,843.25	1,234,843.25	1,174,910.98	-	1.51%	264,250.00	264,250.00	251,424.81	970,593.25	923,486.17
6/1/2023	-	1.71%	276,720.75	276,720.75	260,683.46	-	1.51%	264,250.00	264,250.00	248,935.45	12,470.75	11,748.01
12/1/2023	970,000.00	1.71%	276,720.75	1,246,720.75	1,162,838.95	-	1.51%	264,250.00	264,250.00	246,470.75	982,470.75	916,368.21
6/1/2024	-	1.71%	268,427.25	268,427.25	247,888.06	-	1.51%	264,250.00	264,250.00	244,030.44	4,177.25	3,857.62
12/1/2024	985,000.00	1.71%	268,427.25	1,253,427.25	1,146,058.45	-	1.51%	264,250.00	264,250.00	241,614.30	989,177.25	904,444.15
6/1/2025	-	1.71%	260,005.50	260,005.50	235,379.59	-	1.51%	264,250.00	264,250.00	239,222.08	(4,244.50)	(3,842.49)
12/1/2025	1,000,000.00	1.71%	260,005.50	1,260,005.50	1,129,375.81	1,160,000.00	1.51%	264,250.00	1,424,250.00	1,276,589.05	(164,244.50)	(147,216.24)
6/1/2026	-	1.71%	251,455.50	251,455.50	223,153.99	-	1.51%	255,492.00	255,492.00	226,736.18	(4,036.50)	(3,582.19)
12/1/2026	1,015,000.00	1.71%	251,455.50	1,266,455.50	1,112,787.08	1,180,000.00	1.51%	255,492.00	1,435,492.00	1,261,313.13	(169,036.50)	(148,526.05)
6/1/2027	-	1.71%	242,777.25	242,777.25	211,207.22	-	1.51%	246,583.00	246,583.00	214,518.08	(3,805.75)	(3,310.86)
12/1/2027	1,030,000.00	1.71%	242,777.25	1,272,777.25	1,096,306.02	1,195,000.00	1.51%	246,583.00	1,441,583.00	1,241,706.76	(168,805.75)	(145,400.74)
6/1/2028	-	1.71%	233,970.75	233,970.75	199,535.23	-	1.51%	237,560.75	237,560.75	202,596.86	(3,590.00)	(3,061.63)
12/1/2028	1,050,000.00	1.71%	233,970.75	1,283,970.75	1,084,156.00	1,215,000.00	1.51%	237,560.75	1,452,560.75	1,226,509.60	(168,590.00)	(142,353.60)
6/1/2029	-	1.71%	224,993.25	224,993.25	188,098.25	-	1.51%	228,387.50	228,387.50	190,935.90	(3,394.25)	(2,837.65)
12/1/2029	1,065,000.00	1.71%	224,993.25	1,289,993.25	1,067,778.90	1,235,000.00	1.51%	228,387.50	1,463,387.50	1,211,304.24	(173,394.25)	(143,525.34)
6/1/2030	-	1.71%	215,887.50	215,887.50	176,929.41	-	1.51%	219,063.25	219,063.25	179,532.08	(3,175.75)	(2,602.67)
12/1/2030	1,080,000.00	3.00%	378,750.00	1,458,750.00	1,183,673.76	1,250,000.00	3.00%	435,225.00	1,685,225.00	1,367,442.41	(226,475.00)	(183,768.65)
6/1/2031	-	3.00%	362,550.00	362,550.00	291,271.29	-	3.00%	416,475.00	416,475.00	334,594.44	(53,925.00)	(43,323.14)
12/1/2031	1,100,000.00	3.00%	362,550.00	1,462,550.00	1,163,373.39	1,270,000.00	3.00%	416,475.00	1,686,475.00	1,341,492.69	(46,125.00)	(178,119.30)
6/1/2032	-	3.00%	346,050.00	346,050.00	272,537.26	-	3.00%	397,425.00	397,425.00	312,998.47	(51,375.00)	(40,461.21)
12/1/2032	1,115,000.00	3.00%	346,050.00	1,461,050.00	1,139,280.68	1,290,000.00	3.00%	397,425.00	1,687,425.00	1,315,800.76	(226,375.00)	(176,520.08)
6/1/2033	-	3.00%	329,325.00	329,325.00	254,254.70	-	3.00%	378,075.00	378,075.00	291,892.03	(48,750.00)	(37,637.34)
12/1/2033	1,135,000.00	3.00%	329,325.00	1,464,325.00	1,119,335.78	1,310,000.00	3.00%	378,075.00	1,688,075.00	1,290,371.15	(223,750.00)	(171,035.38)
6/1/2034	-	3.00%	312,300.00	312,300.00	236,359.75	-	3.00%	358,425.00	358,425.00	271,268.79	(46,125.00)	(34,909.04)
12/1/2034	1,150,000.00	3.00%	312,300.00	1,462,300.00	1,095,763.02	1,330,000.00	3.00%	358,425.00	1,688,425.00	1,265,208.01	(226,125.00)	(169,444.99)
6/1/2035	-	3.00%	295,050.00	295,050.00	218,904.36	-	3.00%	338,475.00	338,475.00	251,122.36	(43,425.00)	(32,218.00)
12/1/2035	1,170,000.00	3.00%	295,050.00	1,465,050.00	1,076,192.25	1,350,000.00	3.00%	338,475.00	1,688,475.00	1,240,315.15	(223,425.00)	(164,122.90)
6/1/2036	-	3.00%	277,500.00	277,500.00	201,826.89	-	3.00%	318,225.00	318,225.00	231,446.35	(40,725.00)	(29,619.46)
12/1/2036	1,190,000.00	3.00%	277,500.00	1,467,500.00	1,056,751.26	1,370,000.00	3.00%	318,225.00	1,688,225.00	1,215,696.01	(220,250.00)	(158,944.75)
6/1/2037	-	3.00%	259,650.00	259,650.00	185,123.53	-	3.00%	297,675.00	297,675.00	212,234.34	(38,025.00)	(27,110.81)
12/1/2037	1,210,000.00	3.00%	259,650.00	1,469,650.00	1,037,446.80	1,390,000.00	3.00%	297,675.00	1,687,675.00	1,191,353.75	(223,925.00)	(153,906.94)
6/1/2038	-	3.00%	241,500.00	241,500.00	168,790.38	-	3.00%	276,825.00	276,825.00	193,479.90	(35,325.00)	(24,689.52)
12/1/2038	1,230,000.00	3.00%	241,500.00	1,471,500.00	1,018,285.21	1,415,000.00	3.00%	276,825.00	1,691,825.00	1,170,751.19	(220,325.00)	(152,465.98)
6/1/2039	-	3.00%	223,050.00	223,050.00	152,823.46	-	3.00%	255,600.00	255,600.00	175,125.20	(32,550.00)	(22,301.74)
12/1/2039	1,245,000.00	3.00%	223,050.00	1,468,050.00	995,880.59	1,435,000.00	3.00%	255,600.00	1,690,600.00	1,146,851.76	(222,550.00)	(150,971.17)
6/1/2040	-	3.00%	204,375.00	204,375.00	137,269.11	-	3.00%	234,075.00	234,075.00	157,217.21	(29,700.00)	(19,948.10)
12/1/2040	1,265,000.00	3.00%	204,375.00	1,469,375.00	977,138.94	1,455,000.00	3.00%	234,075.00	1,689,075.00	1,123,240.12	(219,700.00)	(146,101.18)
6/1/2041	-	3.00%	185,400.00	185,400.00	122,070.87	-	3.00%	212,250.00	212,250.00	139,749.42	(26,850.00)	(17,678.55)
12/1/2041	1,290,000.00	3.00%	185,400.00	1,475,400.00	961,813.14	1,480,000.00	3.00%	212,250.00	1,692,250.00	1,103,177.64	(216,850.00)	(141,364.50)
6/1/2042	-	3.00%	166,050.00	166,050.00	107,176.22	-	3.00%	190,050.00	190,050.00	122,666.91	(24,000.00)	(15,490.69)
12/1/2042	1,310,000.00	3.00%	166,050.00	1,476,050.00	943,277.01	1,500,000.00	3.00%	190,050.00	1,690,050.00	1,080,034.76	(214,000.00)	(136,757.75)
6/1/2043	-	3.00%	146,400.00	146,400.00	92,631.33	-	3.00%	167,550.00	167,550.00	106,013.52	(21,150.00)	(13,382.19)
12/1/2043	1,330,000.00	3.00%	146,400.00	1,476,400.00	924,909.99	1,525,000.00	3.00%	167,550.00	1,692,550.00	1,060,319.97	(216,150.00)	(135,409.98)
6/1/2044	-	3.00%	126,450.00	126,450.00	78,431.93	-	3.00%	144,675.00	144,675.00	89,736.17	(18,225.00)	(11,304.25)
12/1/2044	1,350,000.00	3.00%	126,450.00	1,476,450.00	906,716.31	1,545,000.00	3.00%	144,675.00	1,689,675.00	1,037,661.88	(213,225.00)	(130,945.57)
6/1/2045	-	3.00%	106,200.00	106,200.00	64,573.72	-	3.00%	121,500.00	121,500.00	73,876.72	(15,300.00)	(9,302.99)
12/1/2045	1,370,000.00	3.00%	106,200.00	1,476,200.00	888,699.91	1,570,000.00	3.00%	121,500.00	1,691,500.00	1,018,314.53	(215,300.00)	(129,614.61)
6/1/2046	-	3.00%	85,650.00	85,650.00	51,052.37	-	3.00%	97,950.00	97,950.00	58,383.89	(12,300.00)	(7,331.51)
12/1/2046	1,395,000.00	3.00%	85,650.00	1,480,650.00	873,815.21	1,595,000.00	3.00%	97,950.00	1,692,950.00	999,105.43	(212,300.00)	(125,290.22)
6/1/2047	-	3.00%	64,725.00	64,725.00	37,819.68	-	3.00%	74,025.00	74,025.00	43,253.80	(9,300.00)	(5,434.11)
12/1/2047	1,415,000.00	3.00%	64,725.00	1,479,725.00	856,062.46	1,620,000.00	3.00%	74,025.00	1,694,025.00	980,041.03	(214,300.00)	(123,978.57)
6/1/2048	-	3.00%	43,500.00	43,500.00	24,916.80	-	3.00%	49,725.00	49,725.00	28,482.48	(6,225.00)	(3,565.68)
12/1/2048	1,440,000.00	3.00%	43,500.00	1,483,500.00	841,335.56	1,645,000.00	3.00%	49,725.00	1,694,725.00	961,127.34	(211,225.00)	(119,791.78)
6/1/2049	-	3.00%	21,900.00	21,900.00	12,297.15	-	3.00%	25,050.00	25,050.00	14,065.92	(3,150.00)	(1,768.77)
12/1/2049	1,460,000.00	3.00%	21,900.00	1,481,900.00	823,868.40	1,670,000.00	3.00%	25,050.00	1,695,050.00	942,370.02	(213,150.00)	(118,501.62)
Total	35,000,000.00		13,123,112.00	48,123,112.00	36,064,693.71	35,000,000.00		14,205,184.75	49,205,184.75	35,692,817.61	(1,082,072.75)	371,876.10

Bowling Green State University
Pro Forma Debt Service Comparison, 3.00% Interest After 10-Year Term

Fiscal Year	BGSU Other Debt Service	Original Debt Service (1.60%)		Reissuance Comparisons (1.51%)	
		2017A Original Dbt Service @ 1.71%		Y1	
		Starting 2021		Level Debt Service after Year 5	
		2017A DS	Total Pro Forma DS	2017A DS	Total Pro Forma DS
2021	\$14,818,409	\$1,304,000	\$16,122,409	\$528,500	\$15,346,909
2022	14,774,927	1,512,681	16,287,608	528,500	15,303,427
2023	14,714,150	1,511,564	16,225,714	528,500	15,242,650
2024	14,655,239	1,515,148	16,170,387	528,500	15,183,739
2025	14,602,693	1,513,433	16,116,126	528,500	15,131,193
2026	14,542,562	1,511,461	16,054,023	1,679,742	16,222,304
2027	14,482,997	1,509,233	15,992,230	1,682,075	16,165,072
2028	14,428,707	1,506,748	15,935,455	1,679,144	16,107,851
2029	14,458,942	1,508,964	15,967,906	1,680,948	16,139,890
2030	14,392,167	1,505,881	15,898,048	1,682,451	16,074,618
2031	14,405,156	1,821,300	16,226,456	2,101,700	16,506,856
2032	15,452,255	1,808,600	17,260,855	2,083,900	17,536,155
2033	15,374,156	1,790,375	17,164,531	2,065,500	17,439,656
2034	15,301,521	1,776,625	17,078,146	2,046,500	17,348,021
2035	15,211,795	1,757,350	16,969,145	2,026,900	17,238,695
2036	15,228,763	1,742,550	16,971,313	2,006,700	17,235,463
2037	15,039,794	1,727,150	16,766,944	1,985,900	17,025,694
2038	14,960,092	1,711,150	16,671,242	1,964,500	16,924,592
2039	14,686,984	1,694,550	16,381,534	1,947,425	16,634,409
2040	12,813,384	1,672,425	14,485,809	1,924,675	14,738,059
2041	12,842,928	1,654,775	14,497,703	1,901,325	14,744,253
2042	12,882,693	1,641,450	14,524,143	1,882,300	14,764,993
2043	12,921,338	1,622,450	14,543,788	1,857,600	14,778,938
2044	12,962,915	1,602,850	14,565,765	1,837,225	14,800,140
2045	13,006,332	1,582,650	14,588,982	1,811,175	14,817,507
2046	8,364,810	1,561,850	9,926,660	1,789,450	10,154,260
2047	3,729,601	1,545,375	5,274,976	1,766,975	5,496,576
2048	3,775,867	1,523,225	5,299,092	1,743,750	5,519,617
2049	1,469,450	1,505,400	2,974,850	1,719,775	3,189,225
2050	1,472,900	1,481,900	2,954,800	1,695,050	3,167,950
Total	\$377,773,527	\$48,123,112	\$425,896,639	\$49,205,185	\$426,978,712

Assumes a rate of 3.00% after the 10-year term.



Action of the Board of Trustees
Bowling Green State University
September 27, 2019

**Authorizing the Issuance of General Receipts Bonds, Series 2020
Resolution # 3-2020**

Trustee Montgomery moved and Trustee Harter seconded that the Bowling Green State University Board of Trustees approve Authorizing the Issuance of General Receipts Bonds, Series, 2020.

WHEREAS, the Board of Trustees (the "Board") of Bowling Green State University, a state university of the state of Ohio (the "University"), is authorized by Sections 3345.11 and 3345.12 of the Revised Code, enacted by the General Assembly under authority of Section 2i of Article VIII of the Constitution of Ohio, to issue obligations to pay costs of University facilities and to refund obligations previously issued to pay costs of University facilities; and

WHEREAS, the Trust Agreement dated as of December 1, 1971 between the University and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "Trustee"), as supplemented and amended (the "Trust Agreement"), provides for the issuance, from time to time, of General Receipts Bonds of the University, with each issue to be authorized by a resolution adopted by the Board and a Supplemental Trust Agreement; and

WHEREAS, the Trust Agreement and the Act, as defined below, permit the acquisition, construction, reconstruction, rehabilitation, furnishing and equipping of "facilities" as defined in Revised Code Section 3345.12(A)(6), including without limitation, costs of various improvements to the University's campus, including (i) preliminary planning and development costs relating to East Campus; (ii) construction, furnishing, and equipping of a portion of the Robert W. and Patricia A. Maurer Center; (iii) improvements relating to the University's information technology network; (iv) development and construction of a nursing skills lab; (v) construction and rehabilitation of the Slater Family Ice Arena; and (vi) acquisition, development, and installation of all related real estate, infrastructure, fixtures, furnishings and equipment, and other improvements to university facilities approved by this Board, including in each case all related costs constituting "costs of facilities" as defined in Revised Code Section 3345.12(A)(10) (each a "2020 Project," and collectively the "2020 Projects"); and

WHEREAS, the Trust Agreement and the Act permit the University to issue obligations to refund obligations previously issued to pay costs of University facilities, such as the Refunded Bonds, as defined below; and

WHEREAS, this Board has determined to finance, by the issuance of one or more series of General Receipts Bonds, for the purposes of (i) paying a portion of the costs the 2020 Projects; (ii) refunding, in whole or in part, one or more series of Outstanding Bonds as may be determined, from time to time, by the University's Fiscal Officer; and (iii) paying all or a portion of the costs in connection with the issuance of such General Receipts Bonds.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of Bowling Green State University, as follows:

Section 1. Definitions and Interpretations. Where used in this Resolution, any Supplemental Trust Agreement for the issuance of all or any portion of the Series 2020 Bonds and any Certificate of Award related thereto, and in addition to words and terms defined elsewhere in this Resolution, the Trust Agreement and any applicable Supplemental Trust Agreement, the following terms shall have the following meanings:

“2020 Projects” means the 2020 Projects as defined in the recitals to this Resolution.

“Act” means Sections 3345.11 and 3345.12 of the Revised Code, including the provisions of Sections 9.96 and 9.98 to 9.983 of the Revised Code incorporated therein.

“Bond Purchase Agreement” means any Bond Purchase Agreement between the Original Purchaser and the University relating to the sale and purchase of Series 2020 Bonds.

“Certificate of Award” means a Certificate of Award authorized pursuant to Section 5.

“Code” means the Internal Revenue Code of 1986, the regulations (whether proposed, temporary or final) under that Code or the statutory predecessor of that Code, and any amendments of or successor provisions to the foregoing, and any official rulings, announcements, notices, procedures and judicial determinations regarding any of the foregoing, all as and to the extent applicable. Unless otherwise indicated, reference to a section of the Code includes that section and those applicable regulations, rulings, announcements, notices, procedures and determinations pertinent to that section.

“Credit Support Instrument” means an insurance policy, surety bond, letter of credit or other instrument used to enhance the security of Series 2020 Bonds of any series.

“Escrow Agreement” means the escrow agreement between the University and the Trustee, as Escrow Trustee for the defeasance or retirement of any portion of the Refunded Bonds.

“Fiscal Officer” means the Vice President for Finance and Administration of the University (being the chief fiscal officer of the University and the “Fiscal Officer” as defined in the General Bond Resolution), and also means, as alternates as authorized by the General Bond Resolution, the President of the University and the Executive Director of Business Operations, both being officers of the University hereby designated as such by this Board.

“General Bond Resolution” means the resolution adopted by the Board on August 28, 1971, providing for the issuance from time to time of General Receipts Bonds of the University and constituting part of the Trust Agreement.

“Interest Payment Dates” means June 1 and December 1 of each year or such other dates provided in a Certificate of Award with respect to the Series 2020 Bonds.

“Original Purchaser” means the financial institution or institutions selected by the Fiscal Officer to directly purchase or underwrite an offering one or more series of Series 2020 Bonds and identified in the applicable Certificate of Award.

“Outstanding Bonds” means, collectively, the Series 2010B Bonds, the Series 2014 Bonds, and the Series 2017A Bonds.

“Refunded Bonds” means the Outstanding Bonds or portions thereof to be refunded by the Series 2020 Bonds as determined and identified in a Certificate of Award.

“Register” means the books kept and maintained by the Trustee, as Bond Registrar, for the registration, exchange and transfer of Bonds pursuant to the Trust Agreement.

“Registered Owner” means the person in whose name a Bond is registered on the Register.

“Series 2010B Bonds” means the University’s General Receipts Bonds, Series 2010B (Federally Taxable – Build America Bonds – Direct Payment) dated April 14, 2010.

“Series 2014 Bonds” means the University’s General Receipts Bonds, Series 2014, dated May 14, 2014.

“Series 2017A Bonds” means the University’s General Receipts Bonds, Series 2017A, dated June 29, 2017.

“Series 2020 Bonds” means the General Receipts Bonds authorized by this Resolution, which Series 2020 Bonds may be issued in one or more series or sub-series at the same time or at different times.

“Series 2020 Cost of Issuance Account” means the account by that name in the Series 2020 Project Fund.

“Series 2020 Project Account” means the account by that name in the Series 2020 Project Fund.

“Series 2020 Project Fund” means the fund by that name established in Section 6.(b) hereof.

“series Resolution” or “this Resolution” means this Resolution authorizing the issuance and sale of the Series 2020 Bonds in one or more series or sub-series, and including the applicable Certificate of Award for any such series.

“Supplemental Trust Agreement” means with respect to the Series 2020 Bonds, the Supplemental Trust Agreement between the University and the Trustee with respect to any series or combination of series of Series 2020 Bonds, authorized pursuant to Section 8 of this Resolution, including as part thereof this Resolution and any applicable Certificate of Award

“Taxable Bonds” means a series of Series 2020 Bonds that are obligations the interest on which is included in gross income for federal income tax purposes.

“Tax-Exempt Bonds” means a series of Series 2020 Bonds that are obligations the interest on which is excluded from gross income for federal income tax purposes.

“Variable Rate Bonds” means a series of Series 2020 Bonds issued as obligations bearing interest at variable interest rates, including, but not limited to commercial paper.

Unless the context otherwise indicates, words importing the singular number shall include the plural number, and vice versa, and the terms “hereof,” “herein,” “hereby,” “hereto,” “hereunder,” and similar terms, mean this Resolution and the applicable Supplemental Trust Agreement authorized by this Resolution. References to sections, unless otherwise stated, are to sections of this Resolution.

Section 2. Authority. This Resolution is adopted pursuant to the Trust Agreement (including the General Bond Resolution) and the Act.

Section 3. Authorization, Designation and Purpose of Series 2020 Bonds. The University is authorized to issue, sell and deliver, as provided and authorized in this Resolution and the Supplemental Trust Agreement, General Receipts Bonds of the University in one or more series or subseries, for the purposes of (i) paying costs of the 2020 Projects; (ii) refunding the Refunded Bonds; and (iii) paying costs of issuing each series of Series 2020 Bonds. The principal amount of each series of Series 2020 Bonds is to be the amount set forth in the Certificate of Award for that series, determined on the basis of the Fiscal Officer's certification therein of the amount required for the aforementioned purposes or any of them. The proceeds from the sale of each series of Series 2020 Bonds shall be allocated, deposited and applied as provided in Section 6.

The Series 2020 Bonds may be issued in one or more separate series or subseries, each bearing a distinctive designation as provided in the applicable Certificate of Award, provided that the Series 2020 Bonds of each series shall satisfy the requirements of this Resolution. Separate series of Series 2020 Bonds may be issued at the same or different times. If separate series of Series 2020 Bonds are issued at different times, a separate Certificate of Award and Supplemental Trust Agreement may be signed and delivered for each series.

The Fiscal Officer shall designate each series or subseries of Series 2020 Bonds in the Certificate of Award as Tax-Exempt Bonds or as Taxable Bonds. Such designation shall be based on the Fiscal Officer's determination that, in consultation with the University's Blue Rose Capital Advisors, the designation is in the best interest of the University, providing for an overall debt structure upon terms most favorable to the University.

In the event that the Fiscal Officer determines that the University's best interests will be served by causing a series of Series 2020 Bonds to be issued as Variable Rate Bonds, then the Fiscal Officer is authorized to so specify in the applicable Certificate of Award. The method or procedure by which the variable rates of interest to be borne by Variable Rate Bonds are to be determined shall be set forth in the Supplemental Trust Agreement or such Certificate of Award. Such method or procedure may be by reference to a market index, by an auction process, by a remarketing agent, including but not limited to a dealer for commercial paper, or otherwise as set forth in the Supplemental Trust Agreement. The Fiscal Officer may determine that the terms of Variable Rate Bonds may or may not permit the Holders to tender their Variable Rate Bonds for purchase by the University. If the Fiscal Officer designates any Series 2020 Bonds as Variable Rate Bonds, and if the Holders of those Series 2020 Bonds are to be entitled to tender those Series 2020 Bonds for purchase, or if those Variable Rate Bonds are to be issued through a commercial paper program, then the Fiscal Officer shall also designate in the Certificate of Award for those Variable Rate Bonds (and may designate others from time to time in substitution therefor) the provider or providers of any Credit Support Instrument, the tender agent or agents, the administrative agent or agents, the remarketing agent or agents, or the dealer or dealers, which designations shall be based on the determination of the Fiscal Officer that the parties so designated possess the requisite resources and experience to provide the services required of them and that the terms on which the designated parties have agreed to provide such services are fair and commercially reasonable. The Fiscal Officer is authorized to enter into agreements in connection with the delivery of the Series 2020 Bonds, and from time to time thereafter so long as the Series 2020 Bonds are outstanding, with providers of Credit Support Instruments, tender agents or administrative agents (which may be the Trustee), remarketing agents or dealers (which may be any Original Purchaser) and others as may be determined by the Fiscal Officer to be necessary or appropriate to provide for the method of determining the variable interest rates, permitting holders the right of tender and providing for liquidity or credit support for the payment of Variable Rate Bonds upon tender for purchase or redemption or scheduled debt service and providing for the repayment by the University of any amounts drawn under the Credit Support Instrument consistently with the Trust Agreement. The Fiscal Officer is further authorized to terminate any such agreements if the Fiscal Officer determines that the University's best interests will be served by such termination. Additionally, in the event that the Fiscal Officer determines that it is in the best interests of

the University that the University serve in the position of an issuer of a Credit Support Instrument in lieu of a third party provider of a Credit Support Instrument, the University may do so.

The Fiscal Officer, in connection with any series of Series 2020 Bonds, is authorized to contract for one or more Credit Support Instruments, and to pay the costs of them from proceeds of the Series 2020 Bonds, if the Fiscal Officer determines that each Credit Support Instrument will result in a savings in the cost of the financing to the University.

Section 4. Terms and Provisions Applicable to the Series 2020 Bonds.

(a) Principal Amount. The aggregate principal amount of Series 2020 Bonds issued for the purposes of financing the costs of the 2020 Projects, or any of them, and paying issuance costs associated therewith shall not exceed \$25,000,000. The aggregate principal amount of Series 2020 Bonds issued for the purposes of refunding the Series 2010B Bonds, or any of them, and paying issuance costs associated therewith shall not exceed \$60,000,000. The aggregate principal amount of Series 2020 Bonds issued for the purposes of refunding the Series 2014 Bonds, or any of them, and paying issuance costs associated therewith shall not exceed \$42,000,000. The aggregate principal amount of Series 2020 Bonds issued for the purposes of refunding the Series 2017A Bonds, or any of them, and paying issuance costs associated therewith shall not exceed \$37,000,000.

(b) Form and Numbering. The Series 2020 Bonds shall be issued only as fully registered Bonds and substantially in the form set forth in the Supplemental Trust Agreement for the related series of Series 2020 Bonds, and shall be numbered as determined by the Fiscal Officer. The Series 2020 Bonds will be issued in certificated form as provided in the Supplemental Trust Agreement for the related series of Series 2020 Bonds.

(c) Denominations and Dates. Each series of Series 2020 Bonds shall be dated as of the respective dates of their issuance or as of another date as may be stated in the Certificate of Award for such series. The Series 2020 Bonds of each series shall be issued in the denominations authorized in the applicable Supplemental Trust Agreement.

(d) Interest. The Series 2020 Bonds of each series shall bear interest from their respective dates payable on the Interest Payment Dates at the respective rates per year to be determined by the Fiscal Officer and set forth in the Certificate of Award and Supplemental Trust Agreement for the related series of Series 2020 Bonds. For Series 2020 Bonds that bear interest at rates that are fixed to the maturity thereof, the weighted average fixed interest rate of such fixed rate Series 2020 Bonds of a series shall not exceed six percent (6.0%) per year. For Variable Rate Bonds, the maximum permissible interest rate of such Variable Rate Bonds shall not exceed 10 percent (10.0%) per year.

(e) Maturities. The Series 2020 Bonds of each series shall mature on the dates and in the amounts as the Fiscal Officer determines, provides and states in the Certificate of Award for such series, provided that no Series 2020 Bonds shall mature later than June 1, 2052. The Series 2020 Bonds shall mature in such serial or term (“Term Bonds”) maturities as the Fiscal Officer determines to be in the best interests of the University and shall be provided for in a Certificate of Award.

(f) Prior Redemption.

(i) Mandatory Redemption. Any Term Bonds shall be subject to mandatory redemption by the University pursuant to mandatory sinking fund requirements at a redemption price equal to 100% of the principal amount redeemed, plus accrued interest to the date of redemption, on the dates and in the principal amounts, if any, as determined by the Fiscal Officer in a Certificate of Award. The amounts required to be paid to the Bond Service Account shall include amounts sufficient to redeem (less the amount of any credit as provided in the Supplemental Trust Agreement for the related series of Series 2020 Bonds) on each principal payment date the respective principal amounts of any Term Bonds subject to mandatory sinking fund redemption.

At its option, the University may deliver to the Trustee for cancellation Term Bonds, in any aggregate principal amount desired, and receive a credit in respect to the mandatory sinking fund requirement of the University for any Term Bonds of the same series maturing in the same year as the Term Bonds so delivered to the Trustee, which prior to that date have been redeemed (other than through the operation of the mandatory sinking fund requirements) or purchased for cancellation and cancelled by the Trustee and not theretofore applied as a credit against any mandatory sinking fund requirement. Each Term Bond so delivered or previously redeemed or purchased for cancellation shall be credited by the Trustee at 100% of its principal amount against the mandatory sinking fund requirement of the University on that redemption date with respect to Term Bonds maturing in the same year and any credit in excess of that amount may be credited against future mandatory sinking fund requirements with respect to Term Bonds of the same series maturing in the same year. If the University intends to avail itself of the provisions of this paragraph, the University will on or before the 45th day next preceding the applicable mandatory redemption date furnish the Trustee with a certificate, signed by the Fiscal Officer, stating the extent of the credit, if any, with respect to such mandatory sinking fund requirement. Unless that certificate is so timely furnished by the University, the mandatory sinking fund requirement for that year shall not be reduced.

In addition to the foregoing, a Supplemental Indenture may provide for the purchase of Series 2020 Bonds in lieu of redemption under the terms as set forth in such Supplemental Trust Agreement.

(ii) Optional Redemption. Series 2020 Bonds of any series and of one or more maturities may, as determined in the Certificate of Award, be subject to redemption at the option of the University prior to their stated maturities, in whole or in part (as directed by the University), from moneys other than those deposited in accordance with any mandatory sinking fund requirements as provided above, on the dates and at the redemption prices set forth in a Certificate of Award. If determined to provide lower interest costs and to be in the best interest of the University, as may be provided in a Certificate of Award, the Fiscal Officer may determine that none of the maturities of Series 2020 Bonds will be subject to optional redemption prior to maturity or that certain maturities of Series 2020 Bonds will not be subject to optional redemption prior to maturity.

(iii) Partial Redemption. If fewer than all of the outstanding Series 2020 Bonds of any series of one maturity are to be called for redemption, the selection of the Bonds or portions of those Bonds (in denominations authorized in the applicable Supplemental Trust Agreement) of that maturity to be called for redemption shall be in the manner provided in the Trust Agreement. If optional redemption of Series 2020 Bonds of any series at a redemption price above 100% of the principal amount to be redeemed is to take place on any applicable mandatory sinking fund redemption date, the Bonds to be optionally redeemed shall be selected prior to the selection of the Term Bonds to be redeemed by mandatory sinking fund redemption. In the event of a partial redemption of Series 2020 Bonds that are Term Bonds, the Trustee shall allocate the principal amount of that Term Bond to be redeemed against the mandatory sinking fund schedule for such Term Bond in accordance with the written direction of the Fiscal Officer.

(iv) **Notice.** Notice of call for redemption of any series of Series 2020 Bonds, setting forth the information provided for in the Trust Agreement, shall be given by the Trustee on behalf of the University in the manner provided in the Supplemental Trust Agreement. Notice by publication shall not be required. Any defect in that notice as to any Series 2020 Bond shall not affect the validity of the proceedings for the redemption of any other Series 2020 Bond, and any failure to receive notice duly mailed shall not affect the validity of the proceedings for the redemption of any Series 2020 Bonds. A Supplemental Trust Agreement may provide that any notice of call for redemption of any series may be revoked under the terms set forth in any such Supplemental Trust Agreement.

(f) **Places and Manner of Payment.** The Series 2020 Bonds shall be payable at the places and in the manner provided in the Supplemental Trust Agreement for the related series of Series 2020 Bonds.

(g) **Execution and Authentication.** The Series 2020 Bonds shall be executed and authenticated in the manner provided in the Trust Agreement.

Section 5. Sale and Award of Series 2020 Bonds.

(a) **General; Certificate of Award.** Any series of Series 2020 Bonds may be sold to an Original Purchaser purchasing directly for its own investment or purchasing as an underwriter for a public offering and, in either event, shall be sold in accordance with this Resolution and the Certificate of Award, and on such further terms authorized or not inconsistent with this Resolution and not materially adverse to the University as are provided for or specified in the Certificate of Award and any Bond Purchase Agreement. The purchase price for any series of Series 2020 Bonds may not be less than 98% of the aggregate principal amount of the Series 2020 Bonds of that series (or, if a series of Series 2020 Bonds is sold at any original issue discount, 98% of the amount resulting from the subtraction of the aggregate net original issue discount from the aggregate original principal amount of such series), plus any interest accrued on such series of Series 2020 Bonds from their respective date to their respective delivery date. The original issue discount, if any, shall not exceed in the aggregate 5% with respect to the Series 2020 Bonds of any series. The Fiscal Officer is authorized and directed to execute one or more Certificates of Award and any Bond Purchase Agreements for the related series of Series 2020 Bonds, in order to provide for the definitive terms and terms of sale and award to the Original Purchaser of the Series 2020 Bonds of each series as provided in this Resolution, but not later than September 1, 2020. Any Certificate of Award and any Bond Purchase Agreement for any series of Series 2020 Bonds shall not be inconsistent with this Resolution, and shall be approved by the Fiscal Officer, with the execution of the Bond Purchase Agreement constituting conclusive evidence of such approval and a finding that the terms are not materially adverse to the University, on behalf of the University. The Certificate of Award for the related series of Series 2020 Bonds shall be incorporated in and form a part of the related Supplemental Trust Agreement.

(b) **Official Statement.** In the event that the Series 2020 Bonds of any series are sold by public offering, the Fiscal Officer is authorized and directed to prepare or authorize to be prepared, and to complete a preliminary official statement and final official statement relating to the original issuance of any series of Series 2020 Bonds. If and to the extent applicable, the Fiscal Officer shall certify or otherwise represent, that the preliminary official statement, in original or revised form, is a “deemed final” official statement (except for permitted omissions) by the University as of a particular date and that a completed version is a “final” official statement for purposes of Rule 15c2-12 adopted by the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934 (the “Rule”). The distribution and use of a preliminary official statement and final official statement by the University and the Original Purchaser is hereby authorized and approved with respect to Series 2020 Bonds of any series.

The Fiscal Officer and any other appropriate officers of the University or the Board are further authorized (i) to use and distribute, or authorize the use and distribution of, the preliminary and final official statement and supplements thereto in connection with the original issuance of Series 2020 Bonds of any series as may in their judgment be necessary or appropriate, and (ii) to sign and deliver, on behalf of the University and in their official capacities, such certificates in connection with the accuracy of the preliminary and final official statements and any amendment thereto as may in their judgment be necessary or appropriate.

(c) **Continuing Disclosure Agreement.** If and to the extent required by the Rule, the University, for the benefit of the holders and beneficial owners of the Series 2020 Bonds, shall make a continuing disclosure agreement in the Supplemental Trust Agreement for the related series of the Series 2020 Bonds. The Fiscal Officer shall have the responsibility for the compliance by the University with that continuing disclosure agreement, and the Fiscal Officer shall establish procedures in order to ensure that compliance. That continuing disclosure agreement shall be the continuing disclosure agreement for purposes of the Rule, and its performance shall, as provided in it, be subject to the annual appropriation by the Board of moneys to meet costs required to be incurred to perform it.

Section 6. Allocation of Proceeds of Series 2020 Bonds.

(a) **Allocation.** The proceeds from the sale of the Series 2020 Bonds of each series, net of any amounts retained by the Original Purchaser for its compensation, shall be received and receipted for by the Fiscal Officer, or other person authorized representative for that purpose, and shall be allocated, deposited and credited pursuant to the terms of the applicable Supplemental Trust Agreement as follows:

(i) to the Bond Service Account in the Bond Service Fund, any portion of the proceeds representing accrued interest;

(ii) to the Bond Service Account in the Bond Service Fund, any portion of proceeds to be used to currently refund any Refunded Bonds; provided, however, that in the discretion of the Fiscal Officer, any such amount may be deposited pursuant to the terms of an Escrow Agreement;

(iii) to the Trustee, the amount set forth in the Certificate of Award as the amount to be deposited with the Escrow Trustee under any Escrow Agreement;

(iv) to the Series 2020 Project Account in the Series 2020 Project Fund, the amount set forth in the Certificate of Award to be used to pay costs of the 2020 Projects;

(v) to the Series 2020 Cost of Issuance Account in the Series 2020 Project Fund, the amount set forth in the Certificate of Award to be used to pay costs of issuing the Series 2020 Bonds of that series; and

(vi) to the provider of any Credit Support Instrument, if provided for in the Certificate of Award, the amount that Certificate provides to pay fees and expenses relating to that Credit Support Instrument; and

(b) **Series 2020 Project Fund.** The Series 2020 Project Fund shall be established and shall be held by the University or the Trustee in a separate deposit account or accounts (except when invested as provided below) established in a bank or banks that are members of the Federal Deposit Insurance Corporation. Within the Series 2020 Project Fund shall be established the Series 2020 Project Account to be applied to pay “costs of facilities” as defined in Revised Code Section 3345.12, including the reimbursement to the University of moneys temporarily advanced for the purpose in anticipation of being reimbursed from the proceeds of the Series 2020 Bonds. Within the Series 2020 Project Fund shall also

be established the Series 2020 Costs of Issuance Account for the purpose of paying pay costs of any series of series of Series 2020 Bonds.

Moneys on deposit in the Series 2020 Project Fund may be invested by or at the direction of the Fiscal Officer in eligible investments described in the applicable Supplemental Trust Agreement maturing or redeemable at the option of the holder prior to the time or times needed for the purposes of that fund. Those investments and the proceeds of their sale shall constitute part of, and earnings from any of those investments shall be credited to, that Fund. Those investments may be sold, exchanged or collected from time to time by or at the direction of the Fiscal Officer. Any amounts in the Series 2020 Project Fund certified by the Fiscal Officer to be in excess of the amount needed to pay costs of the 2020 Projects may be used to pay principal of or interest on the Series 2020 Bonds of the series that funded the 2020 Projects if that expenditure will not, in the opinion of bond counsel to the University, adversely affect the exclusion of interest on the Series 2020 Bonds that are Tax-Exempt Bonds from gross income for federal income tax purposes.

(c) Refunding of Refunded Bonds. The University authorizes the Fiscal Officer to cause the refunding of the Refunded Bonds upon the determination of the Fiscal Officer that any such refunding is in the best interests of the University. Unless otherwise provided in the applicable Supplemental Trust Agreement or Escrow Agreement, the principal of and interest and any applicable call premium on the Refunded Bonds shall be paid when due from cash and direct obligations of the United States (or either) on deposit with, or held for the credit of, the Trustee in accordance with the Trust Agreement or the Escrow Agreement. The Fiscal Officer is authorized on behalf of the University to make arrangements for the purchase of any such direct obligations from the proceeds of the Series 2020 Bonds and other sources of moneys and for the delivery to the Trustee, if required under the circumstances, of a report of an independent public accounting firm of national reputation to the effect that the cash and direct obligations so held by the Trustee are of such maturities and interest payment dates and bear such interest as will, without further investment or reinvestment of either the principal amount thereof or the interest earnings therefrom, be sufficient to pay the principal of and the interest and any premium on the Refunded Bonds on the dates set forth in the Certificate of Award and thereby discharge and satisfy the covenants, agreements and other obligations of the University with respect to those Bonds under the Trust Agreement and cause those Bonds to be deemed paid and discharged pursuant to, and no longer to be outstanding under, the Trust Agreement.

In the event that the Fiscal Officer chooses to authorize the refunding of the Refunded Bonds, a trust fund, designated Bowling Green State University — Escrow Account, may be created for each series of Refunded Bonds, in the custody of the Trustee as Escrow Trustee, and as a subaccount of the Bond Redemption and Purchase Account of the Bond Service Fund established under the Trust Agreement. The cash and securities in that Account, together with the earnings on and investments in that Account, shall be held in trust for and shall be used for the payment of the principal of and interest and any redemption premium on the applicable Refunded Bonds. Alternatively, the refunding of all or any portion of the Refunded Bonds may be effected through an economic defeasance of the Refunded Bonds prior to their redemption date, and proceeds of the Series 2020 Bonds issued for that purpose may be used for the payment of interest on those Series 2020 Bonds through the redemption date and the remaining principal of the Refunded Bonds on the redemption date.

The Fiscal Officer is authorized and directed to take any and all actions necessary and appropriate to effect the early call for redemption, pursuant to the Trust Agreement and applicable series Resolution, of those Refunded Bonds to be redeemed prior to maturity, including publication and mailing of any notices. Any amounts released to the University from the funds and accounts held by the Trustee under the Trust Agreement or the Escrow Agreement shall be applied as set forth in the related Supplemental Trust Agreement or Escrow Agreement. The Chair or Vice Chair of the Board, the President of the University, and the Fiscal Officer, or any two or more of them, are authorized to execute and deliver to the Trustee, in the name of and on behalf of the University, one or more Escrow Agreements for the Refunded Bonds. The

Board hereby determines to provide for the payment of the principal of and the interest and any redemption premium on the Refunded Bonds as provided in this Resolution.

Section 7. Tax Covenants. The representations and covenants in this Section apply only to any series of Series 2020 Bonds issued as Tax-Exempt Bonds. The Board, for itself and the University, covenants that:

It will use, and will restrict the use and investment of, the proceeds of the Series 2020 Bonds in such manner and to such extent as may be necessary so that (A) those Bonds will not constitute private activity bonds, arbitrage bonds or hedge bonds under Section 141, 148 or 149 of the Code, or be treated other than as bonds to which Section 103 of the Code applies, and (B) the interest on those Bonds will not be treated as a preference item under Section 57 of the Code.

It (a) will take or cause to be taken such actions that may be required of it for the interest on the Series 2020 Bonds to be and remain Tax-Exempt Bonds, and (b) will not take or authorize to be taken any actions that would adversely affect that exclusion, and that it, or persons acting for it, will, among other acts of compliance, (1) apply the proceeds of the Series 2020 Bonds to the governmental purpose of the borrowing, (2) restrict the yield on investment property, (3) make timely and adequate payments to the federal government, (4) maintain books and records and make calculations and reports, and (5) refrain from certain uses of those proceeds and of property financed with those proceeds, all in such manner and to the extent necessary to assure that exclusion of that interest under the Code.

The Fiscal Officer and other appropriate officers are authorized (i) to make or effect any election, selection, designation, choice, consent, approval or waiver on behalf of the University with respect to the Series 2020 Bonds as the University is permitted to make or give under the federal income tax laws, including, without limitation, any of the elections provided for in Section 148(f)(4)(C) of the Code or available under Section 148 of the Code, for the purpose of assuring, enhancing or protecting favorable tax treatment or status of the Series 2020 Bonds or interest thereon or assisting compliance with requirements for that purpose, reducing the burden or expense of such compliance, reducing the rebate amount or payments of penalties, or making payments of special amounts in lieu of making computations to determine, or paying, excess earnings as rebate, or obviating those amounts or payments, as determined by that officer, which action shall be in writing and signed by the officer, (ii) to take any and all other actions, make or obtain calculations, make payments, and make or give reports, covenants and certifications of and on behalf of the University, as may be appropriate to assure the intended tax status of the Series 2020 Bonds, and (iii) to give one or more appropriate certificates, for inclusion in the transcript of proceedings for those Series 2020 Bonds, setting forth the reasonable expectations of the University regarding the amount and use of all the proceeds of those Series 2020 Bonds, the facts, circumstances and estimates on which they are based, and other facts and circumstances relevant to the tax treatment of the interest on and the tax status of the Series 2020 Bonds.

Section 8. Supplemental Trust Agreements. The President of the University, the Fiscal Officer, and the Chair and Vice-Chair of the Board, or any two of them, are authorized and directed to execute and deliver to the Trustee, in the name of and on behalf of the University, and the Secretary to the Board is authorized to attest, a Supplemental Trust Agreement or Supplemental Trust Agreements pursuant to the Trust Agreement and in connection with the issuance of the any series of Series 2020 Bonds, not substantially adverse to the University as may be permitted by the Act and the Trust Agreement and approved by the officers executing it on behalf of the University. The Fiscal Officer is authorized to choose to issue separate series of Series 2020 Bonds under one or more Supplemental Trust Agreements as such Fiscal Officer determines to be in the best interests of the University. Each such Supplemental Trust Agreement is authorized under this Resolution and all shall bear such designations as are deemed necessary by the Fiscal Officer to distinguish them and their respective purposes from each other.

Section 9. Hedge Arrangements. The University is authorized, from time to time, to enter into one or more agreements for an interest rate swap, swaption, rate cap, rate collar and other hedging arrangements to lower the effective interest rate of Series 2020 Bonds of any series or to hedge the exposure of the University against fluctuations in prevailing interest rates or to restructure the debt service on the Series 2020 Bonds of any series (each, a “Hedge Agreement”), and to secure its obligations to the counterparties under Hedge Agreements by a pledge of the General Receipts, subject to the Trust Agreement and such conditions and restrictions as may be specified therein and in the Act. The Fiscal Officer is authorized, on behalf of the University, to execute and deliver one or more Hedge Agreements that he or she determines will reduce the net debt service payable on the Series 2020 Bonds of any series or otherwise enhance the timing and amount of the payments thereof for the University’s purposes to an extent that justifies the cost of the University’s entering into such Agreements.

Upon the determination of the Fiscal Officer that it is to the financial advantage of the University and in the University’s best interest that a hedging arrangement be undertaken by the University with respect to any Series 2020 Bonds, the Fiscal Officer may authorize one or more hedge transactions in accordance with the applicable Hedge Agreement provided that (a) the maximum aggregate notional amount of hedging transactions with respect to the Series 2020 Bonds outstanding at any one time, net of offsetting hedging transactions, shall not exceed the aggregate principal amount of all Series 2020 Bonds; provided, however, in the event that terms of the Hedge Agreement are intended to provide a financial benefit to the University between the date of the adoption of this Resolution and the date of issuance of the applicable series of Series 2020 Bonds, the maximum aggregate notional amount of such Hedge Agreement or Agreements shall be the maximum authorized principal amount of Series 2020 Bonds hereunder, (b) the counterparty shall be rated at the time of signing the Hedge Agreement not lower than “A” or its equivalent by at least one rating agency or its obligations under the Hedge Agreement shall be guaranteed or insured by an entity rated at the time of signing the Hedge Agreement not lower than “A” or its equivalent by at least one rating agency, and (c) the term of the Hedge Agreement shall not exceed the final maturity of the Series 2020 Bonds to which it relates.

Section 10. Conversion and Remarketing or Refunding of Variable Rate Bonds. In the event that the Fiscal Officer determines that it is advantageous to the University to convert the interest on any Variable Rate Bonds from variable rates to fixed interest rates for a period of time or to maturity, or to convert the interest on any Variable Rate Bonds to a different variable rate period or mode, or to terminate or take other actions with respect to any existing Credit Support Instrument that will require a tender and remarketing of any Series 2020 Bonds (such conversion or other actions and the tender and remarketing being collectively referred to in this Section as “remarketing”), the University shall undertake the remarketing in accordance with the Trust Agreement. In the event that the interest rate on all of the Variable Rate Bonds is to be converted from variable rates to fixed rates of interest to the final maturity of the Variable Rate Bonds, the remarketing may be undertaken as a refunding transaction with the refunding bonds having the terms provided in this Resolution for the Series 2020 Bonds.

In connection with any remarketing of Variable Rate Bonds, the Fiscal Officer is authorized to obtain one or more Credit Support Instruments if the Fiscal Officer determines that the Credit Support Instrument will facilitate the remarketing of the Variable Rate Bonds, and to enter into agreements with tender agents, administrative agents, remarketing agents, dealers and others, and to terminate such agreements, under the same terms and conditions set forth in Section 3, including the option of the University serving as the provider of the Credit Support Instrument. In the event the Fiscal Officer determines that it is necessary to supplement or amend the Trust Agreement or a Supplemental Trust Agreement in order to address current market conditions or to permit the use of a Credit Support Instrument or to otherwise obtain financing arrangements advantageous to the University, the President and the Fiscal Officer and the Chair and Vice-Chair of the Board, or any two of them, are authorized to sign and deliver an amendment of the Trust Agreement or Supplemental Trust Agreement, or an amended and restated Trust Agreement or Supplemental Trust Agreement. The costs of any remarketing of the Variable Rate Bonds may be paid, as determined by the Fiscal Officer, from remarketing proceeds, or from

other money lawfully available for that purpose. The Fiscal Officer is authorized to prepare or authorize to be prepared one or more disclosure documents in connection with any remarketing of Variable Rate Bonds under the same terms and conditions as set forth in Section 5 of this Resolution. The President and the Fiscal Officer of the University and other University officials, as appropriate, are authorized to sign and deliver such instruments, certificates and documents as are necessary or appropriate to consummate the transactions authorized by this Section. The President and the Fiscal Officer and other University officials, as appropriate, are each authorized to make the necessary arrangements on behalf of the University to establish the date, location, procedure and conditions for the remarketing of any Variable Rate Bonds and to take all actions necessary to effect the remarketing of any Variable Rate Bonds under the terms of this Resolution and the Supplemental Trust Agreement. The Secretary to the Board or other appropriate official of the University shall furnish the Original Purchaser a true transcript of proceedings certified by such officers of the University as may be appropriate of all proceedings had with reference to the conversion and remarketing of any Variable Rate Bonds.

Section 11. Other Documents. The President of the University, the Fiscal Officer, and the Chair and Vice-Chair of the Board, or any one of them, are authorized and directed to furnish, sign and deliver such other documents, certificates and instruments as may be necessary or appropriate to issue the Series 2020 Bonds and to consummate the transactions contemplated in this Resolution, the Supplemental Trust Agreement, the Bond Purchase Agreement, and the Escrow Agreement, each as applicable to the related series of Series 2020 Bonds. The Secretary to the Board or other appropriate officials of the University shall furnish the Original Purchaser a true transcript of proceedings certified by such officers of the University as may be appropriate of all proceedings had with reference to the issuance of the Series 2020 Bonds.

Section 12. Open Meeting. It is found and determined that all formal actions of this Board concerning and relating to the adoption of this Resolution were taken in an open meeting of this Board, and that all deliberations of this Board and of any of its committees that resulted in those formal actions were taken in meetings open to the public, in full compliance with applicable legal requirements, including Section 121.22 of the Revised Code.

The undersigned, the duly appointed Secretary to the Board of Trustees, Bowling Green State University, a state-assisted institution of higher education organized under the laws of the State of Ohio, hereby certifies that he believes the foregoing reflects the intent of the BGSU Board of Trustees as presented and adopted at a meeting duly called and held September 27, 2019.

The Board Secretary conducted a roll call vote with the following results: Voting “yes” – Mr. Forhan, Ms. Harter, Mr. Keller, Ms. Montgomery, Mr. O’Brien, Dr. Ross, and Ms. Shore. The motion was approved with seven affirmative votes.

To my knowledge, this authorization has not been amended or revoked and remains in full force and effect on the date hereof.



Patrick Pauken

Secretary to the Board of Trustees
Bowling Green State University
September 27, 2019