

REPAYMENT WORKSHEET FOR BUYBACKS IN 2020 - BUYBACK INTEREST

For Buybacks made under G.L. c. 32 §§ 3(6)(c), 3(6)(d) and 3(8)(b)

Name: _____

Social Security Number: _____

Date of Refund: ____/____/____
Date of Repayment: ____/____/____

Investment Return
Assumption: _____%

Amount of Refund: \$ _____

Periods of Service Covered by Refund:

Amount Of Service:

From: ____/____/____
To: ____/____/____

From: ____/____/____
To: ____/____/____

____ yrs. ____ mos.

____ yrs. ____ mos.

Calculation of the Partial Year Interest Factor in the Year of Refund (Used in Line (2) below):

	<u>5.50%</u>	<u>6.625%</u>	<u>6.750%</u>	<u>6.850%</u>	<u>6.900%</u>	<u>7.000%</u>	<u>7.20%</u>	<u>7.25%</u>	<u>7.35%</u>
Monthly Interest Factor:	0.002292	0.002760	0.002813	0.002854	0.002875	0.002917	0.003000	0.003021	0.003063

13 - _____ = _____ x _____ = _____
(Month of Refund) (Monthly Factor)

Interest Factor for Current Year (Used in Line (7) below):

Interest rate:	<u>5.50%</u>	<u>6.625%</u>	<u>6.750%</u>	<u>6.85%</u>	<u>6.90%</u>	<u>7.00%</u>	<u>7.20%</u>	<u>7.25%</u>	<u>7.35%</u>
January:	0.002292	0.002760	0.002813	0.002854	0.002875	0.002917	0.003000	0.003021	0.003063
February:	0.004583	0.005521	0.005625	0.005708	0.005750	0.005833	0.006000	0.006042	0.006125
March:	0.006875	0.008281	0.008438	0.008563	0.008625	0.008750	0.009000	0.009063	0.009188
April:	0.009167	0.011042	0.011250	0.011417	0.011500	0.011667	0.012000	0.012083	0.012250
May:	0.011458	0.013802	0.014063	0.014271	0.014375	0.014583	0.015000	0.015104	0.015313
June:	0.013750	0.016563	0.016875	0.017125	0.017250	0.017500	0.018000	0.018125	0.018375
July:	0.016042	0.019323	0.019688	0.019979	0.020125	0.020417	0.021000	0.021146	0.021438
August:	0.018333	0.022083	0.022500	0.022833	0.023000	0.023333	0.024000	0.024167	0.024500
September:	0.020625	0.024844	0.025313	0.025688	0.025875	0.026250	0.027000	0.027188	0.027563
October:	0.022917	0.027604	0.028125	0.028542	0.028750	0.029167	0.030000	0.030208	0.030625
November:	0.025208	0.030365	0.030938	0.031396	0.031625	0.032083	0.033000	0.033229	0.033688
December:	0.027500	0.033125	0.033750	0.034250	0.034500	0.035000	0.036000	0.036250	0.036750

Calculation of the Repayment Amount:

Year of Refund

Amount Refunded: _____ (1)

Partial Year Interest Factor: _____ (2)

Partial Year Interest (1) x (2): _____ (3)

Balance as of 12/31/ (1) + (3): _____ (4)

From Year of Refund to Beginning of Current Year

Cumulative Interest Factor to 12/31/2019: _____ (5)

Balance as of 12/31/2019 (4) x (5): _____ (6)

Current Year

Interest Factor to End of Month: _____ (7)

Interest (6) x (7): _____ (8)

Amount of Repayment (6) + (8): _____ (9)

REPAYMENT WORKSHEET FOR BUYBACKS IN 2020 - BUYBACK INTEREST

For Buybacks made under G.L. c. 32 §§ 3(6)(c), 3(6)(d) and 3(8)(b)

Name: _____

Social Security Number: _____

Date of Refund: ____/____/____/____
Date of Repayment: ____/____/____/____

Investment Return
Assumption: _____%

Amount of Refund: \$ _____ \$ _____

Periods of Service Covered by Refund:

Amount Of Service:

From: ____/____/____/____
To: ____/____/____/____

____ yrs. ____ mos.

From: ____/____/____/____
To: ____/____/____/____

____ yrs. ____ mos.

Calculation of the Partial Year Interest Factor in the Year of Refund (Used in Line (2) below):

	<u>7.35%</u>	<u>7.375%</u>	<u>7.40%</u>	<u>7.45%</u>	<u>7.50%</u>	<u>7.65%</u>	<u>7.75%</u>	<u>7.80%</u>	<u>7.875%</u>
Monthly Interest Factor:	0.003063	0.003073	0.003083	0.003104	0.003125	0.003188	0.003229	0.00325	0.003281

13 - _____ = _____ x _____ = _____
(Month of Refund) (Monthly Factor)

Interest Factor for Current Year (Used in Line (7) below):

Interest rate:	<u>7.35%</u>	<u>7.375%</u>	<u>7.40%</u>	<u>7.45%</u>	<u>7.50%</u>	<u>7.65%</u>	<u>7.75%</u>	<u>7.80%</u>	<u>7.875%</u>
January:	0.003063	0.003073	0.003083	0.003104	0.003125	0.003188	0.003229	0.003250	0.003281
February:	0.006125	0.006146	0.006167	0.006208	0.006250	0.006375	0.006458	0.006500	0.006563
March:	0.009188	0.009219	0.009250	0.009313	0.009375	0.009563	0.009688	0.009750	0.009844
April:	0.012250	0.012292	0.012333	0.012417	0.012500	0.012750	0.012917	0.013000	0.013125
May:	0.015313	0.015365	0.015417	0.015521	0.015625	0.015938	0.016146	0.016250	0.016406
June:	0.018375	0.018438	0.018500	0.018625	0.018750	0.019125	0.019375	0.019500	0.019688
July:	0.021438	0.021510	0.021583	0.021729	0.021875	0.022313	0.022604	0.022750	0.022969
August:	0.024500	0.024583	0.024667	0.024833	0.025000	0.025500	0.025833	0.026000	0.026250
September:	0.027563	0.027656	0.027750	0.027938	0.028125	0.028688	0.029063	0.029250	0.029531
October:	0.030625	0.030729	0.030833	0.031042	0.031250	0.031875	0.032292	0.032500	0.032813
November:	0.033688	0.033802	0.033917	0.034146	0.034375	0.035063	0.035521	0.035750	0.036094
December:	0.036750	0.036875	0.037000	0.037250	0.037500	0.038250	0.038750	0.039000	0.039375

Calculation of the Repayment Amount:

Year of Refund

Amount Refunded: _____ (1)

Partial Year Interest Factor: _____ (2)

Partial Year Interest (1) x (2): _____ (3)

Balance as of 12/31/ (1) + (3): _____ (4)

From Year of Refund to Beginning of Current Year

Cumulative Interest Factor to 12/31/2019: _____ (5)

Balance as of 12/31/2019 (4) x (5): _____ (6)

Current Year

Interest Factor to End of Month: _____ (7)

Interest (6) x (7): _____ (8)

Amount of Repayment (6) + (8): _____ (9)

REPAYMENT WORKSHEET FOR BUYBACKS IN 2020 - ACTUARIAL INTEREST

For Buybacks made under G.L. c. 32 §§ 3(6)(c), 3(6)(d) and 3(8)(b)

Name: _____

Social Security Number: _____

Date of Refund: ____ / ____ / ____
Date of Repayment: ____ / ____ / ____

Investment Return
Assumption: ____ %

Amount of Refund: \$ _____

Periods of Service Covered by Refund:

Amount Of Service:

From: ____ / ____ / ____
To: ____ / ____ / ____

_____ yrs. _____ mos.

From: ____ / ____ / ____
To: ____ / ____ / ____

_____ yrs. _____ mos.

Calculation of the Partial Year Interest Factor in the Year of Refund (Used in Line (2) below):

	<u>5.50%</u>	<u>6.625%</u>	<u>6.750%</u>	<u>6.85%</u>	<u>6.90%</u>	<u>7.00%</u>	<u>7.20%</u>	<u>7.25%</u>	<u>7.35%</u>
Monthly Interest Factor:	0.004583	0.005521	0.005625	0.005708	0.00575	0.005833	0.006000	0.006042	0.006125

13 - _____ = _____ x _____ = _____
(Month of Refund) (Monthly Factor)

Interest Factor for Current Year (Used in Line (7) below):

Interest rate:	<u>5.50%</u>	<u>6.625%</u>	<u>6.750%</u>	<u>6.85%</u>	<u>6.90%</u>	<u>7.00%</u>	<u>7.20%</u>	<u>7.25%</u>	<u>7.35%</u>
<i>January:</i>	0.004583	0.005521	0.005625	0.005708	0.005750	0.005833	0.006000	0.006042	0.006125
<i>February:</i>	0.009167	0.011042	0.011250	0.011417	0.011500	0.011667	0.012000	0.012083	0.012250
<i>March:</i>	0.013750	0.016563	0.016875	0.017125	0.017250	0.017500	0.018000	0.018125	0.018375
<i>April:</i>	0.018333	0.022083	0.022500	0.022833	0.023000	0.023333	0.024000	0.024167	0.024500
<i>May:</i>	0.022917	0.027604	0.028125	0.028542	0.028750	0.029167	0.030000	0.030208	0.030625
<i>June:</i>	0.027500	0.033125	0.033750	0.034250	0.034500	0.035000	0.036000	0.036250	0.036750
<i>July:</i>	0.032083	0.038646	0.039375	0.039958	0.040250	0.040833	0.042000	0.042292	0.042875
<i>August:</i>	0.036667	0.044167	0.045000	0.045667	0.046000	0.046667	0.048000	0.048333	0.049000
<i>September:</i>	0.041250	0.049688	0.050625	0.051375	0.051750	0.052500	0.054000	0.054375	0.055125
<i>October:</i>	0.045833	0.055208	0.056250	0.057083	0.057500	0.058333	0.060000	0.060417	0.061250
<i>November:</i>	0.050417	0.060729	0.061875	0.062792	0.063250	0.064167	0.066000	0.066458	0.067375
<i>December:</i>	0.055000	0.066250	0.067500	0.068500	0.069000	0.070000	0.072000	0.072500	0.073500

Calculation of the Repayment Amount:

Year of Refund

Amount Refunded: _____ (1)

Partial Year Interest Factor: _____ (2)

Partial Year Interest (1) x (2): _____ (3)

Balance as of 12/31/ (1) + (3): _____ (4)

From Year of Refund to Beginning of Current Year

Cumulative Interest Factor to 12/31/2019: _____ (5)

Balance as of 12/31/2019 (4) x (5): _____ (6)

Current Year

Interest Factor to End of Month: _____ (7)

Interest (6) x (7): _____ (8)

Amount of Repayment (6) + (8): _____ (9)

REPAYMENT WORKSHEET FOR BUYBACKS IN 2020 - ACTUARIAL INTEREST

For Buybacks made under G.L. c. 32 §§ 3(6)(c), 3(6)(d) and 3(8)(b)

Name: _____

Social Security Number: _____

Date of Refund: _____ / _____ / _____
Date of Repayment: _____ / _____ / _____
Amount of Refund: \$ _____

Investment Return
Assumption: _____ %

Periods of Service Covered by Refund:

Amount Of Service:

From: _____ / _____ / _____
To: _____ / _____ / _____

From: _____ / _____ / _____
To: _____ / _____ / _____

_____ yrs. _____ mos.

_____ yrs. _____ mos.

Calculation of the Partial Year Interest Factor in the Year of Refund (Used in Line (2) below):

	<u>7.350%</u>	<u>7.375%</u>	<u>7.40%</u>	<u>7.45%</u>	<u>7.50%</u>	<u>7.65%</u>	<u>7.75%</u>	<u>7.80%</u>	<u>7.875%</u>
Monthly Interest Factor:	0.006125	0.006146	0.006167	0.006208	0.006250	0.006375	0.006458	0.0065	0.006563

13 - _____ = _____ x _____ = _____
(Month of Refund) (Monthly Factor)

Interest Factor for Current Year (Used in Line (7) below):

Interest rate:	<u>7.35%</u>	<u>7.375%</u>	<u>7.40%</u>	<u>7.45%</u>	<u>7.50%</u>	<u>7.65%</u>	<u>7.75%</u>	<u>7.80%</u>	<u>7.875%</u>
January:	0.006125	0.006146	0.006167	0.006208	0.006250	0.006375	0.006458	0.006500	0.006563
February:	0.012250	0.012292	0.012333	0.012417	0.012500	0.012750	0.012917	0.013000	0.013125
March:	0.018375	0.018438	0.018500	0.018625	0.018750	0.019125	0.019375	0.019500	0.019688
April:	0.024500	0.024583	0.024667	0.024833	0.025000	0.025500	0.025833	0.026000	0.026250
May:	0.030625	0.030729	0.030833	0.031042	0.031250	0.031875	0.032292	0.032500	0.032813
June:	0.036750	0.036875	0.037000	0.037250	0.037500	0.038250	0.038750	0.039000	0.039375
July:	0.042875	0.043021	0.043167	0.043458	0.043750	0.044625	0.045208	0.045500	0.045938
August:	0.049000	0.049167	0.049333	0.049667	0.050000	0.051000	0.051667	0.052000	0.052500
September:	0.055125	0.055313	0.055500	0.055875	0.056250	0.057375	0.058125	0.058500	0.059063
October:	0.061250	0.061458	0.061667	0.062083	0.062500	0.063750	0.064583	0.065000	0.065625
November:	0.067375	0.067604	0.067833	0.068292	0.068750	0.070125	0.071042	0.071500	0.072188
December:	0.073500	0.073750	0.074000	0.074500	0.075000	0.076500	0.077500	0.078000	0.078750

Calculation of the Repayment Amount:

Year of Refund

Amount Refunded: _____ (1)

Partial Year Interest Factor: _____ (2)

Partial Year Interest (1) x (2): _____ (3)

Balance as of 12/31/ (1) + (3): _____ (4)

From Year of Refund to Beginning of Current Year

Cumulative Interest Factor to 12/31/2019: _____ (5)

Balance as of 12/31/2019 (4) x (5): _____ (6)

Current Year

Interest Factor to End of Month: _____ (7)

Interest (6) x (7): _____ (8)

Amount of Repayment (6) + (8): _____ (9)

2020 MAKE-UP WORKSHEET

For Make-ups under G.L. c. 32, §§3(3), 3(4), 3(4A), 3(5), 4(1)(g)½, 4(1)(l), 4(1)(l)½, 4(1)(l)¾, 4(1)(n), 4(1)(n)½, 4(1)(p), 4(1)(r), 4(1)(s) and 4(2)(c)

NAME _____

YEAR	SALARY EARNED	DED. RATE	DEDUCTIONS	INTEREST FACTOR	AMOUNT TO BE REPAID
1972					
1973					
1974					
1975					
1976					
1977					
1978					
1979					
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
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2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					
2011					
2012					
2013					
2014					
2015					
2016					
2017					
2018					
2019					

Subtotal on 12/31/2019 _____ (A)
Monthly Interest Rate _____ (B) X _____ Months = _____ (C) (A) X (C) _____ (D)
Grand Total ____/31/2020 (A)+(D) _____

Cumulative Interest Factors for Buybacks/Make-Ups - BUYBACK INTEREST
For Buybacks/Make-Ups made under G.L. c. 32 §§ 3(3), 3(4), 3(4A), 3(5), 3(6)(c), 3(6)(d), 3(8)(b),
4(1)(g/2), 4(1)(l), 4(1)(1/2), 4(1)(P/2), 4(1)(n), 4(1)(n/2), 4(1)(p), 4(1)(r), 4(1)(s)and 4(2)(c)

Year	5.50%	6.625%	6.75%	6.85%	6.90%	7.00%	7.20%	7.25%	7.35%	7.375%	7.40%	7.45%	7.500%	7.65%	7.75%	7.80%	7.875%
1972	3.578871	4.625780	4.759152	4.868553	4.924173	5.037284	5.271188	5.331305	5.453560	5.484549	5.515712	5.578557	5.642102	5.837020	5.970610	6.038523	6.141812
1973	3.483086	4.477464	4.603774	4.707327	4.759954	4.866941	5.088019	5.144806	5.260246	5.289499	5.318912	5.378218	5.438171	5.621979	5.747880	5.811861	5.909140
1974	3.389865	4.333903	4.453470	4.551440	4.601212	4.702359	4.911216	4.964831	5.073784	5.101386	5.129134	5.185074	5.241610	5.414861	5.533458	5.593706	5.685282
1975	3.299138	4.194945	4.308072	4.400716	4.447764	4.543342	4.740556	4.791152	4.893932	4.919962	4.946127	4.998866	5.052155	5.215373	5.327036	5.383740	5.469904
1976	3.210840	4.060443	4.167422	4.254982	4.299434	4.389702	4.575826	4.623548	4.720455	4.744990	4.769650	4.819346	4.869547	5.023234	5.128314	5.181656	5.262686
1977	3.124905	3.930254	4.031363	4.114075	4.156050	4.241258	4.416820	4.461808	4.553128	4.576242	4.599470	4.646272	4.693539	4.838174	4.937005	4.987157	5.063318
1978	3.041271	3.804238	3.899747	3.977835	4.017448	4.097834	4.263340	4.305725	4.391732	4.413494	4.435361	4.479414	4.523893	4.659931	4.752832	4.799958	4.871502
1979	2.959874	3.682263	3.772428	3.846105	3.883469	3.959260	4.115193	4.155103	4.236057	4.256534	4.277108	4.318548	4.360379	4.488256	4.575531	4.619786	4.686954
1980	2.880656	3.564199	3.649265	3.718739	3.753957	3.825372	3.972194	4.009749	4.085900	4.105157	4.124502	4.163459	4.202775	4.322905	4.404843	4.446378	4.509396
1981	2.803558	3.449921	3.530123	3.595590	3.628765	3.696011	3.834164	3.869480	3.941066	3.959163	3.977340	4.013940	4.050867	4.163645	4.240523	4.279478	4.338565
1982	2.728524	3.339306	3.414871	3.476519	3.507747	3.571025	3.700931	3.734119	3.801366	3.818360	3.835429	3.869790	3.904450	4.010253	4.082332	4.118843	4.174206
1983	2.655498	3.232238	3.303382	3.361391	3.390766	3.450266	3.572327	3.603492	3.666617	3.682566	3.698582	3.730817	3.763326	3.862512	3.930043	3.964238	4.016073
1984	2.584426	3.128603	3.195533	3.250076	3.277686	3.333590	3.448192	3.477435	3.536646	3.551601	3.566617	3.596835	3.627302	3.720214	3.783435	3.815436	3.863931
1985	2.515256	3.028291	3.091205	3.142447	3.168377	3.220860	3.328371	3.355788	3.411281	3.425293	3.439361	3.467665	3.496194	3.583158	3.642296	3.672219	3.717552
1986	2.447938	2.931195	2.990283	3.038383	3.062713	3.111942	3.212713	3.238396	3.290360	3.303477	3.316645	3.343133	3.369826	3.451151	3.506422	3.534379	3.576719
1987	2.382421	2.837213	2.892656	2.937764	2.960573	3.006708	3.101074	3.125111	3.173726	3.198307	3.223073	3.248025	3.273073	3.342008	3.375617	3.401712	3.441221
1988	2.318658	2.746243	2.798216	2.840478	2.861840	2.905031	2.993315	3.015788	3.061226	3.072688	3.084192	3.107325	3.130627	3.201549	3.249692	3.274025	3.310856
1989	2.256602	2.658191	2.706859	2.746413	2.766399	2.806794	2.889300	2.910290	2.952714	2.963412	2.974149	2.995734	3.017471	3.083601	3.128464	3.151131	3.185429
1990	2.196206	2.572961	2.618485	2.655464	2.674141	2.711878	2.788900	2.808483	2.848048	2.858023	2.868032	2.888151	2.908406	2.969999	3.011758	3.032850	3.064755
1991	2.137427	2.490465	2.532997	2.567526	2.584960	2.620172	2.691988	2.710237	2.747092	2.756381	2.765701	2.784431	2.803283	2.860581	2.899406	2.919008	2.948652
1992	2.080221	2.410613	2.450299	2.482500	2.498753	2.531567	2.598444	2.615427	2.649715	2.658354	2.667021	2.684436	2.701960	2.755195	2.791245	2.809440	2.836947
1993	2.024546	2.333322	2.373031	2.400290	2.415421	2.445959	2.508151	2.523935	2.555790	2.563814	2.571862	2.588031	2.604298	2.653692	2.687119	2.703985	2.729474
1994	1.970361	2.258509	2.292916	2.320803	2.334868	2.363245	2.420995	2.435643	2.465194	2.472635	2.480098	2.495089	2.510167	2.555927	2.586878	2.602488	2.626072
1995	1.917626	2.186094	2.218056	2.243948	2.257002	2.283328	2.336868	2.350439	2.377809	2.384700	2.391609	2.405485	2.419438	2.461765	2.490376	2.504801	2.526588
1996	1.866303	2.116002	2.145641	2.169638	2.181732	2.206114	2.255664	2.268216	2.293523	2.299891	2.306277	2.319099	2.331989	2.371071	2.397474	2.410780	2.430872
1997	1.816353	2.048157	2.075590	2.097788	2.108972	2.131512	2.177282	2.188870	2.212223	2.218099	2.223989	2.235814	2.247700	2.283719	2.308037	2.320289	2.338783
1998	1.767740	1.982487	2.007826	2.028318	2.038639	2.059431	2.101623	2.112299	2.133806	2.139215	2.144637	2.155521	2.166458	2.199585	2.221937	2.233194	2.250182
1999	1.720428	1.918922	1.942274	1.961149	1.970652	1.989789	2.028594	2.038407	2.058168	2.063137	2.068117	2.078112	2.088152	2.118550	2.139049	2.149369	2.164937
2000	1.674383	1.857396	1.878862	1.896204	1.904932	1.922501	1.958102	1.967099	1.985212	1.989764	1.994327	2.003482	2.012677	2.040501	2.059253	2.068690	2.082922
2001	1.629570	1.797843	1.817521	1.833410	1.841403	1.857489	1.890060	1.898287	1.914841	1.919001	1.923170	1.931532	1.939929	1.965327	1.982434	1.991039	2.004014
2002	1.585956	1.740199	1.758182	1.772695	1.779993	1.794676	1.824382	1.831881	1.846695	1.850755	1.854551	1.862167	1.869811	1.892923	1.908480	1.916304	1.928095
2003	1.543509	1.684403	1.700781	1.713991	1.720632	1.733986	1.760987	1.767798	1.781495	1.784935	1.788381	1.795292	1.802228	1.823186	1.837285	1.844373	1.855053
2004	1.502199	1.630396	1.645254	1.657231	1.663250	1.675349	1.699794	1.705957	1.718346	1.721456	1.724572	1.730819	1.737087	1.756019	1.768746	1.775142	1.784777
2005	1.461994	1.578121	1.591539	1.602350	1.607781	1.618695	1.640728	1.646280	1.657435	1.660235	1.663040	1.668661	1.674301	1.691325	1.702764	1.708511	1.717164
2006	1.422865	1.527521	1.539578	1.549287	1.554163	1.563956	1.583714	1.588690	1.598684	1.601191	1.603703	1.608736	1.613784	1.629016	1.639244	1.644380	1.652112
2007	1.384784	1.478545	1.489314	1.497981	1.502332	1.511069	1.528682	1.533114	1.542015	1.544247	1.546483	1.550963	1.555454	1.569001	1.578092	1.582656	1.589524
2008	1.347721	1.431138	1.440691	1.448374	1.452230	1.459970	1.475561	1.479483	1.487354	1.489328	1.491304	1.495264	1.499233	1.511198	1.519223	1.523249	1.529308
2009	1.311651	1.385252	1.393655	1.400410	1.403799	1.410599	1.424287	1.427728	1.434632	1.436362	1.438095	1.441566	1.445044	1.455524	1.462549	1.466073	1.471373
2010	1.276546	1.340837	1.348155	1.354035	1.356983	1.362897	1.374795	1.377783	1.383778	1.385280	1.386784	1.389796	1.392813	1.401901	1.407989	1.411042	1.415632
2011	1.242381	1.297845	1.304140	1.309195	1.311729	1.316809	1.327022	1.329586	1.334727	1.336015	1.337304	1.339885	1.342471	1.350254	1.355465	1.358077	1.362003
2012	1.209129	1.256233	1.261562	1.265840	1.267983	1.272279	1.280999	1.283074	1.287414	1.288501	1.289589	1.291767	1.293948	1.300510	1.304900	1.307100	1.310406
2013	1.176768	1.215954	1.220375	1.223920	1.225697	1.229255	1.236399	1.238190	1.241779	1.242677	1.243577	1.245376	1.247179	1.252598	1.256221	1.258037	1.260763
2014	1.145273	1.176967	1.180532	1.183389	1.184820	1.187686	1.193435	1.194876	1.197761	1.198483	1.199206	1.200652	1.202100	1.206451	1.209359	1.210815	1.213001
2015	1.114621	1.139230	1.141989	1.144200	1.145307	1.147523	1.151964	1.153077	1.155304	1.155861	1.156418	1.157534	1.158650	1.162004	1.164244	1.165366	1.167049
2016	1.084790	1.102703	1.104706	1.106309	1.107112	1.108718	1.111935	1.112740	1.114351	1.114754	1.115158	1.115964	1.116771	1.119195	1.120813	1.121622	1.122837
2017	1.055756	1.067347	1.068639	1.069673	1.070190	1.071225	1.073296	1.073814	1.074851	1.075110	1.075369	1.075888	1.076406	1.077963	1.079002	1.079521	1.080300
2018	1.027500	1.033125	1.033750	1.034250	1.034500	1.035000	1.036000	1.036250	1.036750	1.036875	1.037000	1.037250	1.037500	1.038250	1.038750	1.039000	1.039375
2019	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Monthly interest rate to be used in item (B) of the Make-up worksheet

5.50%	6.625%	6.75%	6.85%	6.90%	7.00%	7.20%	7.25%	7.35%	7.375%	7.40%	7.45%	7.50%	7.65%	7.75%	7.80%	7.875%
0.002292	0.002760	0.002813	0.002854	0.002875	0.002917	0.003	0.003021	0.003063	0.003073	0.003083	0.003104	0.003125	0.003188	0.003229	0.00325	0.003281

Cumulative Interest Factors for Buybacks/Make-Ups - ACTUARIAL INTEREST
For Buybacks/Make-Ups made under G.L. c. 32 §§ 3(3), 3(4), 3(4A), 3(5), 3(6)(c), 3(6)(d), 3(8)(b),
4(1)(g)½, 4(1)(l), 4(1)(l)½, 4(1)(l)¾, 4(1)(n), 4(1)(n)½, 4(1)(p), 4(1)(r), 4(1)(s) and 4(2)(c)

Year	5.50%	6.625%	6.75%	6.85%	6.90%	7.00%	7.20%	7.25%	7.35%	7.375%	7.40%	7.45%	7.50%	7.65%	7.75%	7.80%	7.875%
1972	12.384133	20.388021	21.542224	22.511412	23.011882	24.045707	26.251548	26.833242	28.034724	28.343228	28.655054	29.288810	29.936279	31.963888	33.389668	34.125715	35.259651
1973	11.738515	19.121239	20.180069	21.068238	21.526550	22.472623	24.488384	25.019339	26.115253	26.396487	26.680683	27.258083	27.847702	29.692418	30.988091	31.656507	32.685656
1974	11.126554	17.933167	18.904046	19.717584	20.137091	21.002452	22.843642	23.328055	24.327204	24.583457	24.842349	25.368156	25.904839	27.582367	28.759249	29.365962	30.299565
1975	10.546497	16.818914	17.708708	18.453518	18.837316	19.628460	21.309367	21.751101	22.661578	22.894954	23.130679	23.609265	24.097524	25.622264	26.690719	27.241152	28.087662
1976	9.996679	15.773893	16.588954	17.270489	17.621437	18.344355	19.878141	20.280747	21.109993	21.322425	21.536945	21.972327	22.416302	23.801453	24.770969	25.270086	26.037230
1977	9.475525	14.793804	15.540004	16.163303	16.484038	17.144257	18.543042	18.909787	19.664642	19.857905	20.053021	20.448885	20.852374	22.110035	22.989298	23.441638	24.136482
1978	8.981541	13.874611	14.557380	15.127097	15.420055	16.022670	17.297614	17.631503	18.318251	18.493974	18.671342	19.031070	19.397557	20.538816	21.335775	21.745490	22.374491
1979	8.513309	13.012531	13.636890	14.157320	14.424747	14.974458	16.135834	16.439630	17.064044	17.223725	17.384862	17.711559	18.044239	19.079253	19.801184	20.172068	20.741127
1980	8.069487	12.204015	12.774605	13.249715	13.493683	13.994820	15.052084	15.328326	15.895709	16.040721	16.187023	16.483536	16.785339	17.723412	18.376969	18.712494	19.227001
1981	7.648803	11.445735	11.966843	12.400295	12.622716	13.079271	14.041123	14.292146	14.807367	14.938972	15.071716	15.340657	15.614268	16.463922	17.055191	17.358529	17.823407
1982	7.250050	10.734570	11.210157	11.605330	11.807966	12.223618	13.098062	13.326010	13.793542	13.912896	14.033255	14.277019	14.524901	15.293936	15.828484	16.102531	16.522278
1983	6.872085	10.067592	10.501318	10.861329	11.045805	11.423942	12.218342	12.425184	12.849131	12.957296	13.066345	13.287128	13.511536	14.207093	14.690008	14.937413	15.316132
1984	6.513825	9.442055	9.837300	10.165024	10.332839	10.676581	11.397707	11.585253	11.969381	12.067330	12.166057	12.365870	12.568870	13.197486	13.633418	13.856598	14.198037
1985	6.174242	8.855386	9.215270	9.513359	9.665893	9.978114	10.632189	10.802101	11.149866	11.238491	11.327800	11.508488	11.691972	12.259624	12.652824	12.835987	13.161564
1986	5.852362	8.305169	8.632571	8.903472	9.041995	9.325340	9.918087	10.071889	10.386461	10.466581	10.547300	10.710552	10.876253	11.388411	11.742760	11.923921	12.200754
1987	5.547262	7.789138	8.086718	8.332683	8.458368	8.715271	9.251947	9.391039	9.675325	9.747689	9.820577	9.967940	10.117445	10.579109	10.898154	11.061152	11.310085
1988	5.258069	7.305171	7.575380	7.798486	7.912411	8.145113	8.630547	8.756213	9.012878	9.078174	9.143926	9.276818	9.411577	9.827319	10.114296	10.260809	10.484436
1989	4.983951	6.851274	7.096374	7.298537	7.401695	7.612255	8.050884	8.164301	8.395788	8.454644	8.513898	8.633613	8.754953	9.128954	9.368817	9.518375	9.719060
1990	4.724124	6.425579	6.647657	6.830638	6.923942	7.114257	7.510153	7.612402	7.820948	7.873940	7.927279	8.035005	8.144144	8.480217	8.711663	8.829662	9.009557
1991	4.477843	6.026335	6.227314	6.392736	6.477028	6.648838	7.005740	7.097811	7.285467	7.333123	7.381079	7.477902	7.575948	7.877582	8.085070	8.190781	8.351849
1992	4.244401	5.651896	5.833549	5.982906	6.058959	6.213868	6.535205	6.618005	6.786648	6.829451	6.872513	6.959425	7.047394	7.317773	7.503546	7.598127	7.742155
1993	4.023129	5.300723	5.464683	5.599351	5.667876	5.807353	6.096273	6.170634	6.321982	6.360373	6.398988	6.476896	6.555715	6.797745	6.963847	7.048355	7.176968
1994	3.813392	4.971370	5.119141	5.240385	5.302035	5.427433	5.686822	5.753505	5.899131	5.923514	5.958090	6.027823	6.098340	6.314673	6.462967	6.538363	6.653041
1995	3.614590	4.662481	4.795448	4.904431	4.959809	5.072367	5.304871	5.364574	5.485916	5.516660	5.547570	5.609887	5.672874	5.865929	5.998114	6.065272	6.167362
1996	3.426152	4.372784	4.492223	4.590015	4.639671	4.740530	4.948574	5.001934	5.110309	5.137751	5.165335	5.220927	5.277092	5.449075	5.566695	5.626412	5.717137
1997	3.247537	4.101087	4.208172	4.295756	4.340198	4.430402	4.616207	4.663808	4.760418	4.784867	4.809436	4.858937	4.908923	5.061844	5.166306	5.219306	5.299779
1998	3.078234	3.846271	3.942081	4.020361	4.060054	4.140562	4.306163	4.348538	4.434483	4.456221	4.478060	4.522044	4.566440	4.702131	4.794716	4.841657	4.912889
1999	2.917757	3.607289	3.692816	3.762621	3.797993	3.869684	4.016943	4.054581	4.130865	4.150148	4.169516	4.208510	4.247851	4.367980	4.449852	4.491333	4.545243
2000	2.765647	3.383155	3.459312	3.521405	3.552846	3.616528	3.747149	3.780495	3.848034	3.865097	3.882231	3.916715	3.951489	4.057576	4.129793	4.166357	4.221778
2001	2.621466	3.172947	3.240574	3.295653	3.323523	3.379932	3.495474	3.524937	3.584568	3.599624	3.614740	3.645151	3.675804	3.769230	3.832755	3.864895	3.913583
2002	2.484802	2.975800	3.035666	3.084373	3.109002	3.158815	3.260704	3.286655	3.339142	3.352386	3.365680	3.392416	3.419353	3.501375	3.557081	3.585246	3.627887
2003	2.355263	2.790903	2.843715	2.886639	2.908327	2.952164	3.041701	3.064480	3.110518	3.122129	3.133780	3.157205	3.180793	3.252554	3.301235	3.325831	3.363047
2004	2.232476	2.617494	2.663902	2.701580	2.720606	2.759032	2.837408	2.857324	2.897549	2.907687	2.917858	2.938301	2.958877	3.021416	3.063791	3.085186	3.117541
2005	2.116091	2.454859	2.495459	2.528386	2.545001	2.578534	2.646836	2.664172	2.699160	2.707974	2.716814	2.734575	2.752445	2.806703	2.843426	2.861954	2.889957
2006	2.005774	2.302330	2.337666	2.366295	2.380730	2.409845	2.469063	2.484076	2.514355	2.521978	2.529622	2.544975	2.560413	2.607249	2.638910	2.654874	2.678986
2007	1.901207	2.159278	2.189851	2.214595	2.227063	2.252192	2.303231	2.316155	2.342203	2.348757	2.355328	2.368520	2.381780	2.421968	2.449105	2.462777	2.483417
2008	1.802092	2.025114	2.051383	2.072621	2.083314	2.104852	2.148536	2.159585	2.181838	2.187434	2.193043	2.204300	2.215609	2.249854	2.272951	2.284580	2.302125
2009	1.708144	1.899286	1.921670	1.939748	1.948844	1.967151	2.004231	2.013599	2.032453	2.037191	2.041939	2.051465	2.061032	2.089971	2.109467	2.119276	2.134067
2010	1.619094	1.781277	1.800159	1.815393	1.823053	1.838459	1.869619	1.877482	1.893296	1.897268	1.901247	1.909228	1.917239	1.941450	1.957742	1.965934	1.978278
2011	1.534687	1.670600	1.686332	1.699011	1.705382	1.718186	1.744047	1.750566	1.763666	1.766955	1.770249	1.776852	1.783478	1.803484	1.816930	1.823686	1.833861
2012	1.454679	1.566799	1.579702	1.590090	1.595306	1.605781	1.626910	1.632229	1.642912	1.645592	1.648276	1.653655	1.659049	1.675322	1.686246	1.691731	1.699987
2013	1.378843	1.469448	1.479815	1.488152	1.492335	1.500730	1.517640	1.521892	1.530426	1.532566	1.534708	1.539000	1.543302	1.556267	1.564962	1.569324	1.575886
2014	1.306960	1.378146	1.386243	1.392748	1.396010	1.402552	1.415709	1.419013	1.425641	1.427302	1.428964	1.432294	1.435629	1.445673	1.452401	1.455773	1.460845
2015	1.238825	1.292517	1.298588	1.303461	1.305903	1.310796	1.320624	1.323089	1.328031	1.329268	1.330507	1.332986	1.335469	1.342939	1.347936	1.350439	1.354201
2016	1.174241	1.212208	1.216476	1.219898	1.221612	1.225043	1.231925	1.233650	1.237104	1.237968	1.238833	1.240564	1.242297	1.247504	1.250984	1.252727	1.255343
2017	1.113025	1.136889	1.139556	1.141692	1.142761	1.144900	1.149184	1.150256	1.152402	1.152939	1.153476	1.154550	1.155625	1.158852	1.161006	1.162084	1.163702
2018	1.055000	1.066250	1.067500	1.068500	1.069000	1.070000	1.072000	1.072500	1.073500	1.073750	1.074000	1.074500	1.075000	1.075000	1.075000	1.075000	1.075000
2019	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Monthly interest rate to be used in item (B) of the Make-up worksheet

5.50%	6.625%	6.75%	6.85%	6.90%	7.00%	7.20%	7.25%	7.35%	7.375%	7.40%	7.45%	7.50%	7.65%	7.75%	7.80%	7.875%
0.004583	0.005521	0.005625	0.005708	0.005755	0.005833	0.006000	0.006042	0.006125	0.006146	0.006167	0.006208	0.006250	0.006375	0.006458	0.0065	0.006563