TAX YEAR 2022

PERTINENT DATA BOOK
FOR THE
DISTRICT OF COLUMBIA

OFFICE OF TAX AND REVENUE
REAL PROPERTY TAX ADMINISTRATION

Tax Year 2022
Pertinent Data Book
Table of Contents

	Pages
Office	1-2
Hotel	3
Apartment	4-5
Retail	6
Maps	7-8
Methodology	9-12

PLEASE ALLOW THIS EXAMPLE TO BE USED AS A GUIDE TO UNDERSTANDING YOUR APPRAISAL.

CBD, INC. Office Building

December 31, 2015

	Potential Gross Income		
	Office: 198,000 sq. ft. X $52	$10,296,000	
	Retail: 7,500 sq. ft. X $65	487,500	
	Parking	500,000	
	Antenna Lease	30,000	
1.	**Total Potential Gross Income**		**$ 11,313,500**
2.	*less* Vacancy & Collection Loss (7%)	- 754,845	
3.	**Effective Gross Income**		**$ 10,558,655**
	Expenses		
	Operating:		
4	Office Area (24%, rounded)	$ 2,345,944	
5.	Retail Area (25%, rounded)	113,344	
6.	Parking & Antenna (25%, rounded)	132,500	
7.	Reserves for Replacements (2% of PGI)	226,270	
8.	**Total Expenses**		**- $ 2,818,058**
9.	**Net Operating Income**		**$7,740,597**
10.	**Class 'A' Property Capitalization Rate**	**6.00 %**	
11.	**Indicated Market Value**		**$129,009,950**

1

SSL 9999 8888 Internal ID 183145
Location 9999 9TH ST NW
Current Owner
CDB, INC
9999 9TH ST
Washington DC 20002
Additional Owners:

Sales Information			
Sale Date	Q/U	V/I	Sale Price
10-28-2013	Q	I	125,000,000
Year Built			2005
Total Appraised Parcel Value			129,009,950

Commercial Data Elements		
Exterior Finish	0	Typical
Wall Height	12.	7.6098

2017
INCOME VALUATION
Washington, DC
12/31/2015 10:00:17 AM

ECONOMIC INCOME VALUATION

Leaseable Area Summary		Cap Rate		Income		Income Value		Notes
Ground Level	7,500	Cap Code	OA1	Gross Income	11,313,500	Income Value 11	129,009,950	
Lower level	0	Cap Adjust	A	Vacancy Allowance	754,845	Other Adjust	0	
Upper Level	198,000	Cap Rate 10	0.0600	Expense Allowance	2,818,057			
		Rent ID	NBHD			Total Income Value	129,009,950	
Total Leaseable Area	205,500	001	10	Net Income	7,740,597	Value per SF/Unit	628	

#	Bldg #	Sect #		Style	Adj Table	OCC	SF/Unit	Flr Lev	Base Rate	Use Adj	Loc Adj	Rent SF/Unit	Gross Rent	Vac	Vac %	Vacancy Allowance	EGI	EXP	EXP %	EXP /SF	Expenses	NOI
1	1	1	OF	OFFICE CL	3	0	198000	UL	52.00	3	3	52.00	10,296,000	3	0.07	720,720 2	9,575,280	3	0.24		2,345,944 4	7,229,336
2	1	1	O_	OFF RETAI	3	7500	7500	GL	65.00	3	3	65.00	487,500	3	0.07	34,125	453,375	3	0.25		113,344 5	340,031
3	1	1	O_	OFF PARKI	6	0	0	LL	0.00	3	3	500000.0	500,000	3	0.00	0	500,000	3	0.25		125,000 6	375,000
4	1	1	O_	OFF MISC I	6	0	0	UL	0.00		3	30000.00	30,000	3	0.00	0	30,000	3	0.25		7,500	22,500
5	1	1	O_	OFF RESE	6	0	0	GL	0.00		3		0	3	0.00	0	0	3	0.00		226,270 7	-226,270
													1			2	3				8	9
							205,500						11,313,500			754,845	10,558,655				2,818,058	7,740,597

Office Building Rates and Ratios
Tax Year 2022

			CAPITOL HILL	CENTRAL BUSINESS DISTRICT	GEORGETOWN	NORTHEAST	OLD CITY #2	SOUTHEAST	SOUTHWEST	UPTOWN EAST	UPTOWN WEST
		Vacancy Ratio	11.0%	12.5%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
		Expense Ratio (Trophy)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
		Expense Ratio (Class A)	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%
		Expense Ratio (Class B)	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
		Expense Ratio (Class C)	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%
		Expense Ratio (All Others)	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%	29.0%
	Code	Description	Annual Rent								
1	OFF1	OFFICE TROPHY	68.00	71.00	66.00	64.00	71.00	64.00	68.00	64.00	66.00
2	OFF2	OFFICE CLASS A	49.00	56.00	50.00	46.00	56.00	46.00	49.00	46.00	50.00
3	OFF3	OFFICE CLASS B	46.00	48.00	42.00	32.00	48.00	32.00	46.00	32.00	42.00
4	OFF4	OFFICE CLASS C	43.00	40.00	40.00	29.00	40.00	29.00	43.00	29.00	40.00
5	OFFC	OFFICE CONDO	46.00	48.00	42.00	32.00	48.00	32.00	46.00	32.00	42.00
6	O_BO	OFF BSMT OFFICE	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
7	O_BR	OFF BSMT RETAIL	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
8	O_R1	OFF RETAIL_FF	52.00	59.00	39.00	39.00	52.00	39.00	56.00	39.00	39.00
9	O_R2	OFF RETAIL_UP	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00
10	O_RA	OFF RES_APT	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Cap Rate Table

Cap Code	Description	Rate
OA0	OFFICE TROPHY	0.051
OA1	OFFICE A	0.062
OB0	OFFICE B	0.067
OC0	OFFICE C	0.079

Cap Rating	Description	Adjustment
O0	VERY POOR	1.06
O1	POOR	1.04
O2	FAIR	1.02
O3	AVERAGE	1.00
O4	GOOD	0.98
O5	EXCELLENT	0.96
A	AVERAGE	1.00

Rent, Vacancy, and Expense Adjustment Tables

Trophy/Class A

Rating	Description	Location	Use	Vacancy	Expense
1	POOR	0.90	0.90	1.50	1.20
2	FAIR	0.95	0.95	1.25	1.10
3	AVERAGE	1.00	1.00	1.00	1.00
4	GOOD	1.10	1.10	0.75	0.90
5	EXCELLENT	1.20	1.20	0.50	0.80
A	AVERAGE	1.00	1.00	1.00	1.00

Class B/Class C/Other

Rating	Description	Location	Use	Vacancy	Expense
1	POOR	0.80	0.80	1.50	1.20
2	FAIR	0.90	0.90	1.25	1.10
3	AVERAGE	1.00	1.00	1.00	1.00
4	GOOD	1.10	1.10	0.75	0.90
5	EXCELLENT	1.20	1.20	0.50	0.80
A	AVERAGE	1.00	1.00	1.00	1.00

Tax Year 2022
Washington, DC Hotel Properties
Base Rates for Reassessment

Base Management Fee	**3.00%**
Incentive Management Fee	**1.00%**
Franchise Royalty Fee	**4.00%**
Replacement for Reserves (Real Property)	**2.00%**
Replacement for Reserves (Personal Property)	**4.00%**
aka-Return of FF&E Invested Capital	
Personal Property Tax Rate	**3.40%**

Replacement Cost New of FF&E per Room		
Ultra Luxury	**$**	**60,000**
Luxury	**$**	**45,000**
Full Service	**$**	**30,000**
Select Service	**$**	**17,000-25,000**
Limited Service	**$**	**15,000-25,000**
Economy and Motel	**$**	**10,000**

Cap Rate Real Property	
Ultra Luxury	**6.80%**
Luxury	**7.25%**
Full Service	**7.45%**
Select Service	**8.10%**
Limited Service	**8.15%**
Economy and Motel	**8.15%**

Cap Rate Personal Property	
Ultra Luxury	**6.95%**
Luxury	**7.40%**
Full Service	**7.60%**
Select Service	**8.25%**
Limited Service	**8.30%**
Economy and Motel	**8.30%**

Apartment Rates and Monthly Rents
Tax Year 2022

		CAPITOL HILL	CENTRAL BUSINESS DISTRICT	GEORGETOWN	NORTHEAST	OLD CITY #2	SOUTHEAST	SOUTHWEST	UPTOWN EAST	UPTOWN WEST
	Vacancy Ratio	7%	8%	6%	7%	7%	4%	9%	5%	7%
	Expense Ratio	32%	35%	38%	48%	33%	55%	36%	49%	41%
Code	Description	Monthly Rent								
0000	JR. EFFICIENCY	1,630	1,580	1,260	1,160	1,370	855	1,800	1,210	1,290
0101	EFFICIENCY	1,805	1,750	1,400	1,280	1,525	945	1,800	1,340	1,430
0102	EFFICIENCY, SM	1,630	1,580	1,260	1,160	1,370	855	1,800	1,210	1,290
0103	EFFICIENCY, LG	1,995	1,920	1,535	1,425	1,685	1,040	1,850	1,465	1,575
1101	1BR, 1BA	2,165	2,550	1,925	1,390	1,855	1,095	2,175	1,590	1,830
1102	1BR, 1BA, SM	1,950	2,295	1,735	1,240	1,675	980	2,175	1,425	1,650
1103	1BR, 1BA, LG	2,375	2,805	2,120	1,520	2,050	1,210	2,175	1,740	2,010
1111	1BR+DEN, 1BA	2,580	2,925	1,950	1,600	2,165	1,510	2,175	2,230	2,180
1113	1BR+DEN 1BA, LG	2,840	3,220	2,145	1,745	2,385	1,665	2,175	2,445	2,390
2101	2BR, 1BA	2,625	3,805	2,785	1,780	2,725	1,250	2,925	1,895	2,500
2102	2BR, 1BA, SM	2,355	3,420	2,505	1,600	2,450	1,130	2,925	1,700	2,245
2103	2BR, 1BA, LG	2,895	4,195	3,065	1,960	2,995	1,375	2,925	2,085	2,735
2111	2BR+DEN, 1BA	3,145	4,390	2,960	2,055	3,140	1,555	2,925	2,355	3,115
2113	2BR+DEN 1BA, LG	3,465	4,820	3,255	2,250	3,450	1,710	2,925	2,595	3,430
2201	2BR, 2BA	2,880	4,390	3,215	2,140	3,140	1,510	2,925	2,060	3,115
2202	2BR, 2BA, SM	2,605	3,950	2,890	1,935	2,825	1,355	2,925	1,855	2,815
2203	2BR, 2BA, LG	3,170	4,820	3,540	2,350	3,450	1,665	2,925	2,265	3,430
2211	2BR+DEN, 2BA	3,470	5,025	3,260	2,555	3,515	1,830	2,925	2,295	3,750
2213	2BR+DEN 2BA, LG	3,815	5,550	3,590	2,805	3,860	2,020	2,925	2,545	4,120
3101	3BR, 1BA	3,405	5,460	3,385	2,390	2,725	1,555	3,560	2,025	3,205
3102	3BR, 1BA, SM	3,070	4,915	3,045	2,165	2,450	1,390	3,560	1,825	2,880
3103	3BR, 1BA, LG	3,735	6,020	3,715	2,620	2,995	1,710	3,560	2,230	3,505
3111	3BR+DEN, 1BA	3,925	6,290	3,715	2,730	3,140	1,975	3,560	3,560	3,860
3113	3R+DEN 1BA, LG	4,290	6,905	4,090	3,015	3,450	2,175	3,560	3,900	4,245
3201	3BR, 2BA	3,925	6,290	3,715	2,730	3,140	1,830	3,560	2,195	3,390
3202	3BR, 2BA, SM	3,525	5,655	3,340	2,480	2,825	1,650	3,560	1,970	3,050
3203	3BR, 2BA, LG	4,290	6,905	4,090	3,015	3,450	2,020	3,560	2,390	3,730
3211	3BR+DEN, 2BA	4,700	7,855	4,065	3,300	3,760	2,290	3,560	3,715	4,095
3213	3BR+DEN 2BA, LG	5,170	8,650	4,460	3,640	4,150	2,515	3,560	4,085	4,500
4101	4BR, 1BA	4,445	6,425	4,400	4,090	3,285	1,975	3,925	3,560	5,810
4102	4BR, 1BA, SM	3,995	5,780	3,955	3,660	2,955	1,780	3,925	3,205	5,220
4103	4BR, 1BA, LG	4,900	7,065	4,845	4,480	3,615	2,175	3,925	3,900	6,385
4111	4BR+DEN, 1BA	6,690	7,400	5,065	5,085	3,770	2,350	3,925	3,560	6,980
4113	4BR+DEN 1BA, LG	7,350	8,130	5,560	5,605	4,155	2,590	3,925	3,900	7,665
4201	4BR, 2BA	6,690	7,400	5,065	5,085	3,770	2,175	3,925	3,715	6,980
4202	4BR, 2BA, SM	6,020	6,655	4,565	4,590	3,390	1,960	3,925	3,335	6,280
4203	4BR, 2BA, LG	7,350	8,130	5,560	5,605	4,155	2,385	3,925	4,085	7,665
4211	4BR+DEN, 2BA	8,010	8,505	5,590	6,105	4,530	2,525	3,925	3,715	8,015
4213	4BR+DEN 2BA, LG	8,810	9,360	6,150	6,715	4,990	2,785	3,925	4,085	8,810
4999	5 OR MORE BR	5,225	7,400	6,955	3,870	6,320	2,785	5,620	3,715	9,730

Apartment Capitalization Rates and Adjustment Tables
Tax Year 2022

Capitalization Rate Table

Cap Code	Description	Rate
A1A	APT AREA 1 CLASS A	0.049
A1B	APT AREA 1 CLASS B	0.059
A1C	APT AREA 1 CLASS C	0.061
A2A	APT AREA 2 CLASS A	0.049
A2B	APT AREA 2 CLASS B	0.061
A2C	APT AREA 2 CLASS C	0.063
A3A	APT AREA 3 CLASS A	0.056
A3B	APT AREA 3 CLASS B	0.063
A3C	APT AREA 3 CLASS C	0.068

Capitalization Rate Adjustment Table

Cap Rating	Description	Adjustment
0	VERY POOR	1.3
1	POOR	1.2
2	FAIR	1.1
3	AVERAGE	1
4	GOOD	0.9
5	EXCELLENT	0.8
A	AVERAGE	1

Rent, Vacancy, and Expense Adjustment Tables

Rating	Description	Location	Use	Vacancy	Expense
1	POOR	0.80	0.80	2.00	1.25
2	FAIR	0.90	0.90	1.50	1.10
3	AVERAGE	1.00	1.00	1.00	1.00
4	GOOD	1.10	1.10	0.50	0.90
5	EXCELLENT	1.25	1.25	0.25	0.75
A	AVERAGE	1.00	1.00	1.00	1.00
S	NON-MARKET	0.90	0.90	0.25	1.25

Retail Rates and Rents
Tax Year 2022

			CAPITOL HILL	CENTRAL BUSINESS DISTRICT	GEORGETOWN	NORTHEAST	OLD CITY #2	SOUTHEAST	SOUTHWEST	UPTOWN EAST	UPTOWN WEST
		Vacancy Ratio	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
		Expense Ratio	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
	Code	Description	Annual Rent								
1	RET1	RT SM < 10K SF	33.85	70.60		22.40	42.40	20.20	70.60	27.65	43.45
2	RET2	RT MED < 20K SF	30.45	63.65		20.00	38.20	18.25	63.65	23.20	39.10
3	RET3	RT LRG < 50K SF	26.95	56.45		17.85	33.95	16.30	56.45	20.55	34.75
4	RET4	RT XLG > 50K SF	23.65	49.45		15.60	29.70	14.05	49.45	18.05	30.35
5	RET1	RT MKT AREA 1			44.45						
6	RET2	RT MKT AREA 2			56.45						
7	RET3	RT MKT AREA3 SM			96.90						
8	RET4	RT MKT AREA3 LG			35.30						
9	RET5	RT 1ST/UPPR FLR	26.95	56.45	48.50	17.85	33.95	16.30	56.45	26.15	34.75
10	RETB	RT BANK/FINANCE	33.85	70.60	56.45	22.40	47.35	20.20	70.60	33.15	46.20
11	RETR	RT RESTAURANT	33.15	69.15	49.40	21.95	46.40	19.75	69.15	32.50	45.25
12	RTLL	RT LOWER LEVEL	16.50	25.20	29.10	15.05	25.20	15.05	25.20	16.50	25.20
13	RTUA	RT UPPR FLR APT	24.65	41.30	30.25	15.05	30.25	15.05	40.35	24.65	20.20
14	RTUO	RT UPPR FLR OFF	24.65	41.30	30.25	15.05	30.25	15.05	40.35	24.65	20.20
15	RTUR	RT UPPR FLR RET	24.65	41.30	38.40	15.05	30.25	15.05	40.35	24.65	20.20

Capitalization Rate Table

Cap Code	Description	Rate
RE1	STANDARD RETAIL	0.065
RE2	SHOPPING CTR/MALL	0.070
RE3	DEPT STORE/SUPERMKT	0.067
RE4	RESTAURANT	0.067

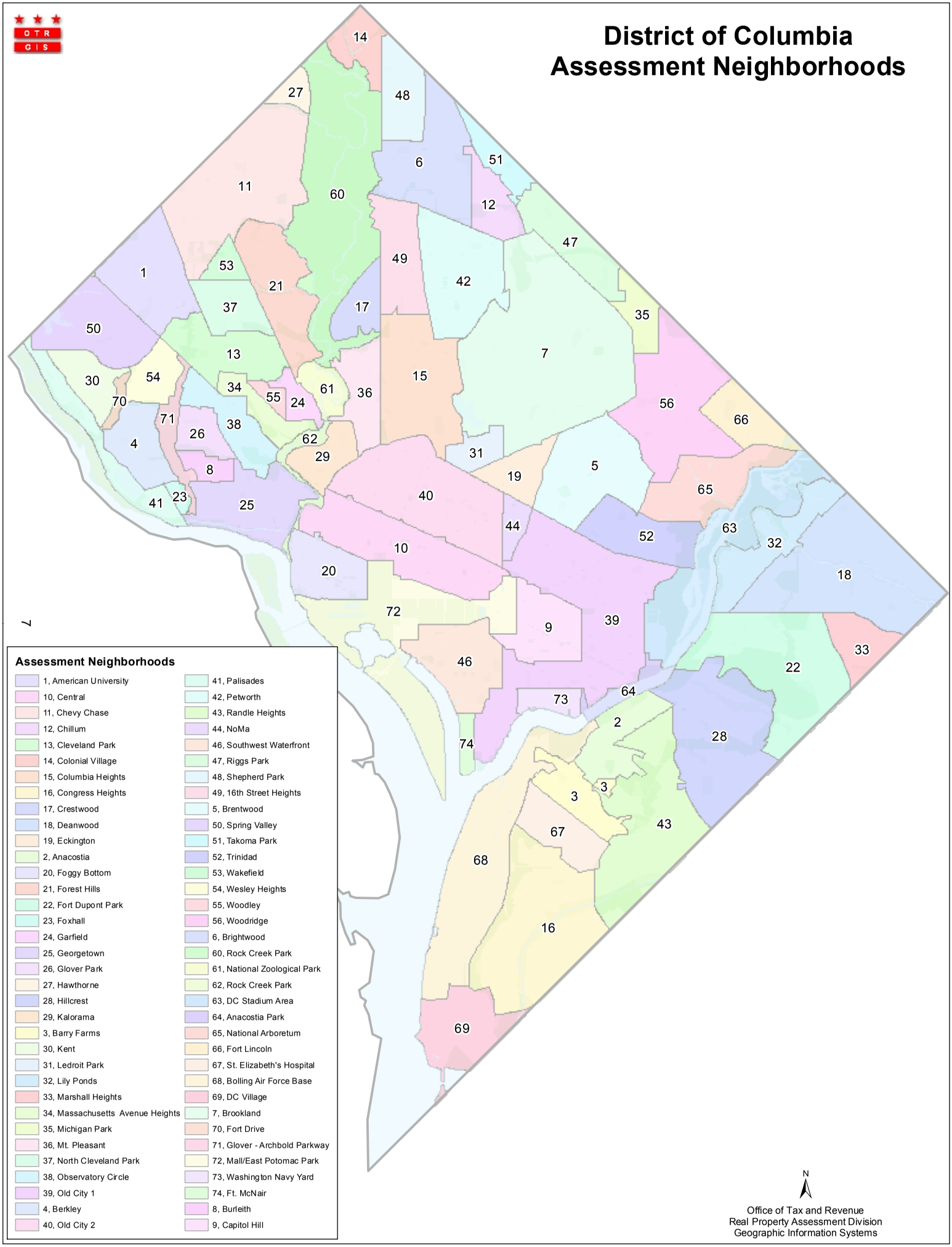
Capitalization Rate Adjustment Table

Cap Rating	Description	Adjustment
0	VERY POOR	1.30
1	POOR	1.20
2	FAIR	1.10
3	AVERAGE	1.00
4	GOOD	0.90
5	EXCELLENT	0.80
A	AVERAGE	1.00

Rent, Vacancy, and Expense Adjustment Tables

Rating	Description	Location	Use	Vacancy	Expense
1	POOR	0.80	0.80	1.50	1.20
2	FAIR	0.90	0.90	1.25	1.10
3	AVERAGE	1.00	1.00	1.00	1.00
4	GOOD	1.10	1.10	0.75	0.90
5	EXCELLENT	1.20	1.20	0.50	0.80
A	AVERAGE	1.00	1.00	1.00	1.00

District of Columbia Assessment Neighborhoods

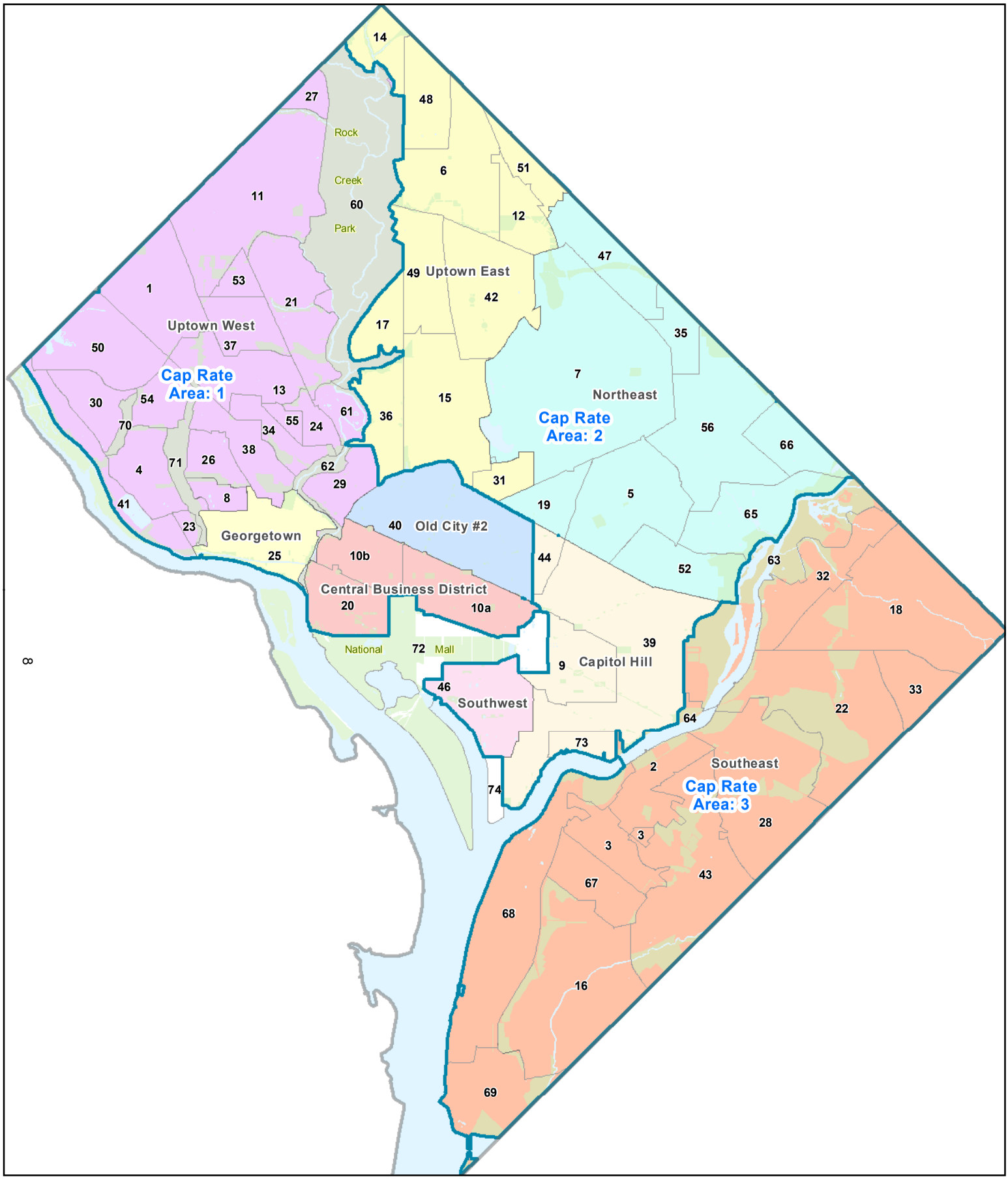


Assessment Neighborhoods

- 1, American University
- 10, Central
- 11, Chevy Chase
- 12, Chillum
- 13, Cleveland Park
- 14, Colonial Village
- 15, Columbia Heights
- 16, Congress Heights
- 17, Crestwood
- 18, Deanwood
- 19, Eckington
- 2, Anacostia
- 20, Foggy Bottom
- 21, Forest Hills
- 22, Fort Dupont Park
- 23, Foxhall
- 24, Garfield
- 25, Georgetown
- 26, Glover Park
- 27, Hawthorne
- 28, Hillcrest
- 29, Kalorama
- 3, Barry Farms
- 30, Kent
- 31, Ledroit Park
- 32, Lily Ponds
- 33, Marshall Heights
- 34, Massachusetts Avenue Heights
- 35, Michigan Park
- 36, Mt. Pleasant
- 37, North Cleveland Park
- 38, Observatory Circle
- 39, Old City 1
- 4, Berkley
- 40, Old City 2
- 41, Palisades
- 42, Petworth
- 43, Randle Heights
- 44, NoMa
- 46, Southwest Waterfront
- 47, Riggs Park
- 48, Shepherd Park
- 49, 16th Street Heights
- 5, Brentwood
- 50, Spring Valley
- 51, Takoma Park
- 52, Trinidad
- 53, Wakefield
- 54, Wesley Heights
- 55, Woodley
- 56, Woodridge
- 6, Brightwood
- 60, Rock Creek Park
- 61, National Zoological Park
- 62, Rock Creek Park
- 63, DC Stadium Area
- 64, Anacostia Park
- 65, National Arboretum
- 66, Fort Lincoln
- 67, St. Elizabeth's Hospital
- 68, Bolling Air Force Base
- 69, DC Village
- 7, Brookland
- 70, Fort Drive
- 71, Glover - Archbold Parkway
- 72, Mall/East Potomac Park
- 73, Washington Navy Yard
- 74, Ft. McNair
- 8, Burleith
- 9, Capitol Hill

N

Office of Tax and Revenue
Real Property Assessment Division
Geographic Information Systems



RPAD Rent Curve SubMarkets and Cap Rate Areas

- 1, Central Business District
- 1, Uptown West
- 2, Southwest
- 1, Georgetown
- 2, Capitol Hill
- 2, Uptown East
- 1, Old City #2
- 2, Northeast
- 3, Southeast

0 0.25 0.5 1 Miles

DC Office of Tax and Revenue
Real Property Assessment Division
Geographic Information Systems

TAX YEAR 2022
WASHINGTON, DC OFFICE BUILDING
EFFECTIVE RENT STUDY METHODOLOGY

Market based effective rent is derived from lease abstracts submitted by office property owners. The lease abstract is part of the income and expense report submitted to OTR by property owners. A separate analysis is performed to develop an indicated effective market rent from each new office building lease in the District for the calendar year. The steps are generally as follows:

For each lease, initial base rent, lease term, annual percentage rent increases and size of leased area are utilized to develop an estimate of total income from base rent over the life of the lease. Secondly, If the tenant is responsible for the payment of any operating expenses during the term of the lease (not including excess expenses over an expense stop) an estimate is made of total rent via expense payments/reimbursements over the term of the lease. This is calculated utilizing the lease abstract, the expense history of the subject property and expected rate of expense increases going forward. This estimate of total expense reimbursement (not including expense stop reimbursements) is added to the total estimated base rent for the term. Concessions (usually in the form of free rent) are deducted from that total. The new total rent estimated is divided by the number of years of the lease and the square footage of the space leased to arrive at an average annual estimate of effective rent per square foot.

That figure is then adjusted, if necessary, for any amount of leasing costs to be paid by the property owner which fall outside of the typical range of lease-up costs for the market. These lease-up costs include tenant improvements and leasing commissions. This range is determined by a separate lease up cost study.

The result is an annualized per-square-foot number that represents the indicated effective rent for that lease. When this process is completed for all new leases available, the leases are stratified by submarket, including considerations of building class and location. For each group of leases an indicated effective rent is determined by multiple measures of central tendency, including average, median and weighted average. OTR utilizes prior year's data. Those indications are then projected forward by one year, utilizing an estimate of percentage increases in market rent. This results in three measures of projected effective rent for a given class and submarket of office buildings.

Consideration is given to other qualitative relevant data, before base rents for the valuation model are chosen.

Tax Year 2022
Washington, DC Office Building
Expense Rate Methodology

Expense rates for the various classes of Office buildings were derived from income and expense analysis. The initial analysis is based on the Income and Expense forms completed by office building owners. Growth rates for both income and expenses are reviewed and considered. Expenses as a percentage of effective gross income are calculated for each property with a complete and clear Income and Expense filing. Properties that have not reached stabilization are omitted from the analysis.

Typical expense ratios are developed for each class of office buildings. After the total income for a given property has been determined, and projected forward by one year, a comparison is made to the property's reported stabilized expenses, also projected forward, to develop an expense ratio for the property. After this is completed for each property, the buildings are stratified by class.

For each class of office, measures of central tendency are reviewed to develop estimates of typical expense ratios. Typical expense ratios are developed as a percentage of effective gross income for various classes of office properties.

Other relevant data is considered and the base expenses for the valuation model are chosen.

Tax Year 2022
Washington, DC Office Building
Capitalization Rate Study Methodology

Office capitalization rates were derived from arms-length market sales. The stabilized net operating income was derived within the Vision CAMA income capitalization worksheet. Annual Leasing Reports (Rent Roll) and Income & Expense Statements (I&E), submitted by owners of office buildings in the District, were reviewed and analyzed to determine market rents and expenses for office buildings of various classifications and locations. In addition, surveys and reports of market rents and expenses from notable commercial real estate publications were reviewed for support of the analysis.

Market rents were applied to the net rentable area of sales properties, with exceptions and/or adjustments to leases with longer remaining terms. Market vacancy rates were applied to the resulting gross operating income. Market expenses were compared to historical expenses of sales properties to determine the most appropriate expense deduction. A deduction was also made for reserves to account for upcoming replacement of short-lived building components which typically do not occur on an annual basis.

Stabilized and trended actual performance of properties is utilized to derive adjustments for income items such as parking, storage, and miscellaneous income.

All these factors were utilized to derive an estimate of stabilized net operating income for each sale property. The indicated capitalization rate was calculated for each sale property by dividing the stabilized net operating income by the sale price. The population of sale properties, and their indicated capitalization rates, were analyzed to determine capitalization rate for office properties for the tax year.

Non-arm's length sales or sales without an adequate reported history of income and expenses are not included in the capitalization rate study.

Covid-19

OTR has considered the effects of the current pandemic and the accompanying restrictions. Through discussions with market participants, review of published articles and industry resources, the effect of COVID 19 was considered and factored into Tax Year 2022 valuation, as of the effective date of January 1, 2021.