COMMONWEALTH OF MASSACHUSETTS

APPELLATE TAX BOARD

DIGITAL 55 MIDDLESEX, LLC	**v.**	**BOARD OF ASSESSORS OF THE TOWN OF BILLERICA**

Docket Nos.: F329647 (FY 16)
F332675 (FY 17)

Promulgated:
May 8, 2020

These are appeals filed under the formal procedure pursuant to G.L. c. 59, §§ 64 and 65 from the refusal of the Board of Assessors of the Town of Billerica ("assessors" or "appellee") to abate taxes on certain parcels of real estate in the Town of Billerica assessed to Digital 55 Middlesex, LLC ("Digital" or "appellant") under G.L. c. 59, §§ 11 and 38 for fiscal years 2016 and 2017 (together, "fiscal years at issue").

Commissioner Elliott heard these appeals. Chairman Hammond and Commissioners Rose, Good, and Metzer joined him in the decisions for the appellant.

These findings of fact and report are made pursuant to a request by the appellee under G.L. c. 58A, §13 and 831 CMR 1.32.

David J. Rasnick, Esq., for the appellant.

Patrick J. Costello, Esq., for the appellee.

FINDINGS OF FACT AND REPORT

1. Introduction and Jurisdiction

Based on the testimony and documentary evidence entered into the record in these appeals, the Appellate Tax Board ("Board") made the following findings of fact.

On January 1, 2015 and January 1, 2016, the relevant valuation and assessment dates for the fiscal years at issue, the appellant was the assessed owner of a 14.53-acre parcel of land, approximately ninety percent of which was located in Billerica and approximately ten percent of which was located in the neighboring community of Bedford. The Billerica portion of the parcel, which is the only portion in dispute in these appeals, has an address of 55 Middlesex Turnpike and is improved with a one-story building, constructed in the 1970s, containing approximately 101,067 square feet of net rentable area ("subject property").

For fiscal year 2016, the assessors valued the subject property at $68,379,600, and assessed a tax thereon, at the rate of $33.22 per thousand, in the total amount of $2,271,570.31. The appellant paid the tax due in full without incurring interest. On January 15, 2016, the appellant timely filed its Application for Abatement with the assessors, which was denied on April 1, 2016. The appellant timely filed its appeal for fiscal year 2016 with the Board on May 12, 2016, and on the basis of the foregoing facts, the Board found and ruled that it had jurisdiction to hear and decide the fiscal year 2016 appeal.

For fiscal year 2017, the assessors valued the subject property at $68,379,600, and assessed a tax thereon, at the rate of $33.44 per thousand, in the total amount of $2,286,613.82. The appellant paid the tax due in full without incurring interest. On January 26, 2017, the appellant timely filed an Application for Abatement with the assessors, which was denied on April 14, 2017. The appellant timely filed its appeal for fiscal year 2017 with the Board on May 15, 2017, and on the basis of the foregoing facts, the Board found and ruled that it had jurisdiction to hear and decide the fiscal year 2017 appeal.

The hearing of these appeals took place over the course of five days and featured the testimony of numerous witnesses, including: Dianna Maddocks, Director of Asset Management for the appellant's parent company, Digital Realty Trust ("DRT"); George Gabriel Cole, Managing Director of Jones, Lang, LaSalle Data Center Solutions Practice Group; William Frick, Data Center Manager for the subject property; John J. Leary, a certified real estate appraiser; and George E. Sansoucy, a certified real estate appraiser.

2. The Subject Property

The subject property's building is a brick-and-masonry, single-story building that was built in 1970 and contains approximately 101,067 square feet of net rentable area. Originally built as a manufacturing building, it was converted for use as an office building in the 1980s. In 2000, it was converted once again for use as a data center, which was an emerging use at that time.

Data centers are facilities used to house computer data servers and related equipment. Sometimes referred to as "server farms," data centers lease space to other entities, typically large institutions or organizations that have significant data storage needs. In addition to the physical space, the most critical offering provided by data centers is guaranteed continuous power supply. Data centers generally have redundant power sources to ensure continuous power supply. Accordingly, data centers require significant dedicated space for battery back-up equipment areas as well as uninterrupted power source rooms, with almost half of the space in any such data center dedicated to these areas.

Other important features of data centers include building security and protections from environmental forces, such as water or fire damage. The pod space, as it is called, leased by data center tenants usually features raised flooring and air conditioning units to keep the equipment safe and at an optimal temperature.

Prior to 2000, most data centers were owner-occupied or net-leased by a single, large tenant. At and into the turn of the millennium, the concept of multi-tenant data centers began to emerge. DRT was formed in 2004 as a real estate investment trust[1] to take advantage of and invest in this emerging niche market. Within just a few years of its formation, DRT had amassed a large portfolio of data centers across the country, including the subject property.

3. Testimony of Dianna Maddocks

The appellant's first witness was Dianna Maddocks, who is the Director of Asset Management for DRT. At the time of the hearing, Ms. Maddocks had been employed by DRT for approximately fourteen years and was involved in all aspects of data center management for the company. The Board qualified her as an expert on data centers, and she testified in that capacity, in addition to being a fact witness.

Ms. Maddocks testified regarding DRT's acquisition of the subject property in 2010, its operating history, and general data center trends. Ms. Maddocks stated that during the period

[1] Under § 856(a) of the Internal Revenue code, real estate investment trusts, or REITs, are special types of investment vehicles that are required to have a majority of their assets consist of real estate. As long as the REIT meets this and certain other technical requirements, it is afforded favorable tax treatment.

of 2011 to 2013, DRT was "bullish" on the outlook for data centers, but by 2016, the technology utilized by data centers had become more efficient, and the same amount of service could be provided with less space. Ms. Maddocks testified that the data center market thus became "very competitive," such that new leases were being negotiated for lower rents than existing ones.

On cross examination, however, Ms. Maddocks conceded that the subject property's average per-square-foot rent was higher in 2015 than it had been in 2014. She likewise conceded that at least one of DRT's existing tenants at the subject property actually increased their leased space between 2014 and 2015.

4. Testimony of George Gabriel Cole

The appellant's second witness was George Gabriel Cole. Mr. Cole is a civil engineer who first became involved with data centers in 1998, when he started a company that constructed data centers around the country. Mr. Cole eventually sold that company, but remained involved in the data center industry in a professional capacity. At the time of the hearing of these appeals, Mr. Cole was the Managing Director of Jones, Lang, LaSalle's Data Center Solutions Practice Group, in which capacity he advises clients on all matters relating to data centers, including, management, brokerage, financing, and investment. The Board qualified him as an expert on data centers.

Mr. Cole began his testimony with a brief history of data centers as a discreet market. He stated that data centers originated in the late 1990s, as more companies went "on-line," and required more data storage. He stated that the data center industry suffered in the market crash of 2001, and the decade thereafter was a "recovery" period for the industry.

Mr. Cole then explained that a "dramatic change" occurred around 2010, as more and more companies began migrating their data to cloud storage, and thus demanding less data storage space. He testified that companies emerging during this time period "started in the cloud," and existing customers began to look for more cost-efficient data storage solutions. He tied that particular trend to what he described as "hyperscale" companies, like Facebook, Apple, Amazon, and Google.

Mr. Cole explained that where previously there had been fairly even geographic distribution in the data center market, suddenly there was a concentration of the major markets in areas like California, Northern Virginia, Dallas, and Chicago. As a result, during the 2010 to 2015 time period, Boston became a second tier, if not third tier, data center market, according to Mr. Cole. He stated that Boston-area data center vacancies increased, while rents decreased.

Mr. Cole testified that in 2015, he was asked to examine a lease at the subject property on behalf of a client whose lease was coming up for renewal. He testified that, in his opinion, the rent for that lease was, at the time, approximately twenty-five percent above the market.

On cross-examination, however, Mr. Cole conceded that he had expressed positive views on the Boston data center market in recent professional publications. Specifically, in 2016, Mr. Cole wrote that the data center industry was, as a whole, "exploding with growth," and that the Boston area in particular was on track for slower, but stable, growth.

5. Testimony and Appraisal Report of John J. Leary

The appellant presented its valuation evidence through the testimony and appraisal report of John J. Leary ("appellant's appraiser"), a certified real estate appraiser whom the Board qualified as an expert in commercial real estate valuation.

The appellant's appraiser prepared for the appraisal of the subject property by first inspecting it and reviewing information relevant to its operating history, including its leases and several years' worth of income and expense information.

The appellant's appraiser, who has appraised several data centers previously, including the subject property, then focused on information specific to data centers, as they are a niche market. The appellant's appraiser observed that there are primary markets within the United States for data centers, and they are: Northern Virginia, Dallas, Chicago, Silicon Valley, and New York/New Jersey. He stated that these are the primary markets for several reasons, including critical demand and more favorable energy rates.

These observations were echoed by several industry sources consulted by the appellant's appraiser and referenced within his appraisal report, which included sources from North American Data Center's datacenterHawk; RTE Group; Jones, Lang, LaSalle; CBRE; and Lincoln Property Company. According to the appellant's appraiser, each of these sources indicated that data center growth had been slow in the Boston area, with "very few deals in the last five years." He noted that the 2014 North American Data Center Outlook published by Jones, Lang, LaSalle did not even include Boston in its market outlook report, even though that report included a dozen primary and secondary geographic markets.

With all of this information in mind, the appellant's appraiser then considered the subject property's highest and best use. After considering its use as both vacant and improved, and despite the "increased risk from external market factors," he concluded that the subject property's existing use as a data center represented its highest and best use.

The appellant's appraiser then determined appropriate valuation methodologies. After noting the age of the subject property, he determined that the cost approach would not yield a reliable indication of value, and he therefore declined to use that approach. The appellant's appraiser similarly declined to use the sales-comparison approach, after he concluded that there was an insufficient number of timely, comparable sales of data centers to provide a reliable indication of value for the subject property.[2] Because the other valuation methodologies were not appropriate, and because the subject property is an income-producing property, the appellant's appraiser selected the income-capitalization approach to value.

A. **Income-Capitalization Approach- Fiscal Year 2016**

The first step in his income-capitalization approach was the determination of market rent. The appellant's appraiser began by analyzing the rent roll at the subject property. He stated that the average annual rent at the subject property was $127.57 per square foot.[3] He also noted that over fifty percent of the leases were negotiated in the pre-recession period of 2007-2008, for ten-year terms. Thus, he noted, these leases would be up for renewal in a decidedly different market. In addition to the leases at the subject property, the appellant's appraiser reviewed other area data center leases to ascertain a market rent.

[2] The appellant's appraiser did include a brief discussion and analysis of comparable sales in his appraisal report, but he did not give serious weight to that data in forming his opinions of value.

In making a final estimate of market rent for the subject property, the appellant's appraiser noted that both the term lengths and rents for data center rents were in decline. After giving consideration to his selected comparable leases, as well as the information gathered from data center industry sources, the appellant's appraiser concluded a final range of $102.50 to $105.00 per square foot of net rentable area, with tenants responsible for metered utility reimbursements.

Applying the rate of $102.50 to the subject property's 101,067 square feet of net rentable area yielded potential rental income of $10,359,368, while the rate of $105.00 yielded potential rental income of $10,612,035.

The appellant's appraiser next considered appropriate rates for utility reimbursements. He reviewed operating statements from the subject property, which showed reimbursement rates ranging from $34.63 to $39.58 per square foot of net rentable area for holdover tenants that were paying fixed utility charges. Otherwise, the utility expenses at the subject property ranged from $44.85 to $49.55 per square foot of net rentable area. The appellant's appraiser ultimately concluded a reimbursement range of $44.00 to $46.00 for the subject property. Applying these rates to the subject property's 101,067 square feet of net rentable area yielded reimbursement totals of $4,446,948 to $4,649,082 for the subject property.

Adding his base rental income to these utility reimbursements resulted in potential gross income ranging from $14,806,316 to $15,261,117 for the subject property.

To determine appropriate rates for vacancy and credit loss, the appellant's appraiser began by observing that the subject property had a vacancy rate of approximately 3.5 percent as of the valuation date, which he attributed to the fact that the bulk of the leases in place were negotiated between 2007 and 2008, prior to the expansion of the data center submarket. Taking that fact into consideration, along with the aforementioned industry publications showing lower demand for data center space in the Boston area, the appellant's appraiser concluded that a stabilized rate of vacancy and credit loss ranging from ten to 12.5 percent was appropriate. After applying these vacancy/credit loss rates to his estimated potential gross income, the appellant's appraiser calculated effective gross income ranging from $13,325,684 to $13,353,477 for the subject property.

The next step in his income-capitalization approach was the determination of operating expenses. To determine these, the appellant's appraiser analyzed the actual operating expenses for the subject property for calendar years 2011 through 2016. The reported figures for the subject property for those years showed a high degree of consistency with moderate increases, ranging from a low of $65.13 per square foot to a high of $74.40 per square foot. From this information, the appellant's appraiser concluded that an appropriate range of operating expenses for the subject property was $72.50 to $75.00 per square foot. Applying these rates to the subject property's 101,067 square feet of net rentable area resulted in operating expenses of $7,327,358 to $7,580,025. Deducting these amounts from his estimated effective gross income resulted in net operating income ranging from $5,998,326 to $5,773,452 for the subject property.

The final step in the appellant's appraiser's income-capitalization analysis was the determination of an appropriate capitalization rate. He began by consulting a data center industry source, *Five 9s Digital*, whose 2014 Data Center Real Estate Acquisitions Report stated: "Cap rates have edged below [seven percent] for good credit, long term, single-tenant leases. Investment opportunities lacking clear credit, shorter term leases and multi-tenant occupancy are typically trading in 7.5-9.0 percent cap rate range."

The appellant's appraiser also extrapolated capitalization rates from three Boston-area data center sales. One sale took place in 2013 and involved a data center in Andover. The capitalization rate derived by the appellant's appraiser for that sale was 7.5 percent. The other two sales took place in

2016 and involved data centers in Marlborough and Andover. The capitalization rates derived by the appellant's appraiser for those sales were 7.5 percent and seven percent, respectively.

In addition to this information, the appellant's appraiser consulted Real Estate Research Corporation's *Real Estate Report* ("RERC Report"), a quarterly publication that is, according to the appellant's appraiser, "one of the primary sources in the market for real estate investor criteria." For the Industrial/R&D category, which the appellant's appraiser opined was the closest property type to data centers, quarterly rates for the relevant periods were as follows:

***RERC Report* Capitalization Rates for Industrial/R&D**

	Range	**Average**
4Q 2014	6.5 to 10.0%	8.2%
1Q 2015	6.0 to 10.0%	8.3%
2Q 2015	6.0 to 10.0%	8.0%
3Q 2015	6.0 to 9.5%	8.1%
4Q 2015	6.0 to 9.5%	8.0%
1Q 2016	6.0 to 9.5%	7.9%
2Q 2016	6.0 to 10.5%	8.0%

The appellant's appraiser opined that "the general risks inherent in data center properties, and the specific risk factors related to Boston area data center[s] . . . are reflected in the 4Q 2014 and 1Q 2015 average Industrial/R&D cap rate range." After considering all of this information, the appellant's appraiser selected a capitalization rate range of eight to 8.25 percent for the subject property for fiscal year 2016. He then added to these base rates a tax factor of 3.33 percent, which was a blended rate as the subject property was located in both Billerica and Bedford.

This resulted in final, loaded capitalization rates ranging from 11.33 to 11.58 percent for the subject property. Applying these capitalization rates to his range of net operating income resulted in an overall value range of $49,900,000 to $52,900,000 for fiscal year 2016.

The appellant's appraiser's final opinion of value for the subject property as a whole for fiscal year 2016 was $51,500,000. His final opinion of market value for the ninety percent of the subject property located in Billerica was $46,350,000.

B. **Income-Capitalization Approach for Fiscal Year 2017**

The appellant's appraiser's income-capitalization analysis for fiscal year 2017 was largely premised on the same information considered in his analysis for fiscal year 2016 and yielded many of the same conclusions. For example, his rates for utility reimbursements and operating expenses remained the same.

However, consistent with the market trends discussed earlier in his report, which the appellant's appraiser testified showed increasing competition in the data center submarket, particularly for the Boston area, he made slight adjustments to his market rents and his capitalization and vacancy rates. After reiterating the previously discussed data center industry trend toward lower rents and decreasing lease-term lengths, the appellant's appraiser determined a slightly lower rental range of $100.00 to $102.50 per square foot of net rentable area for fiscal year 2017.

Similarly, the appellant's appraiser increased his range of rates for vacancy and credit loss to 12.5 to fifteen percent for fiscal year 2017. The increase, he testified, was supported by not only the overall data center market trends, but more importantly, the subject property's actual vacancy rate, which had increased five percent over the previous year.

After making these adjustments to his rents and vacancy rates, but using the same estimates for utility reimbursements and operating expenses, the appellant's appraiser developed a net operating income range of $5,407,084 to $5,117,157 for fiscal year 2017.

Lastly, in determining appropriate capitalization rates, the appellant's appraiser considered many of the same sources and sales as he had for fiscal year 2016. With respect to the information contained in the *RERC Report*, the appellant's appraiser changed his opinion, concluding that the "risks inherent in data center properties," and the "specific risk factors related to Boston area data center properties," were best reflected in the "4Q 2015 and 1Q 2016 average Industrial/R&D cap rate range." On the basis of all of this information, the appellant's appraiser used base capitalization rates ranging from 7.75 to eight percent for fiscal year 2017.

As he had for the previous fiscal year, the appellant's appraiser added a tax factor of 3.33 percent to his base capitalization rates to reflect the subject property's blended tax rate. This resulted in final, loaded capitalization rates ranging from 11.08 to 11.33 percent for fiscal year 2017.

Applying this range of capitalization rates to his range of net operating income resulted in an overall value range for the subject property of $45,700,000 to $48,800,000. From this range, the appellant's appraiser arrived at a final overall opinion of market value for the subject property of $47,500,000, which he reduced by ten percent to determine its market value attributable to Billerica, for a final value of $42,750,000 for fiscal year 2017.

6. Testimony of Richard J. Scanlon

The appellee commenced its case by offering the testimony of Richard J. Scanlon, the Chairman of the Board of Assessors of Billerica. Mr. Scanlon testified briefly about the subject property, as well as two other data centers located in Billerica, one of which was developed during the 2015 to 2016 time period. He also testified that he serves on a local economic and community development committee, and in that capacity he has received inquiries from other companies interested in possibly developing data centers in Billerica. Mr. Scanlon testified that because of Billerica's proximity to power sources located in nearby Tewksbury, "it seems to be a good location for these types of properties."

7. Testimony and Appraisal Report of George E. Sansoucy

The appellee presented its valuation evidence though the testimony and appraisal report of George E. Sansoucy ("appellee's appraiser"), an engineer and certified real estate appraiser whom the Board qualified as an expert in commercial real estate valuation. To prepare for his appraisal, the appellee's appraiser reviewed the subject property's operating history. He additionally researched and discussed the origins and outlook of the data center submarket with market participants.

He testified that after the emergence of data centers in the late 1990s, demand for them briefly dipped during the period of 2001 to 2004, before rebounding around 2005. The appellee's appraiser was of the opinion that the economic recession of 2008 actually increased the demand for existing data centers, as there was a reluctance in the market to commission new construction. He stated that in the period leading up to the fiscal years at issue, "the data center market continue[d] to be competitive, yet healthy, throughout the United States." He noted that on a global level, data center asset sales had been in the billions of dollars in the years leading up to the fiscal years at issue.

With respect to the Boston area in particular, the appellee's appraiser noted that it has "continue[d]" to thrive, as a "balanced and mature market for data centers, with level growth [and] higher than average rent rates." The appellee's appraiser also noted the diverse number of industries that create demand for data centers in Massachusetts. He did acknowledge, however, that the cost of electricity is comparatively high here, and that Boston is not one of the larger data center markets in the United States.

The appellee's appraiser also discussed DRT and the subject property's relevance in the data center submarket. He opined that DRT is a "market leader," in the industry, and that the subject property outperforms other area data centers with respect to rental rates and vacancy.

The appellee's appraiser began his appraisal by first determining the subject property's highest and best use, both as improved and as vacant. He concluded that its current use as a data center was its highest and best use.

The appellee's appraiser next considered appropriate valuation methodologies. He considered the three traditional approaches to value, and concluded that each of them was useful in estimating the value of the subject property.

The appellee's appraiser started with the cost approach to value. He first conducted an inventory of the subject property's components and improvements, for which he reviewed cost estimate drawings, site inspection notes and photographs, and other relevant materials. He then estimated the cost new of these components and improvements by consulting industry sources and publications such as *RS Means, Marshall and Swift*, and *Craftsman National Heavy Construction Estimator*.

The next step in his cost approach was to account for appropriate depreciation for factors such as physical deterioration, functional obsolescence, and external or economic obsolescence. To that end, the appellee's appraiser reviewed the operating history of the subject property, including its maintenance history. He concluded that the subject property has been well maintained, and that there was "very little . . . physical deterioration on-going in the subject building," which he took into consideration in estimating the useful life and depreciation of the subject property.

His final estimates of the subject property's market value determined through the cost approach were: $79,135,300 for fiscal year 2016 and $78,319,800 for fiscal year 2017.

The appellee's appraiser next considered the sales-comparison approach. In addition to discussing general data center sales trends as discussed above, he analyzed information on data center transactions compiled by industry sources such as North American Data Center and *Five 9s Digital*. He included in his appraisal report a table showing data center sales that occurred between 2013 and 2016. These transactions revealed average capitalization rates of 7.14 and 7.6 percent and median capitalization rates of 7.4 and 7.1 percent.

The appellee's appraiser ultimately concluded that there was a lack of comparable data center sales which could "provide a meaningful" per-square-foot value for the subject property. Nevertheless, he did consider the 2010 sale of the subject property to be "probative" evidence of value, and he therefore analyzed that sale. As discussed previously, in 2010, DRT purchased the assets of Sentinel Properties in a portfolio transaction involving the subject property and other properties, along with certain non-realty assets, for a total purchase price of $375,000,000. An allocated purchase price for the subject property was reported in three different sources. First, DRT's 2010 Form 10-K, which was filed with the U.S. Securities and

Exchange Commission, listed a total allocated price of $79,913,000 for the subject property. Second, insurance documents filed with the Commonwealth Land Title Company in January of 2010 indicated a total consideration paid for the subject property of $88,490,000, rounded. And finally, documents prepared by an accounting firm retained by DRT to perform a purchase price allocation showed the allocated price of the subject property to be approximately $78,000,000.

Because of the lack of other comparable data center sales, it was the appellee's appraiser's opinion that the average of these three allocations provided a reliable indication of the subject property's market value. Accordingly, his opinion of value as derived through the sales-comparison analysis was $85,501,000 for each of the fiscal years at issue.

Lastly, the appellee's appraiser conducted an income-capitalization analysis. In forming his effective and potential gross income estimates, the appellee's appraiser did not separately analyze comparable rents, reimbursements, operating expenses, or vacancy information. Rather, he considered the subject property's actual income and expense history to be the most reliable indication of its revenue potential. Accordingly, he analyzed three years' worth of the subject property's income and operating expense information, and he adopted the three-year averages derived from that information to determine his net operating income. The final net operating incomes he used for his income approach were $9,160,000 for fiscal year 2016 and $9,150,000 for fiscal year 2017.

The next step in the appellee's appraiser's income-capitalization analysis was the determination of an appropriate capitalization rate. To ascertain an appropriate capitalization rate, the appellee's appraiser consulted a multitude of sources. To begin with, he analyzed and extracted an indicated capitalization rate from the 2010 sale of the subject property to DRT. The capitalization rate he extracted from that transaction was 6.56 percent.

He also considered the capitalization rates from the data center transactions that he analyzed for his sales-comparison analysis. These transactions indicated an average capitalization rate of 7.14 percent for the period spanning 2013 to 2016. According to the appellee's appraiser, that rate was consistent with information published by CBRE and *Five 9s Digital*, which showed capitalization rates for data centers in the seven to eight percent range during 2014 to 2016, declining to between 6.26 and 7.25 percent thereafter. These rates were similar to yet another resource consulted by the appellee's appraiser, the *PwC Real Estate Investor Survey* ("*PwC Survey*"). For the last quarter of 2014, the period most relevant to fiscal year 2016, the *PwC Survey* indicated an average capitalization rate of 6.19

percent for the Boston region. For the last quarter of 2015, the period most relevant to fiscal year 2017, the *PwC Survey* indicated an average capitalization rate of 6.43 percent.

The appellee's appraiser also reviewed and analyzed publicly available financial information for eight major data center operators, including the appellant. He analyzed three years' worth of this data to conclude an average indicated capitalization rate for both of the fiscal years at issue. For fiscal year 2016, the indicated capitalization rate was 8.53 percent, and for 2017, it was 8.84 percent.

Lastly, the appellee's appraiser performed his own calculations to determine an indicated capitalization rate, which incorporated debt/equity assumptions as well as a weighted average cost of capital. The indicated rate determined by the appellee's appraiser using this methodology was 6.94 percent for fiscal year 2016 and 6.33 percent for fiscal year 2017.

The appellee's appraiser considered the capitalization rates indicated by all of these sources, which ranged from a low of 6.43 percent to a high of 8.53 percent for fiscal year 2016 and from a low of 6.19 percent to a high of 8.84 percent for fiscal year 2017. To these rates he added a blended tax factor of 3.32 percent for fiscal year 2016 and 3.33 percent for fiscal year 2017. His final loaded capitalization rate for fiscal year

2016 was 10.44 percent, and his final loaded capitalization rate for fiscal year 2017 was 10.34 percent.

After applying these capitalization rates to his net operating incomes for each fiscal year, the appellee's appraiser arrived at rounded, indicated market values of $88,100,000 for fiscal year 2016 and $88,800,000 for fiscal year 2017 using the income-capitalization approach.

To form his final reconciled opinion of the subject property's market value, the appellee's appraiser considered and gave weight to the values determined through all three of his valuation analyses. However, he gave the most weight – 50 percent – to his income-capitalization approach, and equal weight – 25 percent – to the values he determined using the cost and sales-comparison approaches. His final, reconciled opinion of the subject property's market value was $86,000,000 for each of the fiscal years at issue, of which he attributed $82,560,000 to the Billerica portion of the subject property at issue in these appeals.[4]

8. Testimony of William Frick

The appellant called a rebuttal witness, William Frick, an electrical engineer who is the Data Center Manager for the subject property. Mr. Frick has been employed in that capacity

[4] The appellant's appraiser did not apply the ninety/ten value split that Billerica and Bedford agreed to, but instead formed his own allocation, which attributed 96% of the value to the Billerica portion of the subject property.

for sixteen years. His testimony was offered to rebut some of the testimony and valuation methodologies offered by the appellee's appraiser.

As an initial matter, Mr. Frick testified that some of the cost and useful life assumptions made by the appellee's appraiser in his cost approach were plainly incorrect. For example, the appellee's appraiser utilized a cost of $2,000,000 per unit for back-up diesel generators required for the subject property, of which there were six. Mr. Frick testified that the per-unit cost of the generators that are in place at the subject property is closer to half that amount.

In addition, Mr. Frick testified that in his opinion, the subject property is not a "world-class" property by current standards, as opined by the appellee's appraiser, because better and more efficient equipment was available than that in place at the subject property. For example, Mr. Frick testified that certain equipment at the subject property was replaced in 2018, after the fiscal years at issue, including five new chillers at a cost of $188,000 each.

9. The Board's Factual Conclusions

On the basis of the record in its totality, the Board found that the appellant met its burden of demonstrating that the assessed value of the subject property exceeded its fair cash value for both of the fiscal years at issue. In reaching this conclusion, the Board agreed with the conclusion reached by both parties' appraisers and found that the highest and best use of the subject property for the fiscal years at issue was its continued use as a data center.

Additionally, the Board found that the income-capitalization approach was the most reliable method to determine the subject property's value. The Board found that the cost approach was not an appropriate methodology for valuing the subject property, as it was more than forty-five years old as of the relevant valuation dates and it was not a special-purpose property. Similarly, the Board found that the lack of timely, comparable data center sales in the record precluded the use of the sales-comparison approach.[5] Accordingly, as the subject property was an income-producing property, and neither of the other valuation methodologies could furnish a reliable indication of value, the Board utilized the income-capitalization approach to determine the market value of the subject property.

With respect to market rent, the Board found that the per-square-foot rents offered by the appellant's appraiser - $102.50

[5] The Board gave no weight to the 2010 sale of the subject property. The evidence showed that it was an off-market, portfolio transaction that included realty and non-realty components, and accordingly the Board found that it did not provide reliable evidence of the subject property's fee simple, market value. In addition, having taken place in 2010, it was too far outside the time periods relevant to these appeals to provide probative evidence of the subject property's market value.

to $105.00 for fiscal year 2016 and $100.00 to $102.50 for fiscal year 2017, did not accurately reflect what was happening in the data center market. Although the record indicated a small downward trend in the market, it was not as dramatic as the appellant suggested. A review of the subject property's rent roll summaries for 2014 and 2015 showed that average rents were in excess of $120.00 per square foot for both years, and average renewal rents for those years were $106.57 and $110.58 per square foot, respectively.

Based on the subject property's actual rents, along with the leases and other market information offered into the record, the Board determined market rents of $114.00 per square foot of net rentable area for fiscal year 2016 and $112.00 per square foot of net rentable area for fiscal year 2017.

With respect to vacancy, the Board similarly found that the appellant's appraiser's vacancy rates were premised on an overly negative outlook on the Boston data center market. Specifically, the Board found that his vacancy and credit loss rates of ten to 12.5 percent for fiscal year 2016 and 12.5 to fifteen percent for fiscal year 2017 were notably higher than the subject property's actual vacancy, and out of line with the more positive market outlook espoused by other industry sources offered into the record, including some of Mr. Cole's publications. Based on the record as a whole, the Board concluded that stabilized vacancy and credit loss rates of 7.5 percent for fiscal year 2016 and 7.25 percent for fiscal year 2017 were appropriate.

There was little disparity between the parties as to appropriate rates for reimbursement and operating expenses, and based on the figures offered by both parties' appraisers, the Board found a utility reimbursement rate of $46.00 per square foot of net rentable area and operating expenses of $73.00 per square foot of net rentable area for each of the fiscal years at issue.

Lastly, with respect to capitalization rates, the appellant's appraiser selected overall, loaded capitalization rate ranges of 11.33 to 11.58 percent for fiscal year 2016 and of 11.08 to 11.33 percent for fiscal year 2017, while the appellee's appraiser selected overall, loaded capitalization rates of 10.44 percent for fiscal year 2016 and 10.34 percent for fiscal year 2017. Based on the sales transactions and other market data offered into the record, the Board concluded that base capitalization rates of 7.5 percent for fiscal year 2016 and 7.25 percent for fiscal year 2017 were appropriate. The Board added to these base rates appropriate tax factors for overall, loaded capitalization rates of 10.8 percent for fiscal year 2016 and 10.5 percent for fiscal year 2017.

On this basis, the Board determined final, total market values for the subject property of $70,185,417 for fiscal year 2016 and $70,410,010 for fiscal year 2017. After taking into consideration that ten percent of the subject property was in Bedford, the Board's concluded final, rounded market values for the Billerica portion of the subject property of $63,170,000 for fiscal year 2016 and $63,370,000 for fiscal year 2017. As these values were less than the subject property's assessed values for both fiscal years, the Board decided these appeals in favor of the appellant, and granted abatements in the following amounts: $173,062.91 for fiscal year 2016 and $167,521.02 for fiscal year 2017.

OPINION

The assessors are required to assess real estate at its fair cash value. G.L. c. 59, § 38. Fair cash value is defined as the price on which a willing seller and a willing buyer will agree if both of them are fully informed and under no compulsion. ***Boston Gas Co. v. Assessors of Boston,*** 334 Mass. 549, 566 (1956). In determining fair cash value, all uses to which the property was or could reasonably be adapted on the relevant assessment dates should be considered. ***Newton Girl Scout Council, Inc. v. Massachusetts Turnpike Authy.,*** 335 Mass. 189, 193 (1956); ***Irving Saunders Trust v. Assessors of Boston,*** 26 Mass. App. Ct. 838, 843 (1989). The idea is to ascertain the maximum value of the property for any legitimate and reasonable use. ***Id.*** Based on the record, the Board found and ruled that the highest and best use for the subject property was its existing use as a data center, which was the highest and best use concluded by both parties' appraisers.

Generally, real estate valuation experts, the Massachusetts courts, and this Board rely upon three approaches to determine the fair cash value of property: income capitalization, sales comparison, and cost. ***Correia v. New Bedford Redevelopment Authority,*** 375 Mass. 360, 362 (1978). "The [B]oard is not required to adopt any particular method of valuation." ***Pepsi-Cola Bottling Co. v. Assessors of Boston,*** 397 Mass. 447, 449 (1986).

In these appeals, both parties' appraisers conducted the income-capitalization approach, while the appellee's appraiser also conducted a sales-comparison analysis and a cost approach. The Board found and ruled that the sales-comparison approach was not an appropriate methodology to use to estimate the value of the subject property because there were not enough local market sales of comparable property to provide a reliable basis for comparison. Additionally, given the age of the subject property and the fact that it is not a special-purpose property, the Board declined to place weight on the cost approach. *See*

Digital 55 Middlesex, LLC v. Assessors of Billerica, Mass. ATB Findings of Fact and Reports 2017-415, 437.[6]

The income-capitalization approach is an appropriate technique to use for valuing income-producing property, particularly when the other valuation methodologies are not suitable. *See, e.g.,* ***Georgetown Shopping Ctr., LLC v. Assessors of Georgetown***, Mass. ATB Findings of Fact and Reports 2015-612, 638-39. Under this approach, a property's capacity to generate income over a one-year period is analyzed and converted into an indication of fair cash value by capitalizing the income at a rate determined to be appropriate for the investment risk involved. ***Olympia & York State Street Co. v. Assessors of Boston,*** 428 Mass. 236, 239 (1998). Net operating income is obtained by subtracting expenses from gross income. ***Assessors of Brookline v. Buehler,*** 396 Mass. 520, 523 (1986). "[I]t is the net income that the property *should* be earning, not necessarily what it actually earns, that is the figure that should be capitalized." ***Peterson v. Assessors of Boston***, 62 Mass. App. Ct. 428, 436 (2004) (emphasis in original). Accordingly, the income stream used in the income-capitalization

[6] The cited appeal concerned the valuation of the subject property for fiscal years 2012 and 2013; in that appeal, the Board found fair cash values of $56,100,000 for fiscal year 2012 and $58,000,00 for fiscal year 2013.

method must reflect the property's earning capacity or economic rental value. ***Pepsi-Cola Bottling Co.,*** 397 Mass. at 451.

In the present appeals, the Board found that the market rents offered by the appellant's appraiser were lower than the actual rents at the subject property and out of line with the market evidence of record. Using the subject property's actual income information, along with the additional leases in evidence, the Board determined fair market rents of $114.00 per square foot of net rentable area for fiscal year 2016, with a slight decrease to $112.00 per square foot for fiscal year 2017.

There was little disparity between the parties as to appropriate rates for reimbursement and operating expenses, and based on the figures offered by both parties' appraisers, the Board used a utility reimbursement rate of $46.00 per square foot of net rentable area and operating expenses of $73.00 per square foot of net rentable area for both of the fiscal years at issue.

Lastly, with respect to capitalization rates, the appellant's appraiser selected overall, loaded capitalization rate ranges of 11.33 to 11.58 percent for fiscal year 2016 and 11.08 to 11.33 percent for fiscal year 2017, while the appellee's appraiser selected overall, loaded capitalization rates of 10.44 percent for fiscal year 2016 and 10.34 percent for fiscal year 2017. Based on the sales transactions and other market data offered into the record, the Board determined that base capitalization rates of 7.5 percent for fiscal year 2016 and 7.25 percent for fiscal year 2017 were appropriate. The Board added to these base rates appropriate tax factors for overall, loaded capitalization rates of 10.8 percent for fiscal year 2016 and 10.5 percent for fiscal year 2017.

In reaching its opinion of fair cash value in these appeals, the Board was not required to believe the testimony of any particular witness or to adopt any particular method of valuation that an expert witness suggested. Further, the mere qualification of a person as an expert does not endow his testimony with any magic qualities. ***Boston Gas Co.,*** 334 Mass. at 579. "The credibility of witnesses, the weight of the evidence, and inferences to be drawn from the evidence are matters for the board." ***Cummington School of the Arts, Inc. v. Assessors of Cummington,*** 373 Mass. 597, 605 (1977). The Board can accept those portions of the evidence that it determined had more convincing weight. ***Foxboro Associates v. Assessors of Foxborough,*** 385 Mass. 679, 683 (1982); ***Assessors of Lynn v. New England Oyster House, Inc.,*** 362 Mass. 696, 702 (1972). In evaluating the evidence before it in these appeals, the Board selected among the various elements of value and formed its own independent judgment of fair cash value. ***General Electric Co. v. Assessors of Lynn,*** 393 Mass. 591, 605 (1984); ***North American***

Philips Lighting Corp. v. Assessors of Lynn, 392 Mass. 296, 300 (1984).

"The burden of proof is upon the [appellant] to make out its right as a matter of law to abatement of the tax." ***Schlaiker v. Assessors of Great Barrington,*** 365 Mass. 243, 245 (1974)(quoting ***Judson Freight Forwarding Co. v. Commonwealth***, 242 Mass. 47, 55 (1922)). In the present appeals, the Board found and ruled that the appellant met its burden of proving that the subject property was overvalued for both fiscal years at issue.

Based on the foregoing, the Board concluded final, total market values for the subject property of $70,185,417 for fiscal year 2016 and $70,410,010 for fiscal year 2017. For the Billerica portion of the subject property, the Board found rounded, market values of $63,170,000 for fiscal year 2016 and $63,370,000 for fiscal year 2017.

The Board therefore issued decisions in favor of the appellant and granted abatements in the amount of $173,062.91 for fiscal year 2016 and $167,521.02 for fiscal year 2017.

THE APPELLATE TAX BOARD

By: *Thomas W. Hammond, Jr.*
Thomas W. Hammond, Jr., Chairman

A true copy,

Attest: *William J. Doherty*
Clerk of the Board