NJ EDA

MEMORANDUM

To: Members of the Authority

From: Tim Sullivan, Chief Executive Officer

Date: October 12, 2022

Subject: Modification to Hurdle Rate Model

Request

The purpose of this memo is to modify the Hurdle Rate Model used by Authority staff to determine the maximum Internal Rate of Return for projects seeking assistance under the former Economic Redevelopment and Growth Grant (ERG) program. The modifications will involve adding functionality in the form of multipliers to accommodate applications under the Historic Property Reinvestment and Brownfields Redevelopment Programs.

Background and Description

On November 15, 2012, the Members of the EDA Board approved the Authority's use of a new Hurdle Rate Model. Subsequently, on December 11, 2012, the Members approved a modification to the model that (1) added Cape May as an anchor city and (2) upgraded the functionality of the model such that a project specific rate of return may be calculated for projects in Atlantic City. Both the original board approval and modification are attached to this memo for reference and additional background.

The model was primarily used to determine the maximum Internal Rate of Return (IRR) for projects seeking assistance under the former ERG program. The model calculates a maximum return based on key characteristics which include the project's zip code, industry class, and the degree to which its location is in an area exhibiting an economic disadvantage. In respect to zip code, cities where there are an adequate number of comparable projects across all zip codes, the base of the hurdle rate is calculated as the average. The model in its calculation of the average rate also normalizes the historical rates of returns to the prevailing economy.

In cities where there is an inadequate number of comparables across all zip codes, an interpolation method is employed. The interpolation method utilizes a group of 14 anchor cities in NJ which have an adequate number of comparables to calculate an average return and exhibit in various degrees certain measures of economic disadvantage. The anchor cities in this group are Newark, Paterson, Camden, Asbury Park, Trenton, Millville, Paramus, Morristown, Summit, Princeton, Wall, Cherry Hill, Galloway, and Cape May. The average IRR for a project in a certain zip code is calculated by interpolating the IRRs of the three closest anchor cities weighted by distance. This weighted rate serves as the base of the hurdle rate.

The comparables as stated above represent the rate of return of all projects within each NJ zip code over a period of approximately 40 years. JLL obtained the information from Real Capital Analytics, Inc. Real Capital Analytics, Inc., is a global research and consulting firm with offices in New York City, San Jose and London. Started in 2000, the firm's research is focused exclusively on the investment market for commercial real estate. A data table containing the return information is built into the model and updated semi-annually to ensure the hurdle rates calculated reflect the prevailing commercial real estate market conditions.

The data from Real Capital Analytics, Inc., does not contain a statistically significant number of returns specific to Historic Property Reinvestment and Brownfields Redevelopment projects. To bridge this gap, JLL proposes the use of multipliers. The logic behind multipliers is that they will adjust the base rate returns calculated by the model to be relevant to a historic preservation or brownfield redevelopment project.

The calculation of the multiplier begins with the model taking the average of comparable returns an investor could realize for taking risk that is similar to investing that same capital into a brownfield redevelopment or historic preservation project. As stated earlier, since Real Capital Analytics, Inc., does not contain a statistically significant number of returns specific to historic property and brownfields redevelopment projects, baskets of alternative investments that carry similar risk profiles were used as benchmarks.

Brownfield redevelopment projects are high risk, high return investments. It is possible for the developer to obtain a higher than market return or realize a total loss on investment. It is common in this type of investment that the land to be redeveloped is purchased entirely with developer equity as banks traditionally will not lend against contaminated property. Additional equity may be needed to clean the site particularly if the amount of remediation turns out to be more than originally anticipated. The developer may incur additional costs due to delays in obtaining state and federal approvals or opposition from local governments or citizens who live in proximity of the redevelopment. All of these circumstances can significantly offset or eliminate whatever profit the developer expected to realize as a result of this investment. Alternatively, a developer may see an above market return from brownfield redevelopment reflecting a sometimes minimal price to acquire the property and the schedule and scope of remediation meeting or beating expectations.

Since a statistically significant number of brownfield redevelopment project returns to incorporate into the model does not exist, JLL decided to use the market return of two types of high risk publicly traded instruments that have similar risk/reward profiles as brownfield development and a third return that is a combination of known publicly available returns of private developers and interviews with a few private developers.

The first two returns represent high-risk investment instruments of public equities (high risk publicly traded common stock) and public commercial real estate equity (primarily retail and hotel/resort REITs). These high-risk investment instruments were used as certain high-risk strategies used with these instruments may result in the investor losing his/her entire investment or require additional capital to potentially realize a positive future return. This is similar to the risk characteristics of brownfield development. The third return represents private/brownfield commercial real estate equity (publicly available private returns and data points from JLL interviews with private developers). In this case, the returns are 25%, 20%, and 15% respectively. These rates will be updated semi-annually to ensure the assumption remains current to prevailing market conditions.

Historic preservation projects are likely to have lower than the traditional returns realized in ordinary commercial real estate projects. This is predominately due to higher than normal soft costs and site prep costs to ensure compliance with local preservation regulations, the uncertain level of time required to complete predevelopment work (because of the unpredictable approval timing of various federal and state and local governing bodies), and labor expense during construction being possibly 30%+ higher than normal commercial real estate construction costs due to specialized trades, and prevailing wage requirements of various preservation incentive programs. Finally, the ongoing net operating income is often diminished because preservation requirements can preclude the use of energy efficiency measures such as modern windows, doors, and solar panels.

Similar to brownfields, JLL's research of available third part data sources did not locate a statistically significant number of project-specific returns to incorporate into the model. As a result, three alternative investment instruments of similar risk/reward are used to construct a benchmark. These consist of high-risk public commercial real estate equity (primarily retail and hotel/resort REITs), private/historic preservation commercial real estate equity (publicly available private real estate return data and JLL interviews with private developers), and a proxy for higher risk commercial real estate debt (effective yields for non-investment grade debt as tracked

by the St Louis Federal Reserve Bank). These instruments were used to represent the generally lower return expectations for historic preservation projects as well as the moderately higher risk associated with the same. In this case, the returns are 15.4%, 8.5%, and 8% respectively. These rates will be updated semi-annually to ensure the assumption remains current to prevailing market conditions.

To arrive at the multiplier, the above alternative return average for either program is divided by a fourth return that JLL considers to be a normal return for taking average equity market risk. The proxy for this diversified return is the 10-year historical Dow Jones Industrial Average. This value is equal to roughly 12%.

In these examples, the resulting multipliers for the Brownfield Redevelopment and Historic Preservation programs are 1.7x (computed as 20.0% divided by 12%) and .88x (computed as 10.63% divided by 12%) respectively. In the case of historic preservation, as the implied multiplier is less than 1.00x, it effectively functions as a discount.

The multiplier will be applied to the base hurdle rate generated by the EDA's existing model for each application under the Brownfield and Historic Preservation programs to determine the hurdle rate applicable for that project.

All of the return metrics in the model will be updated on a semi-annually basis to ensure the multipliers remain current with prevailing market conditions.

Recommendation

It is recommended that the hurdle rate model be modified to add functionality in the form of multipliers to accommodate applications under the Historic Property Reinvestment and Brownfields Redevelopment Programs. It is also requested that if future multipliers are the appropriate method to update the model to accommodate new programs, EDA staff may proceed with those modifications without seeking Board action.

Tim Sullivan, CEO

Prepared by: David A. Lawyer

NEW JERSEY ECONOMIC DEVELOPMENT AUTHORITY

MEMORANDUM

TO: Members of the Authority

FROM: Tim Lizura, President and Chief Operating Officer

DATE: November 15, 2012

SUBJECT: Project Rate of Return Methodology

Request

The purpose of this memo is to explain and request approval of a new financial model by which the maximum Internal Rate of Return will be determined for projects seeking assistance under the Economic Redevelopment and Growth Grant ("ERG") program.

Background and Description

Currently, staff is guided in its financial review of a project financing gap (as required by statute) by utilizing a market range for IRR defined as between 15% to 20%. This range is provided by EDA's consultant Jones Lang LaSalle ("JLL") as representing the average IRR of all real estate projects across all asset classes in New Jersey. Staff proposes amending the use of this static range for the entire State and to utilize specific hurdle rates that reflect three factors; (1) zip code, (2) industry class, and (3) areas within the State exhibiting an economic disadvantage.

Zip Code: Average Method

The new IRR model developed by JLL, with the assistance of staff, has built into its functionality the rate of return of all projects within each NJ zip code. JLL obtained the information from Real Capital Analytics, Inc. Real Capital Analytics, Inc., is a global research and consulting firm with offices in New York City, San Jose and London. Started in 2000, the firm's research is focused exclusively on the investment market for commercial real estate. The data table will be updated quarterly to ensure the hurdle rates calculated reflect the prevailing commercial real estate market conditions. In cities where there are an adequate number of comparable projects across all zip codes, the base of the hurdle rate is calculated as the average.

The model in its calculation of the average rate also normalizes the historical rates of returns to the prevailing economy. For instance, the current hurdle rate for a retail project in Trenton is 13.49%. This city (includes all zip codes) has adequate comparables so the rate is a simple average calculation. The comparables used in the calculation date back to the year 2005. Note that between 2005 and 2007, the economy was strong but deteriorated upon the onset of the great recession beginning September, 2008. The returns during those periods vary considerably due to the instability of the US economy and as a

result impair the validity of the hurdle rate in respect to what an investor would require in the current economic environment. In this example, we will assume the hurdle rate uses several returns from 2008. To address the hurdle rate validity issue, the model first calculates the average statewide return of all projects in 2011 and compares it to the average statewide return of all projects in 2008. We will further assume in our example that such averages equal 14% and 15% in 2011 and 2008 respectively and the deviation is 100 basis points. The 100 basis point deviation is then subtracted from each 2008 Trenton comparable. Note that if the average return in 2011 was greater than the average return of 2008, then the 100 basis point deviation would be added to each 2008 Trenton comparable.

The model completes the same adjustment process for each year in which comparables exist (i.e., for comparables in 2009, the averages of 2011 and 2009 are taken and the deviation is added or subtracted from the 2009 comparables).

Zip Code: Interpolation Method

In cities where there is an inadequate number of comparables across all zip codes, an interpolation method is employed. To explain further, in a perfect world the new IRR model would have access to an adequate number of comparables across all zip codes in each city to calculate an average return. This level of information, however, is not available for all cities. This is particularly true in areas that historically have been subject to nominal development. In other cases, the information is simply unavailable. To mitigate this deficiency, JLL (with city input suggested by EDA) created a group of 13 anchor cities in NJ which have an adequate number of comparables to calculate an average return and exhibit in various degrees up to three predefined measures of economic disadvantage. The anchor cities in this group are Newark, Paterson, Camden, Asbury Park, Trenton, Millville, Paramus, Morristown, Summit, Princeton, Wall, Cherry Hill, and Galloway. These cities were also selected as they geographically represent the northern, central, and southern part of the State and include urban to suburban attributes. The average IRR for a project in a certain zip code is calculated by interpolating the IRRs of the three closest anchor cities weighted by distance. This weighted rate serves as the base of the hurdle rate.

The model does not normalize the historical rates of returns to the prevailing economy in the interpolation method because a sufficient number of comparables from recent years are obtained by extending the calculation to look beyond a single city.

The base rate calculated under either the average or interpolation method will vary depending on the industry class of the project. The base rate will then be adjusted upward by the degree to which the project area has an economic disadvantage.

Industry Class

The purpose of the ERG program in general is to induce capital investment in areas which exhibit economic disadvantage and as a result have been underserved in respect to economic development. The industries targeted under the program are office, retail, industrial, hospitality/entertainment, and residential. In addition to zip code, the comparables used by the model are organized by the industry classes targeted by the Authority. This is important as the base rate for a certain project must reflect the return for the industry class the project represents. For instance, a retail project in Trenton requires a higher rate of return than an office project in Trenton. This deviation primarily reflects the fact that

Trenton in general is a challenging market in which to attract and sustain retail business. The base rate produced by the model will reflect that difference.

Economic Disadvantage

Economic disadvantage for the purposes of calculating a target IRR will be measured as those areas exhibiting the following characteristics: (1) below NJ median household income, (2) below NJ median personal income, and (3) below NJ median housing price. An illustration of how these three factors plot out within the State of NJ is provided as Attachment A.

Locations marked with a triangle denote that the area exhibits all three characteristics of being economically disadvantaged and as such is likely an area underserved by economic development. Locations marked with a square, circle, or star denote areas that exhibit at least two, one, and zero characteristics respectively. Star locations will receive a zero adjustment to the base rate as these areas do not have characteristics of being economically disadvantaged. As shown, the vast majority of triangles are centered in the southern and northeastern part of the State.

For each economic disadvantage factor a project location exhibits, an upward adjustment is added to the base rate. This implies that a developer's IRR will require a risk premium reflecting the economic disadvantage of the area.

The total risk premium used in the model is the spread between investment and non-investment grade debt. The spread, which currently totals 250 basis points, is divided evenly between the underserved indicators.

In other words, for each economic disadvantage factor that is demonstrated an upward adjustment of 83.33 basis points is added to the base rate. This risk premium can be obtained from any mutual fund bond portfolio data, commonly available to the public. JLL will update this spread for the Authority quarterly to ensure the model captures the prevailing market conditions. Since there is no quantitative source of information to specifically calculate what an additional risk premium would be for a project in an economically disadvantaged area, JLL has determined that the spread between investment and non-investment grade debt is the best alternative.

Case Scenario One: Office Project in Camden using Interpolation Method

A developer has a project involving the construction of a professional office building in Camden, NJ. The zip code of the project location is 08101. To determine the hurdle rate, the EDA underwriter inputs the zip code (08101) and property type (office) into the model and a total hurdle rate of 15.29% is calculated.

This rate is comprised of two components. The first component is the base rate of 12.79%. This rate is an interpolation of average IRRs from the three closest anchor cities weighted by their distance from the project zip code. In this case, the anchor cities are Camden (85% of the base), Millville (2% of the base), and Cherry Hill (12% of the base).

The second part of the total hurdle rate is an adjustment of 250 basis points which represents an adjustment based on the zip code's economic disadvantage. This Camden zip code exhibits all three economic disadvantage factors and as such receives an upward adjustment of 250 basis points. This final

rate will be the hurdle rate to which office development projects in Camden seeking an ERG from the Authority will be measured.

Any project in which the return exceeds 15.29% will have the award adjusted downward to bring the return in line with the hurdle rate. The information used to compute the hurdle rate is embedded into the model as a raw data table. Note that if the industry class of the above Camden project were changed to retail, the total hurdle rate increases to 15.7%. This rate is comprised of a base rate totaling 13.20% (uses the same anchor cities as discussed earlier) and a 250 basis points upward adjustment reflecting the economic disadvantage factors.

Case Scenario Two: Retail Project in Cherry Hill using Average Method

A developer has a project involving the construction of a shopping mall in Cherry Hill, NJ. The zip code of the project location is 08003. To determine the hurdle rate, the EDA underwriter inputs the zip code (08003) and property type (retail) into the model and a total hurdle rate of 12.45% is calculated. The Cherry Hill zip code of 08003 does not demonstrate any economic disadvantage factors. As such, no adjustments are required and the base rate of 12.45% is also the final hurdle rate.

In Cherry Hill, there is an adequate number of retail comparables. As a result, the base of the hurdle rate is calculated as the average. This final rate will be the hurdle rate to which retail development projects in the Cherry Hill zip code of 08003 seeking an ERG from the Authority will be measured.

Model Feasibility

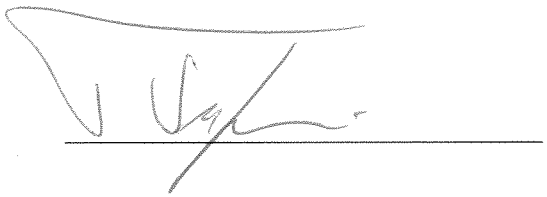
A feasibility test was conducted to observe how the IRR of ten projects previously benchmarked to the statewide range (15%-20%) compares to the single hurdle rate. The IRR of the ten projects (with the ERG award) ranged from approximately 2% to 15% and as such complied the 15% to 20% range currently in use. The test resulted in two projects that if considered for approval using the hurdle rate methodology would require the ERG award to be reduced to a point where the adjusted IRR is equal to the hurdle rate. This reflects the fact that these two projects have IRRs (with the ERG award) that exceed the new hurdle rate. This observation validates the use of a return model tailored to the type of project and its location as opposed to a state/industry wide range.
There may be instances where the rate of return model does not address a large, unique, and/or complex destination project. For these projects, it is requested that the EDA obtain the services of an outside consultant who will determine a project specific rate of return.

Recommendation

The new rate of return model as developed by JLL takes a tailored versus broad brush approach in determining a reasonable IRR benchmark. This benchmark in turn will protect the Authority from over enriching projects under the ERG program.

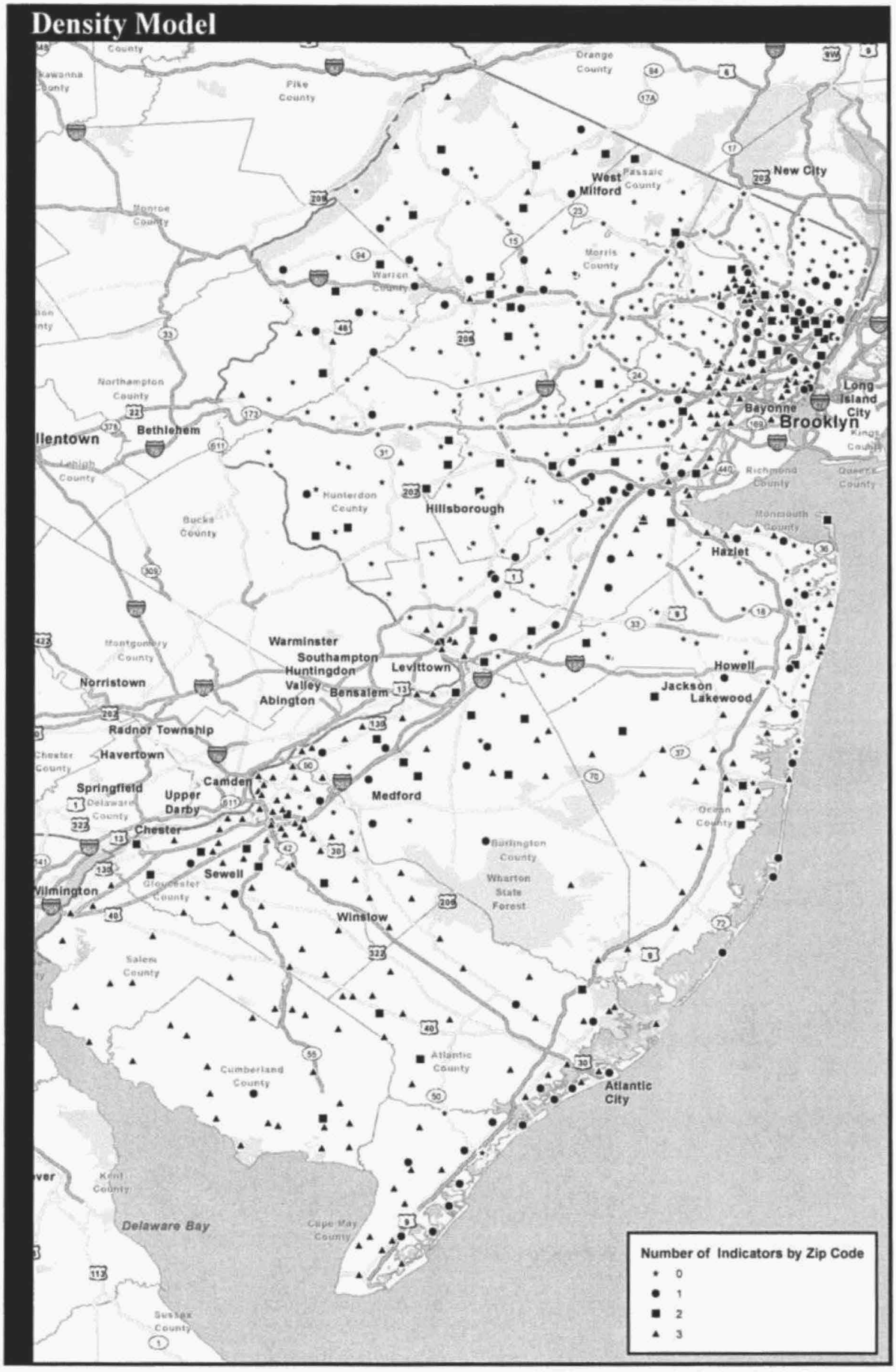
Based on our research and findings, we recommend the use of the JLL rate of return model in the analysis of projects seeking financial assistance under the ERG program.

Furthermore, it is recommended that in the event the EDA in its sole discretion determines that the rate of return model does not accommodate a large complex destination type project, an outside consultant firm is hired to determine a project specific return.



Prepared by: David A. Lawyer

Attachment A



NEW JERSEY ECONOMIC DEVELOPMENT AUTHORITY

MEMORANDUM

TO: Members of the Authority

FROM: Tim Lizura, President and Chief Operating Officer

DATE: December 11, 2012

SUBJECT: Modification to Hurdle Rate Model

Request

The purpose of this memo is to modify the Hurdle Rate Model used by Authority staff to determine the maximum Internal Rate of Return for projects seeking assistance under the Economic Redevelopment and Growth Grant ("ERG") program. The modifications will involve (1) adding Cape May as an anchor city and (2) upgrading the functionality of the model such that a project specific rate of return may be calculated for projects in Atlantic City.

Background and Description

On November 15, 2012, the Members of the EDA Board approved the Authority's use of a new Hurdle Rate Model. The model is used to determine the maximum Internal Rate of Return for projects seeking assistance under the ERG program. The model calculates a maximum return based on key characteristics which include the project's zip code, industry class, and the degree to which its location is in an area exhibiting an economic disadvantage. In respect to zip code, cities where there are an adequate number of comparable projects across all zip codes, the base of the hurdle rate is calculated as the average. The model in its calculation of the average rate also normalizes the historical rates of returns to the prevailing economy.

In cities where there is an inadequate number of comparables across all zip codes, an interpolation method is employed. The interpolation method utilizes a group of 13 anchor cities in NJ which have an adequate number of comparables to calculate an average return and exhibit in various degrees certain measures of economic disadvantage. The anchor cities in this group are Newark, Paterson, Camden, Asbury Park, Trenton, Millville, Paramus, Morristown, Summit, Princeton, Wall, Cherry Hill, and Galloway. The average IRR for a project in a certain zip code is calculated by interpolating the IRRs of the three closest anchor cities weighted by distance. This weighted rate serves as the base of the hurdle rate.

At the November 2012 board meeting, it was asked why Atlantic City is not one of the anchor cities. This topic was subsequently discussed with the Authority's consultant Jones Lang LaSalle ("JLL"). JLL determined that Atlantic City is not an anchor city because its historical returns over the last decade or so have varied widely such that they do not provide a valid comparison with the surrounding cities. For instance, many projects in Atlantic City have been casino based or large and unique requiring a rate of

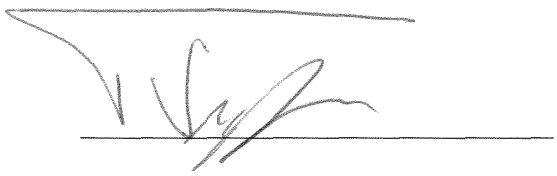
return well above the typical returns required in surrounding cities. Equally as valid, many projects in Atlantic City have been partially financed using grants or low interest rate loans from the Casino Reinvestment Development Authority or other state/municipal sponsored programs. These type of capital sources with very favorable terms have a reducing effect on the rates of returns required by developers and again are much lower than what can be found for projects in surrounding cities and even the same city (reflecting the fact that numerous projects in Atlantic City may not have such favorable financing and have a higher return). As such, JLL feels it is best to exclude Atlantic City from the hurdle rate model as an anchor city. This is because the statistical significance of an interpolated return using Atlantic City data would be impaired.

Despite the decision to exclude Atlantic City as an anchor city, Authority staff asked JLL alternatively if Cape May would provide greater relevancy as an anchor city in the southern New Jersey region. JLL has represented that Cape May would benefit the model as an anchor city as it's a place that impacts the surrounding areas reflecting its long term status as a tourist destination. Future additions or subtractions of anchor cities will be made by Authority staff and communicated to the board.

Finally, the EDA will upgrade the Hurdle Rate Model such that a project specific rate of return may be calculated for projects in Atlantic City. The historical Atlantic City returns incorporated into the model may need to be adjusted to accommodate differences between subsidized versus non-subsidized projects and normalized for the period known as the Great Recession.

Recommendation

It is recommended that the Hurdle Rate Model be modified to add Cape May as an anchor city and upgraded such that a project specific rate of return may be calculated for projects in Atlantic City. All other aspects of the Hurdle Rate Model as described in the November 15, 2012 board memo will remain the same.



Prepared by: David A. Lawyer

ADOPTED
OCT 12 2022

Attachments

Resolution of the New Jersey Economic Development Authority Regarding Approval of the Modification to Hurdle Rate Model

WHEREAS, the Members of the New Jersey Economic Development Authority have been presented with and considered a Memorandum and attachment, in the forms attached hereto; and

WHEREAS, the Memorandum and attachment requested the Members to adopt a resolution authorizing certain actions by the New Jersey Economic Development Authority, as outlined and explained in said Memorandum.

NOW, THEREFORE, BE IT RESOLVED by the Members of the New Jersey Economic Development Authority as follows:

1. The actions set forth in the Memorandum and attachment, attached hereto, are hereby approved, subject to any conditions set forth as such in said Memorandum.

2. The Memorandum and attachment, attached hereto, is hereby incorporated and made a part of this resolution as though set forth at length herein.

3. This resolution shall take effect immediately, but no action authorized herein shall have force and effect until 10 days, Saturdays, Sundays, and public holidays excepted, after a copy of the minutes of the Authority meeting at which this resolution was adopted has been delivered to the Governor for his approval, unless during such 10-day period the Governor shall approve the same, in which case such action shall become effective upon such approval, as provided by the Act.

DATED: October 12, 2022

EXHIBIT