BOWIE

STATE OF PLACE ANALYSIS

GROWTH UNITY PROGRESS 1916 BOWIE, MARYLAND

STATE OF PLACE

APRIL 2025

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Prince George's County Planning Department

Abstract

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Title	Bowie State of Place Analysis
Author	The Maryland-National Capital Park and Planning Commission
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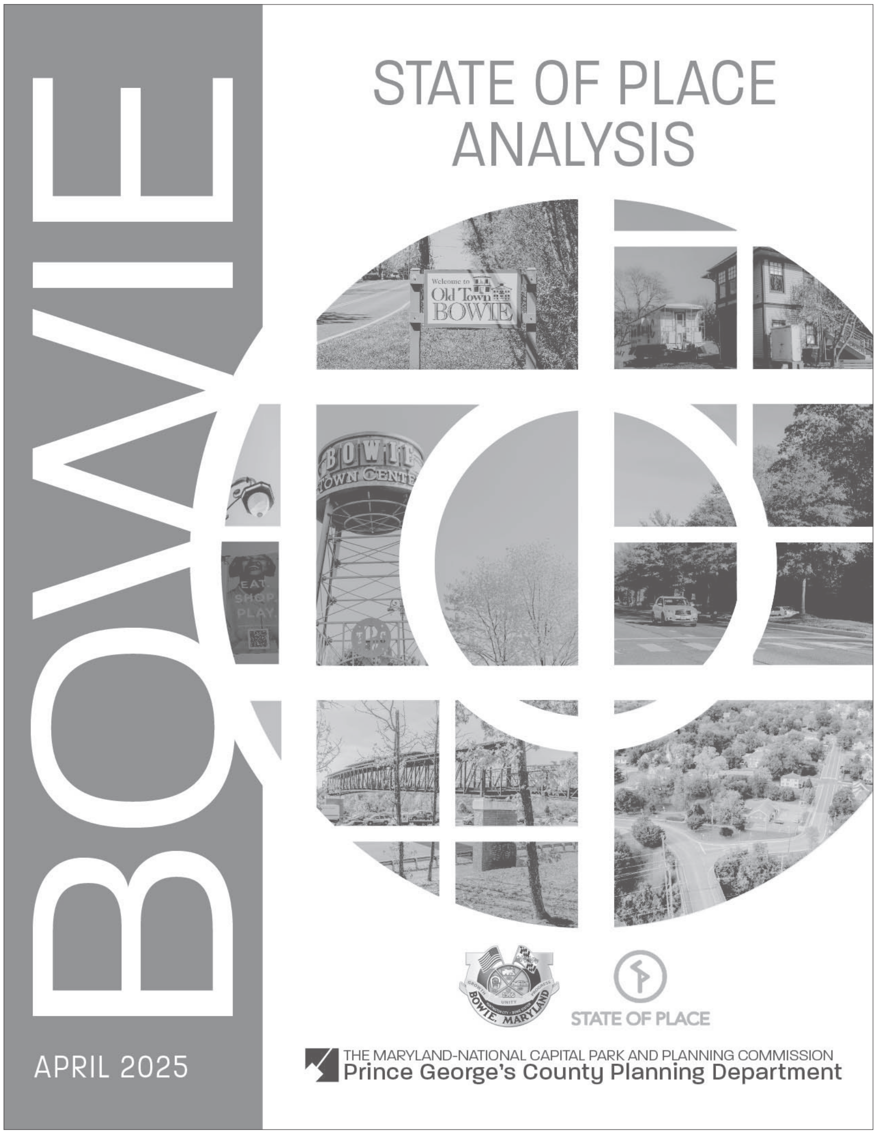
This document explains the State of Place statistical analysis of three commercial areas in the City of Bowie, Maryland: Bowie Local Center, MD 450 Corridor, and Old Town Bowie—identified in the 2022 Approved Bowie-Mitchellville and Vicinity Master Plan as having economic development potential. The State of Place analysis uses algorithms to quantify the economic value of urban design, provides recommendations to raise the economic development value of these areas, and estimates the increased economic value associated with implementing urban design improvements. Only a few examples of ideal scenarios are shown herein; the City of Bowie will continue to test scenarios to achieve the ideal roster of urban design changes needed. This project was funded and managed by the Prince George's County Planning Department's Planning Assistance to Municipalities and Communities (PAMC) Program.



APRIL 2025

The Maryland-National Capital Park and Planning Commission
Prince George's County Planning Department
1616 McCormick Drive
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The Maryland-National Capital Park and Planning Commission (M-NCPPC) is a bicounty agency, created by the General Assembly of Maryland in 1927. The Commission's geographic authority extends to the great majority of Montgomery and Prince George's Counties: the Maryland-Washington Regional District (M-NCPPC planning jurisdiction) comprises 1,001 square miles, while the Metropolitan District (parks) comprises 919 square miles, in the two counties.

The Commission has three major functions:

- The preparation, adoption, and, from time to time, amendment or extension of the General Plan for the physical development of the Maryland-Washington Regional District.
- The acquisition, development, operation, and maintenance of a public park system.
- In Prince George's County only, the operation of the entire county public recreation program.

The Commission operates in each county through a Planning Board appointed by and responsible to the County government. All local plans, recommendations on zoning amendments, administration of subdivision regulations, and general administration of parks are responsibilities of the Planning Boards.

The Prince George's County Planning Department:

- Our mission is to help preserve, protect and manage the County's resources by providing the highest quality planning services and growth management guidance and by facilitating effective intergovernmental and citizen involvement through education and technical assistance.
- Our vision is to be a model planning department of responsive and respected staff who provide superior planning and technical services and work cooperatively with decision makers, citizens, and other agencies to continuously improve development quality and the environment and act as a catalyst for positive change.

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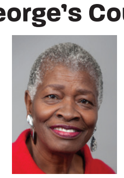
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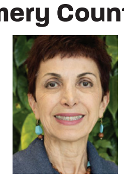
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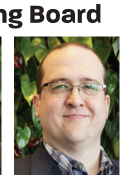
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The County Council has three main responsibilities in the planning process: (1) setting policy, (2) plan approval, and (3) plan implementation. Applicable policies are incorporated into area plans, functional plans, and the general plan. The Council, after holding a hearing on the plan adopted by the Planning Board, may approve the plan as adopted, approve the plan with amendments based on the public record, or disapprove the plan and return it to the Planning Board for revision. Implementation is primarily through adoption of the annual Capital Improvement Program, the annual Budget, the water and sewer plan, and adoption of zoning map amendments.

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Project Background

In 2023, the City of Bowie applied to the Prince George's County Planning Department's Planning Assistance to Municipalities and Communities (PAMC) program to fund a Bowie State of Place analysis for these designated areas. The City passed resolution R-10-23 to support the project, with a commitment for partial project funding from the City's Economic Development Division. PAMC funding was approved by the Prince George's County Planning Board on March 30, 2023. The consultant firm State of Place, Inc. was retained, and the project kicked off August 14, 2023.

The PAMC program is offered by The Maryland-National Capital Park and Planning Commission (M-NCPPC), Prince George's County Planning Department, Community Planning Division, Neighborhood Revitalization Section. The program's purpose is to assist in protecting and implementing the County's approved plans, recommendations made in Planning Department studies, and strategies and action items in approved Maryland Sustainable Communities action plans. The program provides technical planning services at no cost to municipalities or community organizations using Prince George's County Planning Department expertise, and/or funds consultant services approved by the Planning Board. PAMC projects benefit municipalities and communities that may have limited planning resources but are committed to revitalization and enhancement of their communities.

In accordance with the PAMC Program Guidelines approved by the Planning Board, the Bowie State of Place analysis furthers planning policies, strategies, and recommendations contained in the County's approved plans, including the 2014 *Plan 2035 Approved General Plan's* Community Heritage, Culture, and Design goal to "Create walkable places that enable social interaction and reflect community character, and preserve and promote our cultural, historic, and rural resources to celebrate our heritage."[1] The 2022 *Approved Bowie-Mitchellville and Vicinity Master Plan* directs, "Transform Bowie Local Town Center into a more walkable environment that includes a mix of complementary uses,"[2] and observes, "Existing centers of economic activity, such as Bowie Local Town Center and Free State Shopping Center/Bowie Marketplace can evolve into walkable neighborhoods."[3] The master plan also states, "Plan 2035 encourages growth in Bowie-Mitchellville and Vicinity to concentrate at these sites by designating them, collectively, as a Local Center. Bowie Local Town Center is the primary location within this plan area with potential for economic growth because of its location near MD 3, MD 197, US 301, and US 50 and opportunity to grow into a more walkable environment that includes a mix of complementary uses;"[4] and "The plan area is automobile dependent, but there exist opportunities to create walkable communities that could improve quality of life, health, safety, environment, economic competitiveness, and sustainability of the community." The plan directs, "Create an inviting, walkable public realm that serves as a framework for a dynamic, mixed-use destination."[5]

State of Place is an evidence-based, data-driven, technology-enabled approach used to assist decision-makers to create thriving communities. It is a cost-effective tool that helps identify optimal built-environment investments to maximize economic development, quality of life, public health, and community resiliency. This approach quantifies the value in investing in better urban design to streamline buy-in, approvals, and funding needed to deliver proposed projects.

1 Plan 2035, page 195.
2 Bowie-Mitchellville Plan, page 6.
3 Bowie-Mitchellville Plan, page 32.
4 Bowie-Mitchellville Plan, pages 36, 108.
5 Bowie-Mitchellville Plan, page 163.

State of Place worked with the M-NCPPC Planning Department and the City of Bowie staff to identify and prioritize specific built environment changes that would most likely increase walkability and different aspects of economic value, and then quantify the corresponding value-add and return on investment of those urban design improvements.

Project Goals

With this project, the City of Bowie sought to optimize the cost-efficiency and economic effectiveness of potential built environment planning, development, and investment projects to later and secure approvals, funding, and buy-in needed to facilitate built-environment changes.

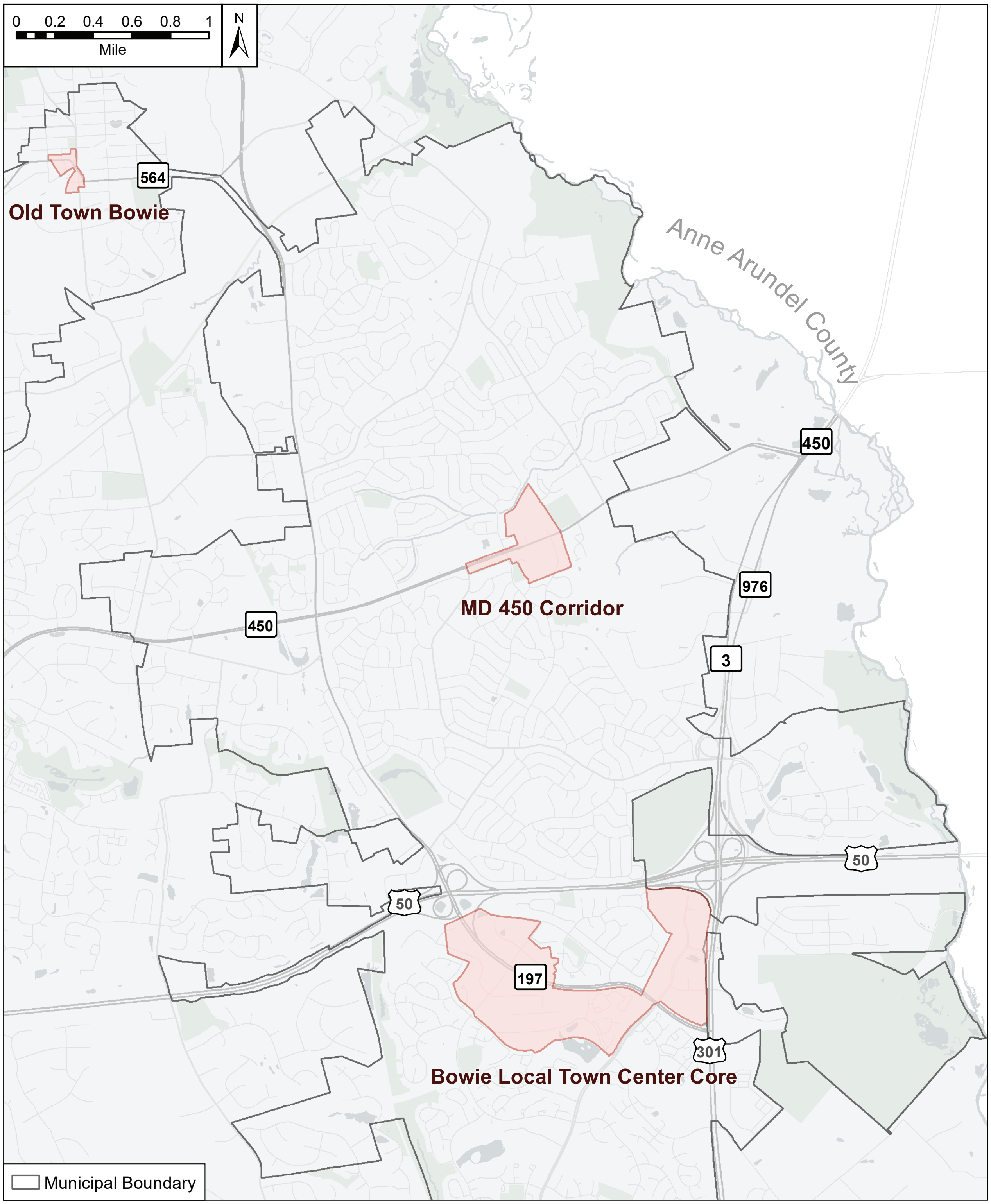
State of Place worked toward these goals by quantifying the existing built environment quality of the City's three core economic development focus areas: Bowie Town Center, Old Town Bowie, and the MD 450 Corridor.

Updating a forecasting model quantifying the economic value of the built environment within the D.C. metropolitan region required collection of built-environment data for a broader sample of places across the D.C. metropolitan region, collection of real estate data across a sample of areas, and collection of data on other factors that might impact the relationship between the built environment and real estate values.

The forecasting model was translated into urban design recommendations most likely to optimize the real estate value three focus areas. State of Place facilitated the prioritization of three scenarios across each of the three areas and explained how the findings could be used by the City to achieve desired economic development goals.

CREDIT: M-NCPPC

Map 1. Study Areas Bowie State of Place Analysis



M-NCPPC

Study Areas
Bowie State of Place Analysis

Job #4148

SOURCE: PGAtlas

Map 2. Bowie Local Town Center State of Place Analysis

Bowie Local Town Center
State of Place Analysis

Job #4148

SOURCE: PGAtlas

Map 3. MD 450 Corridor (Bowie Main Street)State of Place Analysis

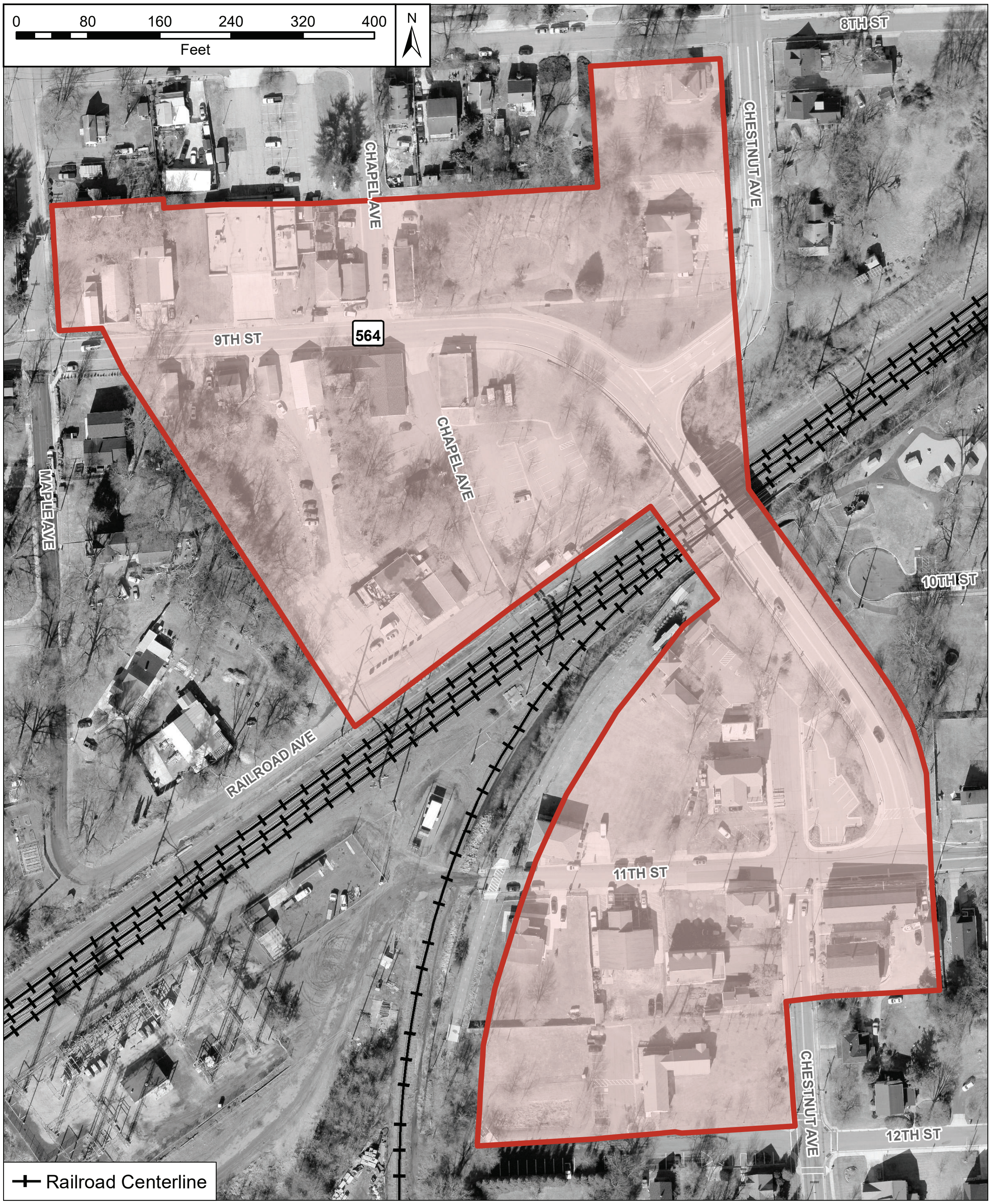
M-NCPPC

MD 450 Corridor (Bowie Main Street)
State of Place Analysis

Job #4148

SOURCE: PGAtlas

Map 4. Old Town Bowie State of Place Analysis



M-NCPPC

Old Town Bowie
State of Place Analysis

Job #4148

SOURCE: PGAtlas

About State of Place

A study prepared in 2012 by State of Place for the Brookings Institution and the Metropolitan Washington Council of Governments (MWCOG) formed the basis of the methodology for the Bowie State of Place Analysis. Block-level data on urban design features using visual machine learning were uploaded to the State of Place software, where users can access the data to objectively diagnose determine an area's built-environment assets and needs via spatial and graphical representations of the data and create test project scenarios. This information is intended to guide decision-making and communication of the value of good urban design.

Built Environment Data

State of Place uses AI (artificial intelligence) to extract data on 127 micro-scale urban design features from street-level digital images. Over 100 Visual Machine Learning models are trained to detect built-environment features such as sidewalks, street trees, crosswalks, benches, and a variety of land uses from Google Street View images. This technology is deployed to collect built environment data for any geographic area of interest. Data is collected at the street block level. Street blocks are defined as the area between two intersections, including both sides of the street.

State of Place Index and Profile

State of Place aggregates the built environment data collected via Visual Machine Learning into a score from 0-100, which is called the State of Place Index, measuring the walkability, bikeability, and overall quality of the built environment. It is important to note that a block does not need to contain all 127 features to receive a score of 100. Instead, a score of 100 simply reflects the highest-scoring block within the dataset of over 50,000 blocks, which include a continuum of varying kinds of places, ranging from high to low walkability, urban, suburban, exurban, and rural places, residential, commercial, industrial, and mixed-use places, and high-, moderate-, and low-income areas. Likewise, a score of 0 represents the lowest-scoring block within the dataset.

The State of Place Index is made up of ten urban design dimensions:

- **FORM:** This measures a block's sense of enclosure or the extent to which buildings, walls, trees, and other vertical elements frame a street or public space. When these elements are in proportion to the space between them, pedestrian comfort and the public realm are enhanced.
- **DENSITY:** Density describes a building or group of buildings scale and form, and the degree of development intensity.
- **CONNECTIVITY:** Connectivity refers to a continuous, unobstructed, and direct route between two points. The analysis measures how easy it is to walk or bike from one block to the next, and whether there are any barriers within or between blocks.
- **PROXIMITY:** Measures the diversity of non-residential uses on a block.
- **PARKS AND PUBLIC SPACES:** Identifies the presence and quality of both hardscape and softscape public uses.
- **RECREATIONAL FACILITIES:** Measures the presence of various physical activity-related uses, both indoor and outdoor.
- **PEDESTRIAN AND BICYCLIST AMENITIES:** Measures how convenient and comfortable it is to be a pedestrian or bicyclist on a block.
- **TRAFFIC SAFETY:** Measures the safety and convenience of street intersections and midblock conditions.
- **AESTHETICS:** Measures the visual appearance of structures or space within an environment and includes the level of maintenance of that environment.
- **PERSONAL SAFETY:** Measures built-environment factors known to negatively affect people's perceptions of safety; for example, the presence of litter, graffiti, and broken windows.

State of Place Software

The State of Place software translates the results of data collection and analysis to provide users with the following information that helps guide scenarios.

Data Visualization

The State of Place Index and Profile data are visualized spatially in a heat map, helping to identify patterns of built-environment divestment and quality across a geographical region. Users can toggle between visualizing the State of Place Index and any one of the ten urban design dimensions within the State of Place Profile. Data are also visualized graphically, helping to understand an area's built-environment assets and needs and the factors that contributed to the score of a block or the area.

Prioritization

The evidence State of Place has gathered on the value of the built environment shows that some urban design features and/or dimensions matter more than others depending on which outcomes are desired. That is, proximity and aesthetics may matter more for retail revenues, while parks and public spaces and personal safety may matter more for residential property values. Accordingly, the State of Place software produces a prioritized list of urban design dimensions based on the set of goals that can be toggled on and off within the software. Further, in the same way that some urban design dimensions matter more for retail versus residential values, some dimensions are more easily changed once they are in place than others. For example, form, density, and connectivity—features that make up an area's streetscape—are likely harder to change once in place than an area's aesthetics or traffic safety. Accordingly, the software sets a default

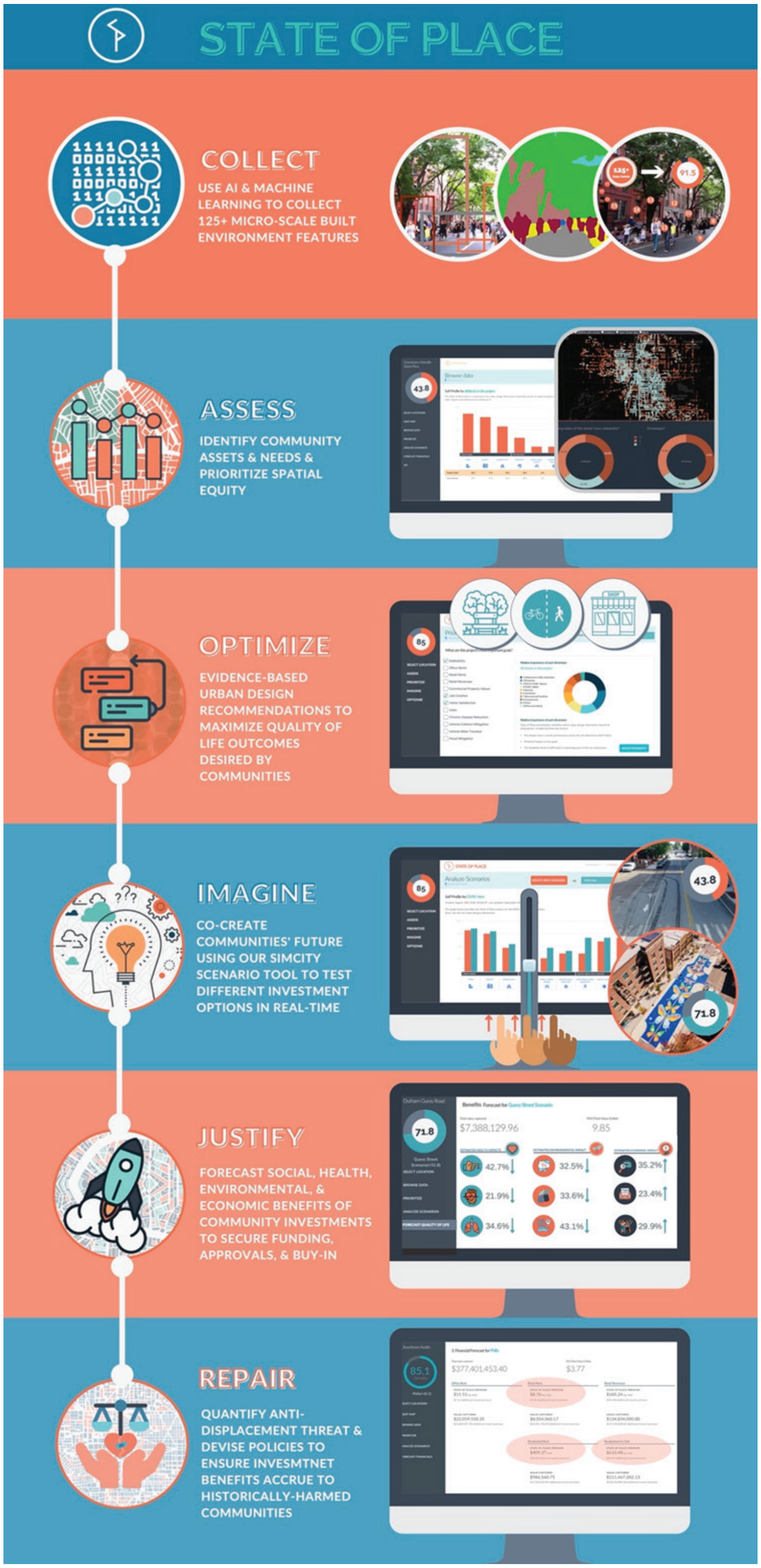
feasibility score - with form, density, and connectivity being marked as most difficult to change, followed by proximity, parks and public spaces, recreational facilities, then pedestrian and bicyclist amenities and traffic safety, and finally aesthetics and personal safety as the easiest dimensions to change. This ranking shows how the urban design dimensions are prioritized—combined with the magnitude of importance of any one dimension over another to the goals selected within the software. However, users can change the defaults for feasibility to reflect their context. For example, an area might have a lot of parking lots and/or underdeveloped land, making changes to form, density, and connectivity much more feasible; in this case, a user may mark these as easy to change, and subsequently, the prioritized order of the urban design dimensions may change to reflect the actual feasibility of making built environment changes within the users' context.

Scenario Analysis

The scenario analysis tool allows users to pull up the built environment data collected for any block within the geographical area of interest and make "changes" to the existing conditions for that block. For example, sliders are moved to change the existing conditions for a block from no sidewalks to sidewalks on both sides of the street, or street trees can be added if there were none. Amenities such as soft-good retailers or restaurants can be added. Users can then save their scenarios encompassing all of the changes modeled for that block and in real time, the software will generate the State of Place Index and Profile for that block based on the changes. The software displays a bar chart showing the "before/after" score for the scenario. A scenario can include changes to one or many blocks within a geographic area.

Forecasting

The software allows users to forecast how the changes modeled in the scenario tool will impact desired outcomes. Based on user entries tied to an area's income, the cost of the project, and the square footages of office, retail, and residential areas within the geographic area of interest, the software will predict office, retail, and residential real estate value premiums (based on the forecasting models), given the before/after scores of the State of Place Index within



the modeled scenario. In addition, the software calculates the total value that can be captured from the investments to the built environment modeled in the scenario tool (i.e., the before/after State of Place Index) across a return period specified by the user. Finally, the software calculates the return on investment (ROI) of the modeled scenario by dividing the total value captured by the total cost to implement the changes modeled in the scenario (which is also input by the user).

Methodology

To generate evidence-based urban design recommendations for the three areas, the existing forecasting model required updating to more accurately reflect today's market conditions, especially post-COVID-19 pandemic dynamics. Accordingly, the same neighborhoods included in the original Brookings Institution study were used, and ten neighborhoods from the MWCOG study were added to the model based on the City of Bowie's direction and interests. Gaithersburg and Annapolis were added as they were determined to be cities that compete with Bowie from an economic development perspective. Additional real estate and demographic data were used to update the original model. The sample comprised 78 neighborhoods plus the three economic development zones within the City of Bowie. See Appendix A for the full list of places included in this analysis.

Data Collection

AI-driven Urban Design Data Collection

State of Place uses artificial intelligence techniques to collect built environment data on 127 features, and includes following approaches:

- Visual Machine Learning, including deep learning and object detection techniques, to identify the presence and/or analyze the quality of specific built environment features.
- Data is leveraged from Esri's Open Street Maps to gather additional information on built environment features, both to help validate the Visual Machine Learning models as well as to detect certain features that are not compatible with Visual Machine Learning techniques.
- Predictive models are used to determine the presence of some features based on the context and presence of other features.
- A manual audit of a sample of blocks to refine data extraction models is performed, as necessary.

These methods, which together deliver comprehensive and accurate data on the built environment, were employed to collect data on 7,465 blocks across the 78 neighborhoods. In addition, an audit of all 68 street blocks across the three Bowie analysis areas was conducted.

Real Estate

Data for the following real estate values were collected:

Office Rents

M-NCPPC used November 2023 CoStar real estate information to extract data on average office rents per square foot.

Retail Rents

M-NCPPC used November 2023 Costar to extract data on average rents per square foot.

Residential Rents

M-NCPPC used data from the 2021 Five-year American Community Survey to estimate the average retail rents for the average-sized residential unit.

Residential Property Values

State of Place used public data from Zillow.com to estimate the average residential property value per square foot.

Controls

To properly quantify how the quality of the built environment impacts real estate value within a regression model, the impact of other factors on said value must be "controlled." Accordingly, data on the control variables below were used, as follows:

Median Household Income

M-NCPPC used data from the American Community Survey to estimate the median household income.

Average Distance to Core

Using geographic information system techniques, the average distance to the Washington, D.C. metropolitan area core (defined as Metro Center, 607 13th St NW, 20005) was calculated based on a defined center for each neighborhood.

Data Analysis

State of Place Index and Profile

Proprietary algorithms were applied to calculate the State of Place Index and Profile for all blocks within the 78 neighborhoods included in the sample and the three Bowie analysis areas. The State of Place Index and Profile scores were averaged for all the blocks within all 81 places to generate a State of Place Index and Profile for each area to conduct the regression analysis.

Regression analysis

Four separate hierarchical regression analyses were performed to quantify how the built environment quality, as measured by the State of Place Index, impacted each of the individual real estate values, controlling for household income and distance to the core. All models were statistically significant.

Translating the Evidence

Recommendations

To translate the results of the regression models into actionable recommendations, three factors were considered in determining which built environment features the City of Bowie should consider changing to optimize the real estate value of their three core economic development zones:

1. A block's current Index and Subindex scores, prioritizing those where there is more room for improvement (lower-scoring areas).
2. The importance of each urban design dimension to all four desired economic development goals; this is based on the results of the regression analysis. As part of the regression analysis, every urban design dimension is automatically assigned a "standardized beta" score, a number between 0-1, which measures the magnitude of impact of that dimension on any one aspect of real estate value. Each of these scores for each dimension across the four real estate metrics prioritized which urban design dimensions matter most overall for boosting all four metrics.
3. The feasibility of making some changes over others, as some urban design dimensions are more difficult to change than others once in place. Default rankings were used for the ten urban design dimensions to generate the urban design recommendations.

This multi-criterion process prioritized which dimensions to first consider when evaluating specific built environment changes across the three economic development zones. Individual built environment features for every block were identified for prioritization within each dimension, based on how much they would increase the score for that dimension.

Recommendations were then revised to reflect the context of each block and area, based on four factors:

FACTOR 1 If a feature was recommended, other features related to, or impacted by that feature would also be recommended. For example, if a bike lane was recommended, a reduction in vehicle lanes was also recommended, where appropriate.

FACTOR 2 Features that are interdependent on others were reflected; for example, if arcades were recommended, so were sidewalks, as they are integral to the function of arcades.

FACTOR 3 Features where there were multiple options or types prioritized one of those options, based on which would have the biggest impact on the score for its corresponding dimension.

FACTOR 4 Finally, while some features, such as restaurants, would likely increase the score for any block, adding these features to every block is not feasible. Therefore, the blocks for which that feature would have the biggest impact were prioritized. The number of blocks were limited for each feature that was recommended based on the average percentage of blocks that contained that feature, taken from the top five percent highest-scoring neighborhoods within the study sample.

A recommendation matrix[6] for each block in each of the three Bowie areas was provided for the City to consider. The matrix lists those dimensions, features, and predicted score increase from most important to least important.

Scenario Analysis

The City of Bowie intended to use the scenario tool within the software to generate preferred scenarios for each of the three economic development zones. State of Place determined that there were over 610,000 ways to implement the recommendations. To facilitate scenario building, State of Place automated the process, testing all possible combinations of the urban design recommendations across the three economic development zones. This process involved the following steps and was undertaken for each area:

6 Recommendations Matrix, Appendix B.

This scenario prioritization process helped to identify scenarios that did not necessarily require changes for all the blocks, but rather prioritized scenarios that had the fewest number of changes that still significantly impacted the top three dimensions (based on the regression models) as well as the overall State of Place Index. In other words, the prioritized scenarios provided the biggest impact on the desired outcomes—the real estate values within the three economic development zones—with the fewest number of changes across the fewest number of blocks within each of the three zones.

Forecasting

For each of the top three scenarios, the impact of the recommended changes was calculated based on the results of the forecasting model. The impact on average real estate premiums was predicted by the before/after change in the State of Place Index for each of the top scenarios identified for each of the four real estate metrics: office, retail, and residential rents and residential property values.

Table 1. City of Bowie Scenario Analysis

TASK: Identify the top set of built-environment recommendations for each urban design dimension within the State of Place Index, separately, for each individual block within an area.	
STEP 1: Run all possible sets of recommendations for each individual urban design dimension	
Calculate	Before/after score for the corresponding urban design dimension for each set of recommendations
	Before/after score for the State of Place Index (based on before/after score for each individual urban design dimension)
	Before/after for the State of Place Index divided by the total number of built environment changes for that recommendation set for each individual urban design dimension
Rank recommendations based on:	Before/after for the State of Place Index divided by the total number of built environment changes for that recommendation set for each individual urban design dimension
	Before/after for the State of Place Index (based on before/after for each individual urban design dimension)
	Before/after score for the urban design dimension
STEP 2: For each block, select the top 5% of recommendation sets for each individual urban design dimension	
TASK: Determine the best set of recommendations across all urban design dimensions for each individual block.	
STEP 3: From the top 5% of recommendations, all possible combinations of recommendations were merged across the ten urban design dimensions for each block	
Calculate	Before/after scores across the top three urban design dimensions (see number 2 in the Recommendations section for an explanation of how the top three urban design dimensions were identified)
	Before/after scores across the top three urban design dimensions divided by the number of feature changes (across all three urban design dimensions)
	Before/after of the State of Place Index (based on before/after scores for all ten urban design dimensions) divided by the number of feature changes
Combined:	Before/after across top three dimensions divided by the number of feature changes (for those three dimensions)
	Before/after of the State of Place Index (based on before/after scores for all ten urban design dimensions) divided by the number of feature changes
STEP 4: Choose the best recommendation set for each block. For example,100% from all possible recommendations across the ten urban design dimensions based on highest before/after score (across State of Place Index and the top three urban design dimensions) with fewest number of changes for each block	
TASK: Filter the final recommendation set for each area, based on percentage of changes desired	
STEP 5: Rank blocks within each area based on before/after State of Place Index (based on best recommendation set for that block, identified in the last bullet point in step number two above)	
STEP 6: Count the number of unique features recommended across best recommendation set for each block	
STEP 7: Set a maximum number of features to be changed across all blocks within an area, based on desired degree of change. For example, 50%, 75%, or 90%.	
STEP 8: Rank which blocks and features are to change, based on the maximum percentage desired	

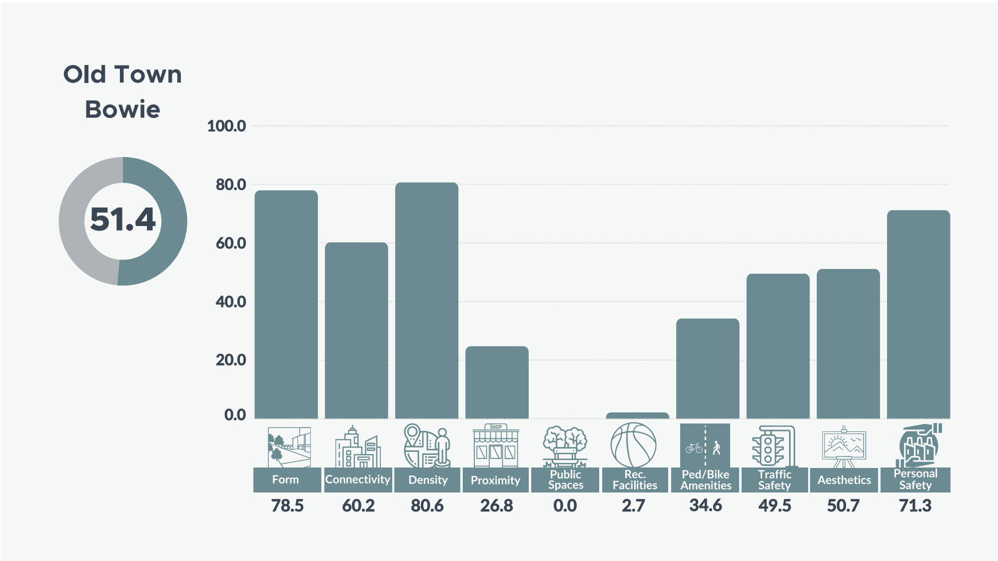
Example area B: Desired changes equal 50% or 24 features to be changed; first 24 recommendations are selected:		**Example area B:** Desired changes equal 50% or 24 features to be changed; first 24 recommendations are selected:	
Block 1	Before/after 50 points, 5 features to be changed	**Block 1**	Before/after 50 points, 5 features to be changed
Block 2	Before/after 37 points, 8 features to be changed	**Block 2**	Before/after 37 points, 8 features to be changed
Block 3	Before/after 35 points, 4 features to be changed	**Block 3**	Before/after 35 points, 4 features to be changed
Block 4	Before/after 30 points, 5 features to be changed	**Block 4**	Before/after 30 points, 5 features to be changed
Block 5	Before/after 27 points, 7 features to be changed	**Block 5**	Before/after 27 points, 2 features to be changed
Block 6	Before/after 25 points, 9 features to be changed		
Block 7	Before/after 20 points, 3 features to be changed		
Block 8	Before/after 17 points, 2 features to be changed		
Block 9	Before/after 15 points, 3 features to be changed		
Block 10	Before/after 10 points, 2 features to be changed		

FINDINGS

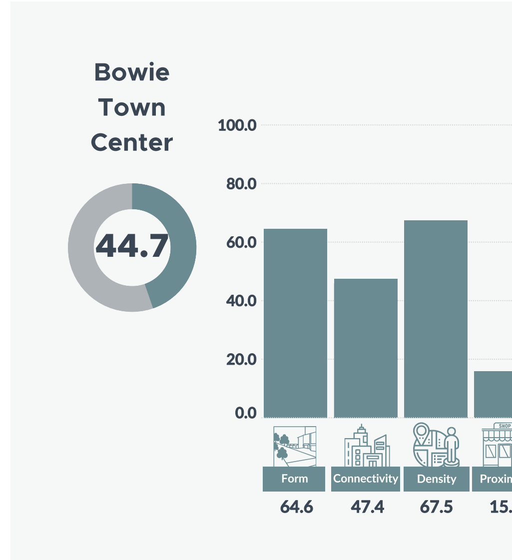
State of Place Index & Profile

The following figures show the existing State of Place Index and Profiles for the three focus areas for the City of Bowie:

Old Town Bowie

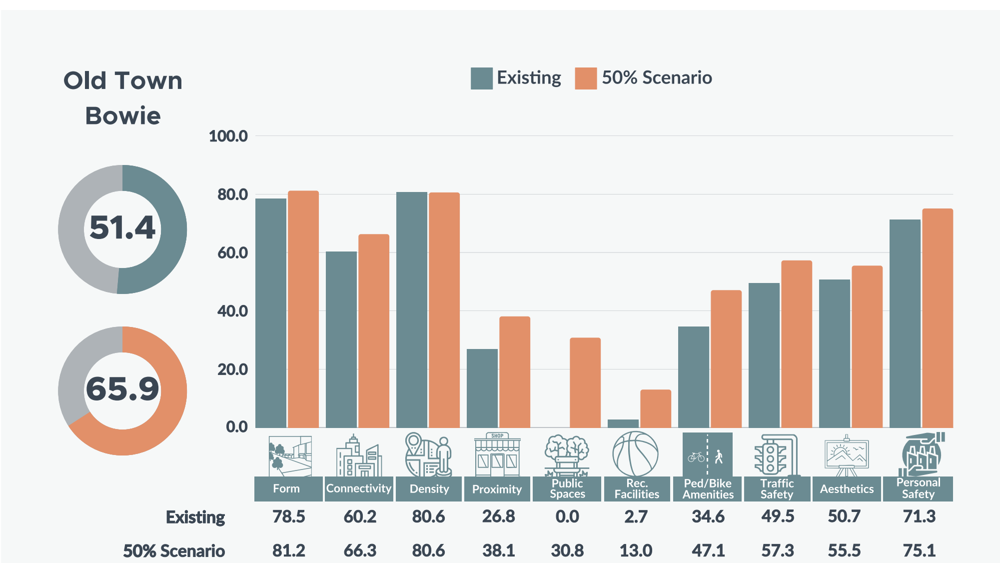


Bowie Town Center

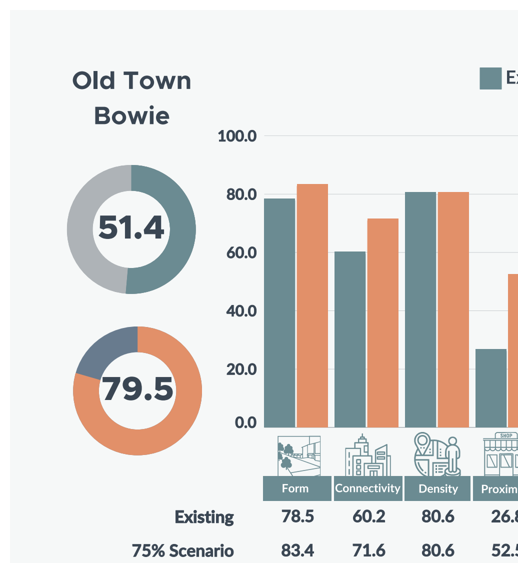


State of Place Scenario Old Town Bowie

The following figures show the top three scenarios for each of the three focus areas for the City of Bowie, along with their value forecasts:

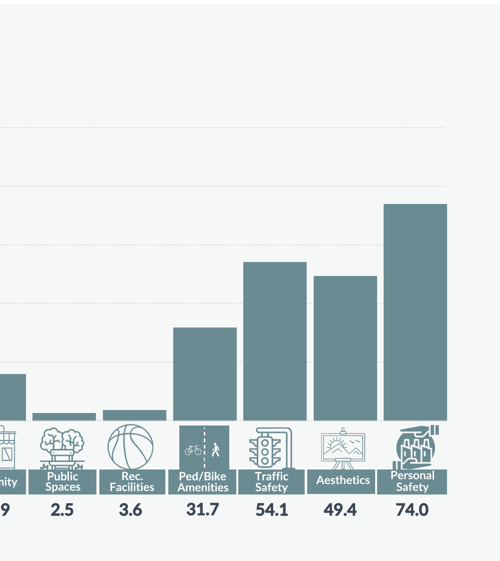


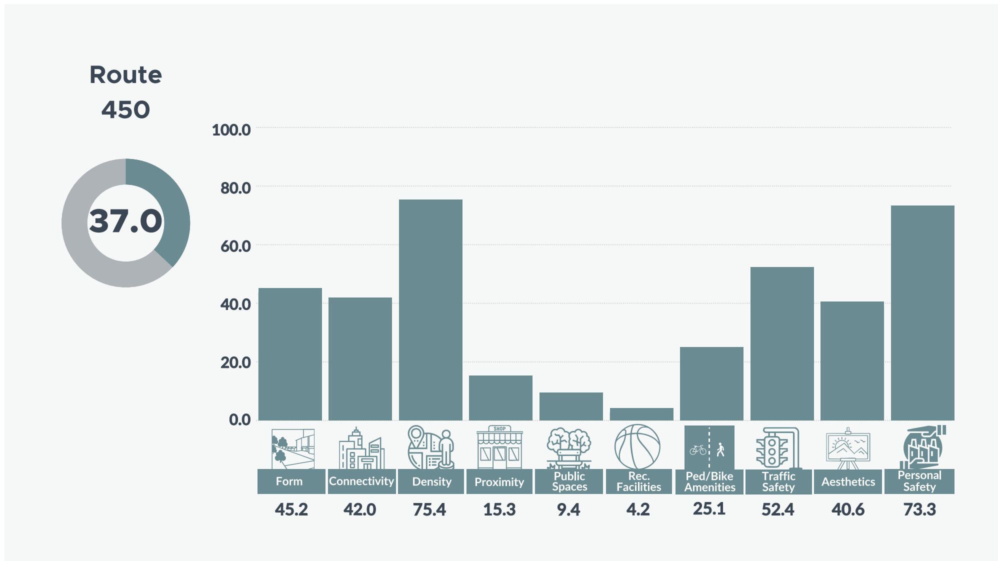
Old Town Bowie 50 Percent of Recommended Changes
Before: State of Place Index - 51.4 **After:** State of Place Index - 65.9

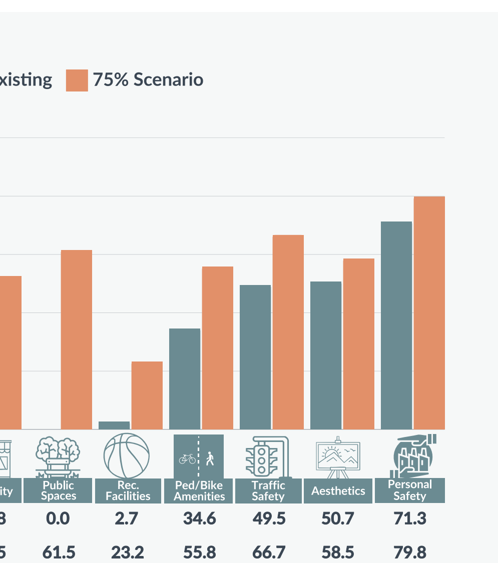


Old Town Bowie: 75 Percent of Recommended Ch

MD Route 450







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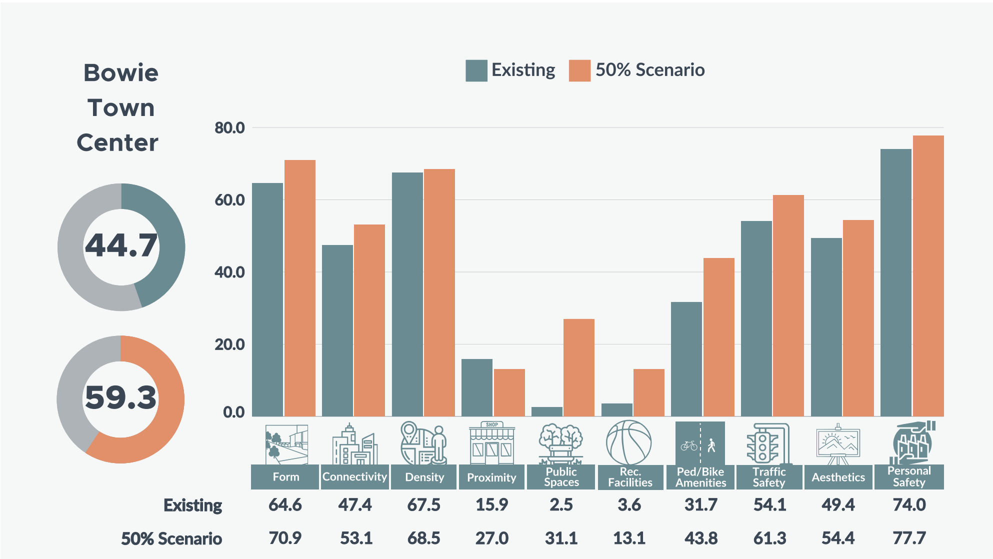
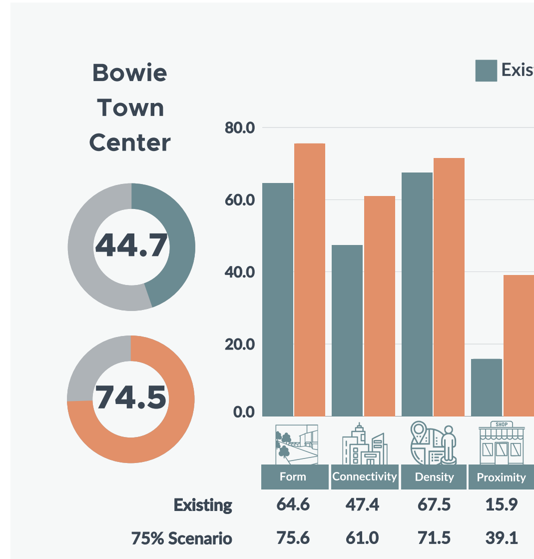
Old Town Bowie: 90 Percent of Recommended Changes
Before: State of Place Index - 51.4 **After:** State of Place Index - 92.0

State of Place Scenarios: Bowie Town Center

The following figures show the top three scenarios for each of the three focus areas for the City of Bowie, along with their value forecasts:



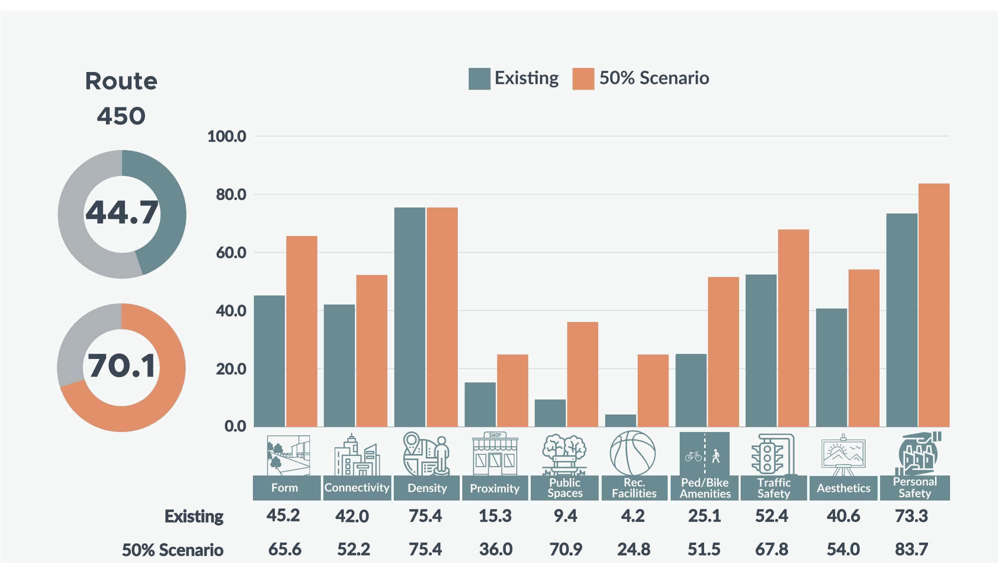
Bowie Town Center: 50 Percent of Recommended Changes
Before: State of Place Index - 44.7 **After:** State of Place Index - 59.3



Bowie Town Center: 75 Percent of Recommende
Before: State of Place Index - 44.7 **After:** State c

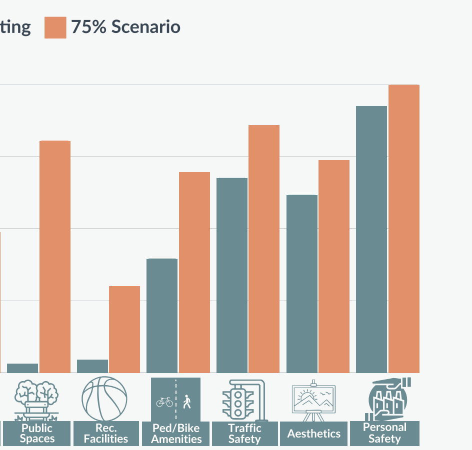
State of Place Scenarios: MD Route 450

The following figures show the top three scenarios for each of the three focus areas for the City of Bowie, along with their value forecasts:



MD 450 Corridor 50 Percent of Recommended Changes
Before: State of Place Index - 37.0 **After:** State of Place Index - 70.1

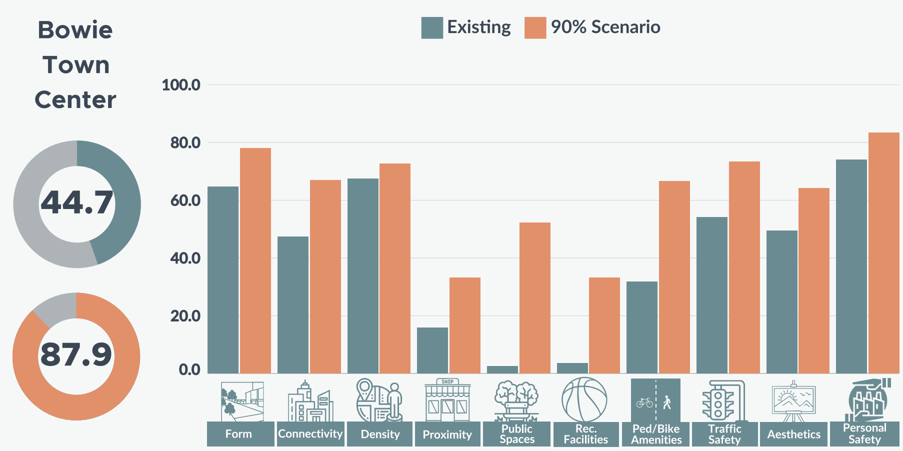
MD 450 Corridor 75 Percent of Recommended C
Before: State of Place Index - 37.0 **After:** State o



Public Spaces	Rec. Facilities	Ped/Bike Amenities	Traffic Safety	Aesthetics	Personal Safety
2.5	3.6	31.7	54.1	49.4	74.0
64.4	24.0	55.7	68.7	59.0	79.9

ed Changes

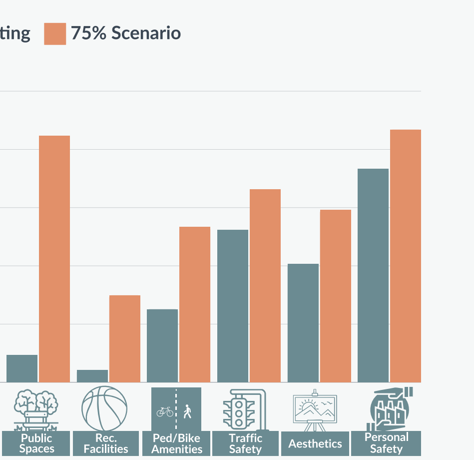
f Place Index - 74.5



	Form	Connectivity	Density	Proximity	Public Spaces	Rec. Facilities	Ped/Bike Amenities	Traffic Safety	Aesthetics	Personal Safety
Existing	64.6	47.4	67.5	15.9	2.5	3.6	31.7	54.1	49.4	74.0
90% Scenario	78.0	67.0	72.6	52.2	97.7	33.1	66.6	73.4	64.1	83.3

Bowie Town Center: 90 Percent of Recommended Changes

Before: State of Place Index - 44.7 **After:** State of Place Index - 87.9



Public Spaces	Rec. Facilities	Ped/Bike Amenities	Traffic Safety	Aesthetics	Personal Safety
9.4	4.2	25.1	52.4	40.6	73.3
84.6	29.9	53.4	66.3	59.2	86.8

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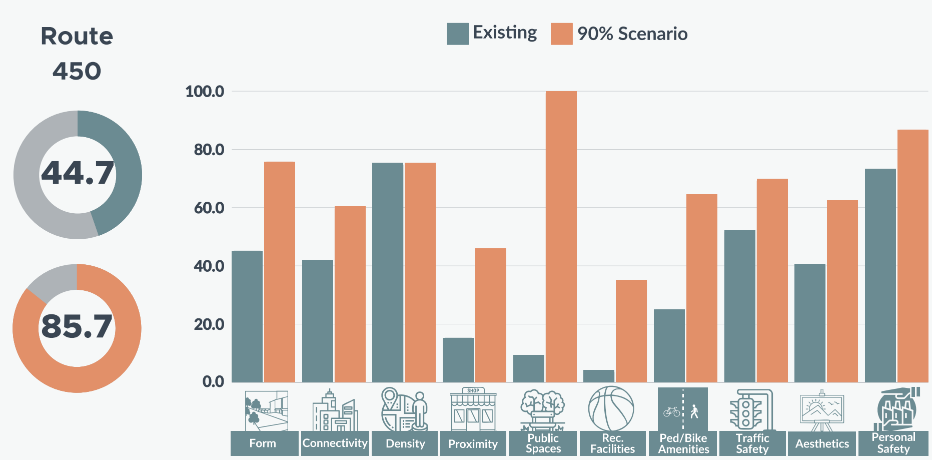
f Place Index - 77.2



	Form	Connectivity	Density	Proximity	Public Spaces	Rec. Facilities	Ped/Bike Amenities	Traffic Safety	Aesthetics	Personal Safety
Existing	45.2	42	75.4	15.3	9.4	4.2	25.1	52.4	40.6	73.3
90% Scenario	75.8	60.4	75.4	46.0	100.0	35.1	64.6	69.9	62.5	86.8

MD 450 Corridor 90 Percent of Recommended Changes

Before: State of Place Index - 37.0 **After:** State of Place Index - 85.7

State of Place Forecasts

The following tables show the forecasts of the economic value associated with the top three scenarios for each of the three focus areas:

Table 2. Old Town Bowie

			Real Estate Premiums			
Scenario	**Existing SoP Index**	**Future SoP Index**	**Office Rents/ sq.ft.**	**Retail Rents/ sq.ft.**	**Residential Rents/avg. unit**	**Residential Values/ sq.ft.**
50%	51.4	65.9	$6.59	$3.82	$170.35	$100.41
75%	51.4	79.5	$14.30	$8.29	$369.54	$217.81
90%	51.4	92.0	$20.86	$12.09	$538.95	$317.66

Table 3. Bowie Town Center

			Real Estate Premiums			
Scenario	**Existing SoP Index**	**Future SoP Index**	**Office Rents/ sq.ft.**	**Retail Rents/ sq.ft.**	**Residential Rents/avg. unit**	**Residential Values/ sq.ft.**
50%	44.7	59.3	$7.94	$4.60	$205.20	$120.95
75%	44.7	74.5	$16.38	$9.49	$423.28	$249.48
90%	44.7	87.9	$23.66	$13.71	$611.49	$360.41

Table 4. MD 450 Corridor

			Real Estate Premiums			
Scenario	**Existing SoP Index**	**Future SoP Index**	**Office Rents/ sq.ft.**	**Retail Rents/ sq.ft.**	**Residential Rents/avg. unit**	**Residential Values/ sq.ft.**
50%	37.0	70.1	$20.23	$11.73	$522.89	$308.19
75%	37.0	77.2	$25.85	$14.98	$667.98	$393.71
90%	37.0	85.7	$30.36	$17.60	$784.45	$462.36

Value of the Evidence

The data and evidence generated by this study can help the City of Bowie in a variety of ways.

Benchmarking

First, the State of Place Index and Profile for each of the three core economic development zones provide the City with a benchmark. This allows the City to measure progress against existing conditions if it decides to re-engage State of Place after any improvements are implemented within the areas. In addition, by having a quantitative benchmark not just for the three areas within the City of Bowie, but for two key competitor areas within the Washington, D.C. metropolitan area, it can facilitate discussions between the City's economic development department and stakeholders that they are trying to attract to the City. Further, having the "before" State of Place Index and Profile for these three areas allows the City to run scenarios to understand how proposed improvements would impact the existing State of Place Index and Profile.

Prioritizing Design Recommendations

The prioritized urban design recommendations are another valuable aspect of the study. The recommendations allow the City to focus on potential built environment investments likely to further the City's economic development goals. Focusing on the changes that will have the most effect can help increase the economic efficiency of the City's capital improvement budgets. Further, the City can point to evidence to justify its focus on any proposed urban design changes.

Testing Proposed Recommendations

The automated scenarios developed in this study and by the City also provide a cost-efficient and effective way of testing proposed urban design recommendations in real time to identify the most desirable and feasible set of built environment improvements. This kind of simulation environment avoids costly trial and error. It also allows collaboration between the City and stakeholders by facilitating the co-creation of scenarios. Should the City choose to extend its software subscription, it will be able to continue to engage with stakeholders regarding their economic development plans and evaluate potential urban design changes in real time. The City now has an understanding of the top scenarios across three focus areas and can use the software to customize those recommendations to suit their needs and constraints.

The forecasting model helps quantify how any proposed changes within the modeled scenarios may translate into real economic development value for the City. By demonstrating how urban design improvements can impact real estate values, the City can compete for internal and external funding, help get City council support for proposed redevelopment plans and help secure buy-in from various stakeholders both within and outside the City. In addition, the City can compare scenarios based not only on how much it impacts the State of Place Index and Profile, but also the ROI (return on investment) of those scenarios. This quantitative comparison helps increase the economic cost-efficiency and overall planning and design effectiveness of their economic and redevelopment efforts.

These recommendations will help the Bowie Town Center fulfill its potential as a Local Center at the time the center is redeveloped or expanded. The City intends to meet with individual property developers, the Maryland State Highway Administration and Prince George's County Department of Public Works and Transportation to make a case for including combinations of improvements that will increase the existing conditions scores. These improvements will add to the rate of return on investment for both the private and public sectors, while comprehensively guiding the growth of these areas.

CREDIT: M-NCPPC

Neighborhood	State of Place Index	Form	Density	Connectivity	Proximity	Parks & Public Places	Recreational Facilities	Pedestrian & Bike Amenities	Traffic Safety	Aesthetics	Personal Safety
Bowie Town Center	44.7	64.6	47.4	67.5	15.9	2.5	3.6	31.7	54.1	49.4	74
Old Town Bowie	51.4	78.5	60.2	80.6	26.8	0	2.7	34.6	49.5	50.7	71.3
Route 450 Main Street	37	45.2	42	75.4	15.3	9.4	4.2	25.1	52.4	40.6	73.3
Adams Morgan	49.6	80.9	44.7	79.8	12.9	6.4	2.2	31.6	59.8	49.4	73.9
Addison Road	46.9	85.1	53.6	70.9	5	0	0	28.2	46.1	56.4	80.3
Annapolis	47.4	80.4	41.2	80.3	8.6	0	0.6	30.3	56.7	51	76.9
Bailey's West	41.2	80.3	27.9	69.1	3.8	0	0	30.1	47.6	49	73.9
Ballston	50.7	75.6	57.3	74.4	19.9	6.7	3.8	31.8	56.5	49.6	79
Beacon/Groveton CBC	44.3	80.3	45.1	80.6	2.6	0	0	25.9	47.5	55.1	73.9
Beauregard	46.2	80	33.4	80	5	0	0.4	30.5	58.9	50.6	75.5
Benning Road	47.3	76.3	39.3	77.5	10	5.4	0	35.3	54	49.5	77.9
Bethesda	52.7	80.5	50.6	72.8	21.6	9.4	3.1	35.3	55.8	51.6	77.5
Bladensburg Town Center	43.8	81.3	36.5	72.2	6.5	0	0	30.7	46.6	51.3	75.4
Brookland	48.1	78.7	38.7	77.9	6.6	2.4	0.2	35.2	60.3	50.4	75.5
Burnt Mills Commercial Center	46.7	84.7	51.9	80.6	11.4	0	0	28.1	55.8	47.1	68.8
Capitol Hill	50.3	78.9	38.1	77.6	10	16.1	0.6	33	61.4	51.2	76.9
Carlyle	48.8	79.6	41	75.6	10.5	3.3	3.2	33	56.4	51.7	78.6
Chevy Chase Lake	41.8	77.8	39.2	74.9	4.3	0	0	27.6	51.9	48.4	68.9
Cleveland Park	48.6	75.6	42.3	79.6	6.6	17.4	1.7	36.1	57.7	49.5	71.4
Columbia Heights	55.6	81.8	47.5	79.5	21.3	18	3.5	35.7	61.9	51.1	78.3
Congress Heights	47.1	78.4	40.9	79.1	4.9	0.8	0	32.4	60.3	49.8	77.6
Crystal City	57.7	82.1	53	79.5	20.3	24.2	3.4	35.3	58.7	55	84.6
Downtown	65.9	87.4	56.9	74	40.1	38.4	1.9	40	58.9	58.4	81.9
Downtown Manassas	47.4	81.2	41.1	79.8	7	0	0	30.6	56.6	52.4	75.4
Dulles West	41.6	81.5	30.4	80.1	1	0	0.2	18.4	51.9	52.7	77.4
Dupont Circle	57	84.7	44.1	76.9	26.4	19.4	3.6	35.6	58.8	54.4	76.8
FedEx Field	42.1	83.2	32.2	68.2	2.6	0	0	25.9	41.8	54.4	82.3
Flint Hill Suburban Center	41.2	79.9	33	79.4	1.1	0	0	24.2	50.5	50.4	71
Foggy Bottom	58.5	81.8	42.1	76.7	26.3	32.4	3.1	36.9	58.5	55.4	80.5
Fort Totten	50.2	76.4	36.1	80.6	4.4	25.1	0	34.1	57.1	52.8	82.8
Frederick	51.4	83.3	46.7	74.6	23.2	0	0	33.9	54.9	51.3	76.6
Gaithersburg	43.7	79.1	40.4	75.2	3.8	0	0	28.7	51.5	50.3	75.8
Gateway Arts District	47.9	80.3	43.7	79.1	9.6	0	0.5	34	55.8	50.3	74
Georgetown	50.5	80.4	46.3	78.7	15.7	1.3	1.9	34.7	59.2	50.2	74.5
Glenmont	41.5	75.9	40.8	72.6	3.3	3	0.4	27	49.3	49.3	72.7
Glover Park	47.2	77.3	41.9	79.6	3.8	0	1.6	33.6	60.5	50	76.3
Greenbelt	44.4	81	46.2	79	2.8	3.3	0	23.3	53.5	51.6	75.6
H Street/Atlas District	50.3	81	42.7	79.3	11.3	5.9	1.5	34.3	62.8	49.4	74.1
Historic Fairfax City	47	79.5	36.8	78.1	7.2	0	0.2	35.5	50.8	52.6	77.8
Judiciary Square	60.2	81.1	48	75.4	24.2	35.1	0	35.2	62.2	57.9	87.6
Kalorama	48.4	77.1	41.2	78.1	9.3	17.3	2	32.2	56.1	49.2	77.1
Kensington	45.2	77.8	38.9	73.8	7.9	0	1	34	51.9	50.5	72.3

Neighborhood	State of Place Index	Form	Density	Connectivity	Proximity	Parks & Public Places	Recreational Facilities	Pedestrian & Bike Amenities	Traffic Safety	Aesthetics	Personal Safety
Kentlands	46.1	78.4	44	79.9	5.1	0	0.4	31.8	56.4	49.9	74.4
King Farm	47.2	79.1	44	79.7	3.3	1	0.4	33.3	55.5	52.1	77.3
King Street	53.2	82.6	46.5	75.9	24.3	4.5	1.4	36	57.4	51.8	74.4
Landover Road Metro Area	50.3	86.7	60.1	80.5	3.5	0	0	29.4	55.6	55.1	81.6
Largo Town Center	44	81.7	37.3	76	1.3	0	0	26	51.1	52.9	80.4
M Square Research Park	44.4	67.4	34.9	74.8	10.7	26.7	1.1	32.2	46.3	45.7	82.6
Mathis Avenue	46.3	76.3	37.9	78.6	6.6	0	0	34.2	52.7	51.6	79.2
Minnesota Avenue	48.1	78.7	36.8	79.5	10.1	0.6	0	35.7	58.5	48.8	77.3
Mount Vernon	59.4	83.8	54.5	77.1	25.2	27.5	1	36.4	60.3	55.4	81.8
National Harbor	49.5	82.6	32.4	80.6	15.1	0	0	31.6	59.6	52.2	74.8
Naylor Road	42.3	76.9	27.1	77.8	1.4	5.6	0	26.5	49.6	51.8	78.7
New Carrollton	46.5	80.8	48.7	72.2	6.5	0	0	31.7	49.3	51.3	84
New York Avenue	35.8	78.2	36.1	46.2	0	0	0	33.7	30	46.6	81.6
NoMA	54.3	76.8	55.8	70	23.2	15.7	1.6	39.4	57.5	48.9	84.2
PW Government Center	46.5	81.2	43.2	80.5	2.9	0	0.4	29.7	53.4	54.1	76.2
Paint Branch	41.9	81.7	29.3	78.8	0	0	0	22.4	49.6	53	77.7
Penn Quarter/ Chinatown	72.4	89.7	69.5	76.2	55	43	10.5	38.8	63.3	57.8	81.1
Prince George's Plaza	40.6	66.7	42.6	65.6	16.7	0.7	0	32.2	48	40.1	79.2
Reston Town Center	54.2	84.8	46.3	78.3	20	16.4	0.8	32.6	56.4	52.7	82.1
Rhode Island Avenue Metro	45.8	76.7	40.9	74.6	6.4	2.9	1.3	33.2	55.5	49.6	75.2
Rockville	47.3	78.5	38	70.8	12.7	3.6	0.2	34.3	53	50.5	78.4
Rolling Acres	42.5	78.8	43.7	77.6	1.4	0	0	28.6	49.8	50.4	69.5
SW Federal Center	55.3	83	54	74.9	20.5	18.2	0.3	32.4	57.3	54.5	84.2
SW Waterfront	52.7	80	42.1	71.8	15.8	24.9	6	35.3	56.5	50.7	79.6
Saint Elizabeth's	47.2	80.4	30	79	3.7	0	0	35.8	59.2	50.2	78.3
Shaw	54.8	81.1	40.9	77.2	23	20.3	5.4	37.5	60.7	50.7	71.3
Shirlington	48.3	81.1	38.7	80.2	7.4	0	3.2	32.2	58.1	51.6	76.5
Silver Spring	56.4	82.2	56.3	73.4	24.7	11.7	1.4	37.1	58.9	52.7	83.3
South County Center CBC	42	79.9	34.1	80.6	0.4	0	0	25.3	51.5	51.2	71.7
U Street	55.6	82.3	43	78.8	33	7.3	3.9	35.7	61.4	50.3	72.1
Van Dorn Transit Area	36.5	68.6	22.7	71.7	2.2	0	4.3	18	41	53.3	80.3
Vienna Transit Station Area	43.5	78	34.9	78.7	4	15.5	4.5	24.2	50.6	49.4	72.5
Walter Reed	43.7	83.1	36.4	70.1	9	0	0	33.2	44.6	49.9	70.3
Washington Highlands	48.2	80.6	41.6	80.2	3.6	0	0	32.9	60	52	78.3
West End	59.7	86.2	60.9	69.2	32.9	19.9	4.2	34.9	55.4	55.2	85.4
West Falls Church Transit Area	43.9	81	38.5	76.7	4.8	0	0.7	26.1	49.8	54.9	68.7
West Hyattsville	48.4	71	37.4	77.6	6.4	30.4	2.2	33	54.3	50	82.5
Wheaton	42.2	72.4	39.5	68.7	11.1	2.6	0.8	33.1	48.9	44.7	74.2
White Flint	45.1	74.2	33.4	66.9	12.4	2.5	3.3	37.3	51.7	45.9	79.4

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The mission of the Prince George's County Planning Department is to promote economic vitality, environmental sustainability, design excellence, and quality development that promotes healthy lifestyles in Prince George's County neighborhoods.