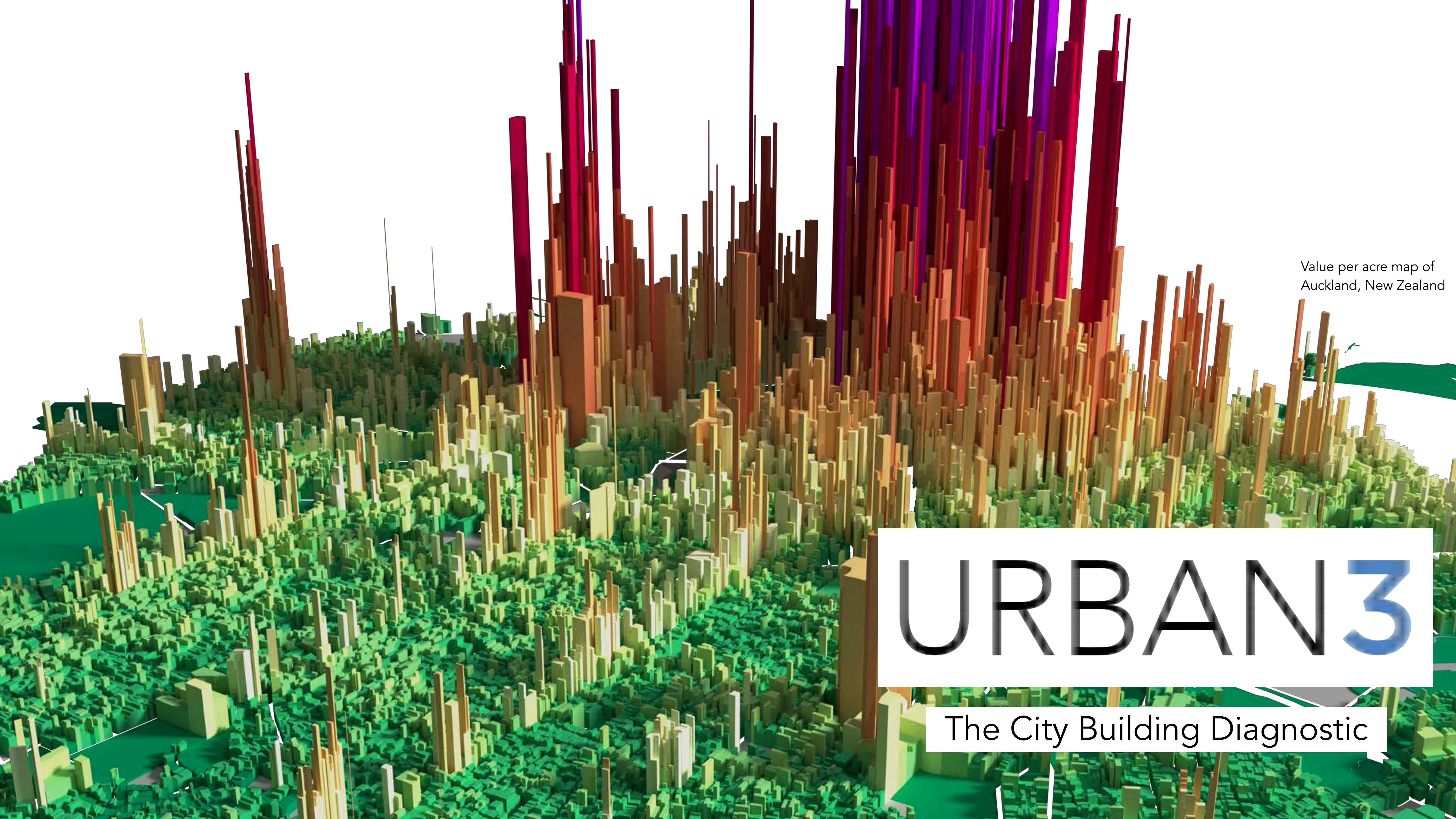




Value per acre map of
Auckland, New Zealand

URBAN3

The City Building Diagnostic

In the 70's and 80's our downtown died









Julian Price

1941 - 11/19/2001



the Alternative Reading Room

The Mountain Xpress

Salsa's & Zambras

City Seeds

Public Interest Projects



URBAN3



51 Biltmore



Downtown benches



the Dogwood Fund



The Orange Peel



YWCA

The Public Service Building



The Laughing Seed



In God we trust;
everyone else,
bring data.

Mayor Michael Bloomberg



Land Production





For 40 years this
building remained
vacant..... its tax value
in 1991 was just over
\$300,000



Today the building is valued at over
\$11,000,000

An increase > **3500%**

in **15 years**

The lot is less than **1/5 acre**

Asheville Walmart

Total Tax Value:
\$20M



Downtown Building

Total Tax Value:
\$11M

Land Consumed (Acres)



Total Property Taxes Per Acre



City Sales Taxes Per Acre



Residents Per Acre



Jobs Per Acre



How do we compare cars?

Miles per tank



1955 BMW Isetta

Rolls-Royce Phantom
Drophead

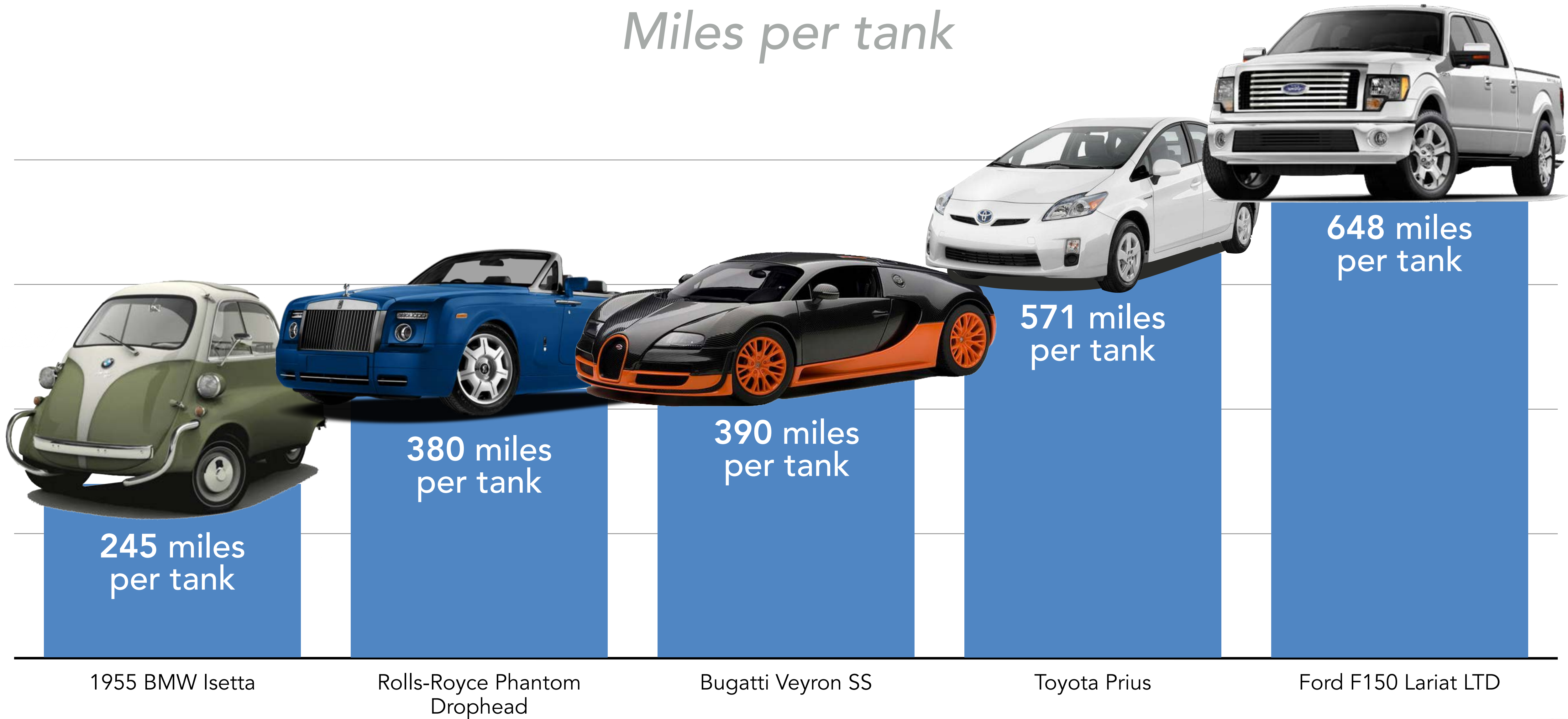
Bugatti Veyron SS

Toyota Prius

Ford F150 Lariat LTD

How do we compare cars?

Miles per tank



How do we compare cars?

Miles per gallon



50/70 mpg



11/18 mpg



8/14 mpg



51/48 mpg



13/18 mpg

1955 BMW Isetta

Rolls-Royce Phantom
Drophead

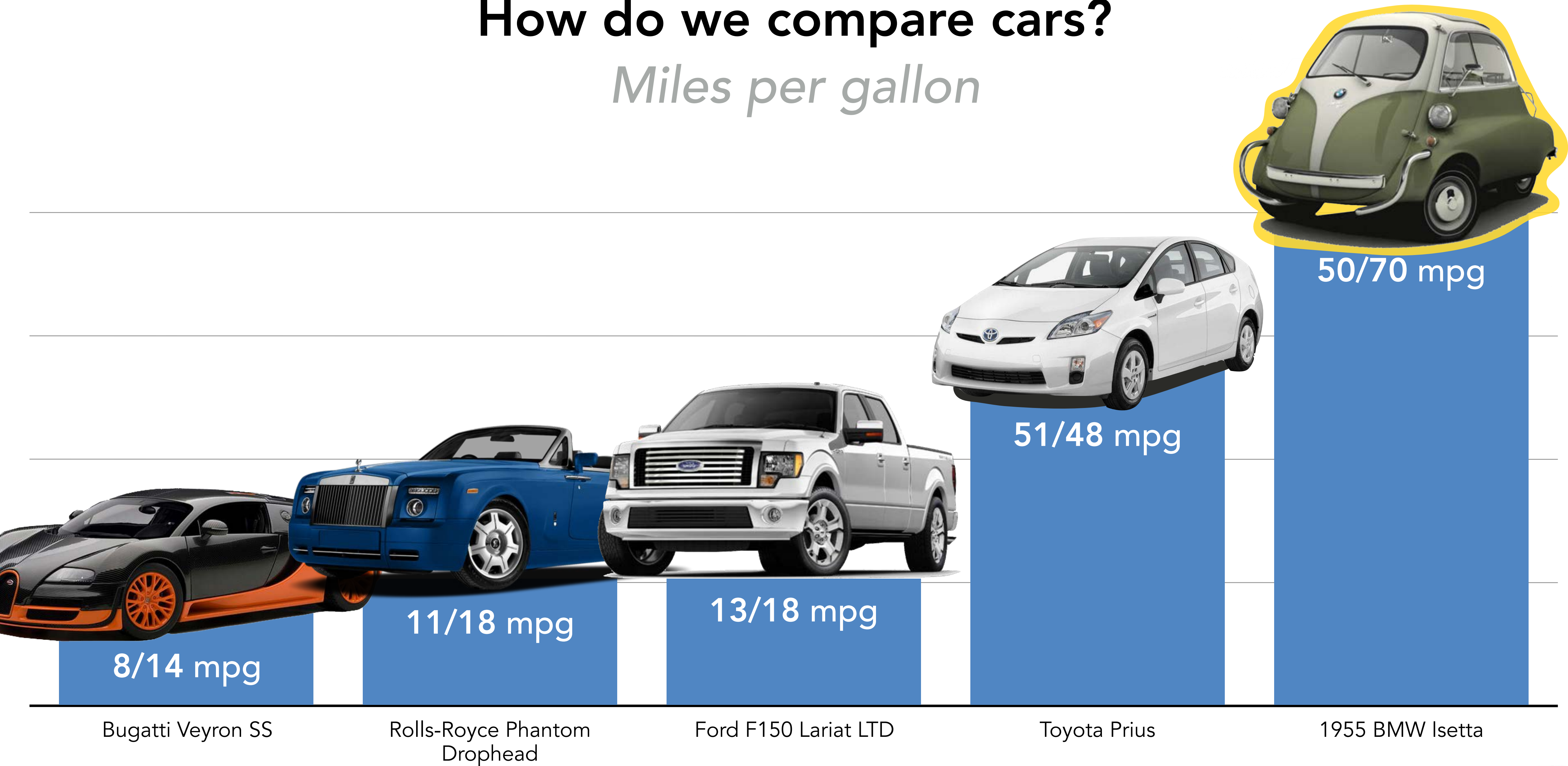
Bugatti Veyron SS

Toyota Prius

Ford F150 Lariat LTD

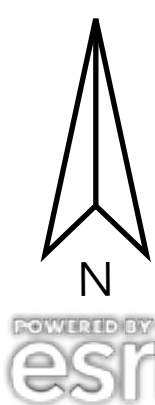
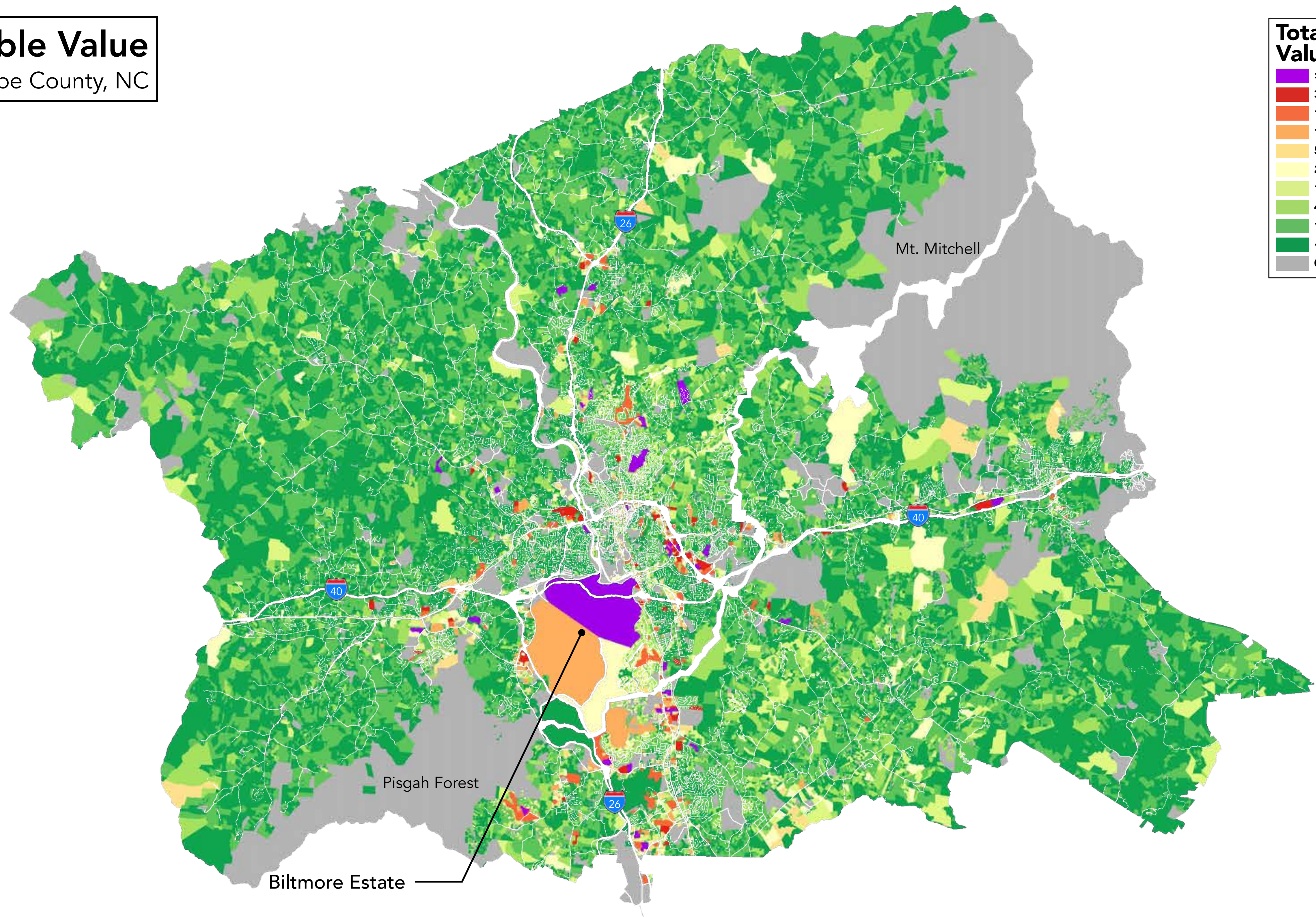
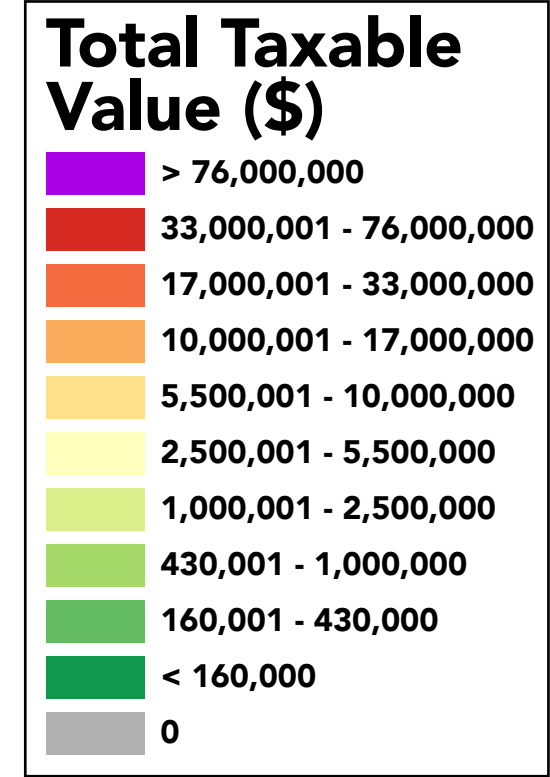
How do we compare cars?

Miles per gallon



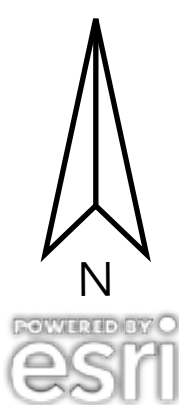
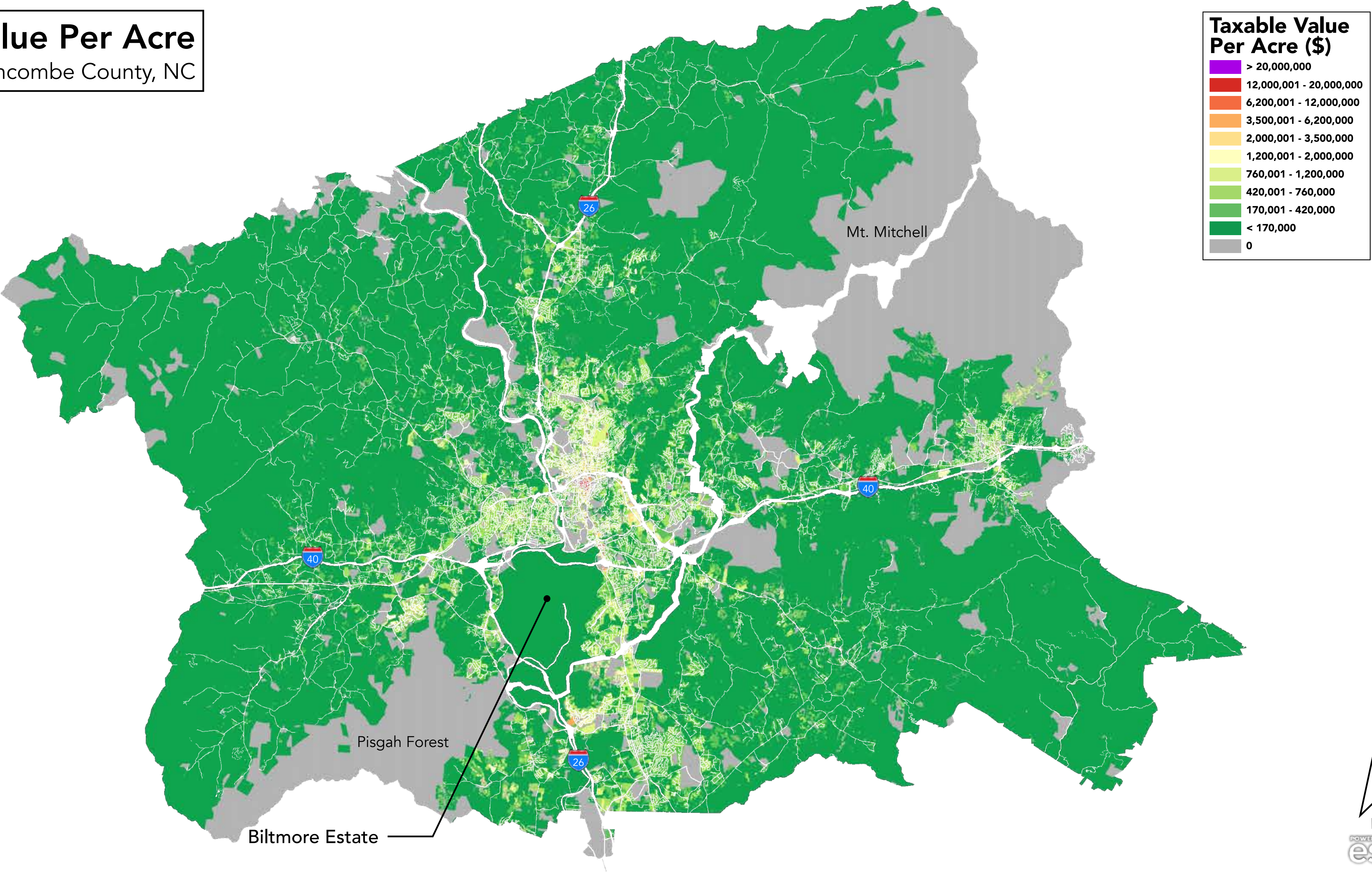
Total Taxable Value

Buncombe County, NC



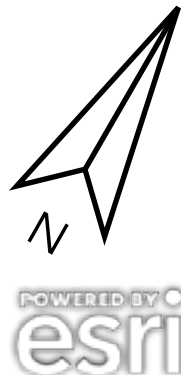
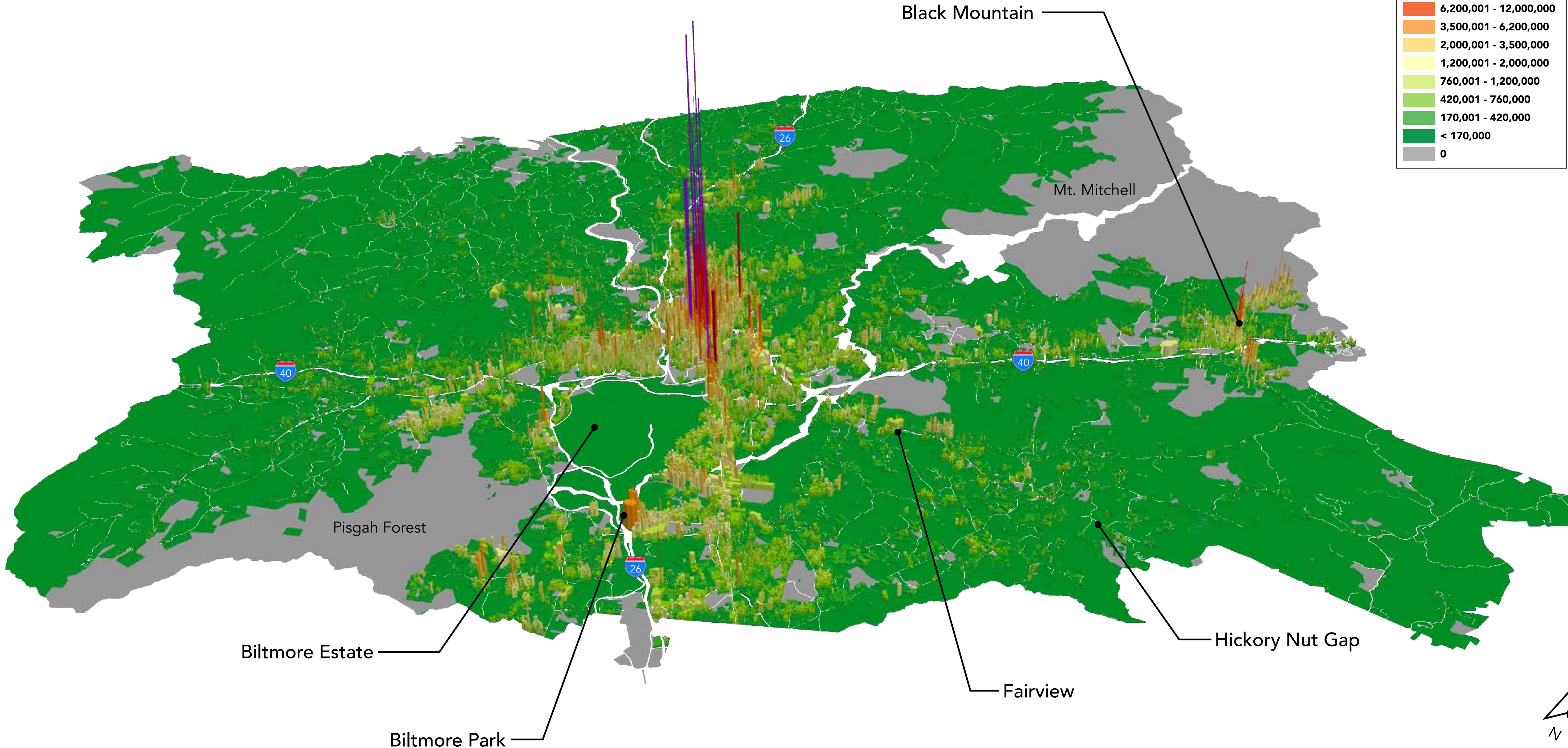
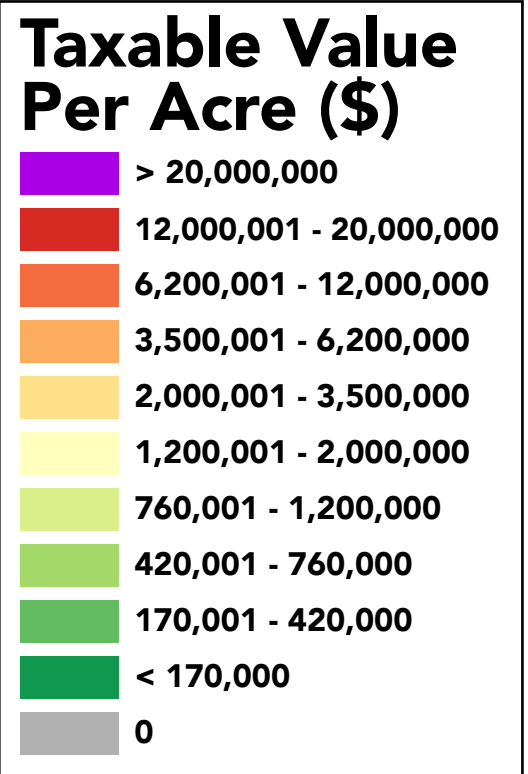
Taxable Value Per Acre

Buncombe County, NC

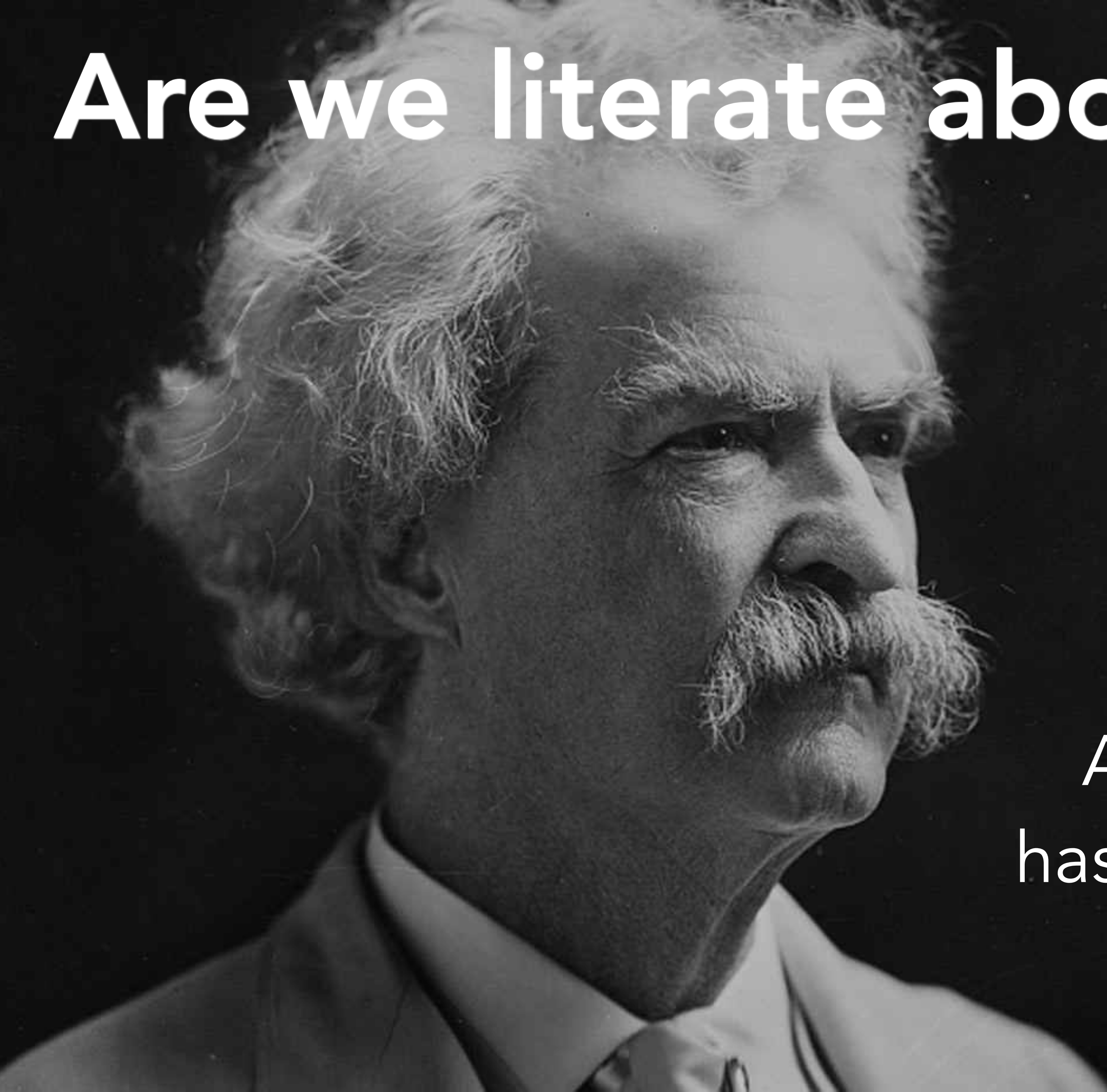


Taxable Value Per Acre

Buncombe County, NC



Are we literate about tax policy?

A black and white portrait of Mark Twain, showing his head and shoulders in profile, facing right. He has a prominent white mustache and curly white hair. He is wearing a dark suit jacket over a light-colored shirt and a dark tie.

A person who won't read
has no advantage over one
who can't read.

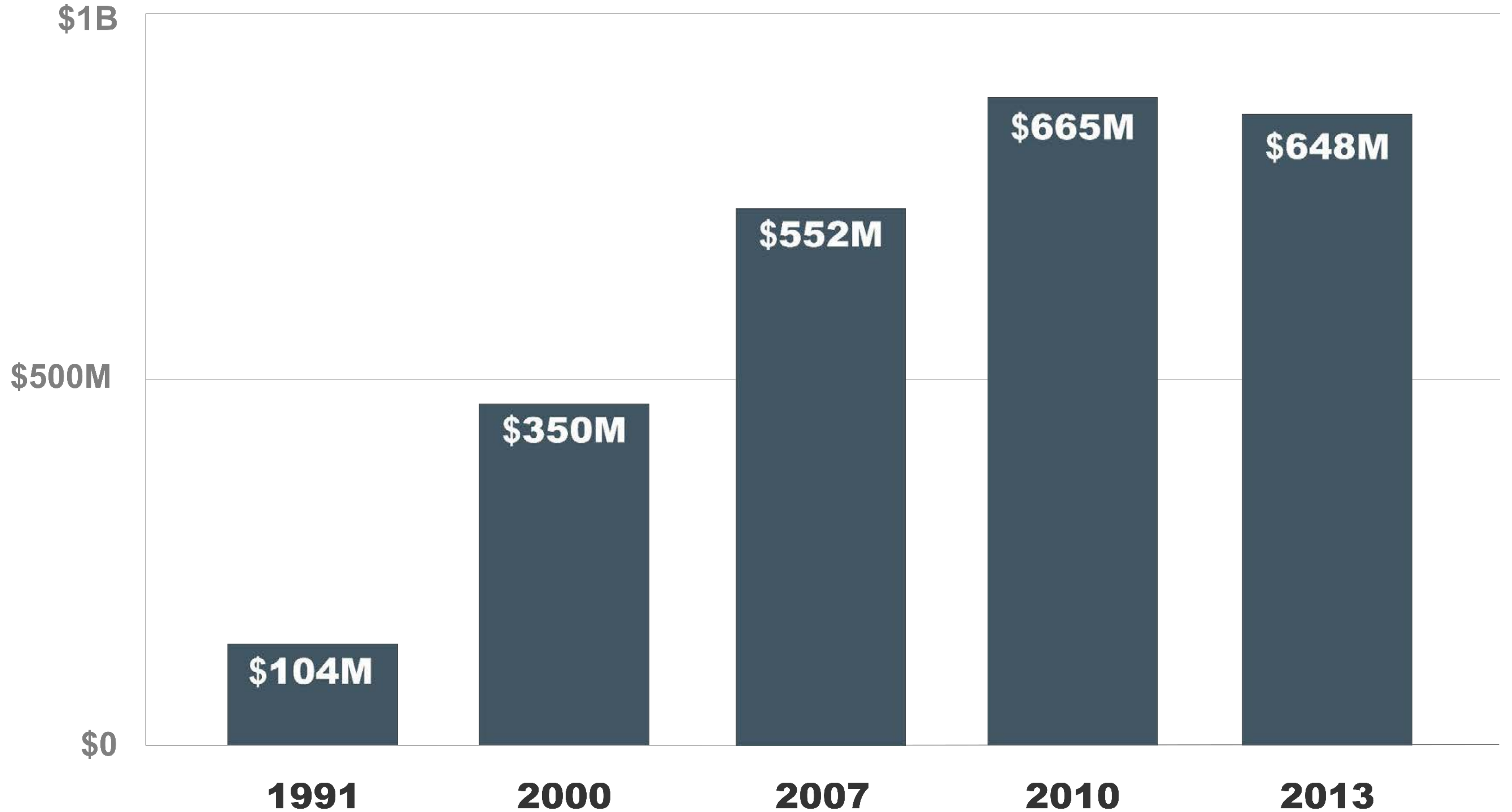
Mark Twain

Question:

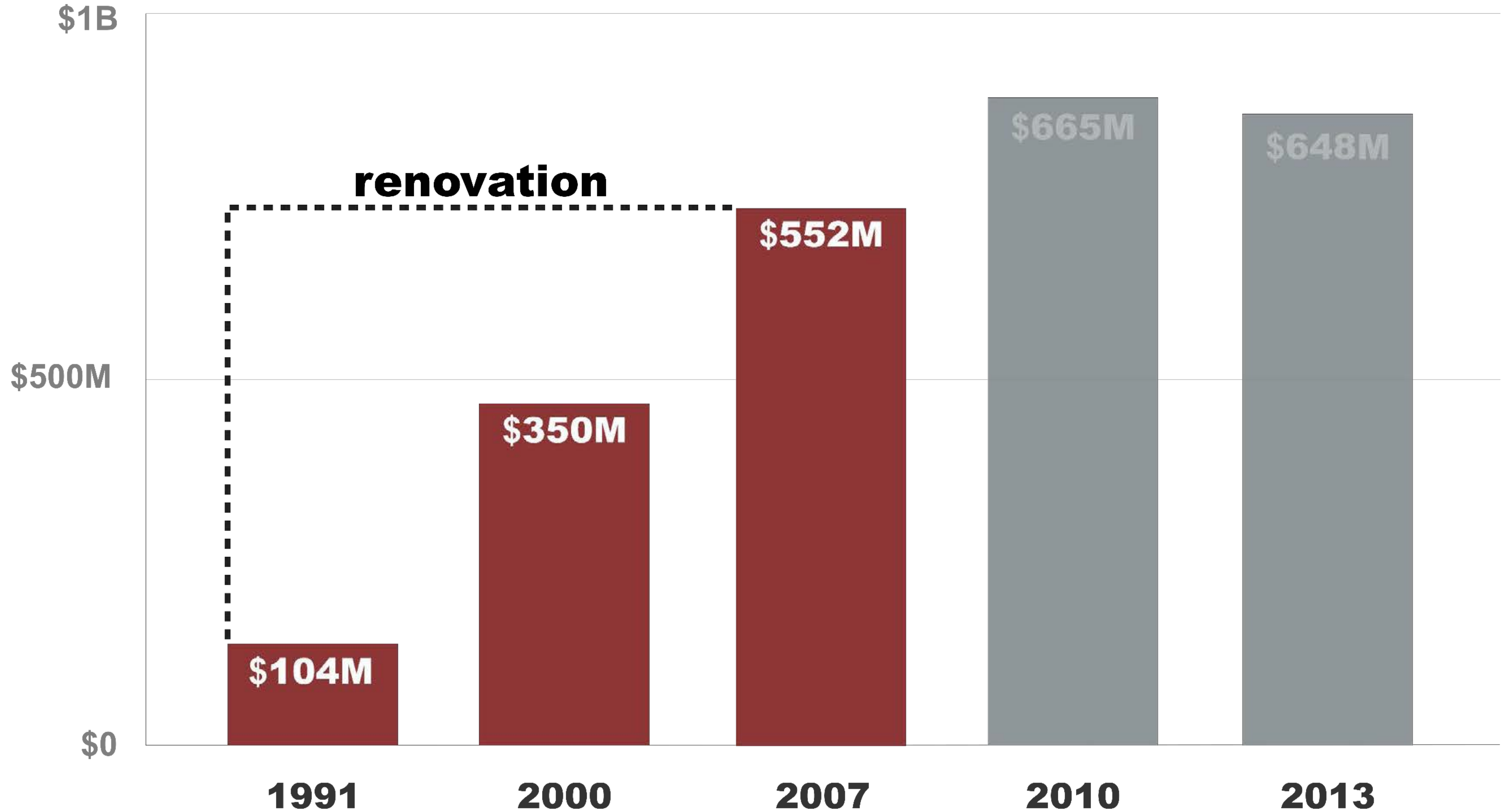
**But why does tax policy
matter?**

... taxes pay for stuff.

Asheville Downtown Taxable Value



Asheville Downtown Taxable Value



51 Biltmore



This Map Was Created By Buncombe County NC



Asheville

2015 Aerial

51 Biltmore



2008 **\$11,500**

51 Biltmore



2008 **\$11,500**

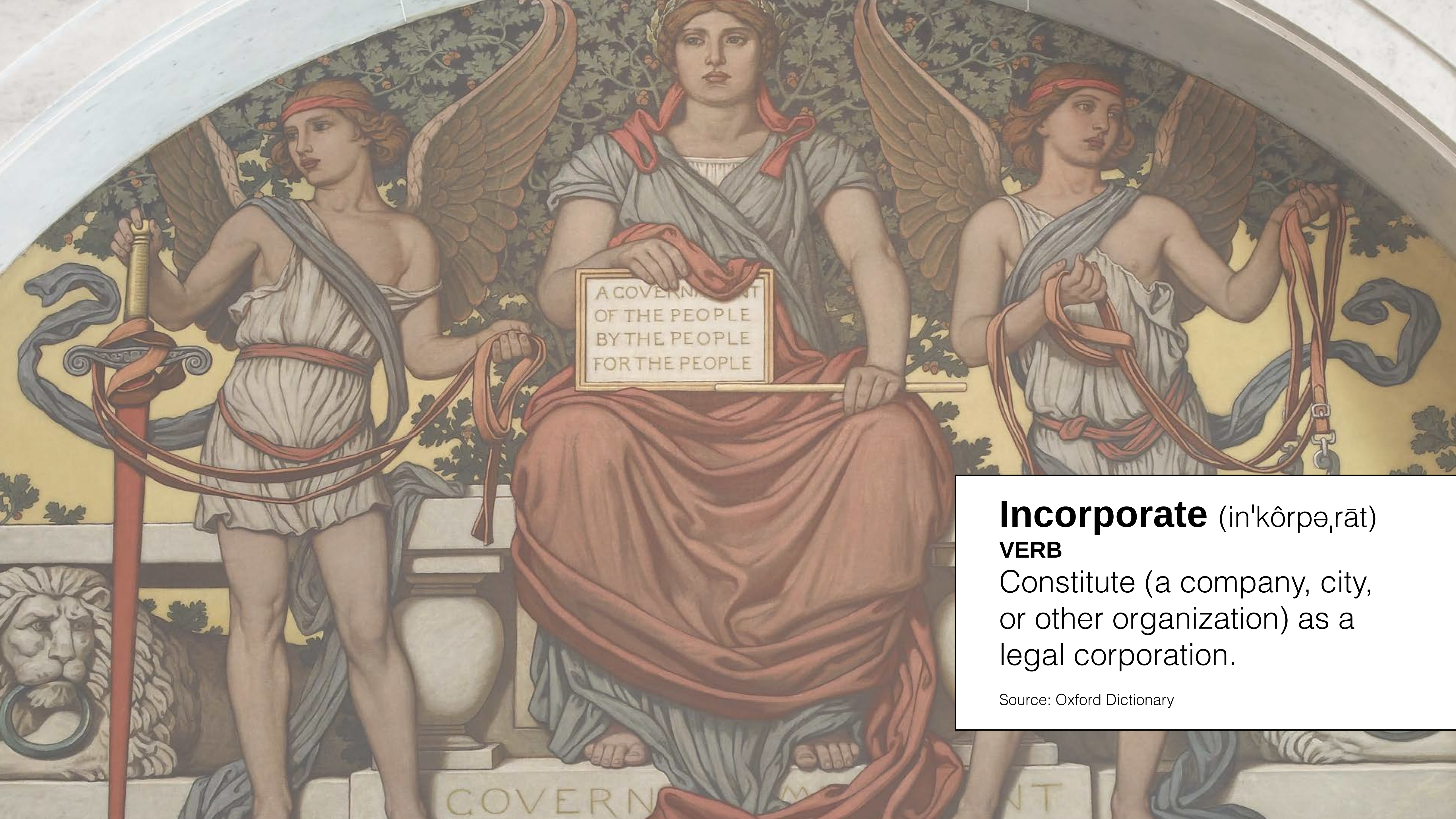


2018 **\$332,990**

... *or* a 2,900% growth in property tax revenue



What is a City?



Incorporate (in'kôrpə,rāt)

VERB

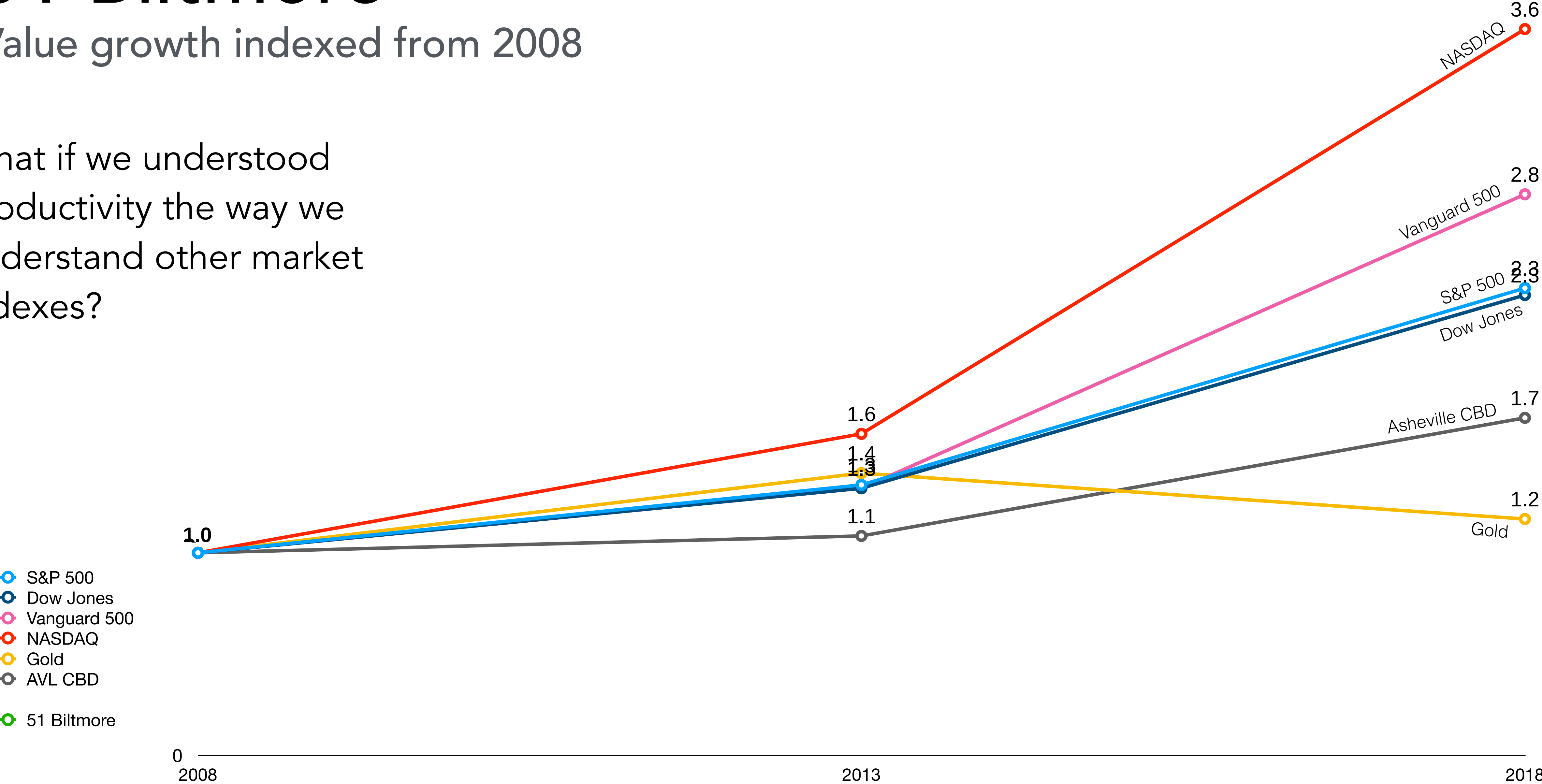
Constitute (a company, city, or other organization) as a legal corporation.

Source: Oxford Dictionary

51 Biltmore

Value growth indexed from 2008

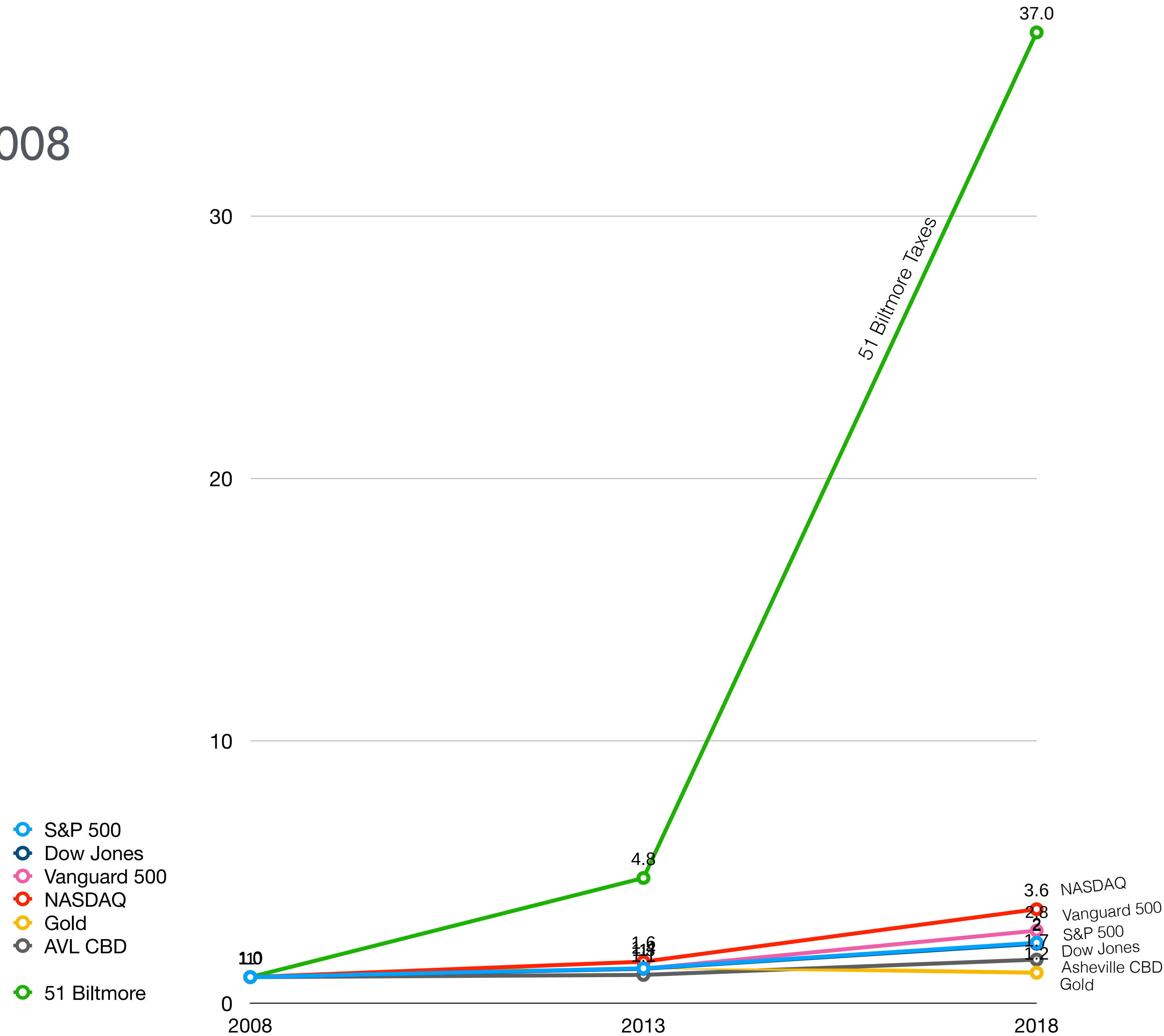
What if we understood productivity the way we understand other market indexes?

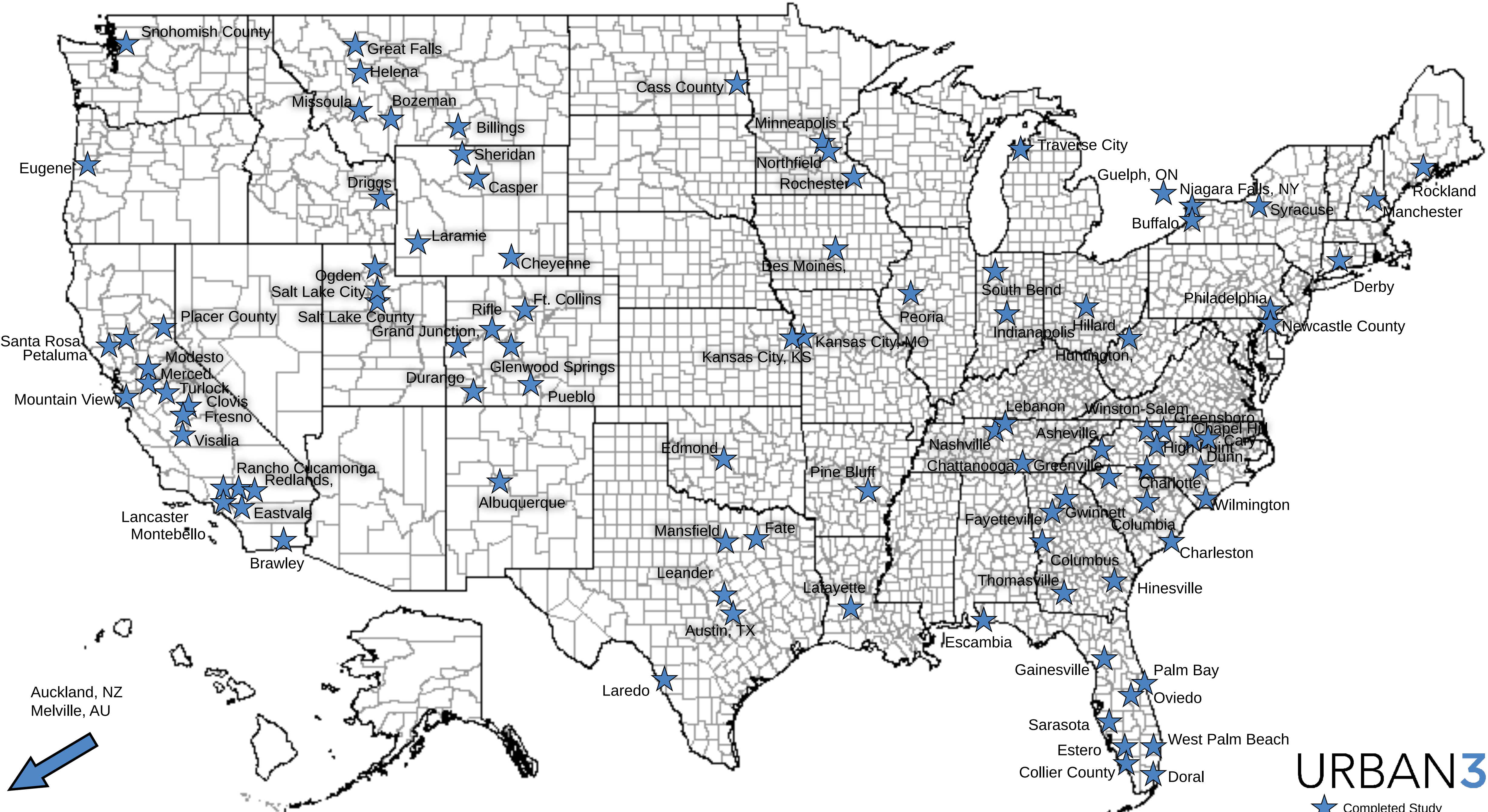


51 Biltmore

Value growth indexed from 2008

What if we understood productivity the way we understand other market indexes?

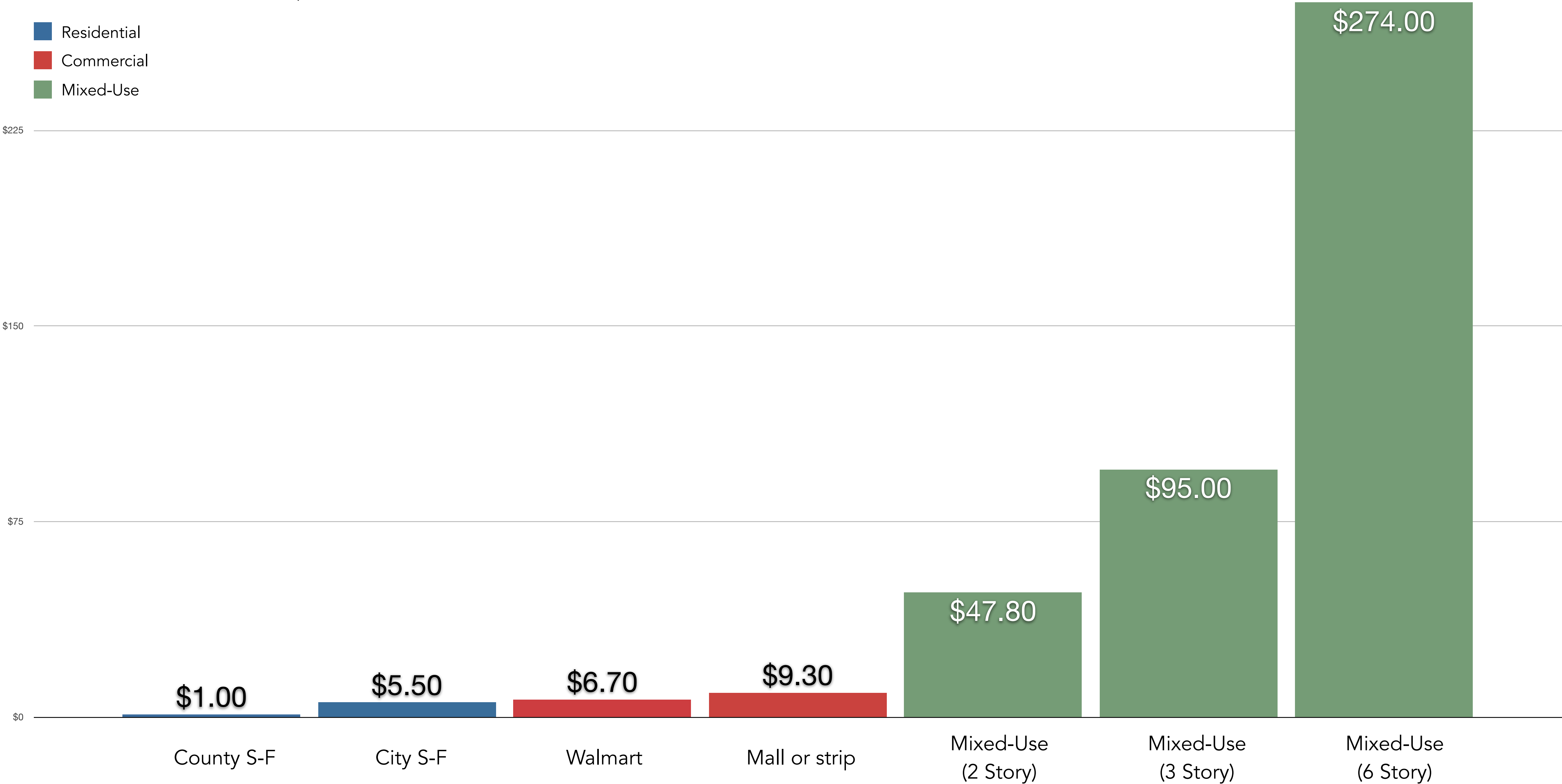


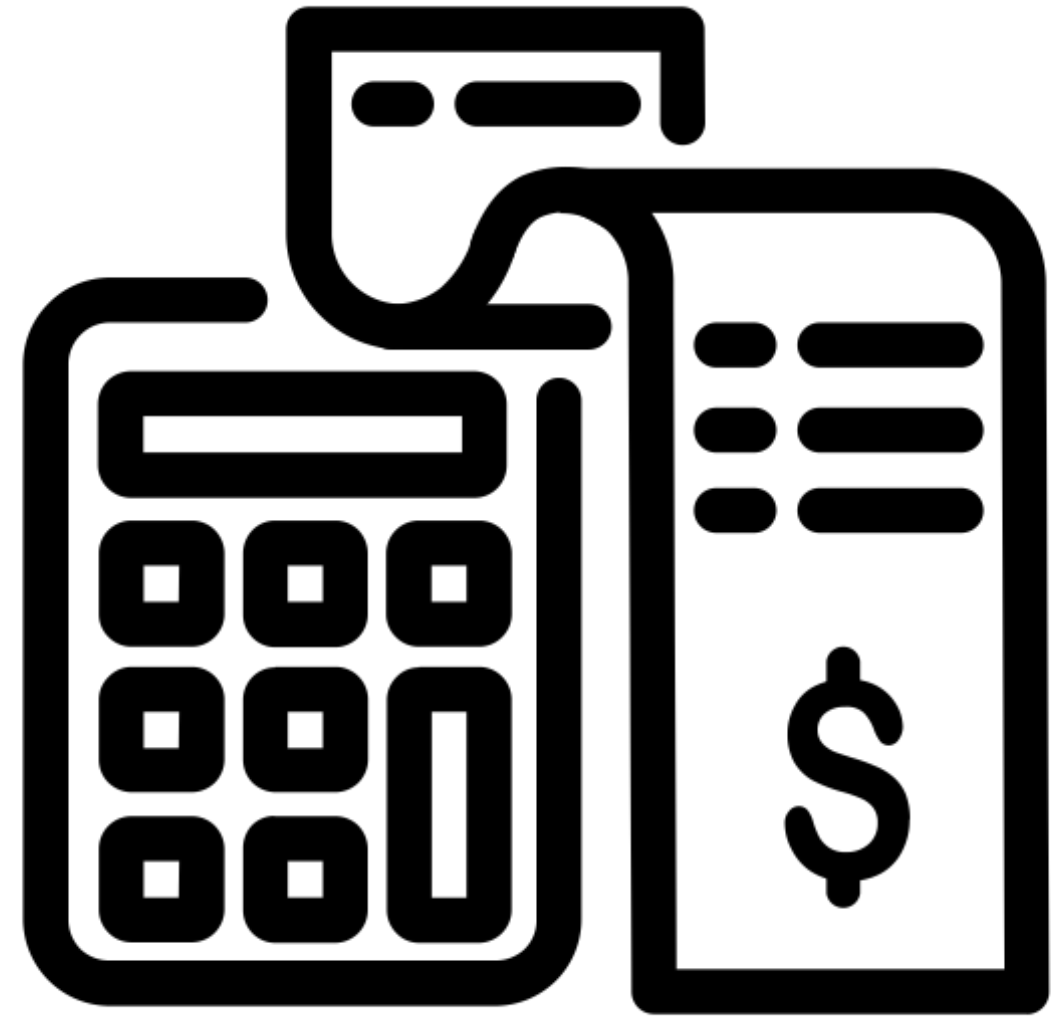


County Property Taxes/Acre

Ratio Difference of 60 City Sample Set, in 21 States (+ a Province)

- Residential
- Commercial
- Mixed-Use





Tax Systems

How Your Services are Funded

URBAN3

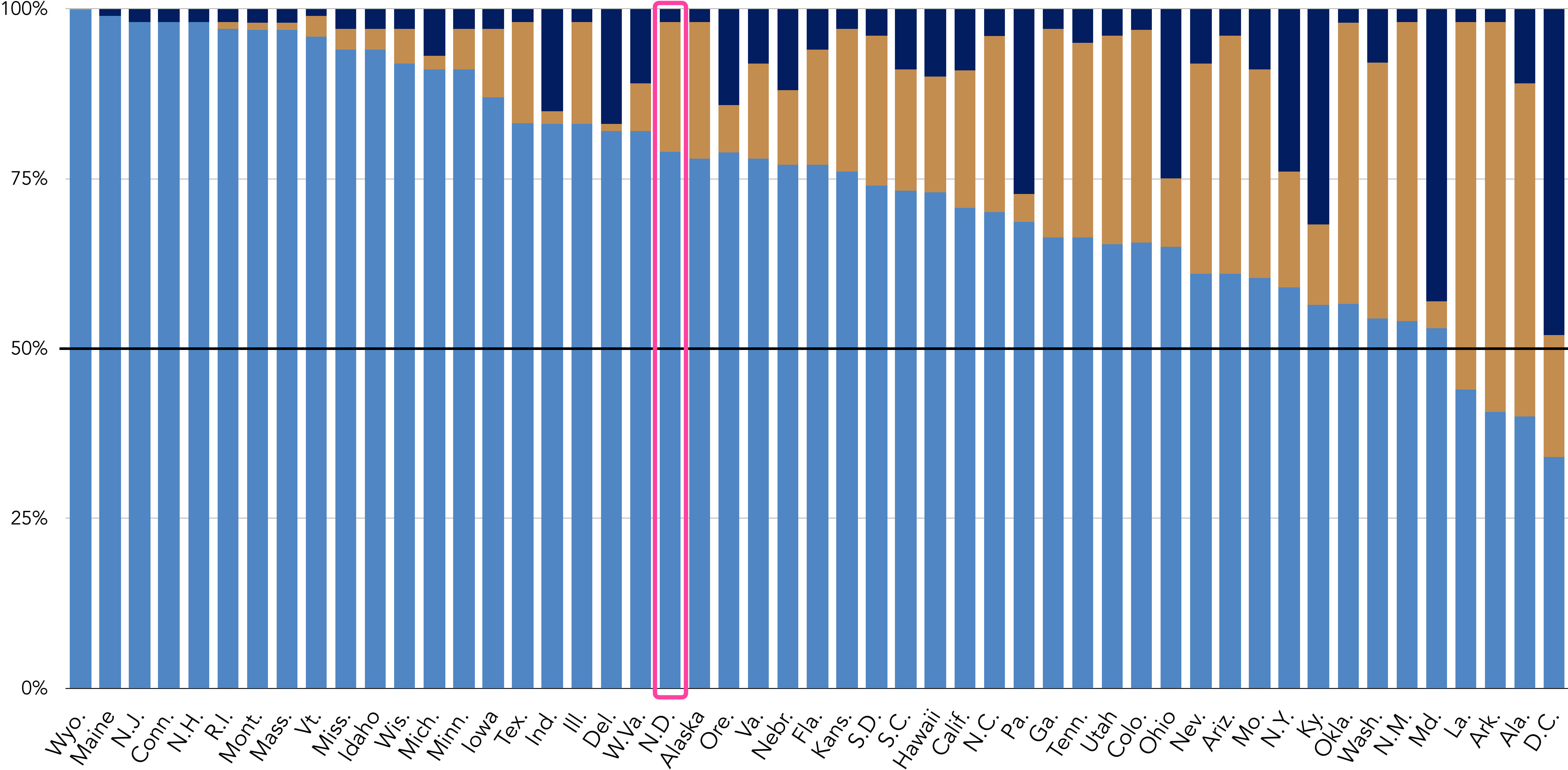
Local Tax Revenue Sources

United States

Property

Sales

Income & Other

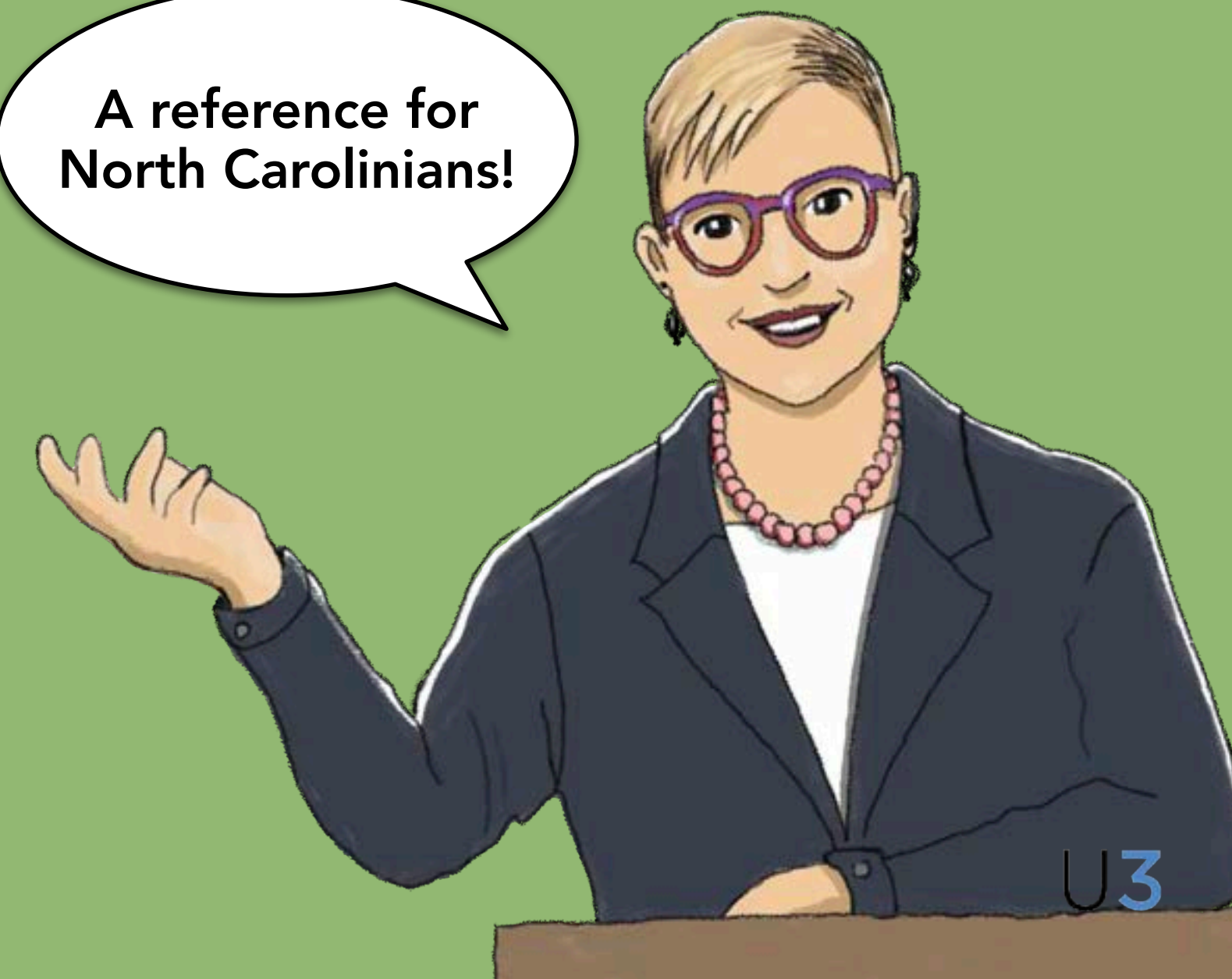


wikiHow Your Taxes Work

North Dakota

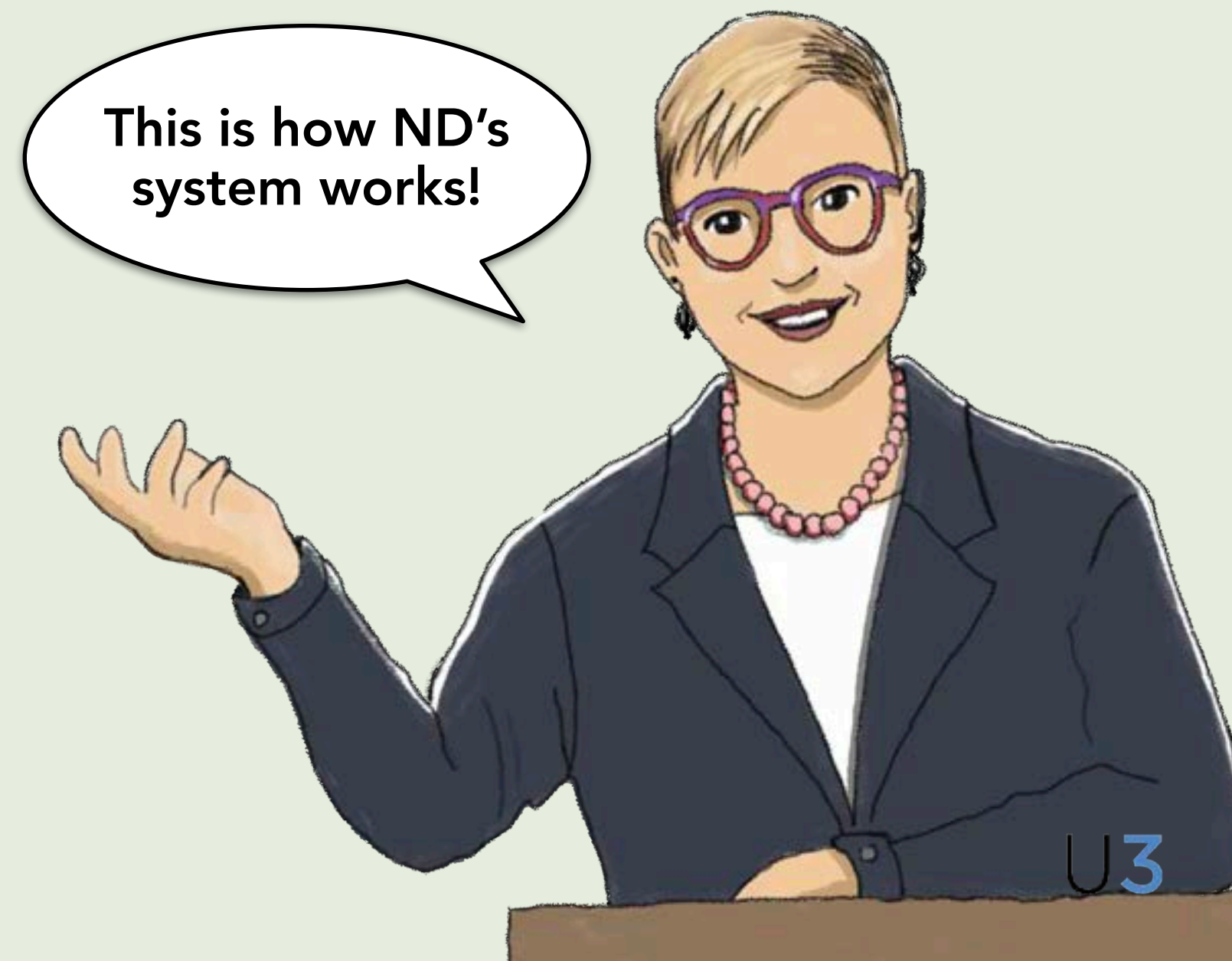


A reference for
North Carolinians!





$$\text{True Market Value} = \text{50\% Assessed Value} \times \frac{\text{Assessment Factor}}{\text{}} \times \frac{\text{Mill Rate}}{\text{}} = \text{Tax Bill}$$





	Market Value	X	50% Assessed Value	=	Assessed Value	X	Assessment Factor	=	Tax Bill
--	--------------	---	--------------------	---	----------------	---	-------------------	---	----------



Commercial

\$100,000

X

0.5

=

\$50,000

X

0.05

=

\$2,500



Residential

\$100,000

X

0.5

=

\$50,000

X

0.045

=

\$2,250

Commercial is taxed 10% more than Residential!

Homestead Credit is based on income.



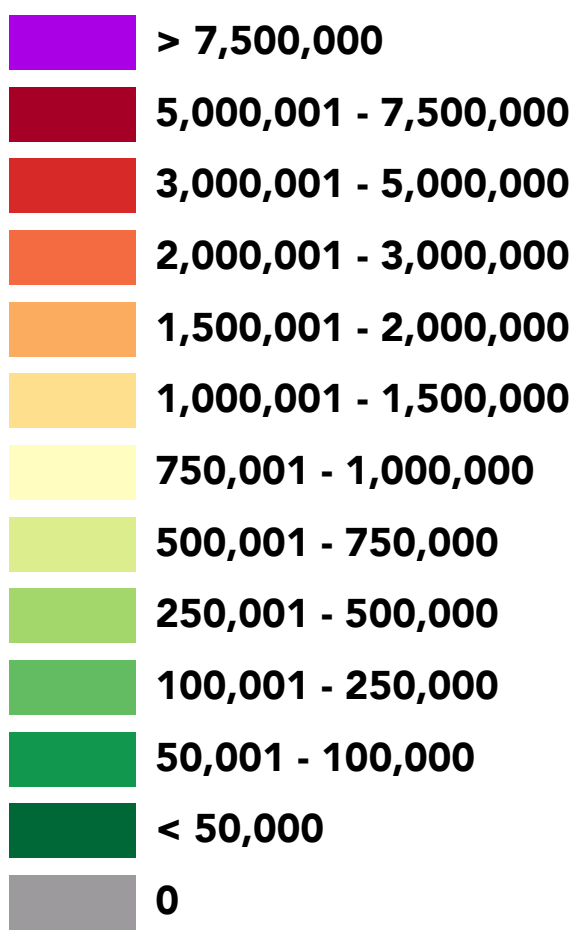
Question:

**But that's North Dakota,
what about other states?**

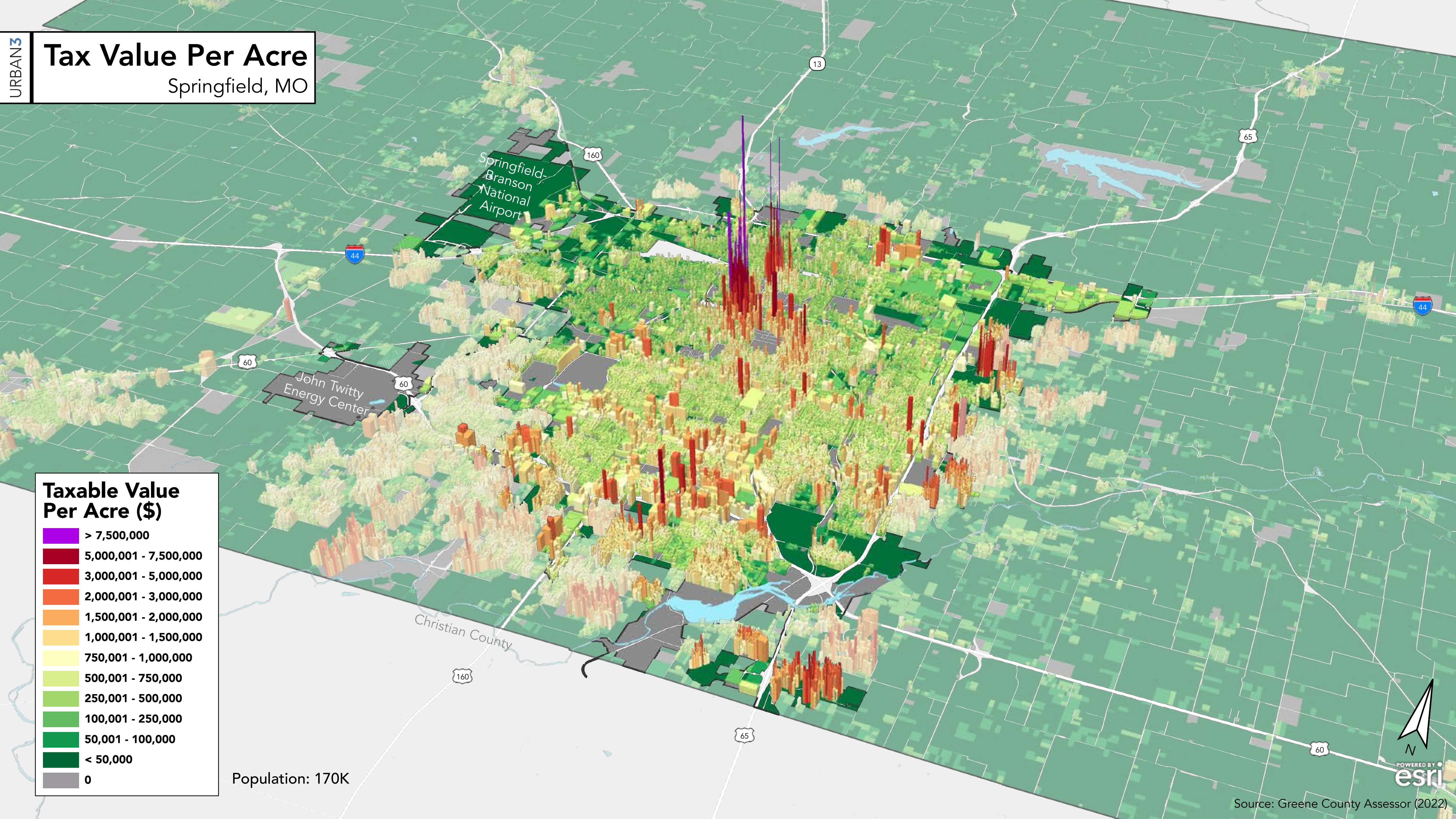
Tax Value Per Acre

Springfield, MO

Taxable Value Per Acre (\$)

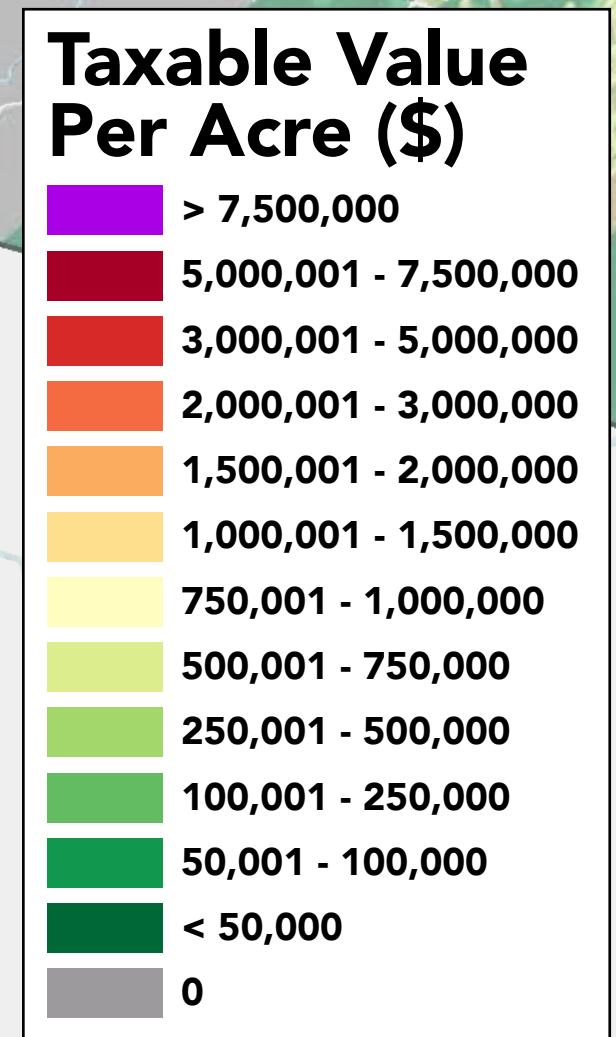
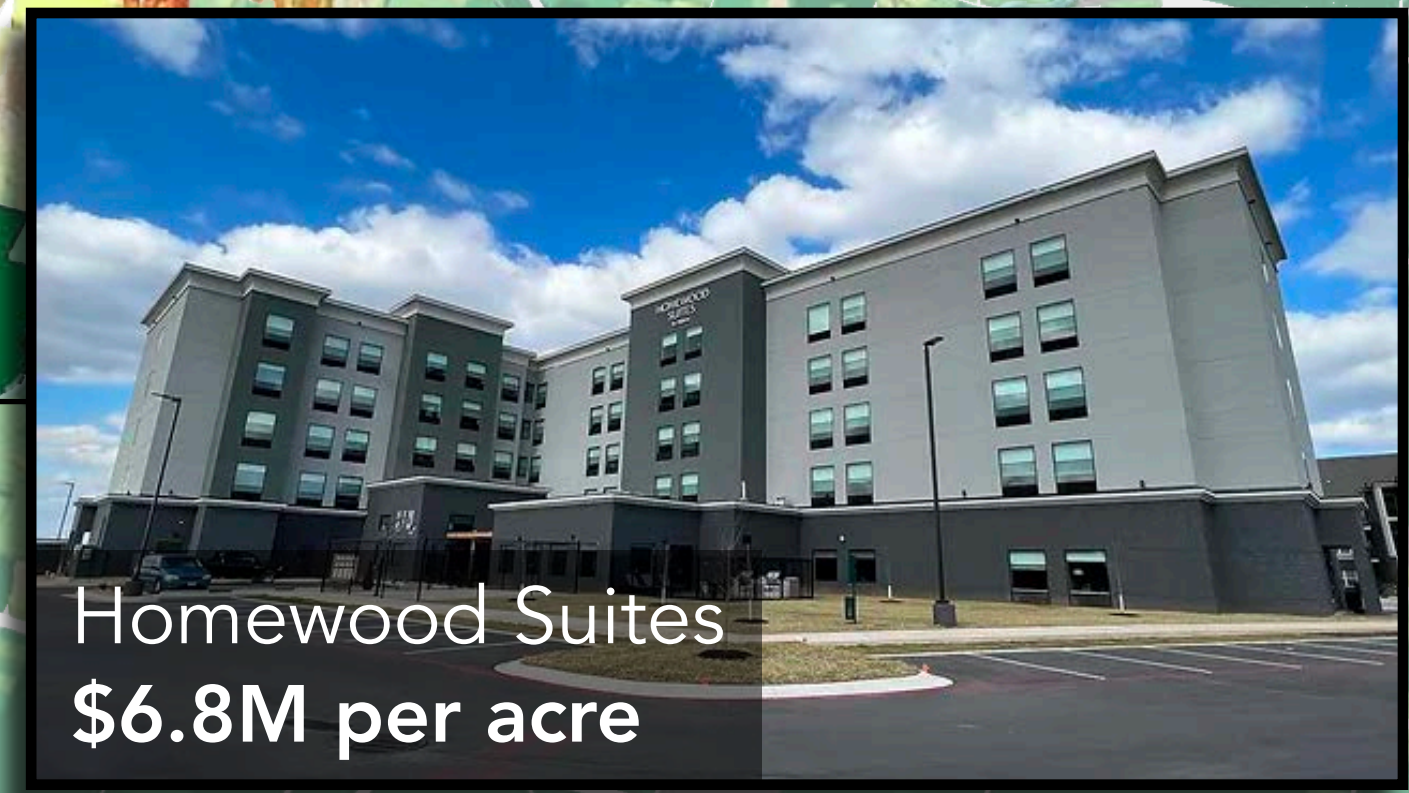


Population: 170K



Tax Value Per Acre

Springfield, MO



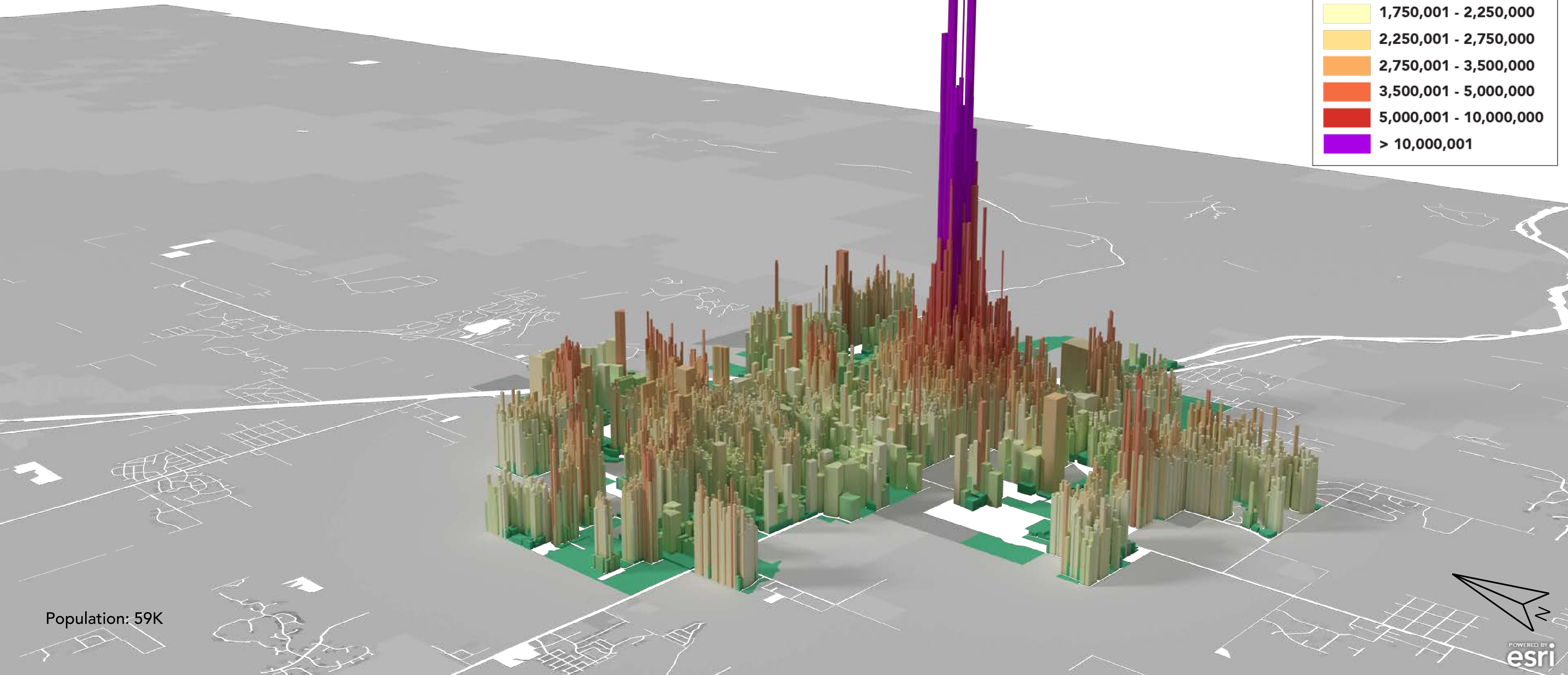
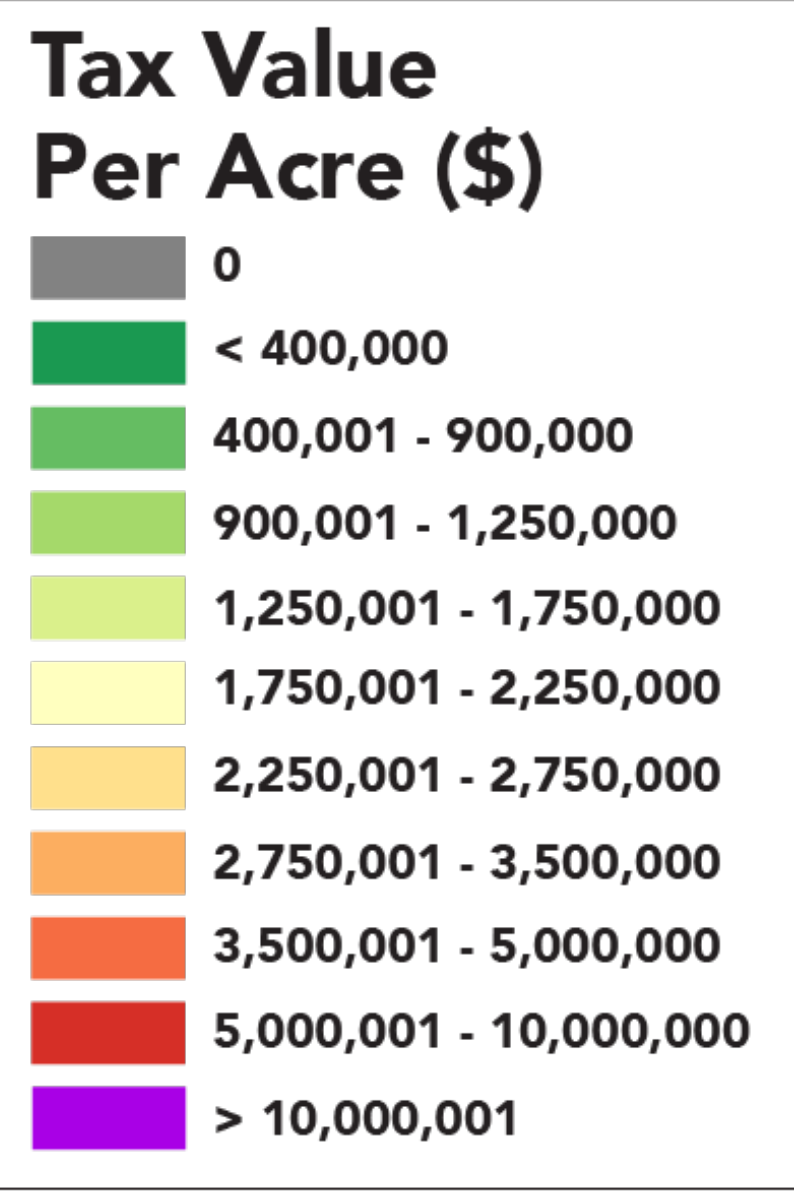
Population: 170K



Christian County



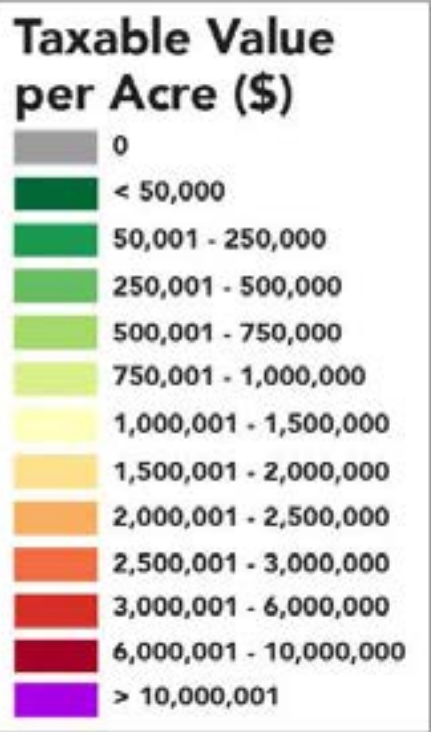
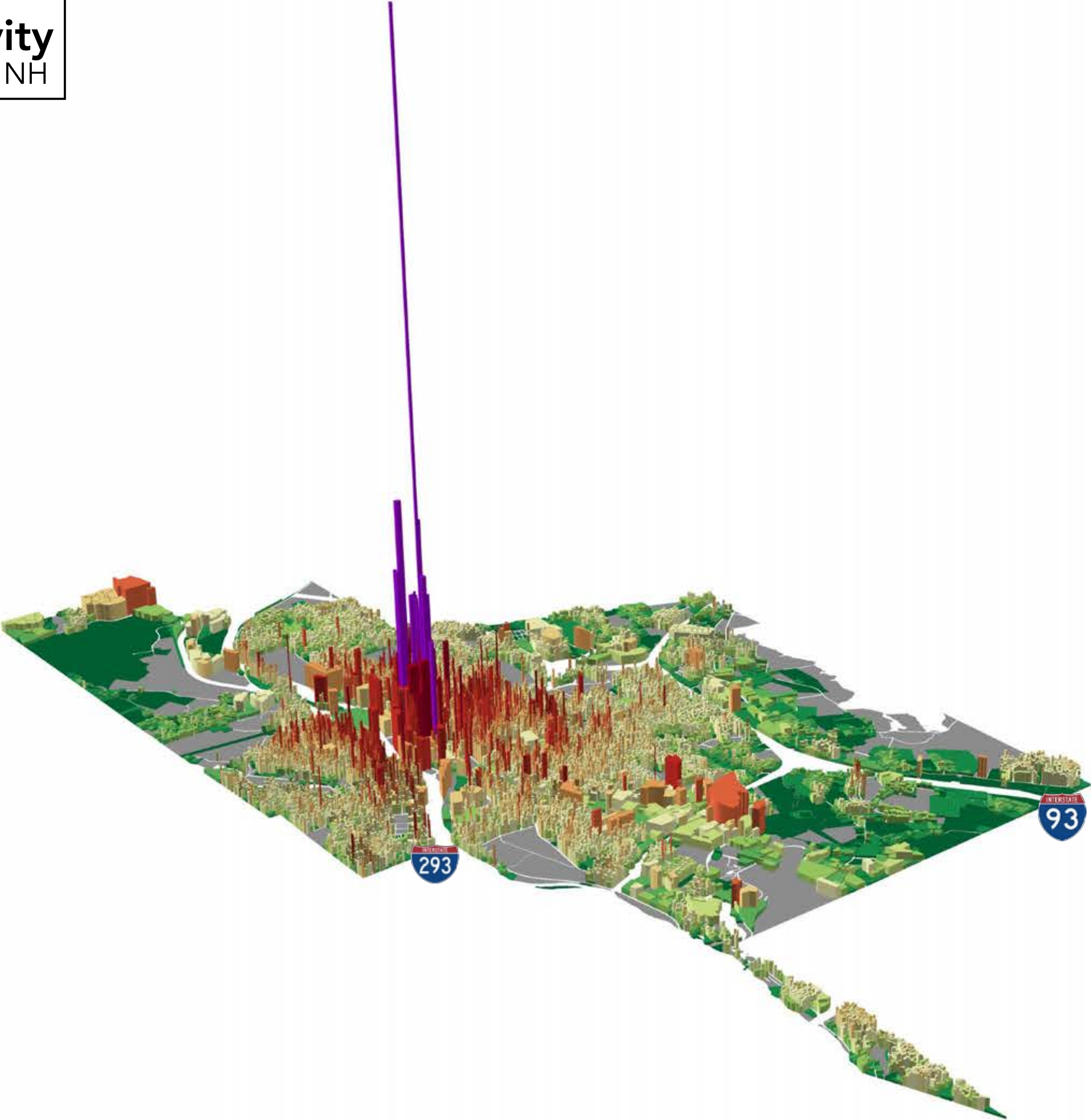
2018



Population: 59K

2019

Population: 115K

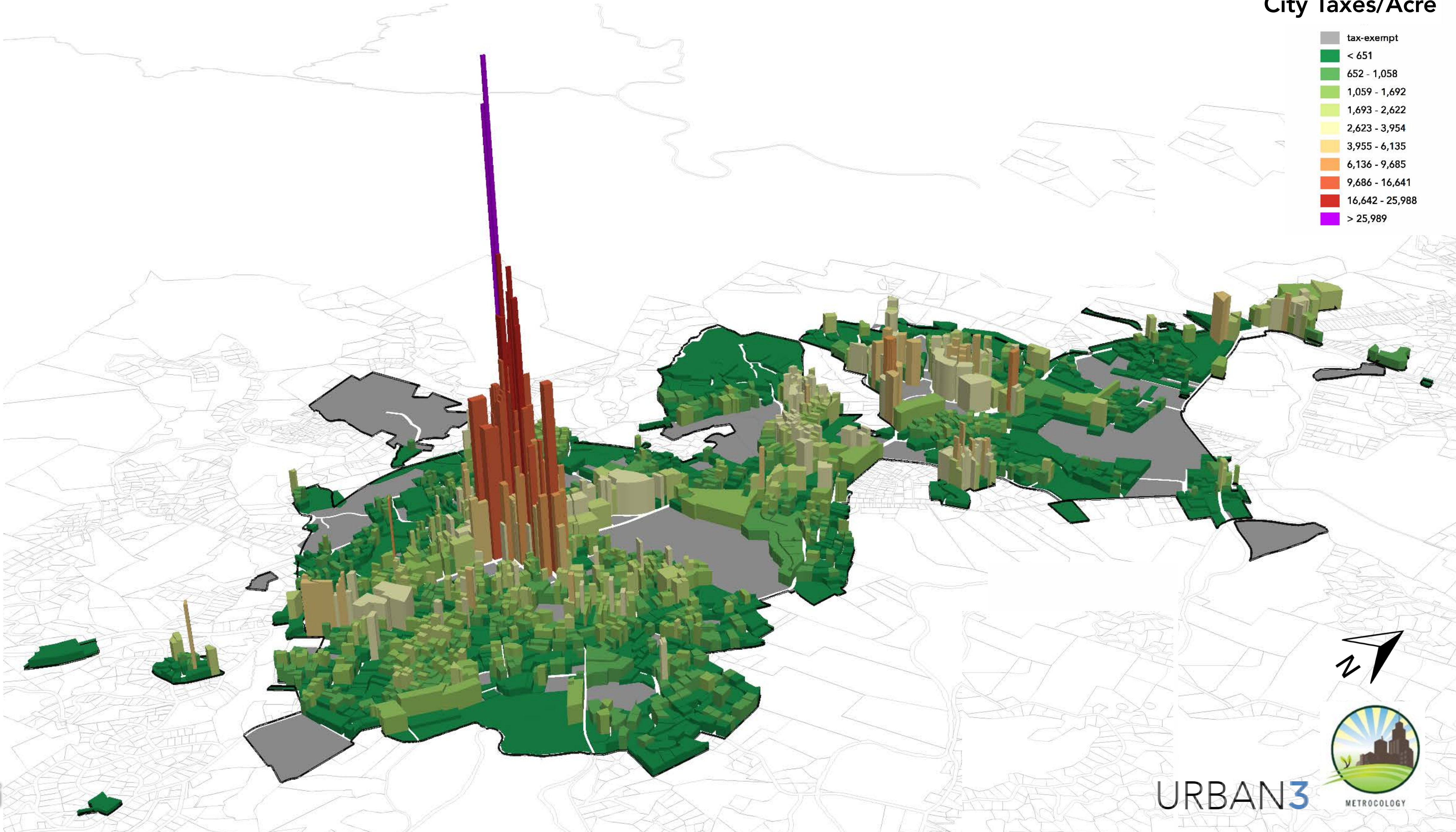


N-637 WEST MAIN STREET. BREVARD. N. C.

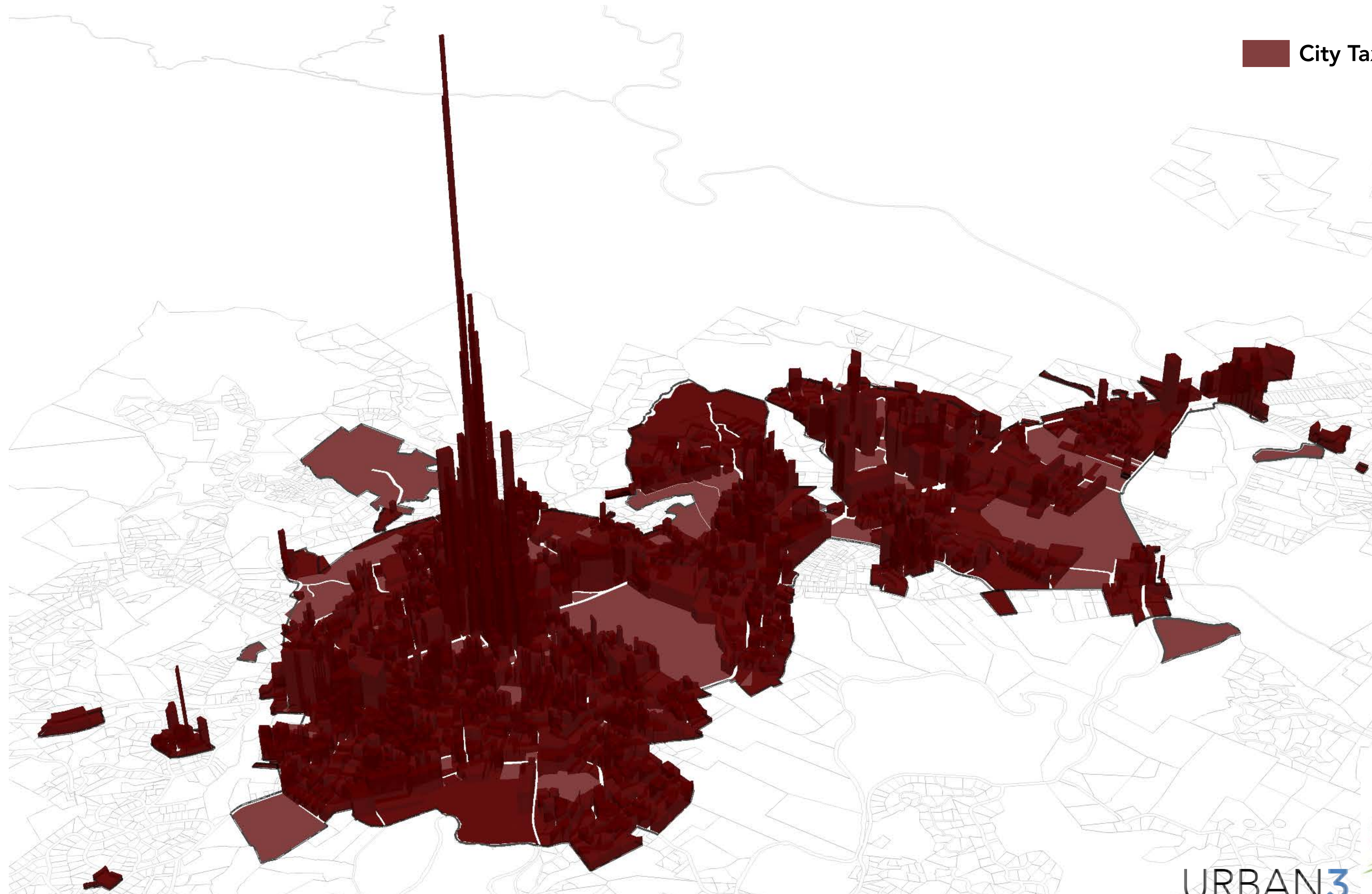


City Taxes/Acre

- tax-exempt
- < 651
- 652 - 1,058
- 1,059 - 1,692
- 1,693 - 2,622
- 2,623 - 3,954
- 3,955 - 6,135
- 6,136 - 9,685
- 9,686 - 16,641
- 16,642 - 25,988
- > 25,989



City Taxes/Acre



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METROCOLOGY

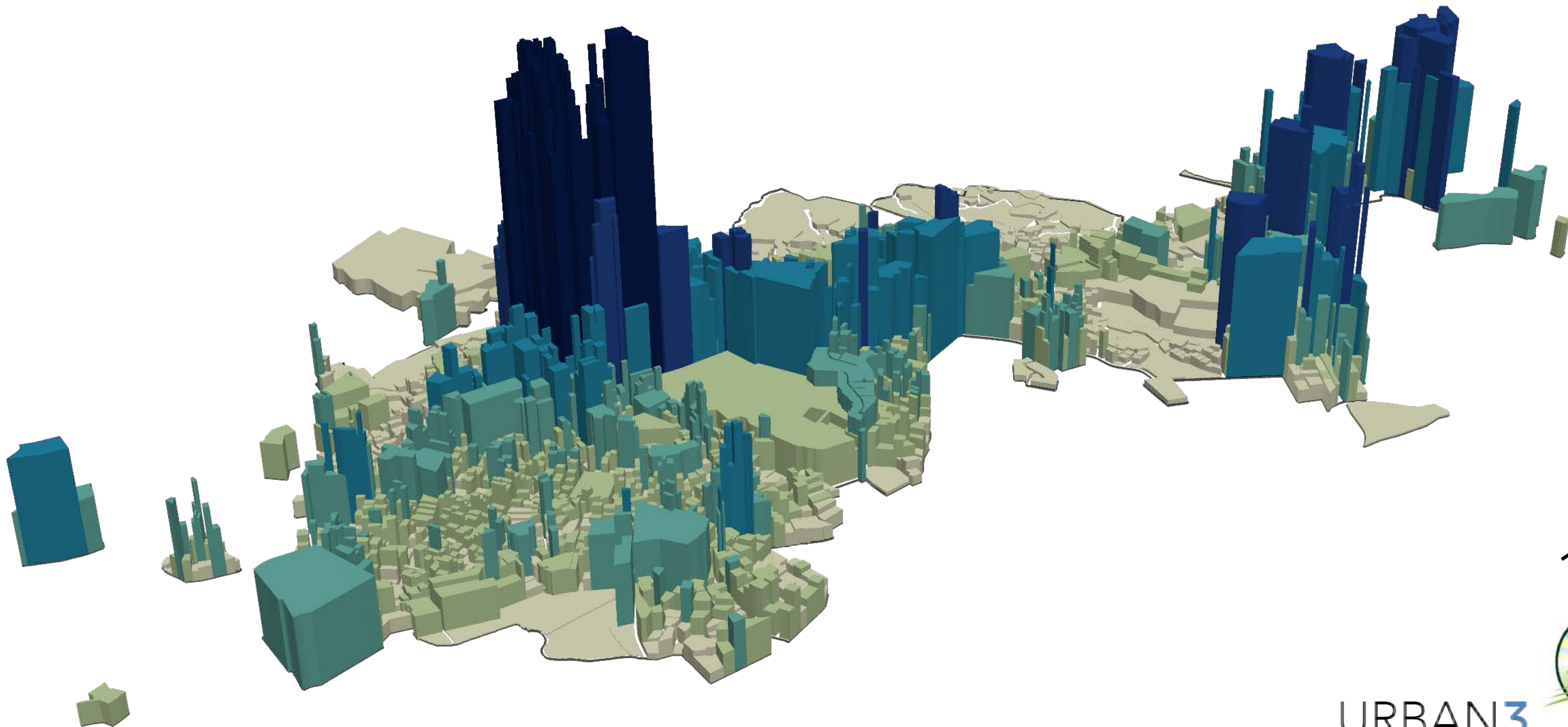
Estimated Runoff Per Acre

1.5 inch rainfall over 24 hours

Source: 2007 Brevard Stormwater Master Plan

Cubic Feet/Acre

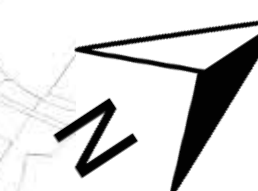
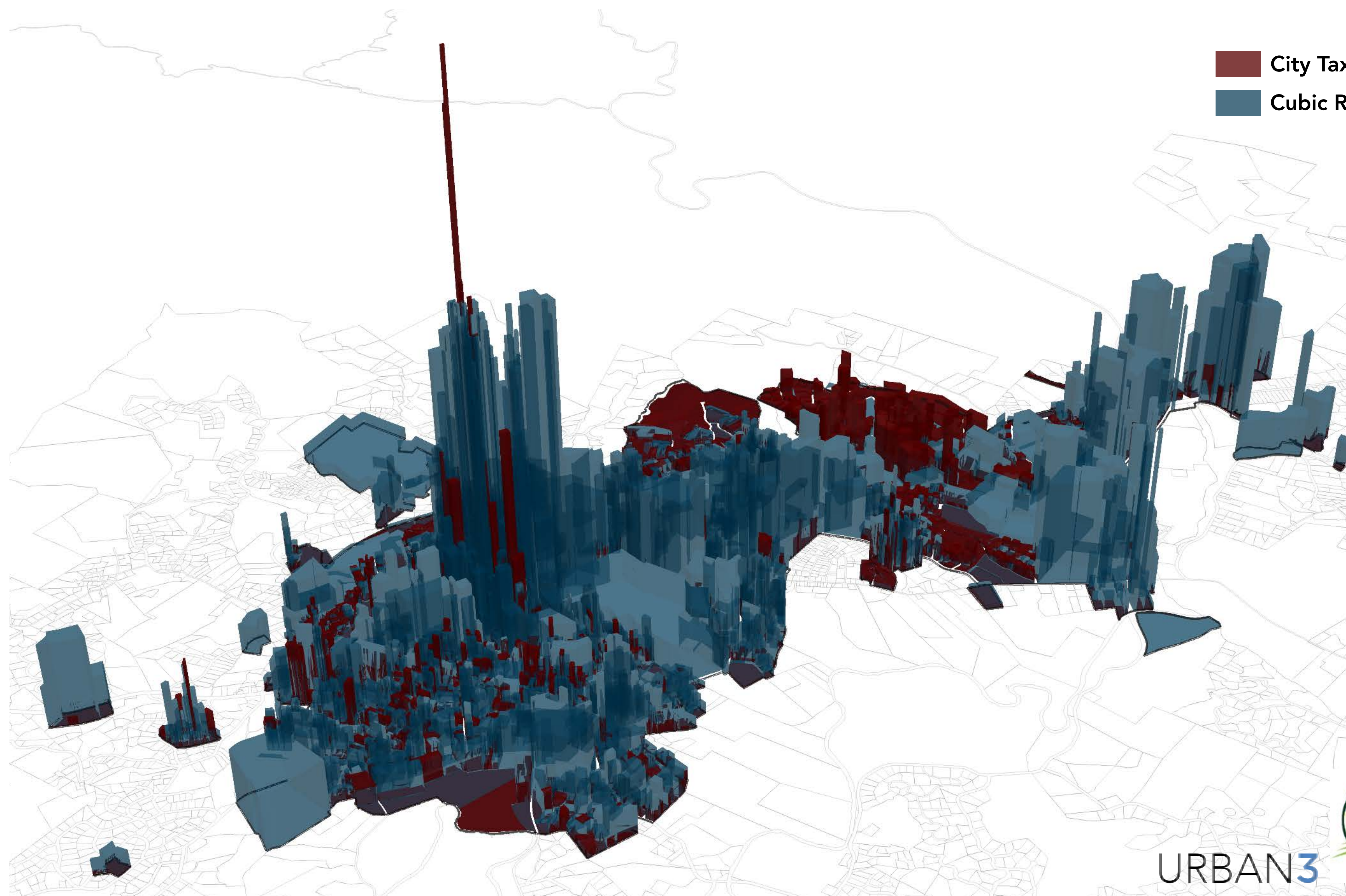
- 0 - 173
- 174 - 387
- 388 - 736
- 737 - 1,287
- 1,288 - 2,235
- 2,236 - 3,280



URBAN3

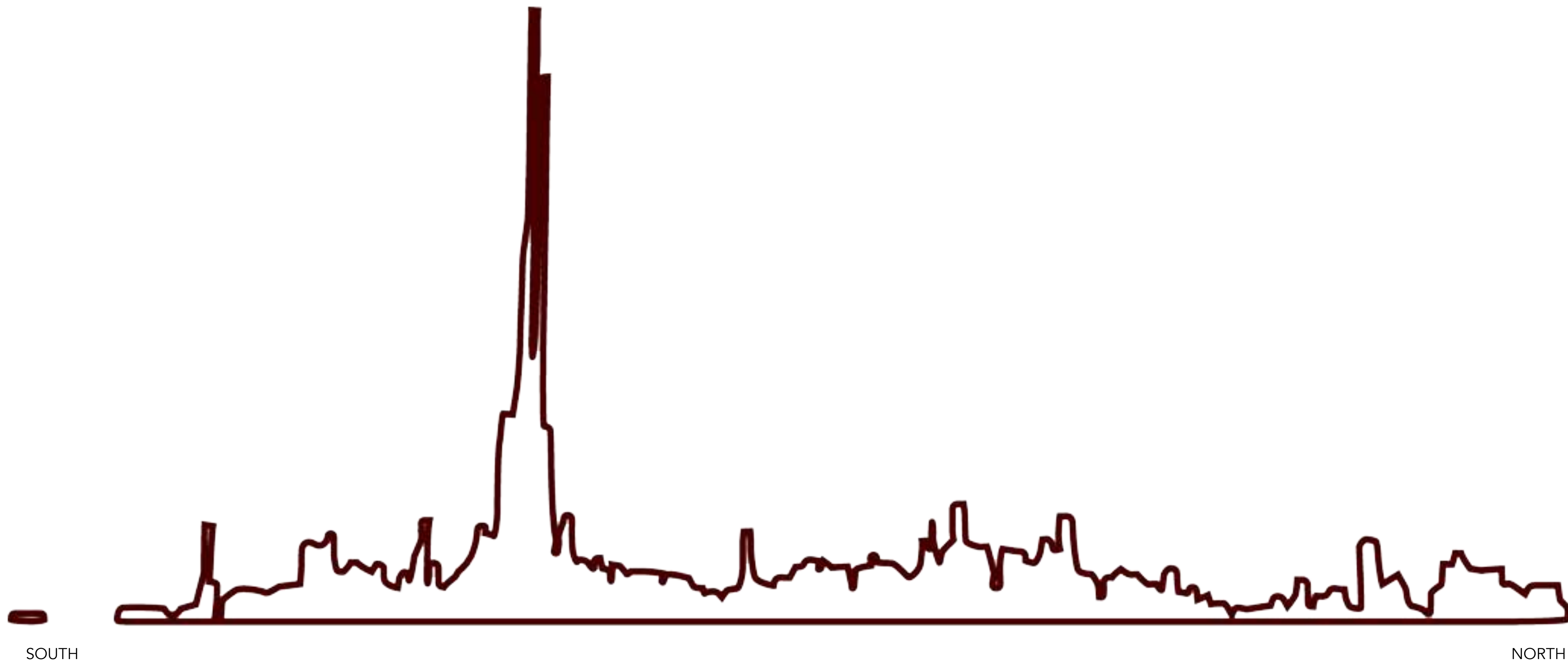
METROCOLOGY

City Taxes/Acre
Cubic Runoff/Acre



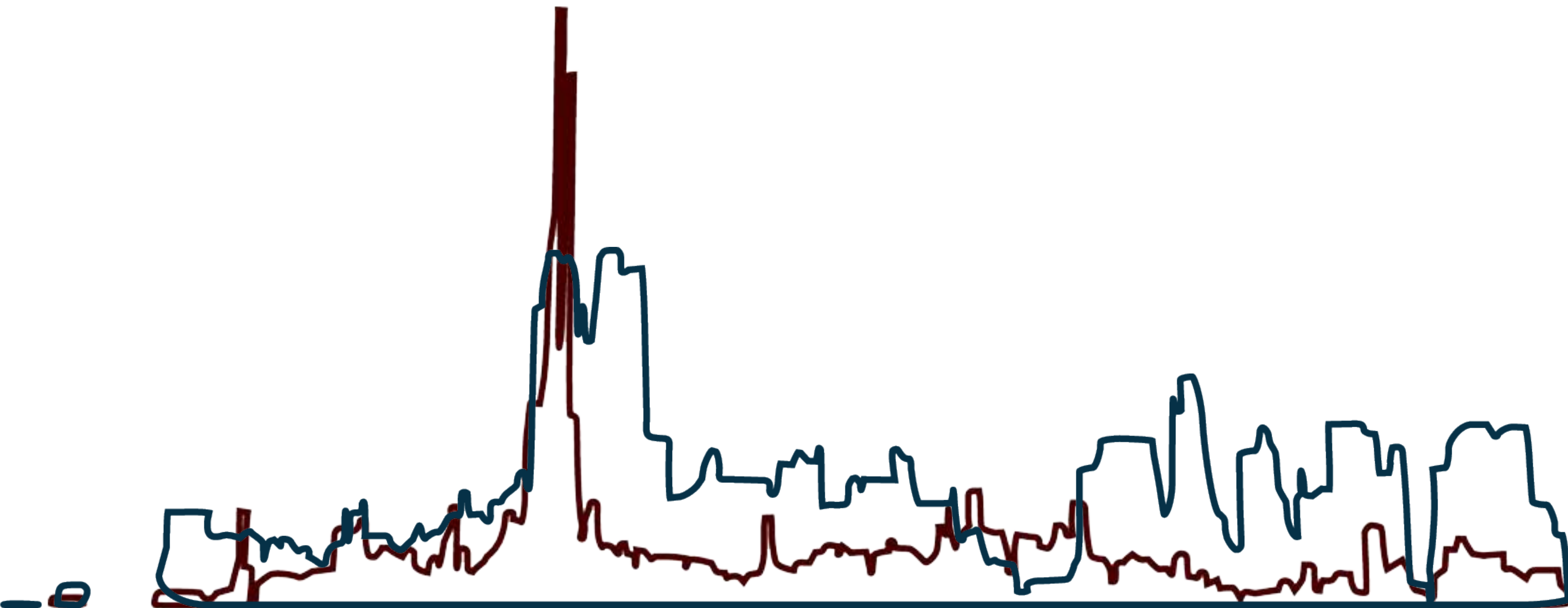
URBAN3

METROLOGY



City Taxes Per Acre





SOUTH

NORTH

City Taxes Per Acre

vs

Cubic ft Runoff Per Acre

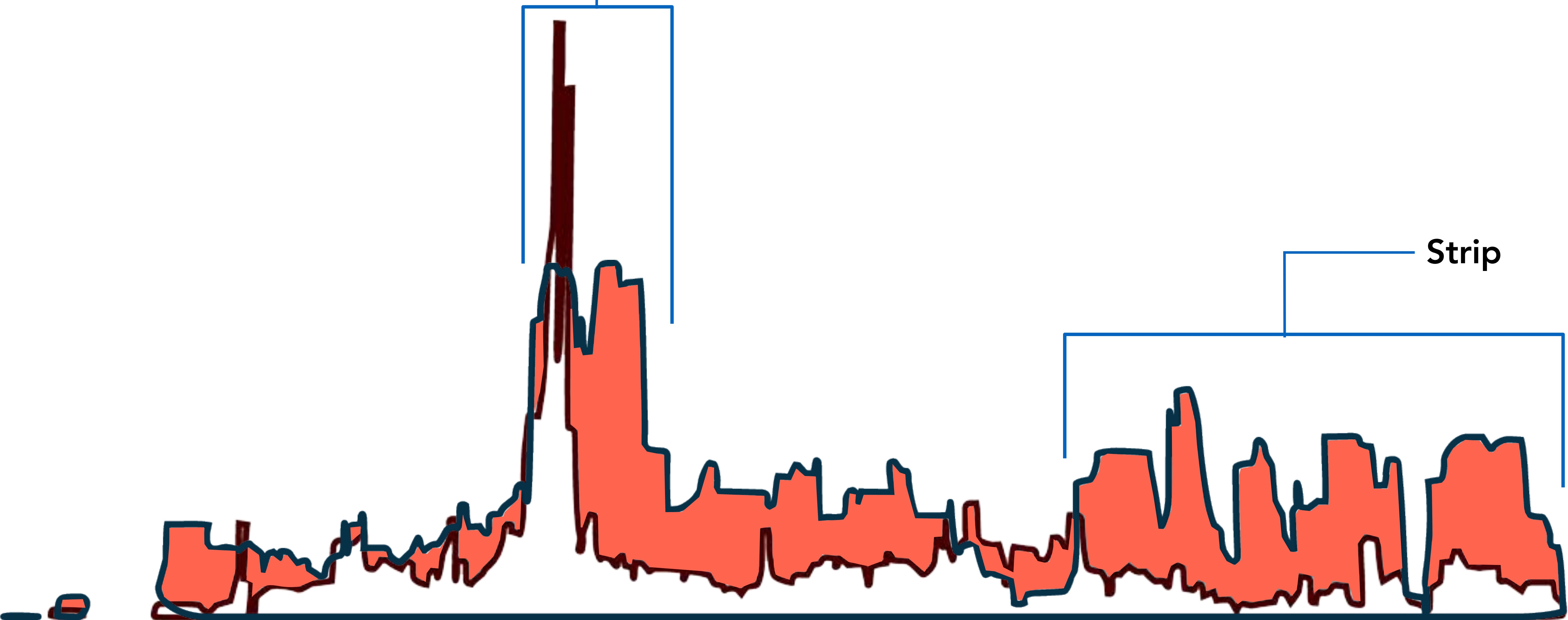


URBAN3



Downtown

Strip



SOUTH

NORTH



Productivity Difference

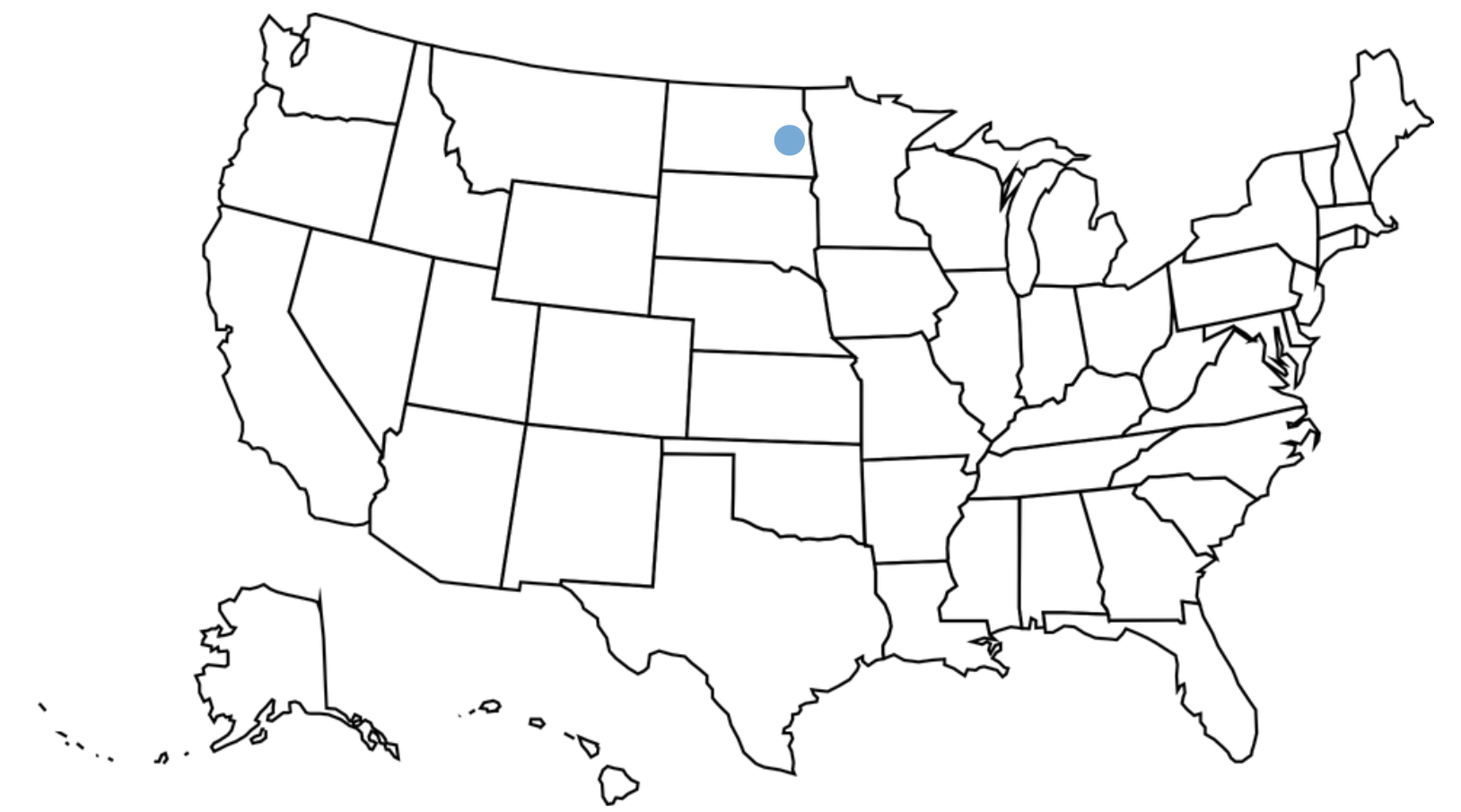


**Not all impervious
surfaces are created equal.**

URBAN3

GREETINGS FROM



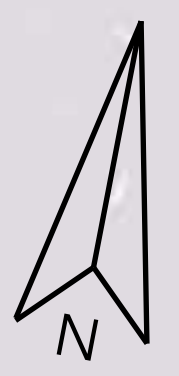
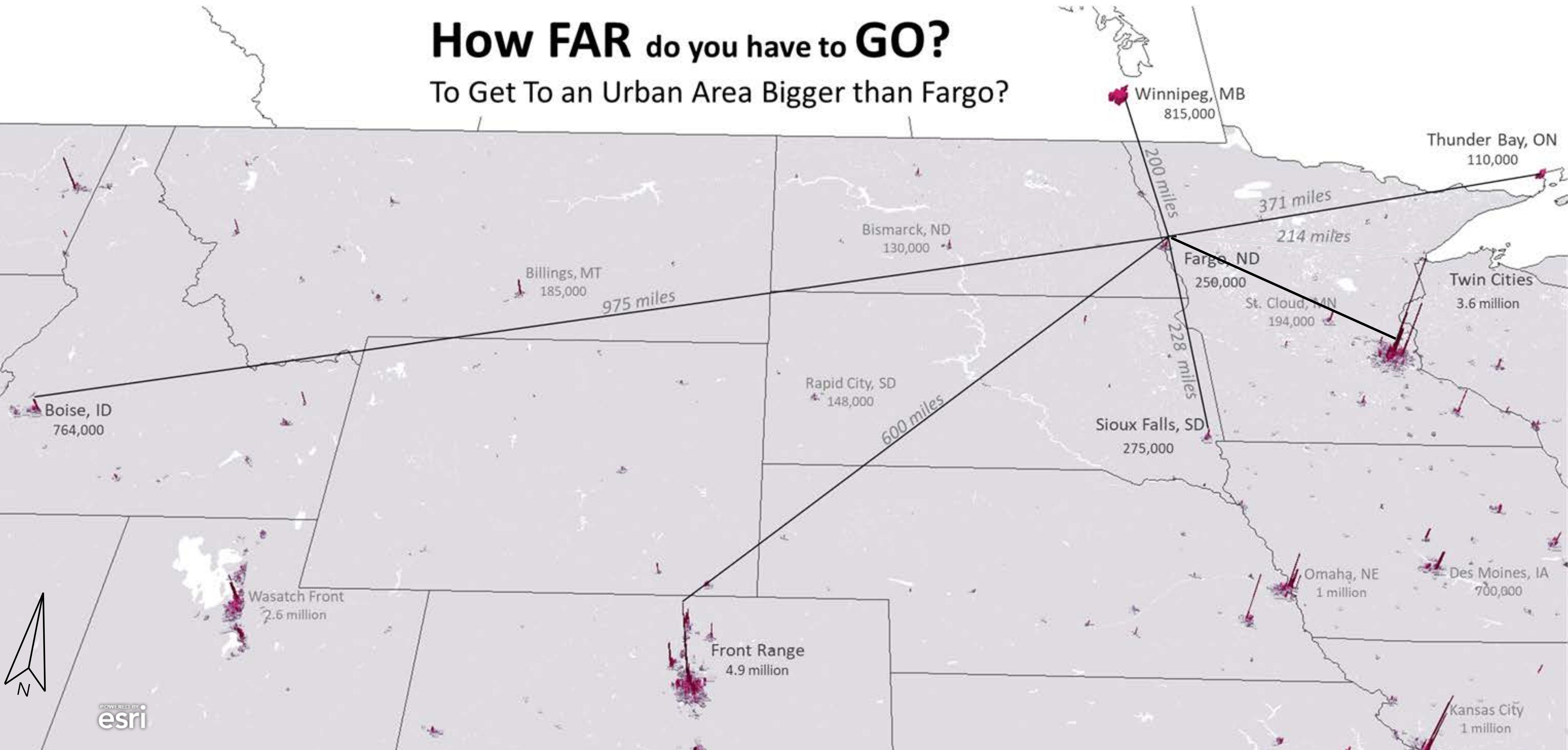


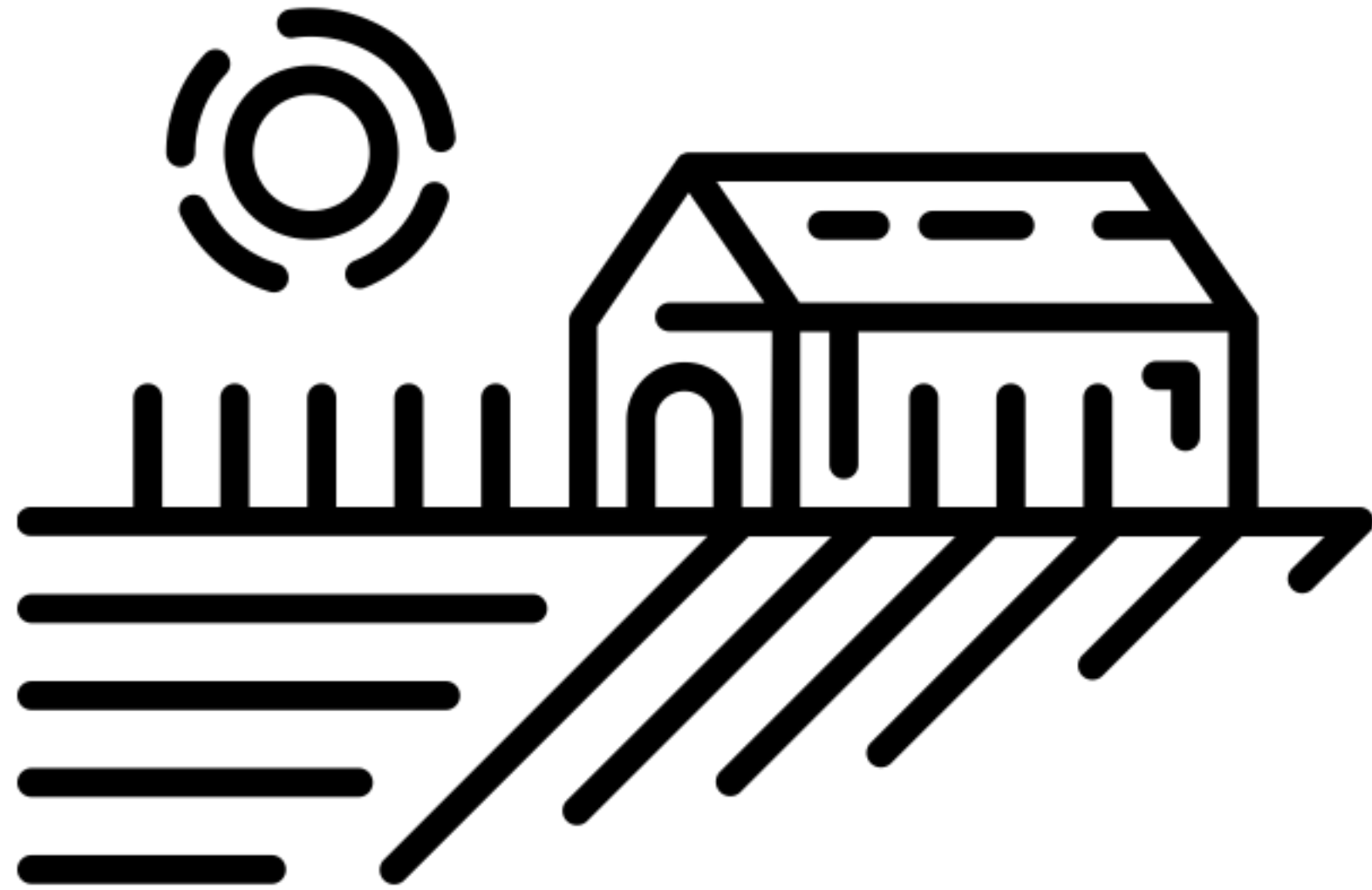
Case Study: Economic MRI®
2021

North Dakota, Cass County

How FAR do you have to GO?

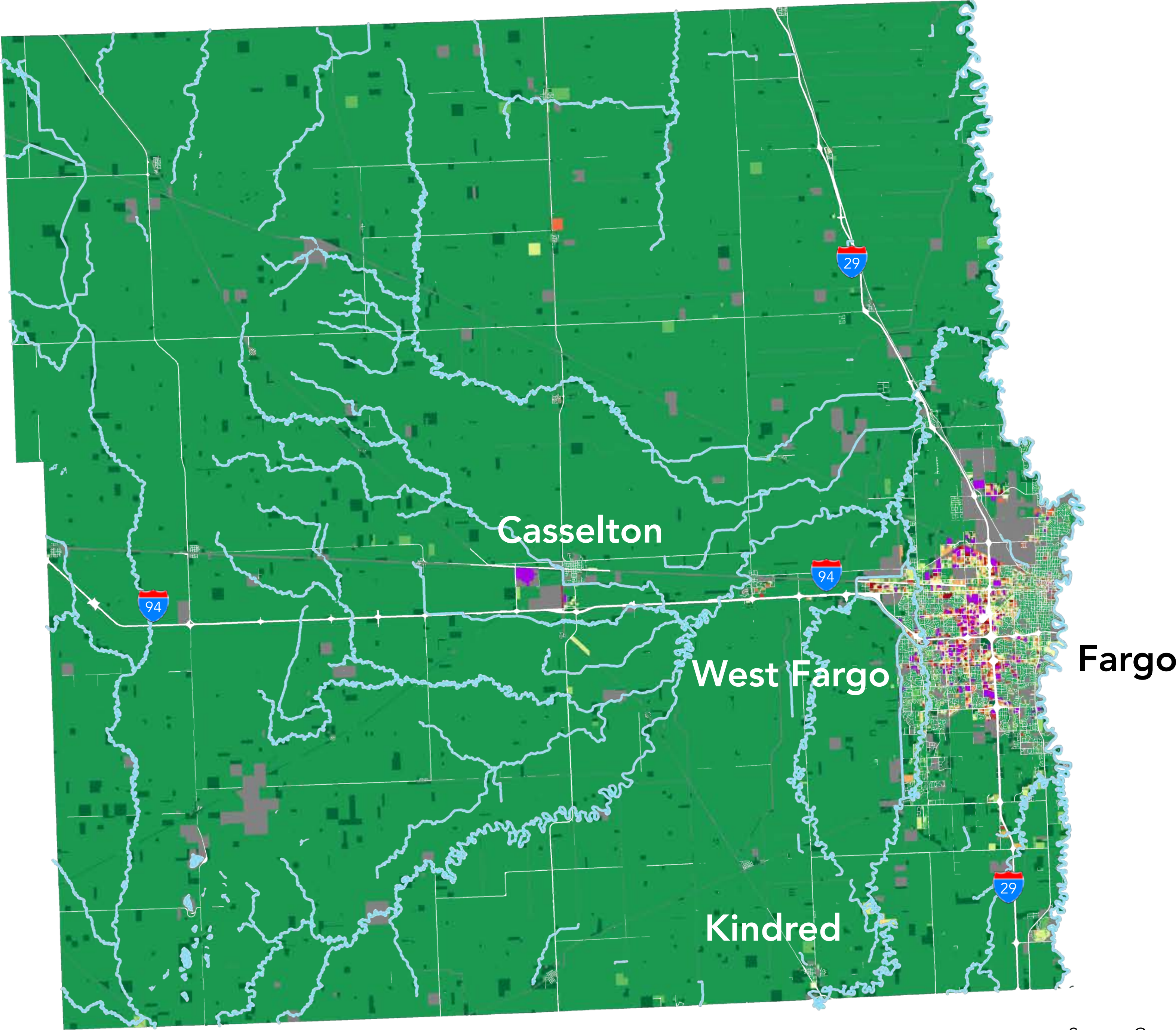
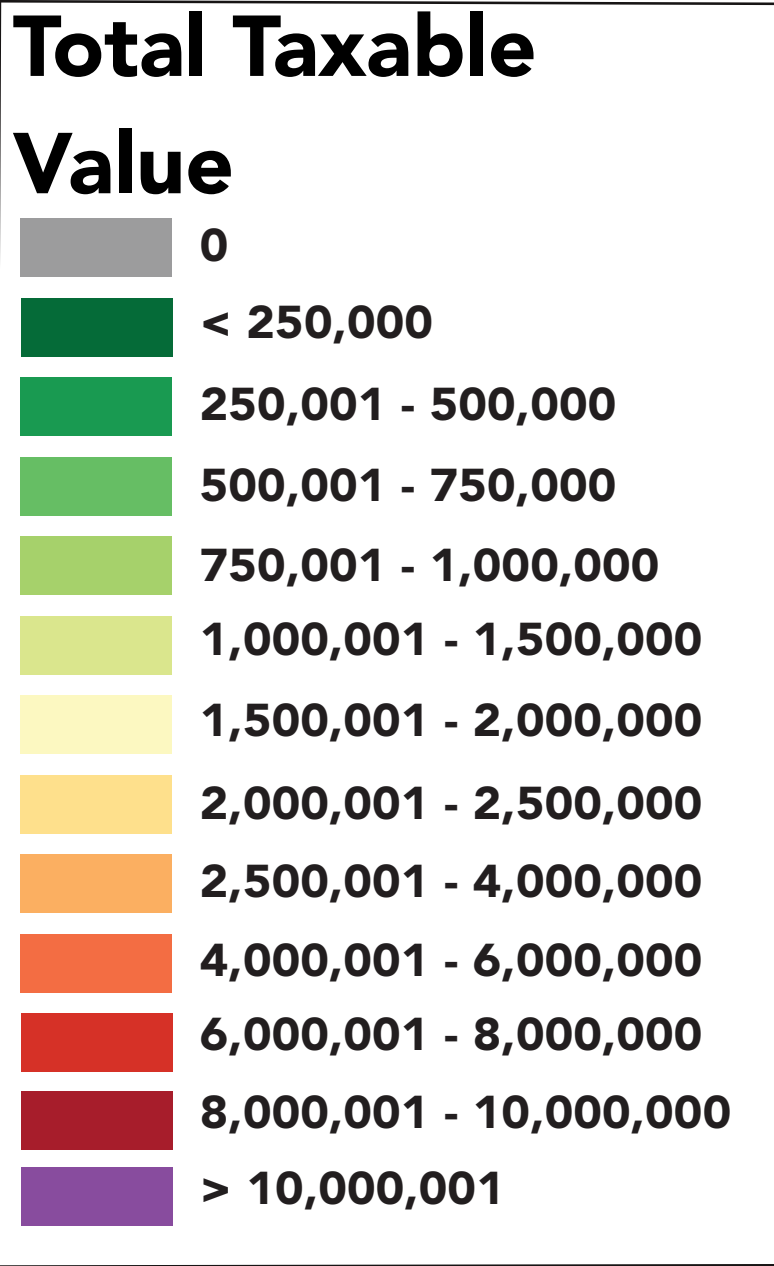
To Get To an Urban Area Bigger than Fargo?





Land Analytics and Productivity

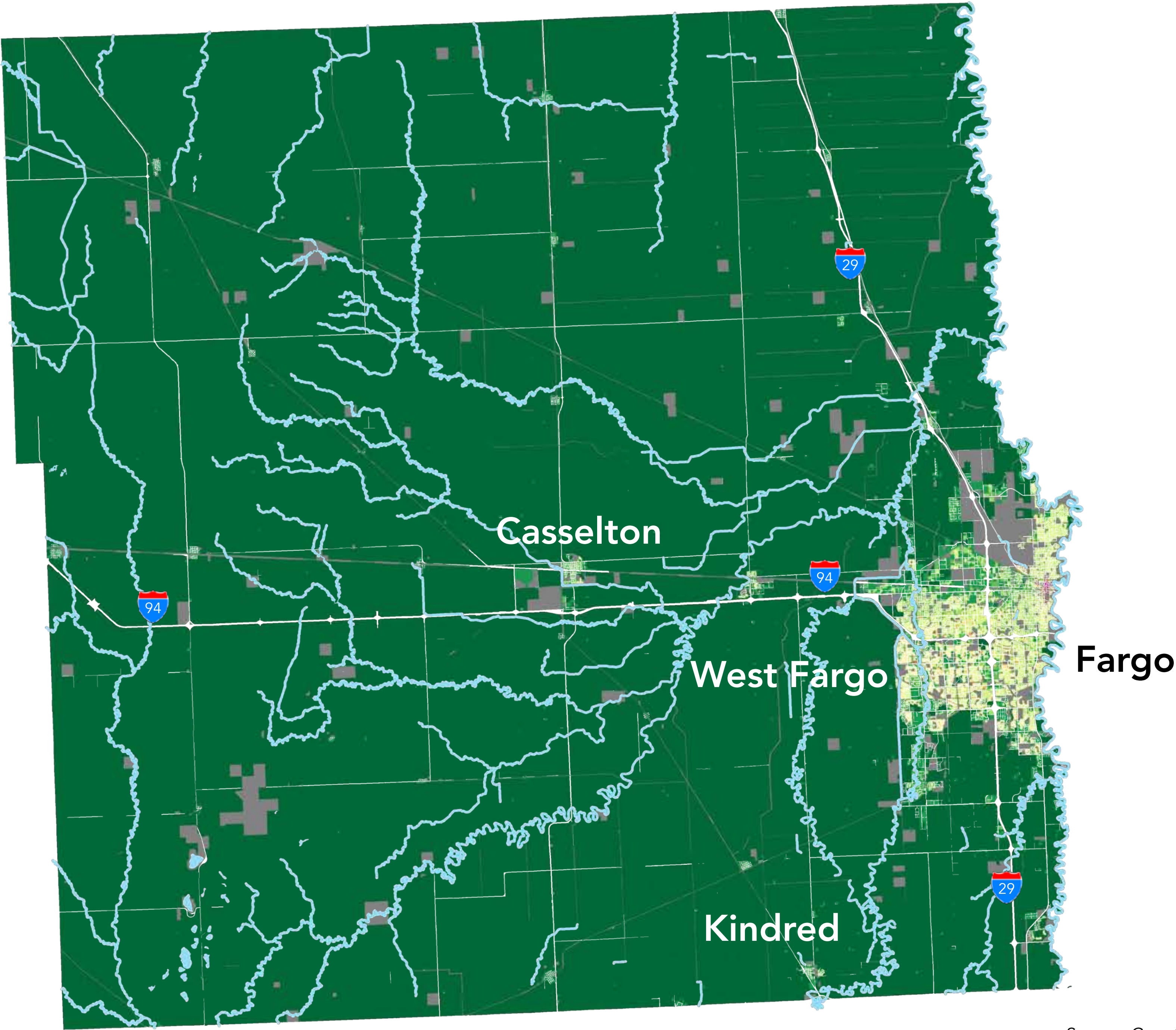
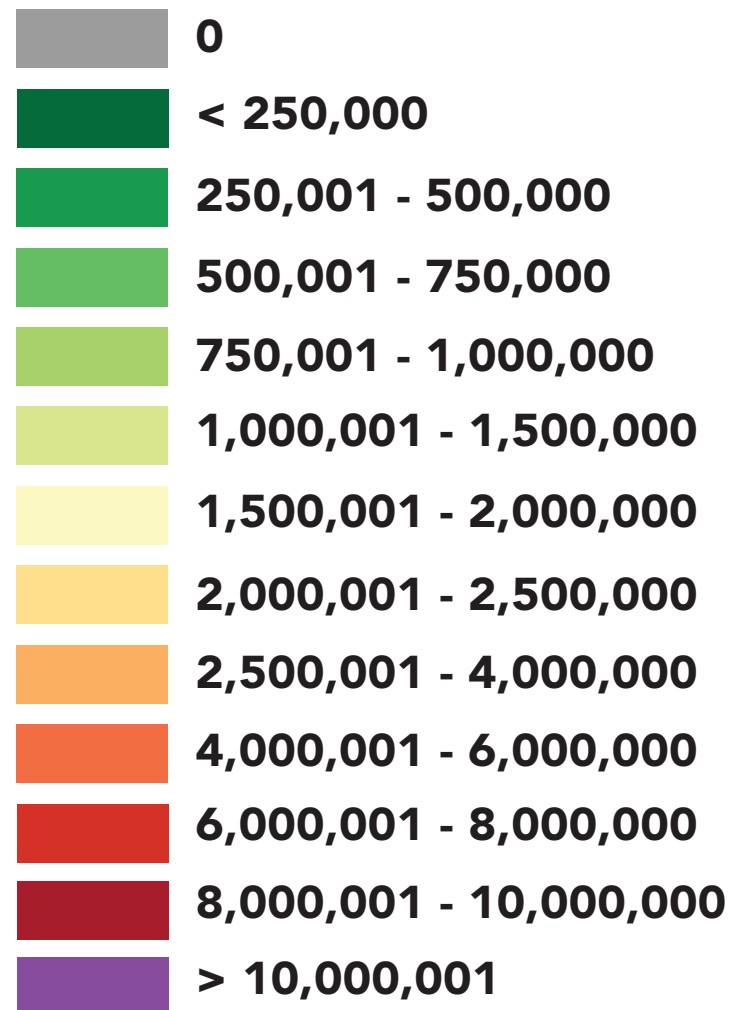
Standard Geospatial Analysis



Taxable Value per Acre

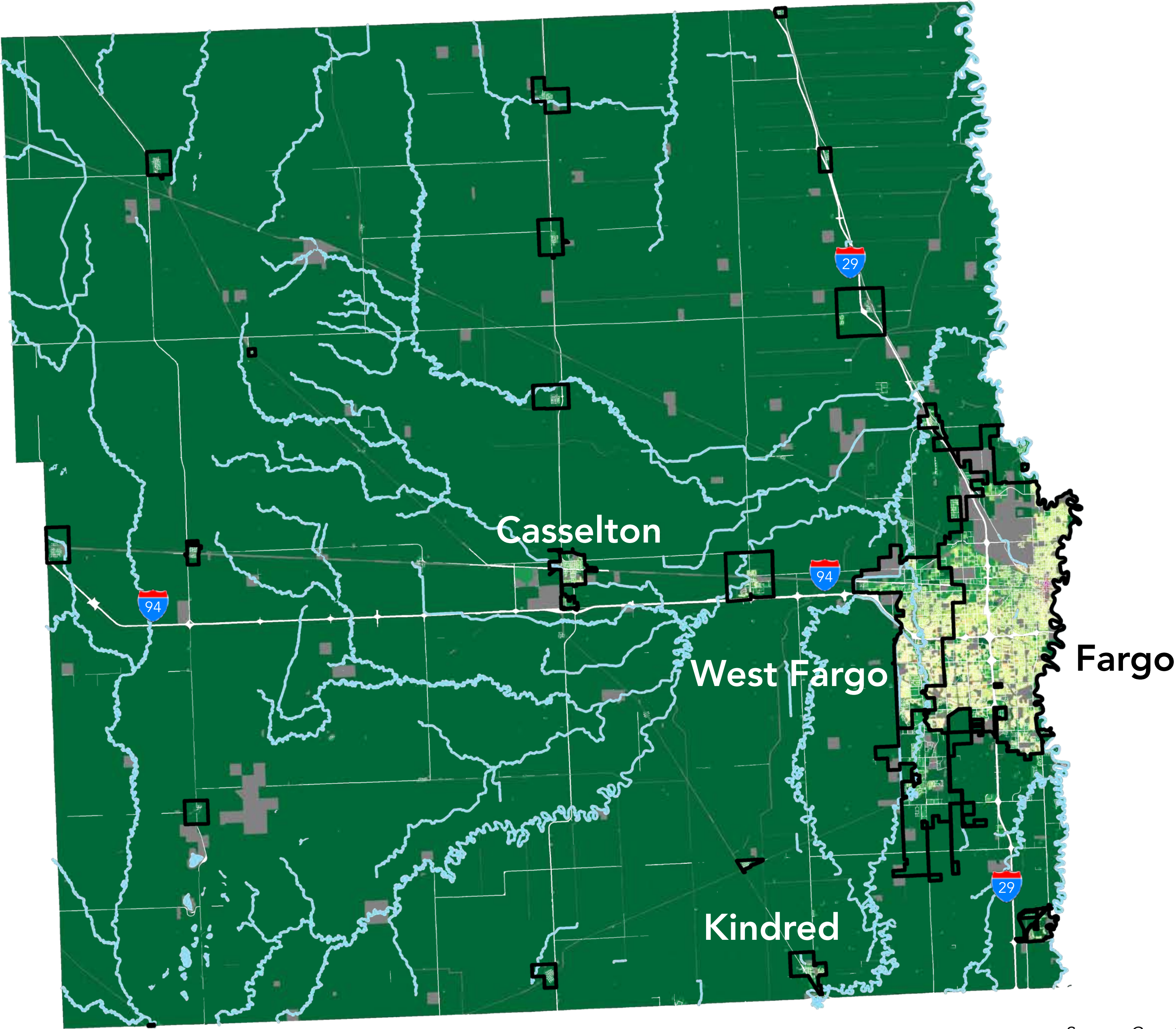
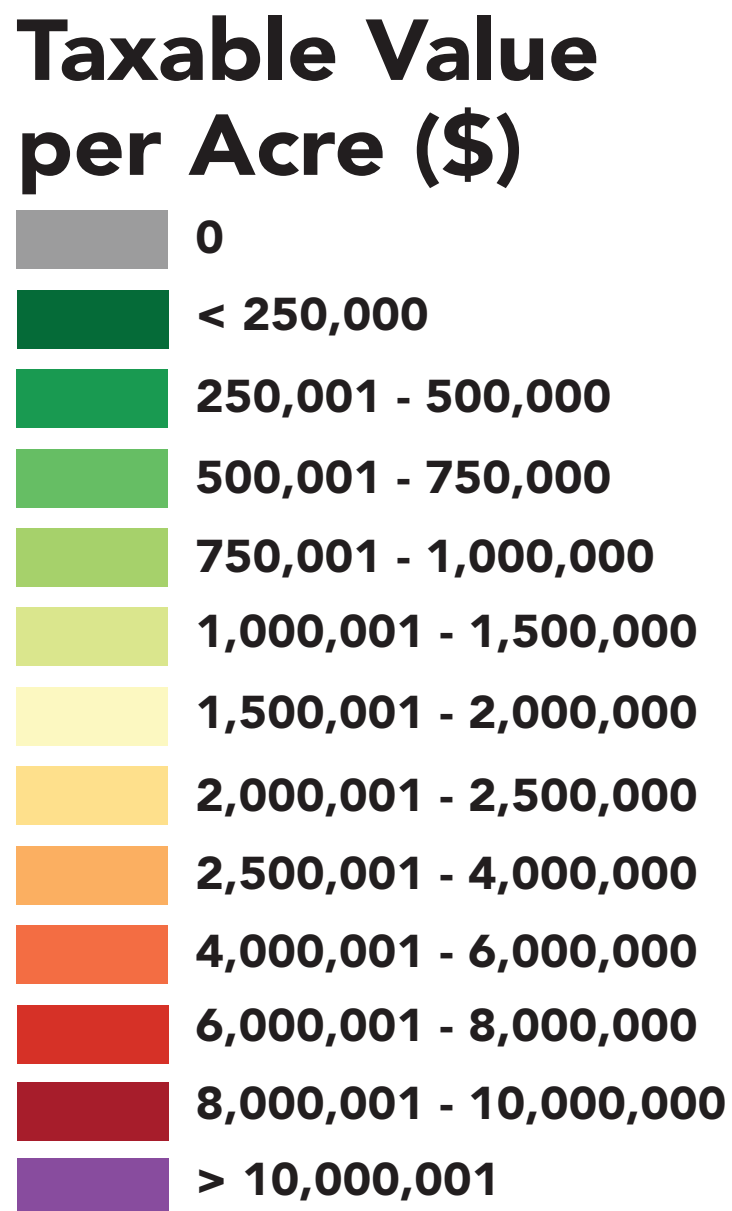
Cass County, ND

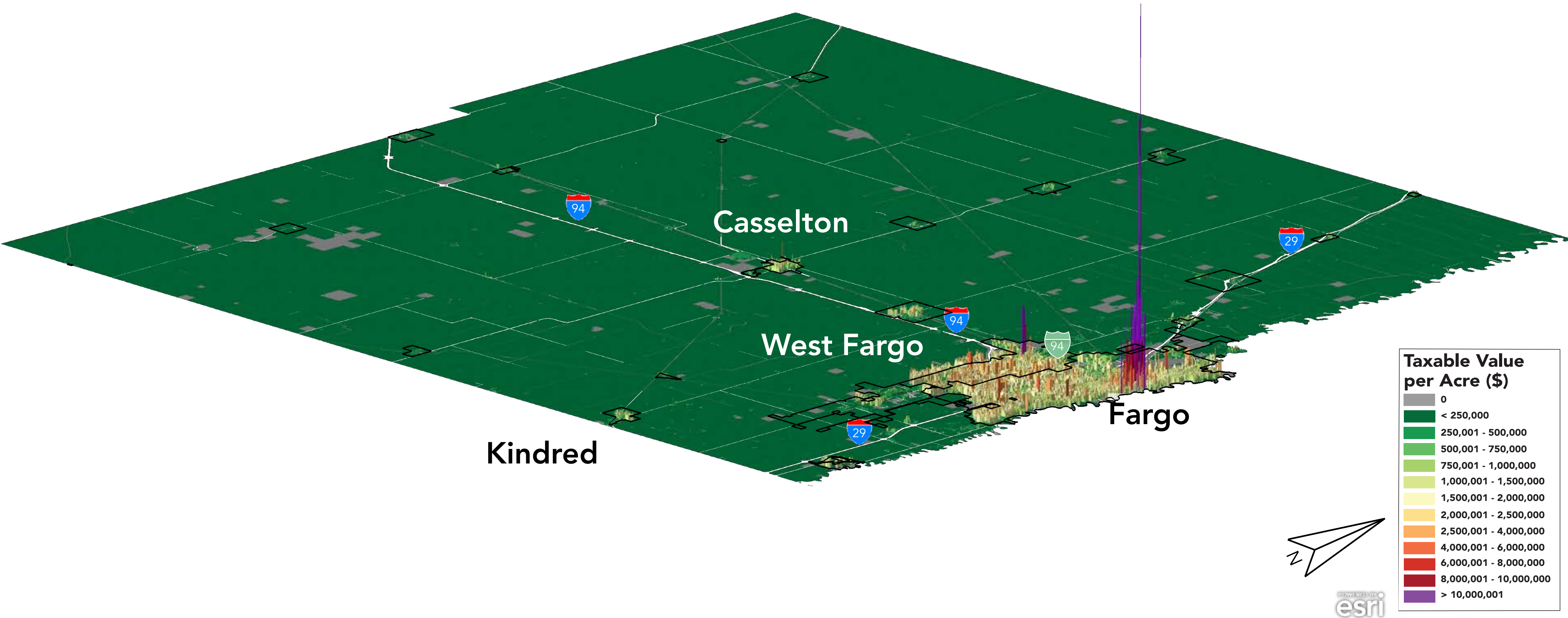
Taxable Value per Acre (\$)



Taxable Value per Acre

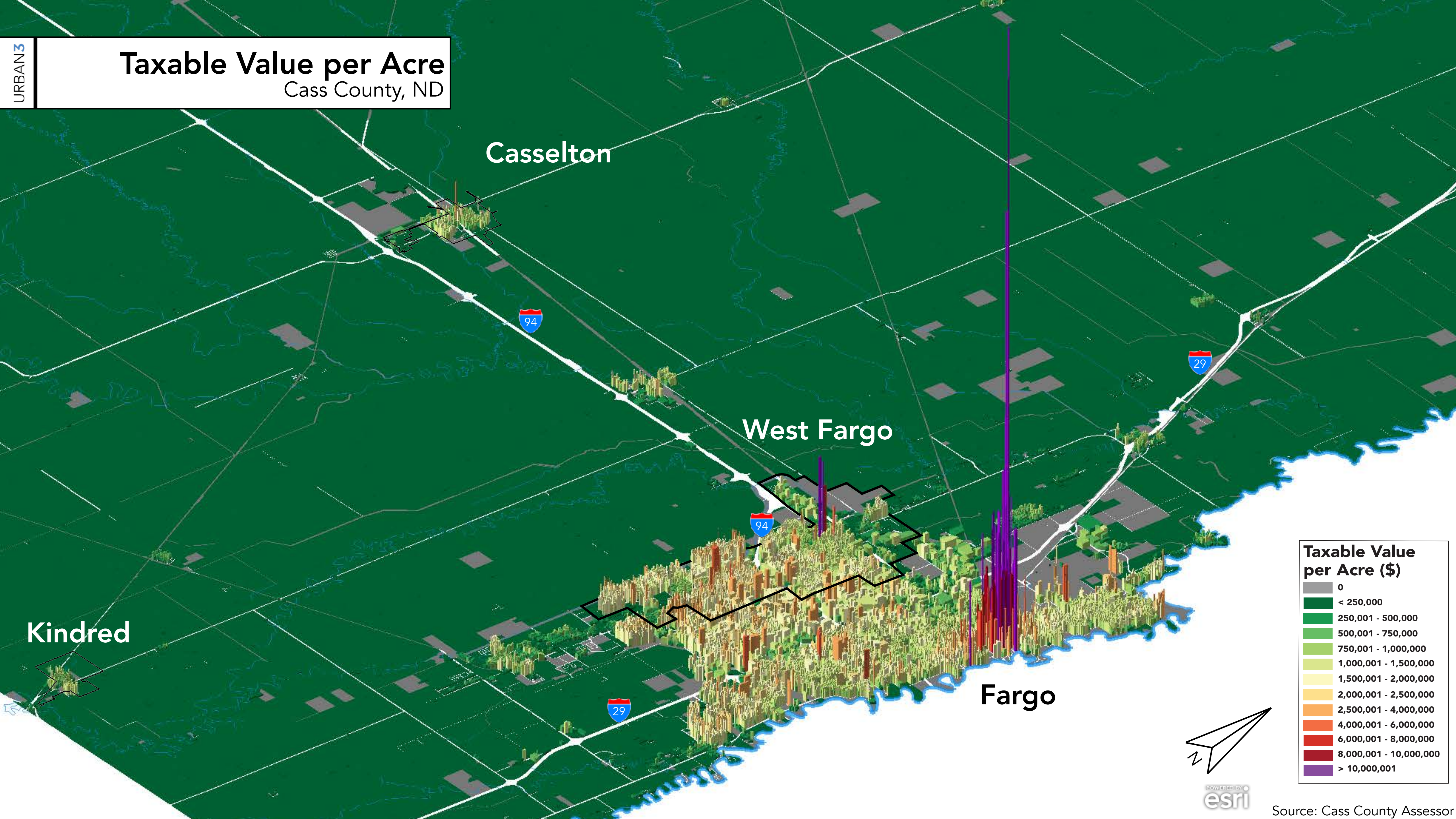
Cass County, ND





Taxable Value per Acre

Cass County, ND



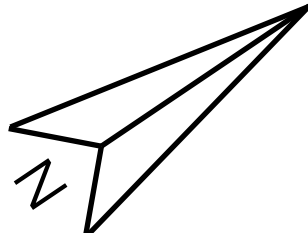
Casselton

West Fargo

Kindred

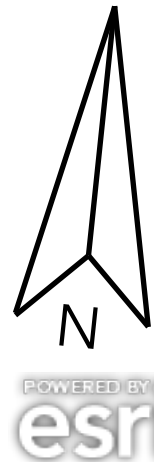
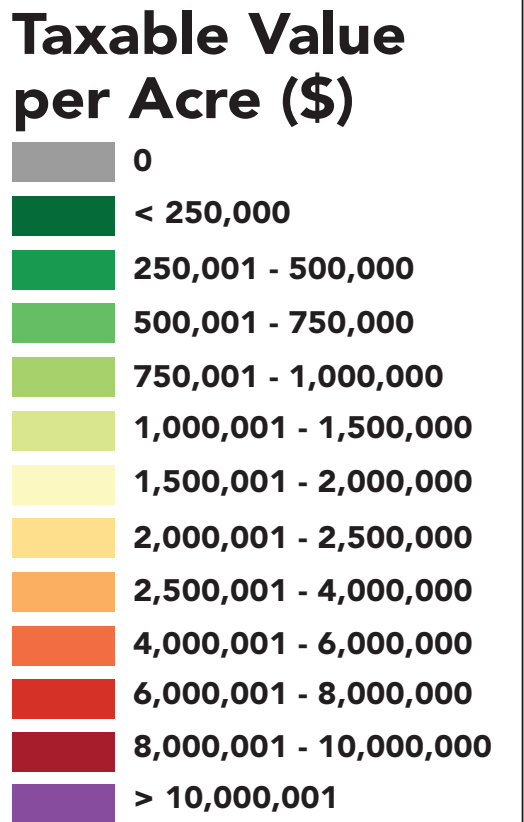
Fargo

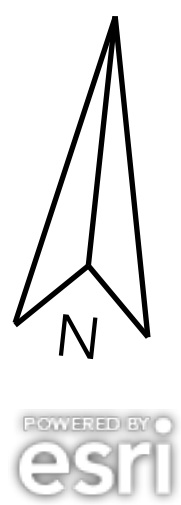
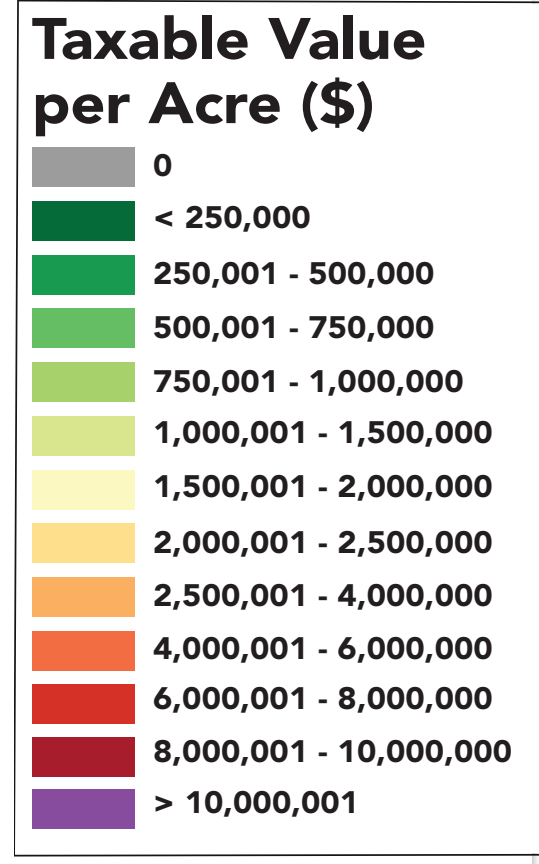
Taxable Value per Acre (\$)	
	0
	< 250,000
	250,001 - 500,000
	500,001 - 750,000
	750,001 - 1,000,000
	1,000,001 - 1,500,000
	1,500,001 - 2,000,000
	2,000,001 - 2,500,000
	2,500,001 - 4,000,000
	4,000,001 - 6,000,000
	6,000,001 - 8,000,000
	8,000,001 - 10,000,000
	> 10,000,001



Taxable Value per Acre

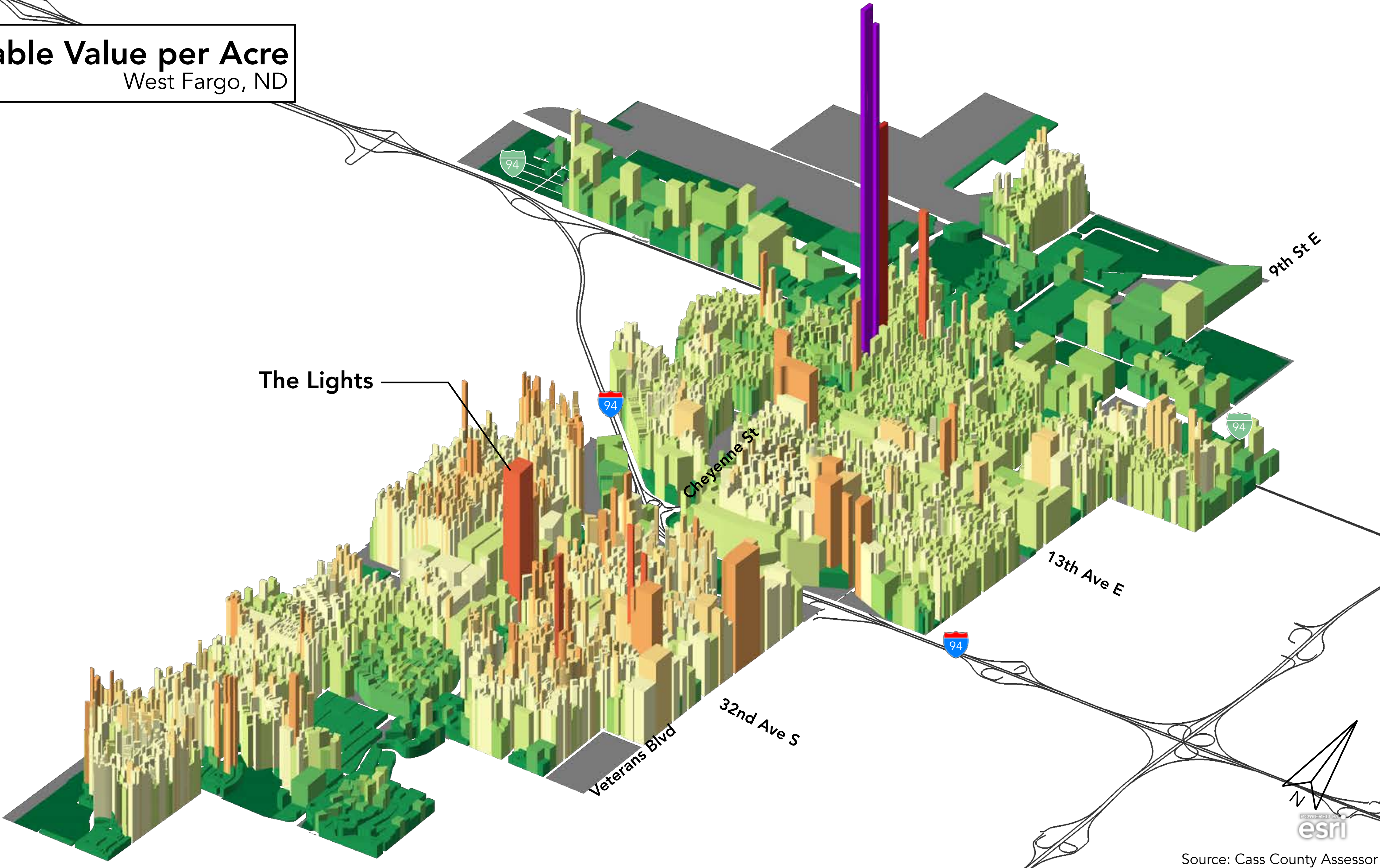
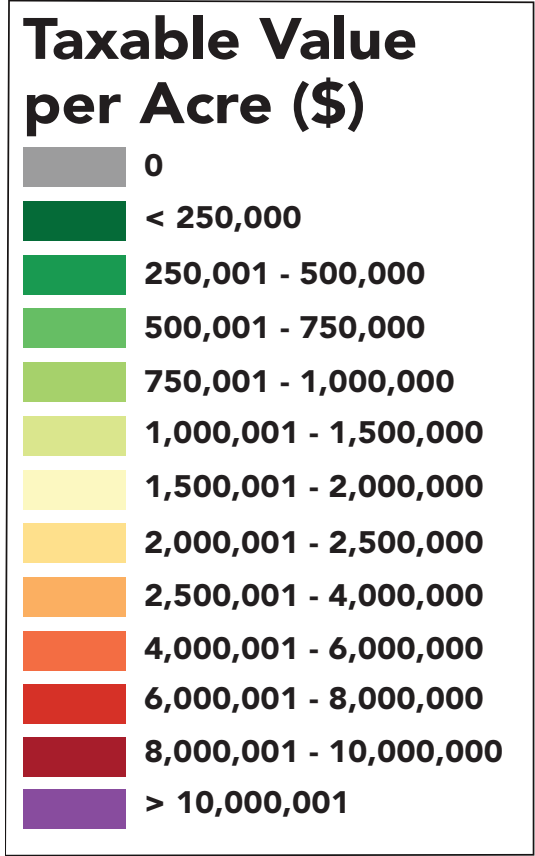
Kindred, ND

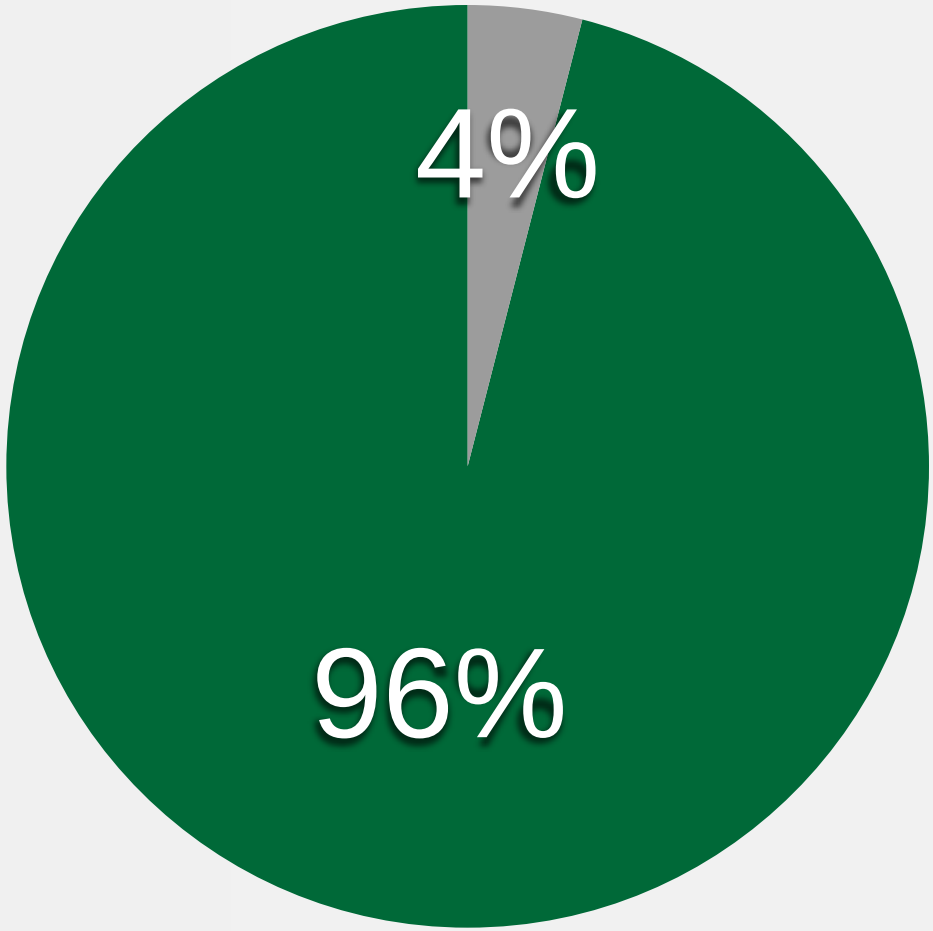




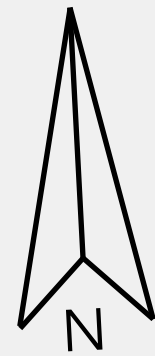
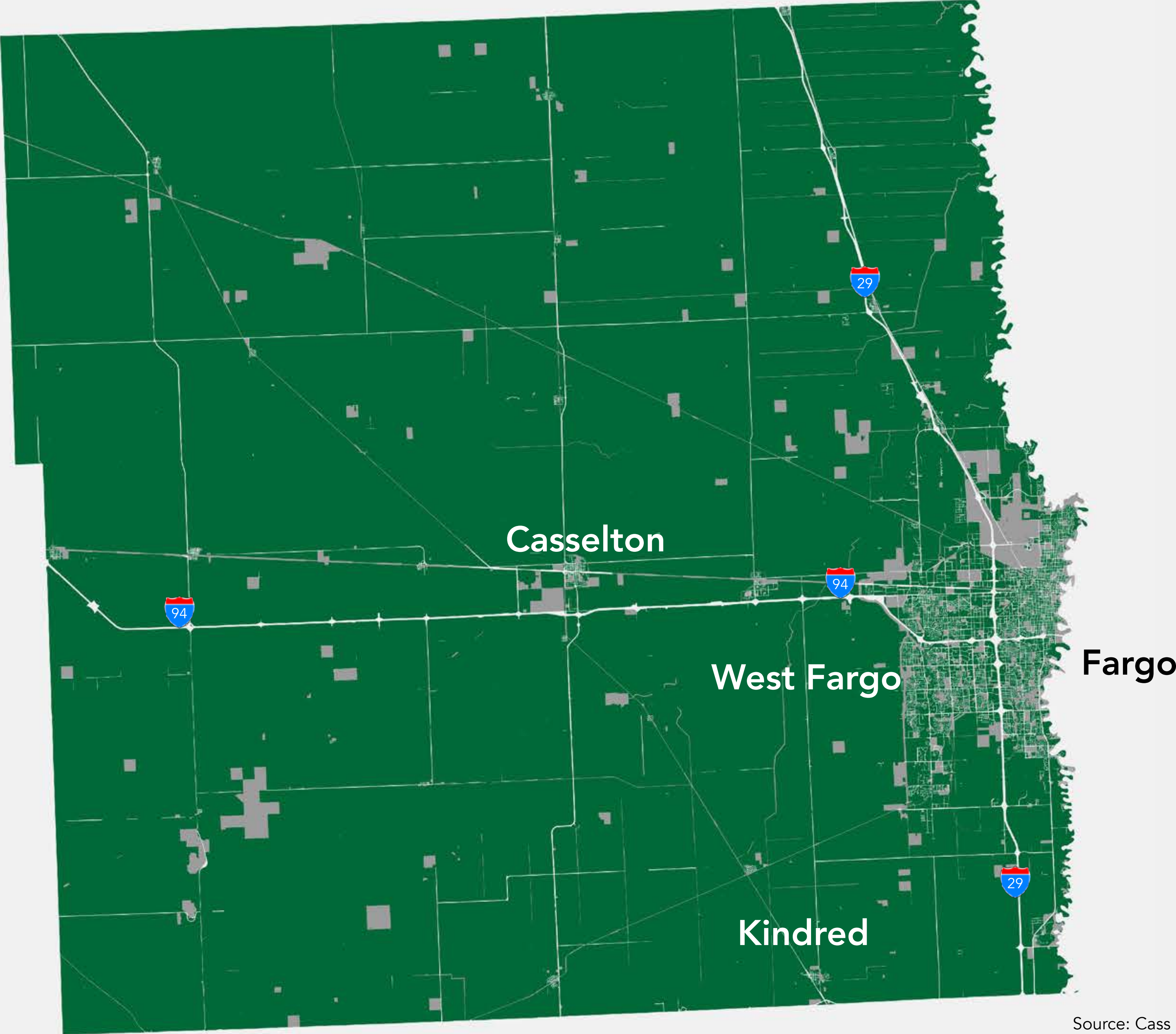
Taxable Value per Acre

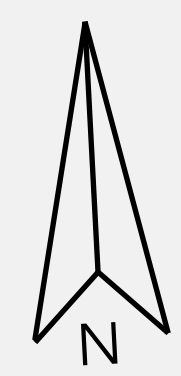
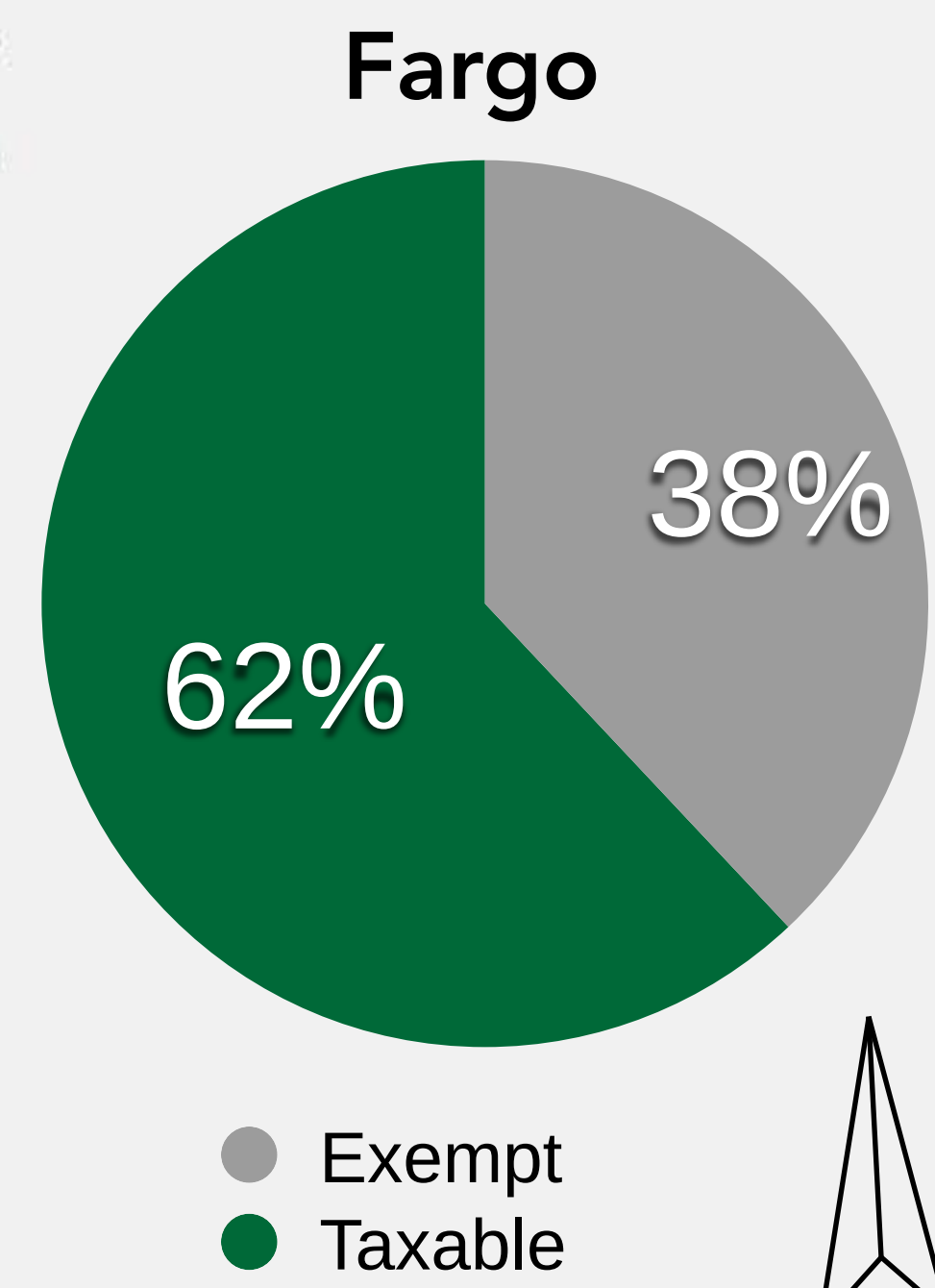
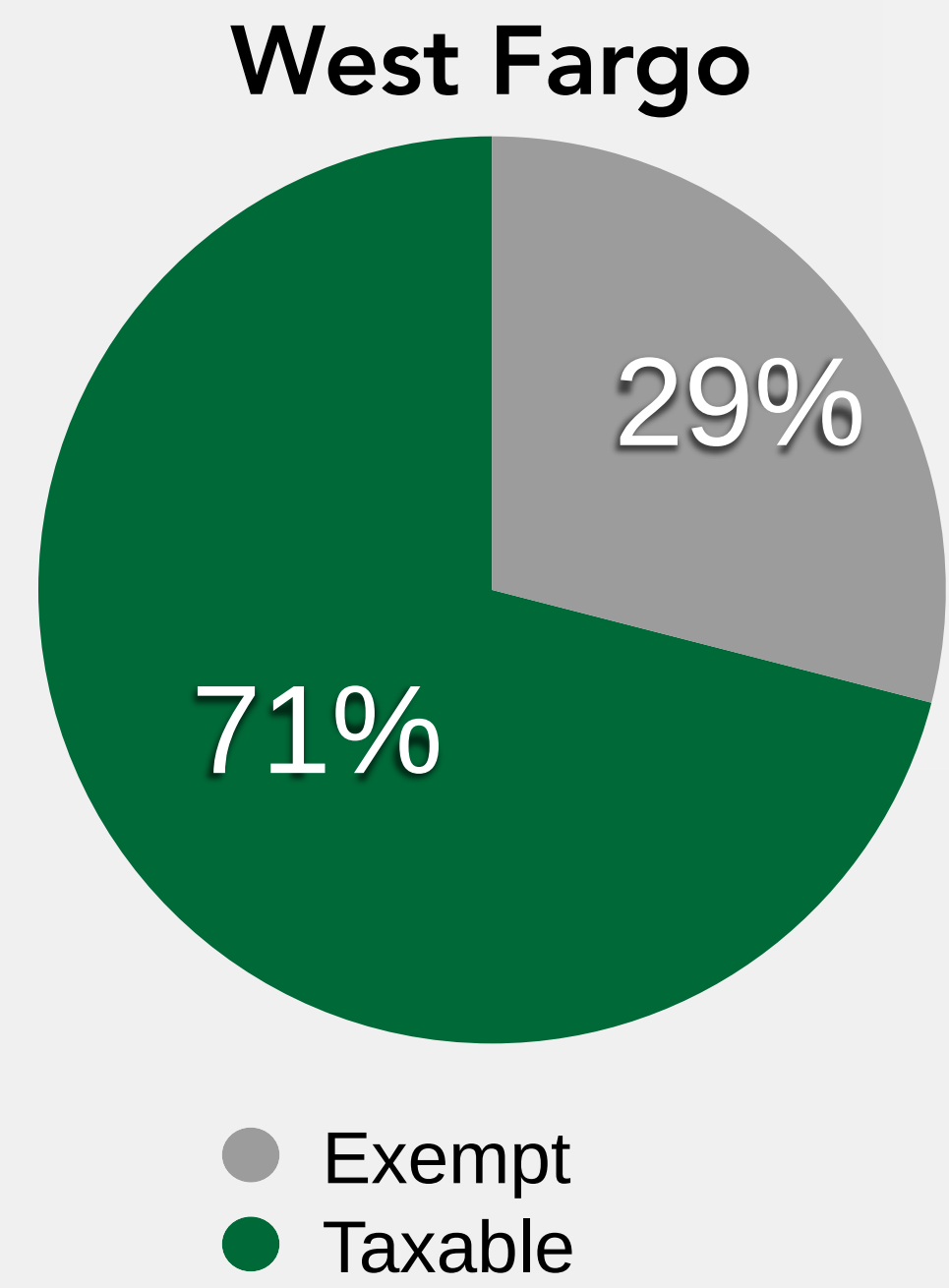
West Fargo, ND

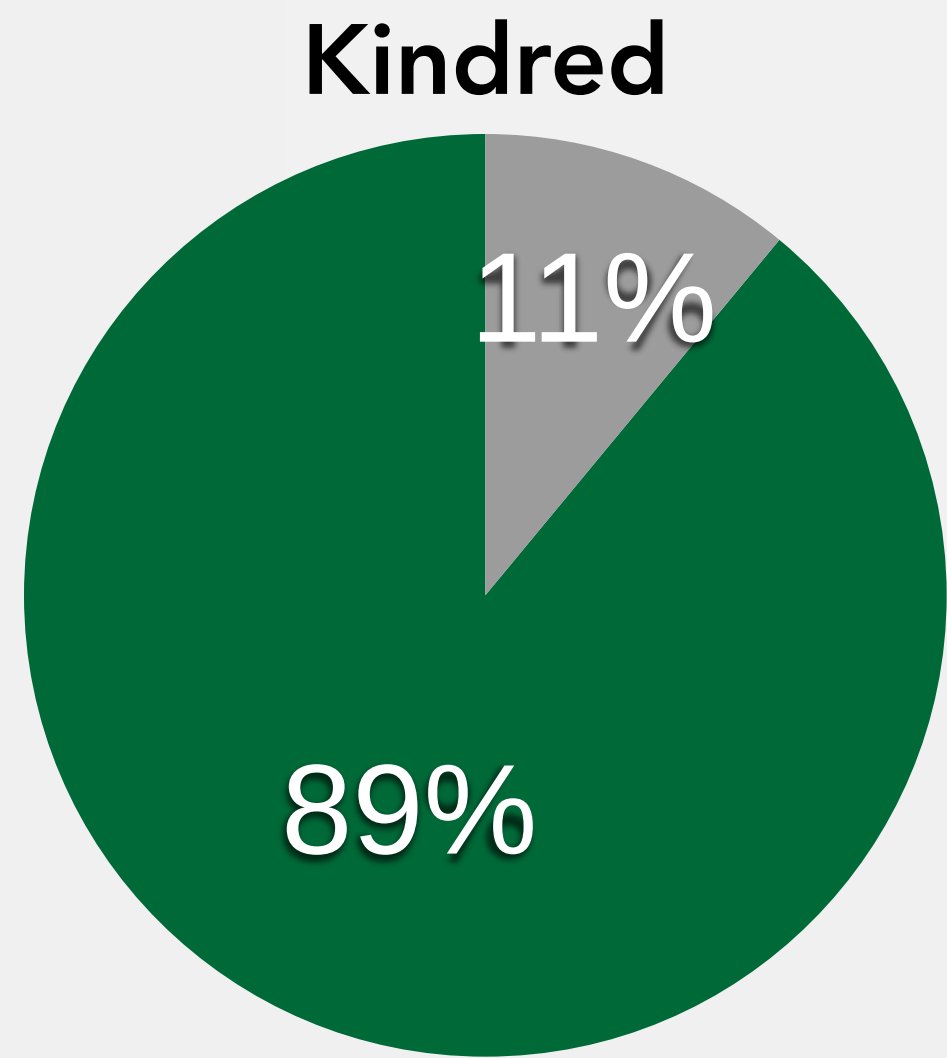
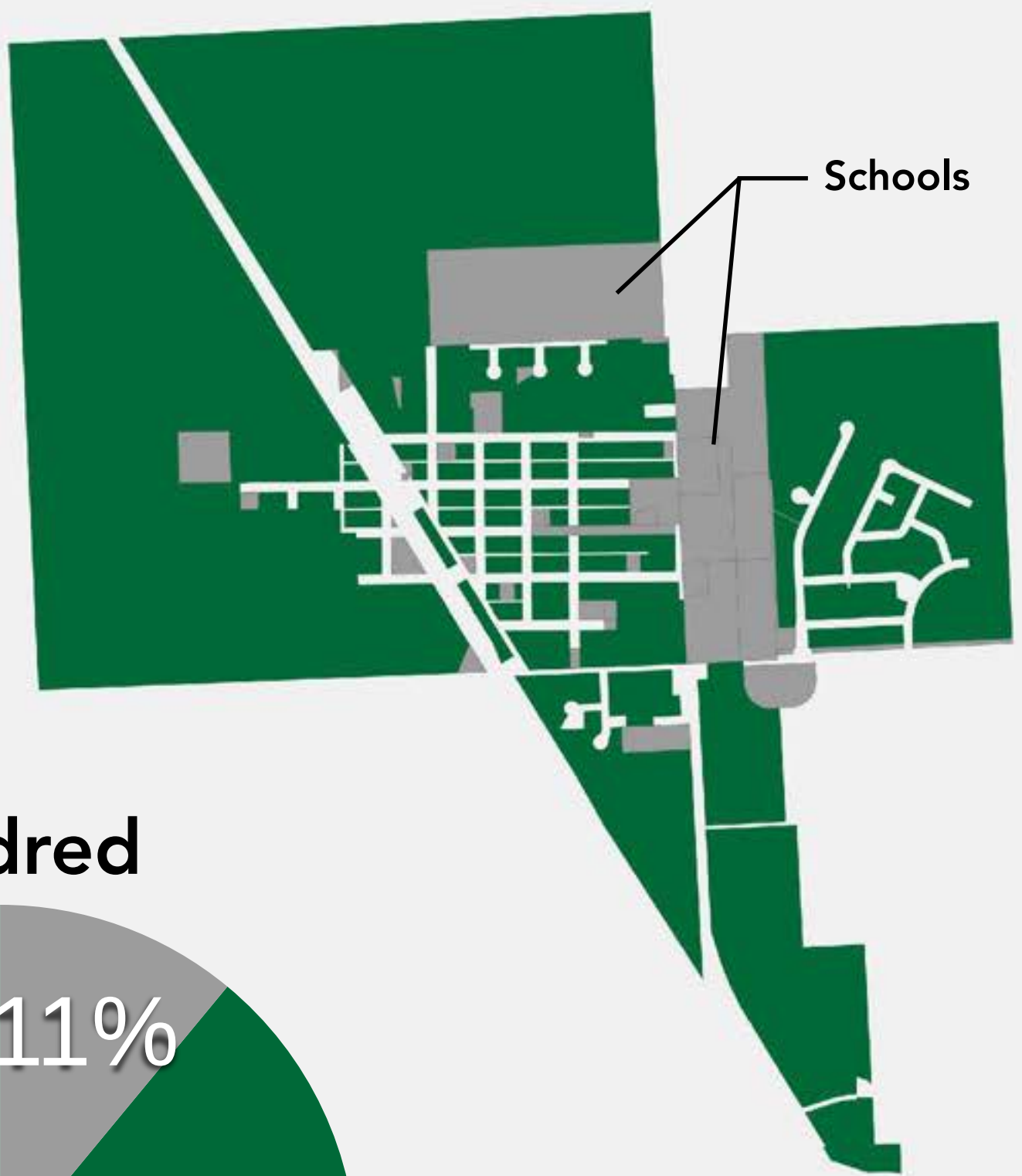




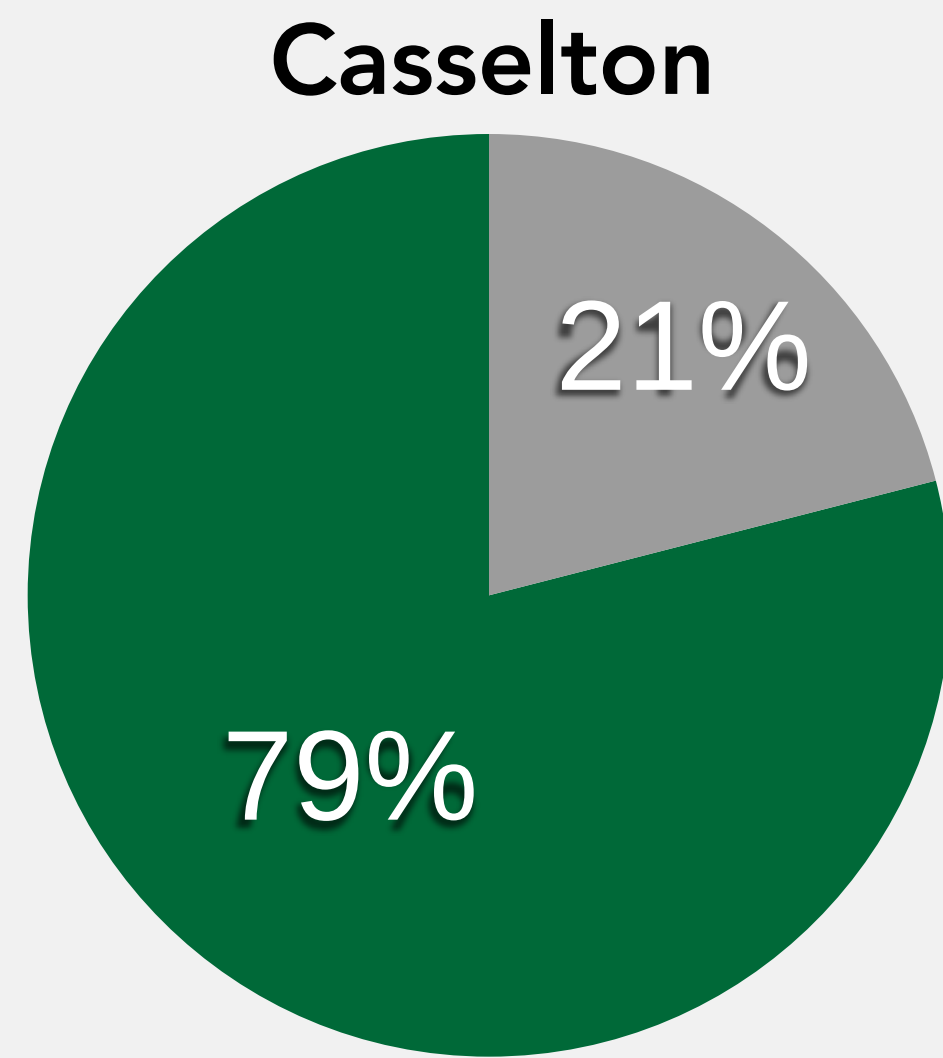
- Exempt
- Taxable



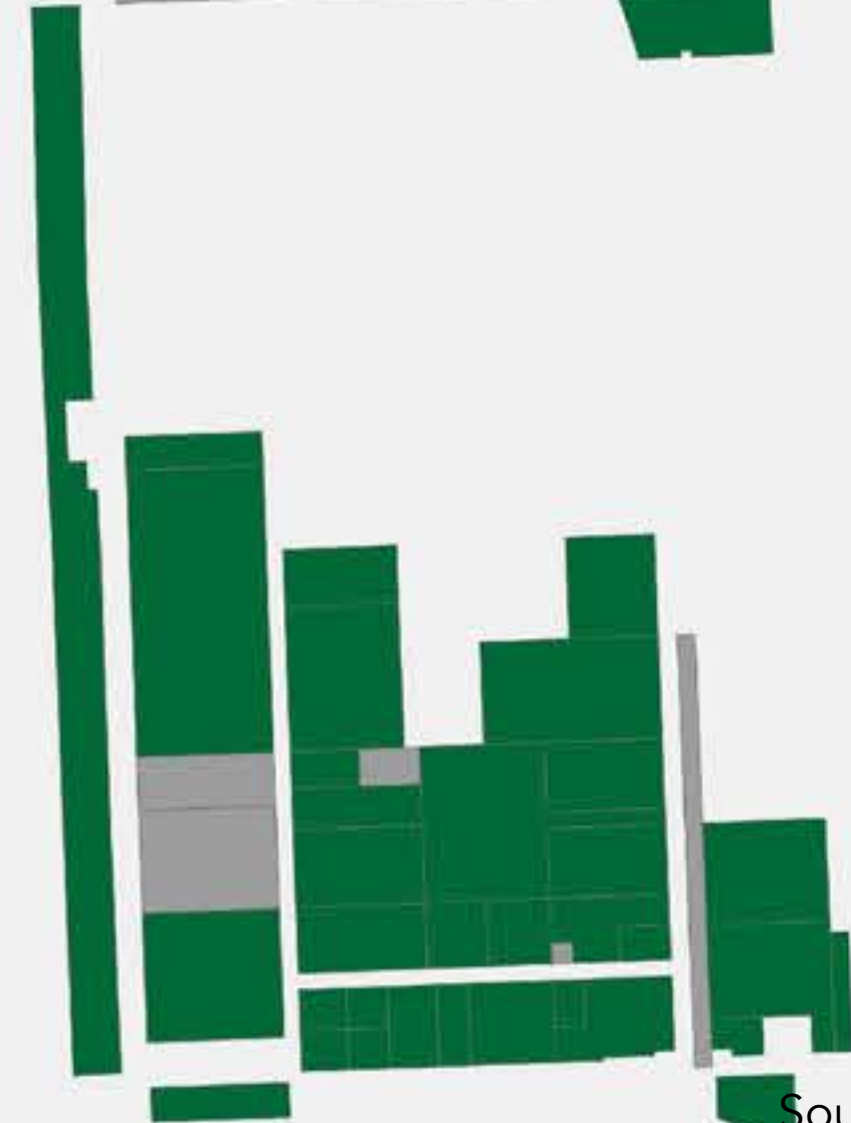




- Exempt
- Taxable



- Exempt
- Taxable

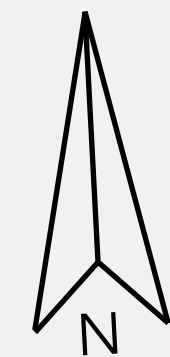


Cemetery

Golf Course

High School

Reservoir



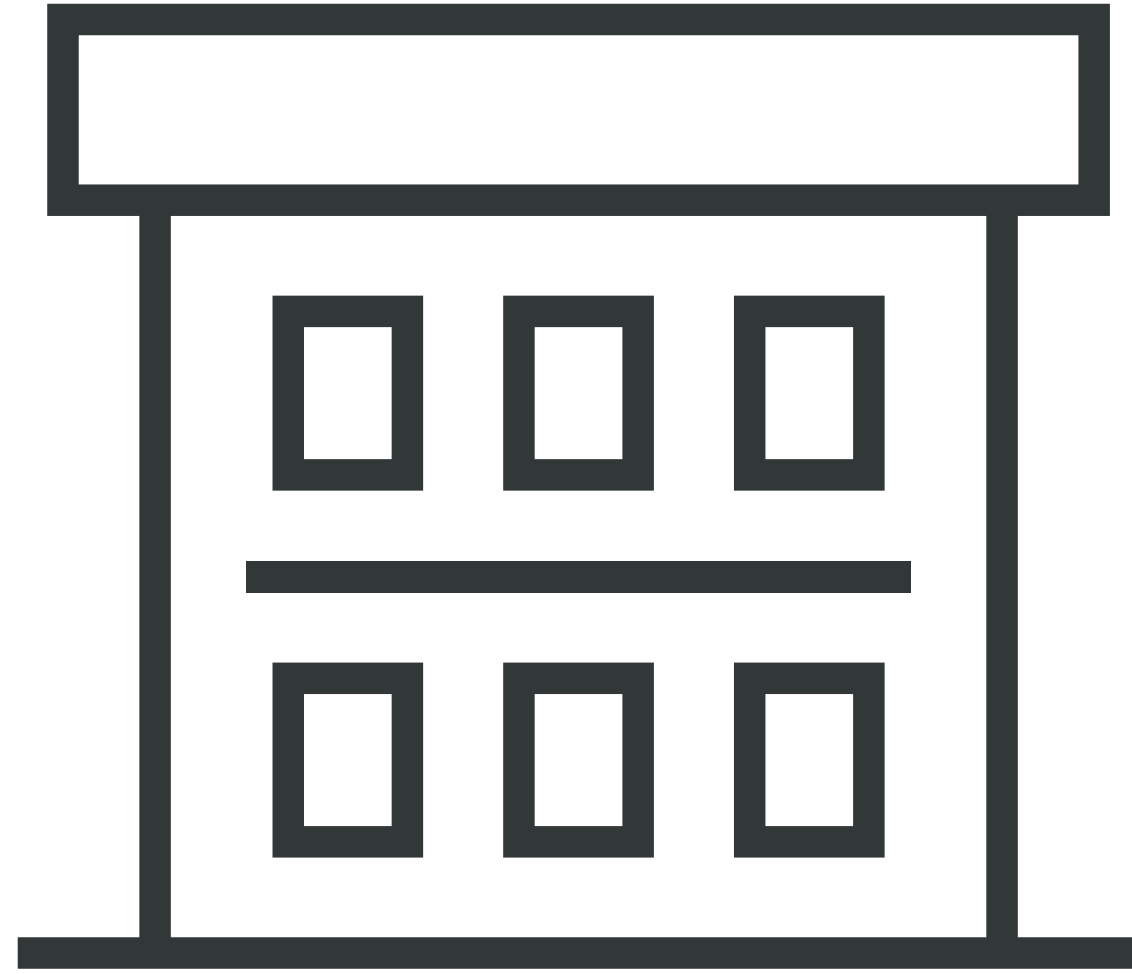
POWERED BY
esri

Value Per Acre

Cass County, ND



Walmart
\$534,342 per acre

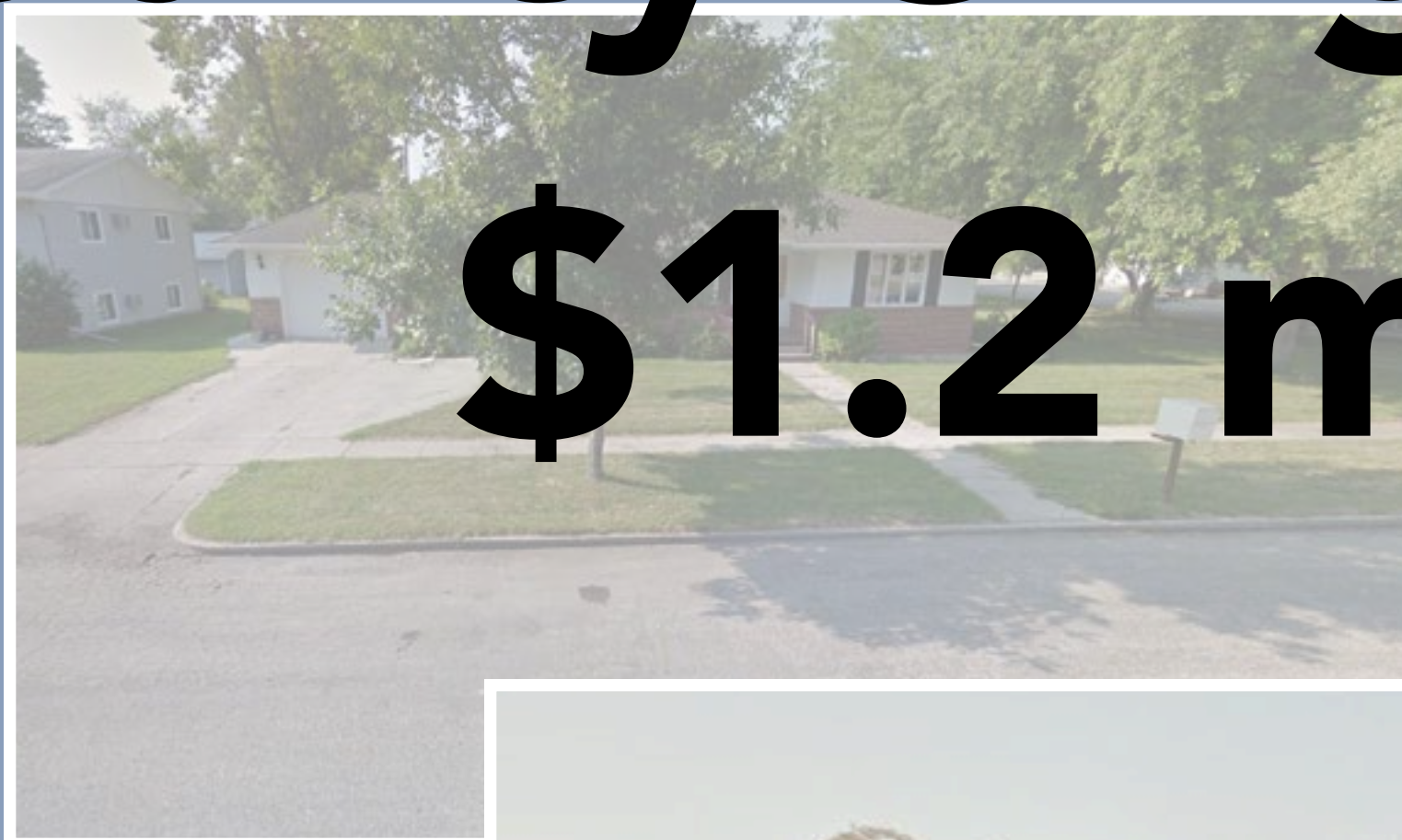


Residential Land Use Types

Samples of residential buildings and development types.

County Single Family Average:

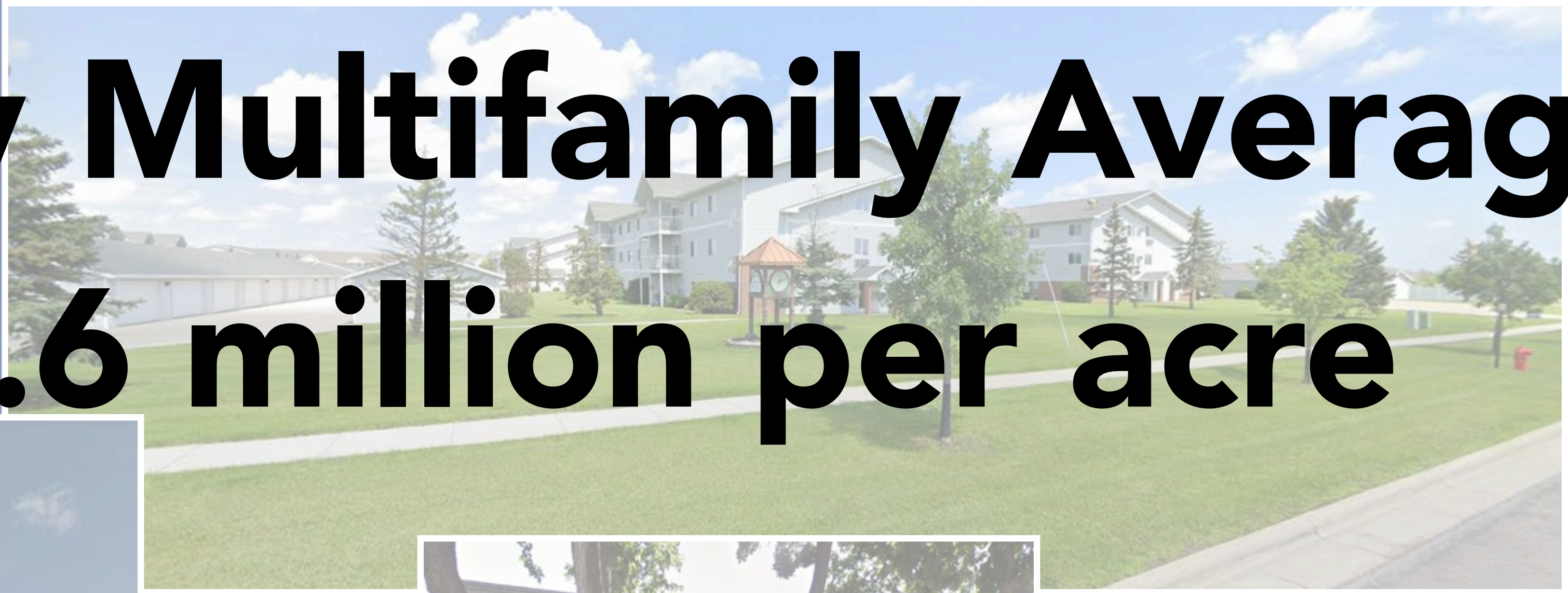
\$1.2 million per acre



 Kindred \$0.4M per acre	 Casselton \$0.6M per acre	 West Fargo \$1.1M per acre
---	--	---

Walmart
\$534,342 per acre

County Multifamily Average: \$1.6 million per acre



Kindred
\$0.08M
per acre



Casselton
\$0.4M
per acre

West Fargo
\$1.7M
per acre

Walmart
\$534,342 per acre

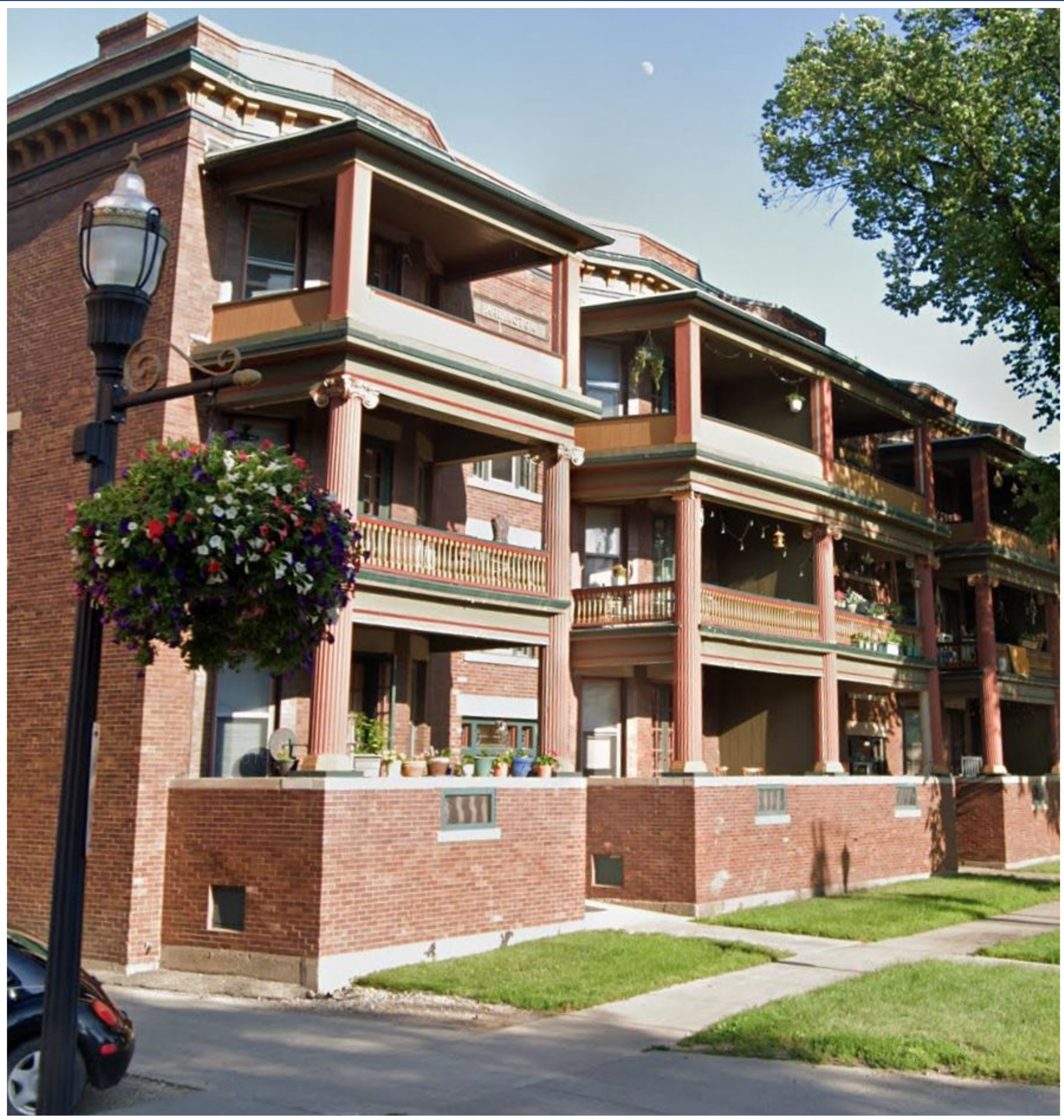
MISSING MIDDLE



Value Per Acre
Cass County, ND

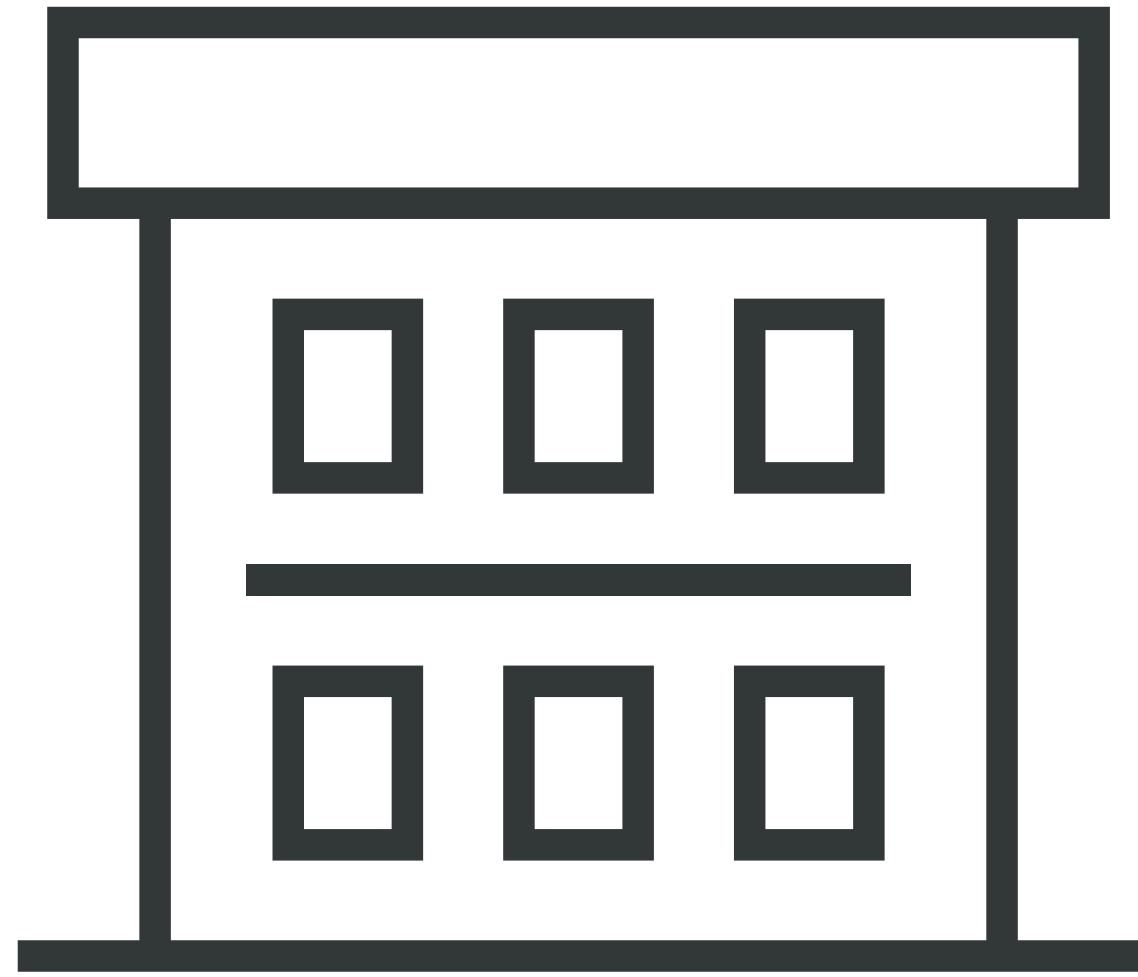


Bakre Apartments
\$1.9M per acre



Arlington Apartments
\$3.3M per acre

Walmart
\$534,342 per acre



Commercial Land Use Types

Samples of commercial buildings and development types.

Value Per Acre

Cass County, ND



K-Mart
\$445,415 per acre

Menards
\$863,105

West Acres Mall
\$1,423,698 per acre

Walmart
\$534,342 per acre

Value Per Acre

Cass County, ND

The Firm Apartments (WF)
 \$10,117,321 per acre



Walmart
 \$534,342 per acre

Value Per Acre

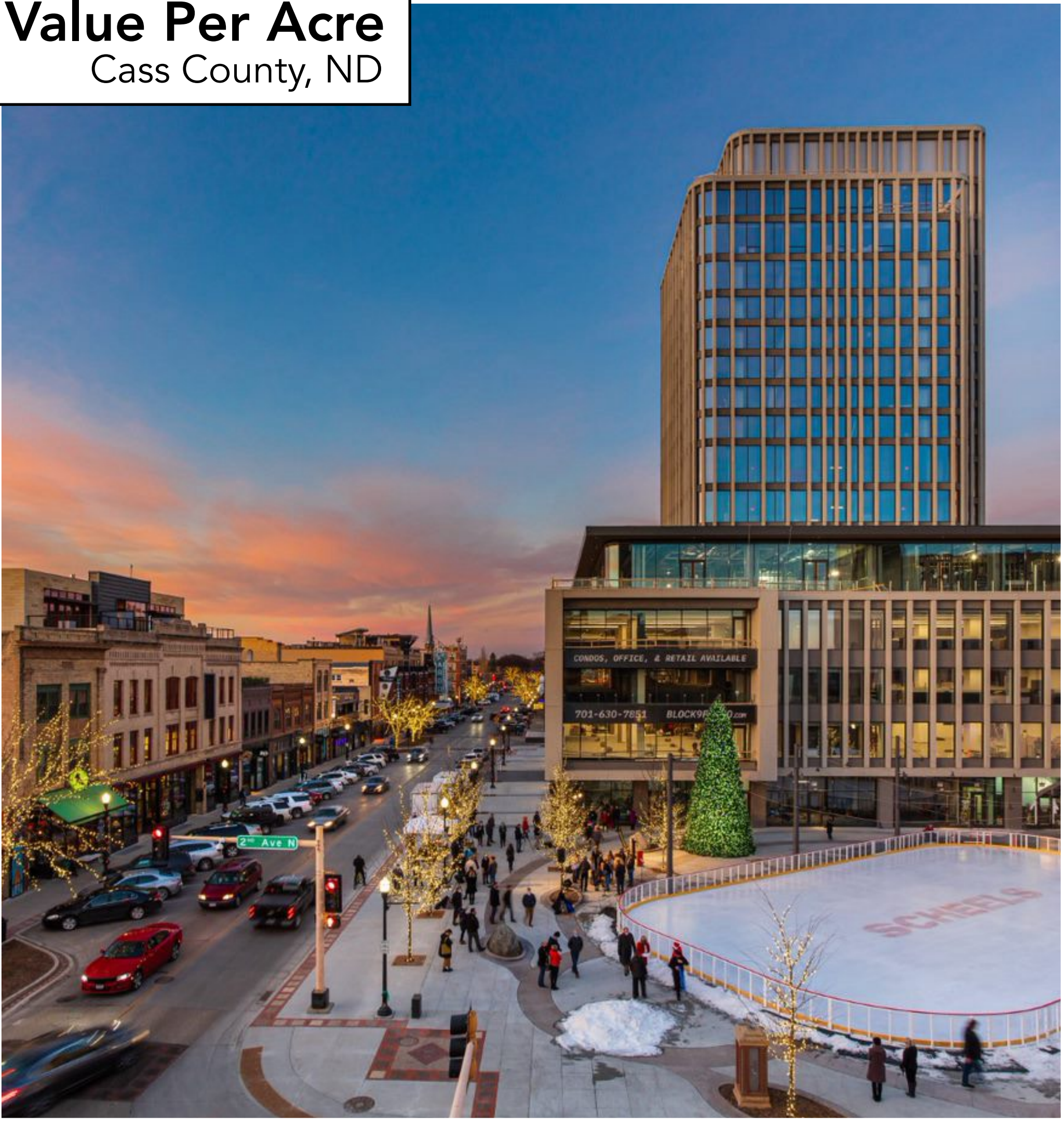
Cass County, ND

Sheyenne Plaza
\$10,791,985 per acre



Walmart
\$534,342 per acre

Value Per Acre
Cass County, ND



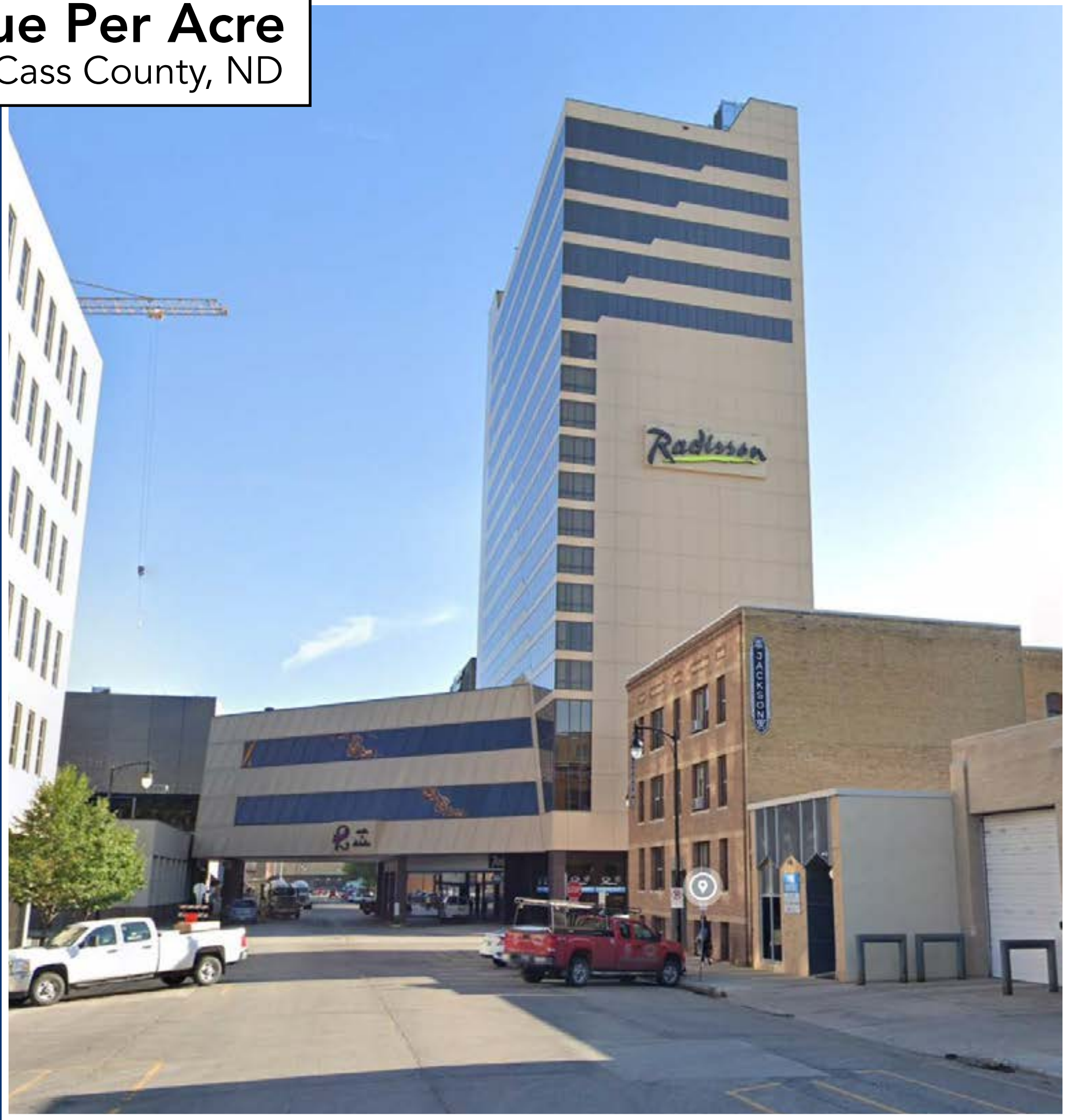
Block 9
\$54,389,706 per acre



Radisson
\$77,603,809 per acre

Walmart
\$534,342 per acre

Value Per Acre
Cass County, ND



Radisson
\$34,377,870 per acre

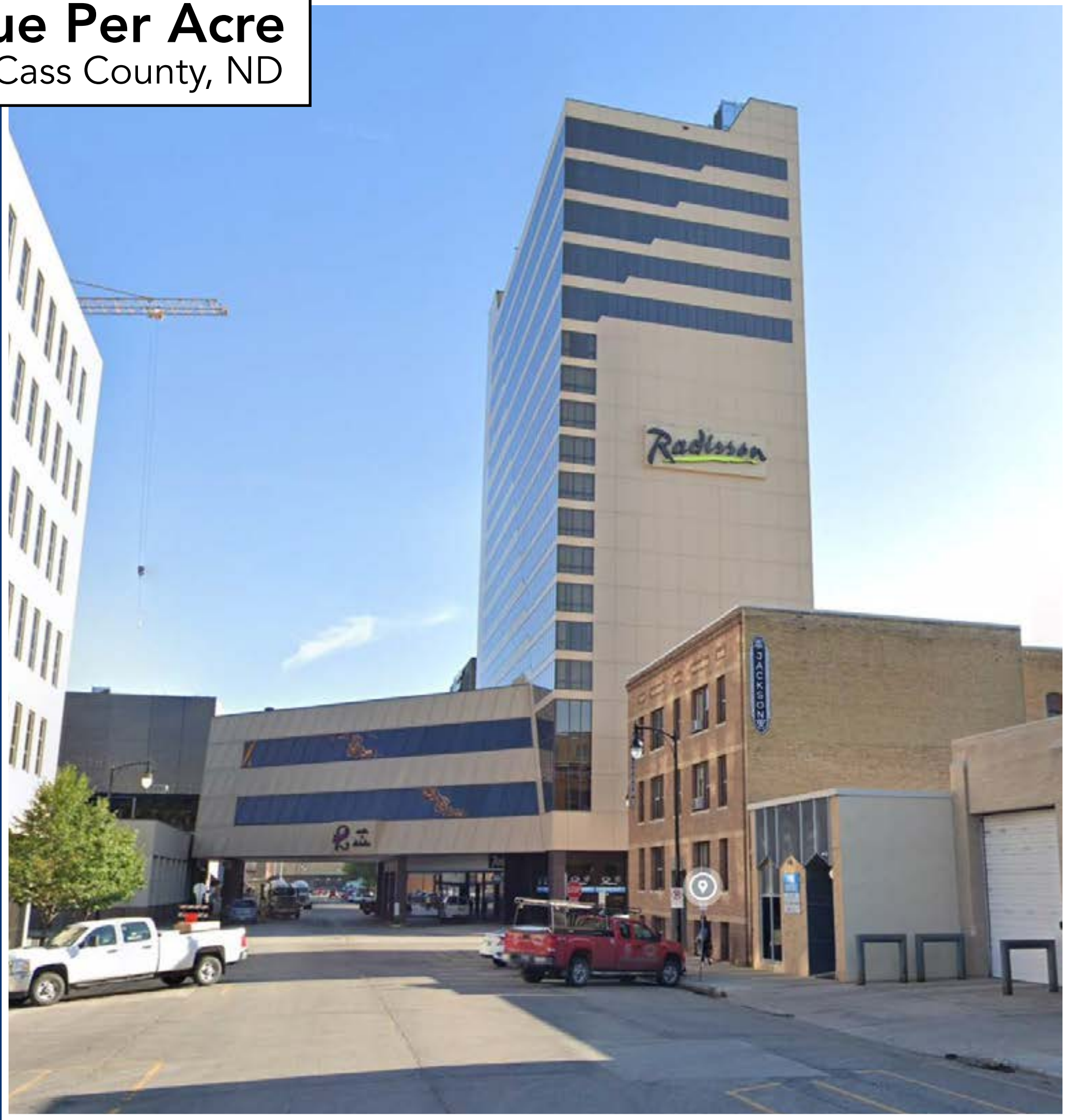


Block 9
\$54,389,706 per acre

Walmart
\$534,342 per acre

Source: Cass County Assessor Picture Source: Google Street View

Value Per Acre
Cass County, ND



Radisson
\$34,377,870 per acre



300 Broadway N
\$20,998,083 per acre

Walmart
\$534,342 per acre



Land Uses in the Model

Reconnecting the tax model and on the ground examples.

Taxable Value per Acre

Cass County, ND

Casselton

Bank Offices
\$5.3M per acre



SGC Apartments
\$5.4M per acre

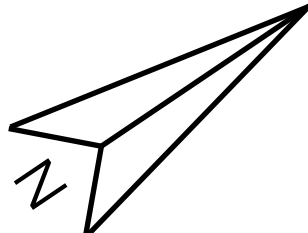
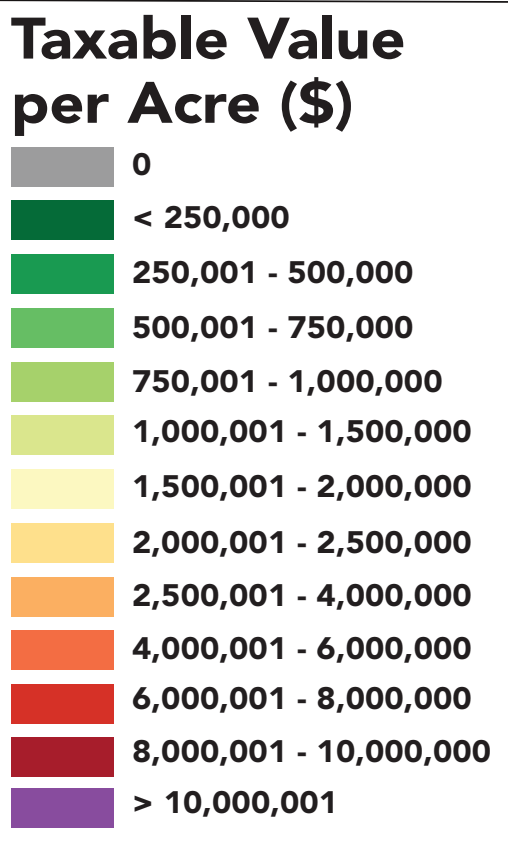
West Fargo

Kindred



Kindred State Bank
\$1M per acre

Fargo



Taxable Value per Acre

Cass County, ND



Casselton



Sheyenne Plaza
\$10,791,985 per acre

Radisson
\$77,603,809 per acre



The Lights
\$4.3M per acre

West Fargo

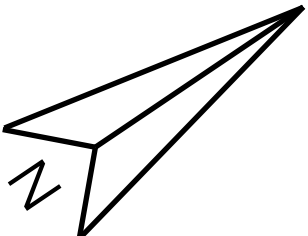


Fargo

Kindred



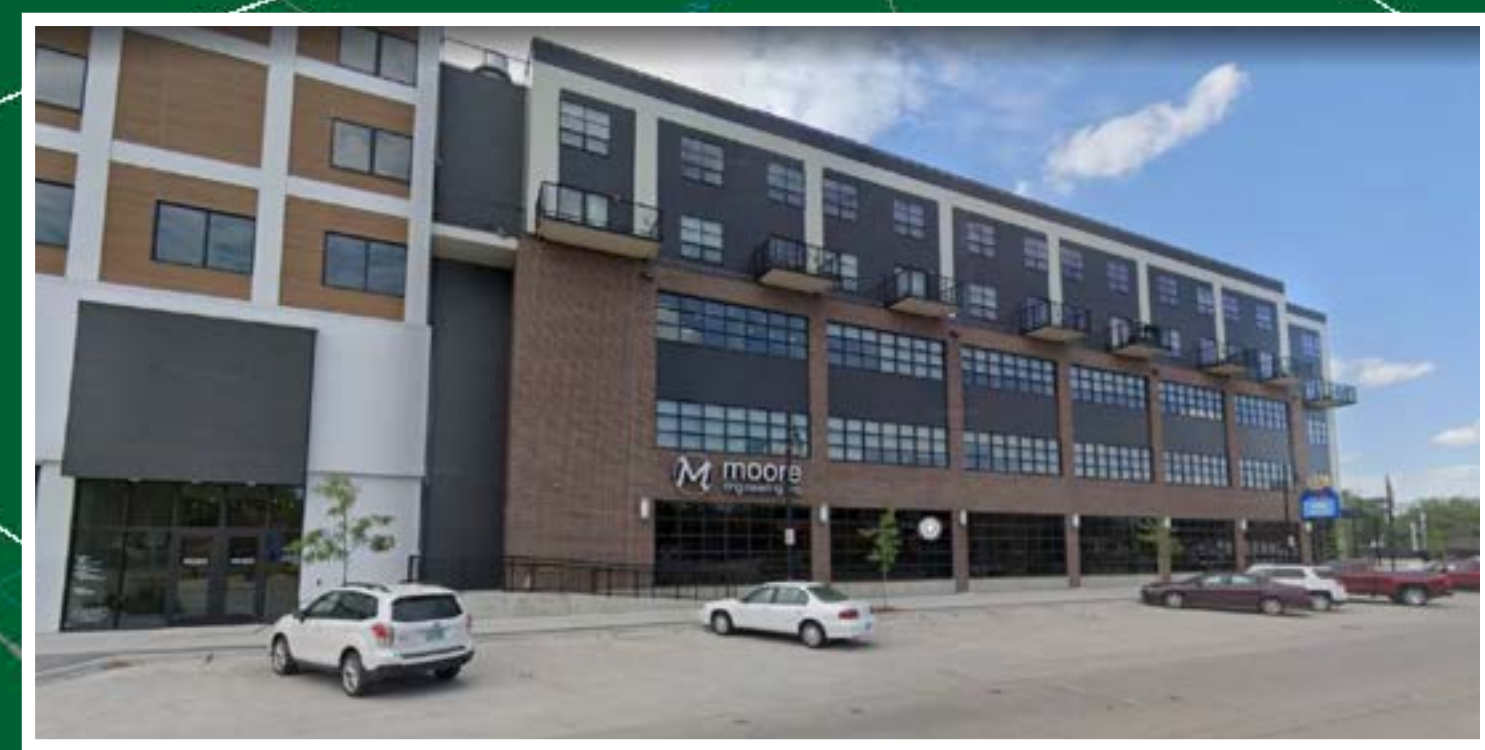
Taxable Value per Acre (\$)	
0	
< 250,000	
250,001 - 500,000	
500,001 - 750,000	
750,001 - 1,000,000	
1,000,001 - 1,500,000	
1,500,001 - 2,000,000	
2,000,001 - 2,500,000	
2,500,001 - 4,000,000	
4,000,001 - 6,000,000	
6,000,001 - 8,000,000	
8,000,001 - 10,000,000	
> 10,000,001	



Taxable Value per Acre

Cass County, ND

Casselton



Sheyenne Plaza
\$10,791,985 per acre

Radisson
\$77,603,809 per acre

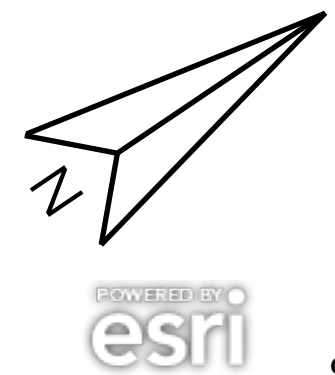
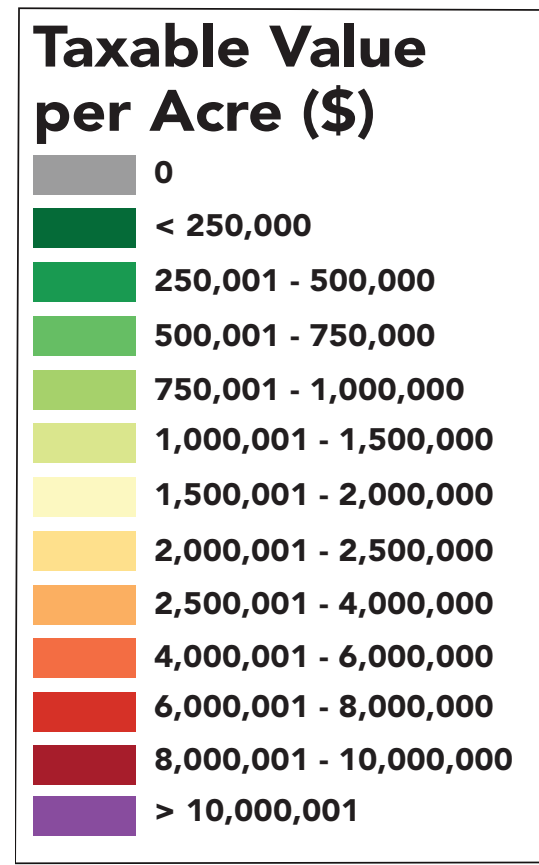


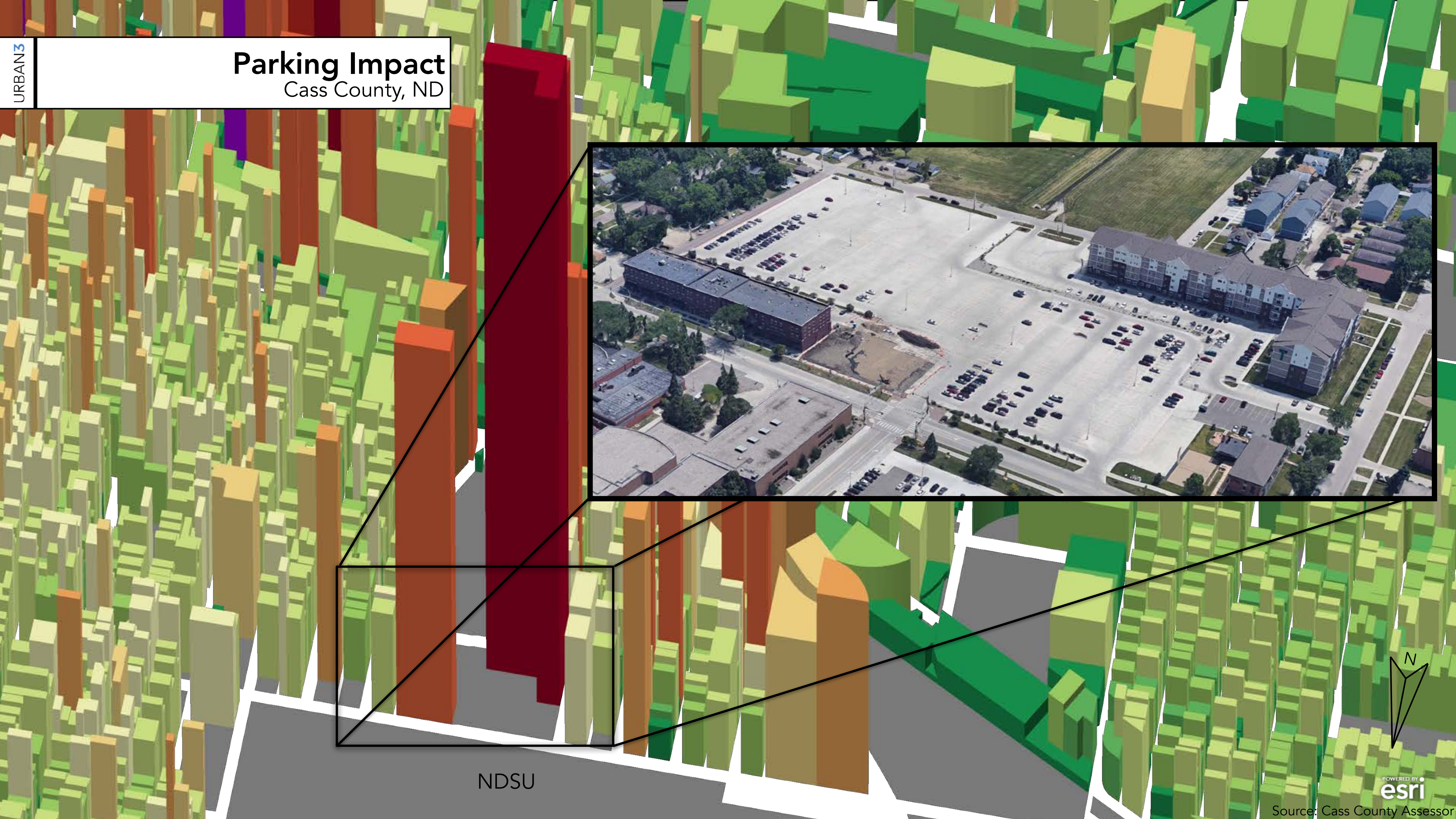
The Lights
\$4.3M per acre

West Fargo

Kindred

Fargo





Parking Impact

Cass County, ND

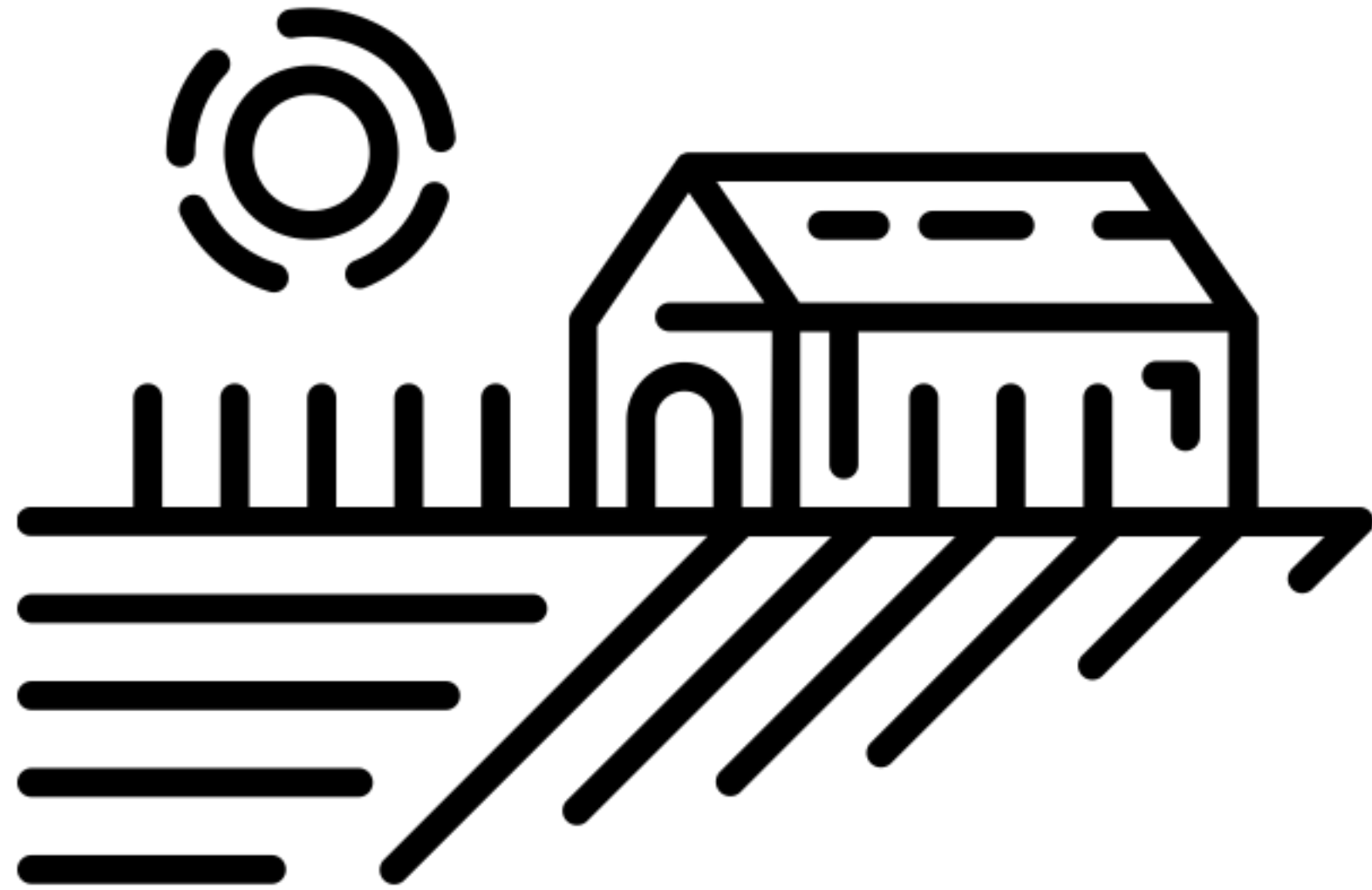


NDSU



POWERED BY
esri

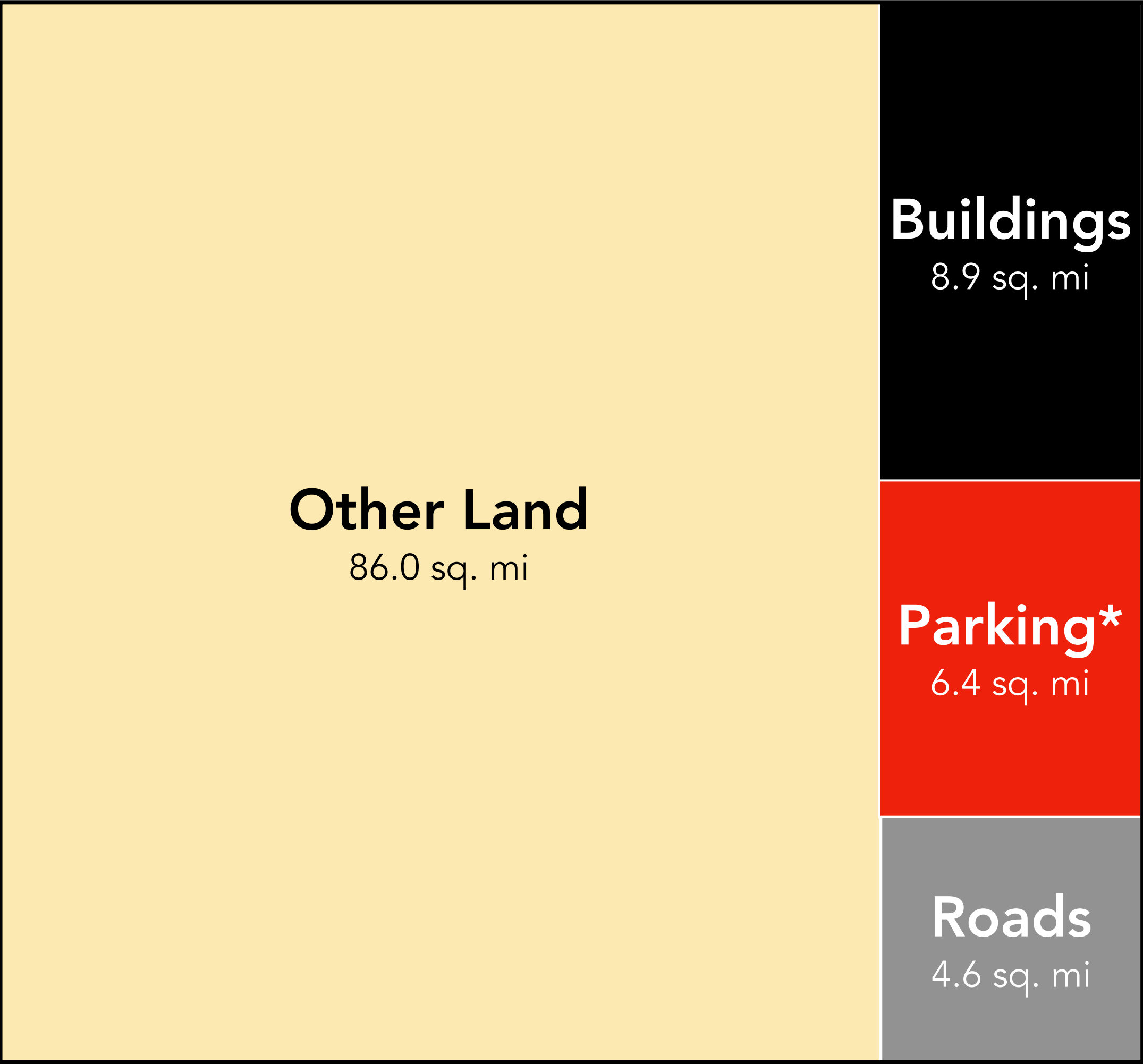
Source: Cass County Assessor



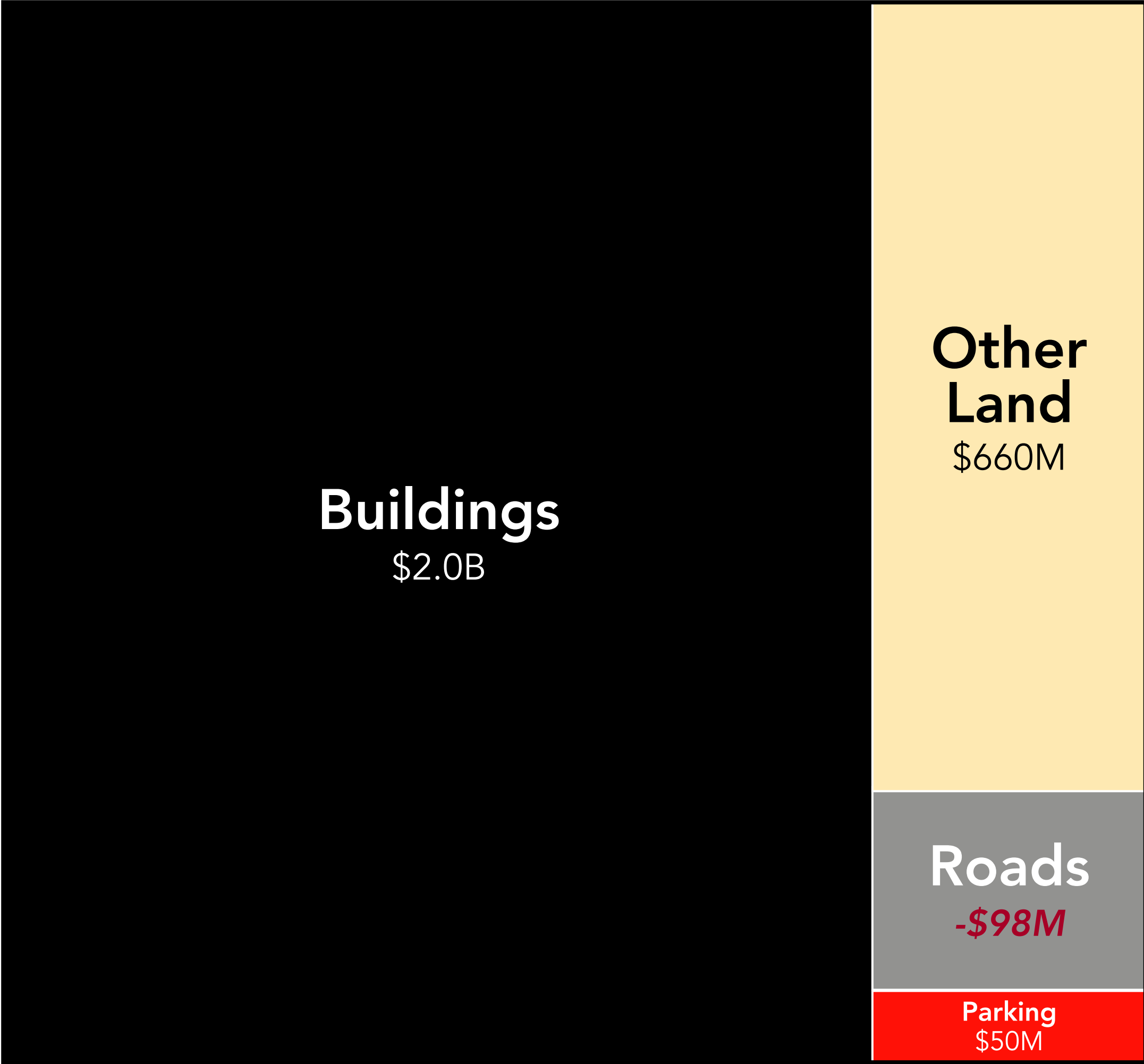
Land Analytics and Productivity

Comparing Value Created with Land Used

Area



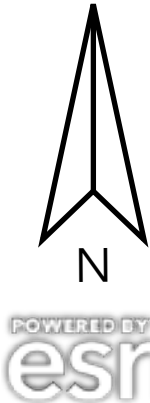
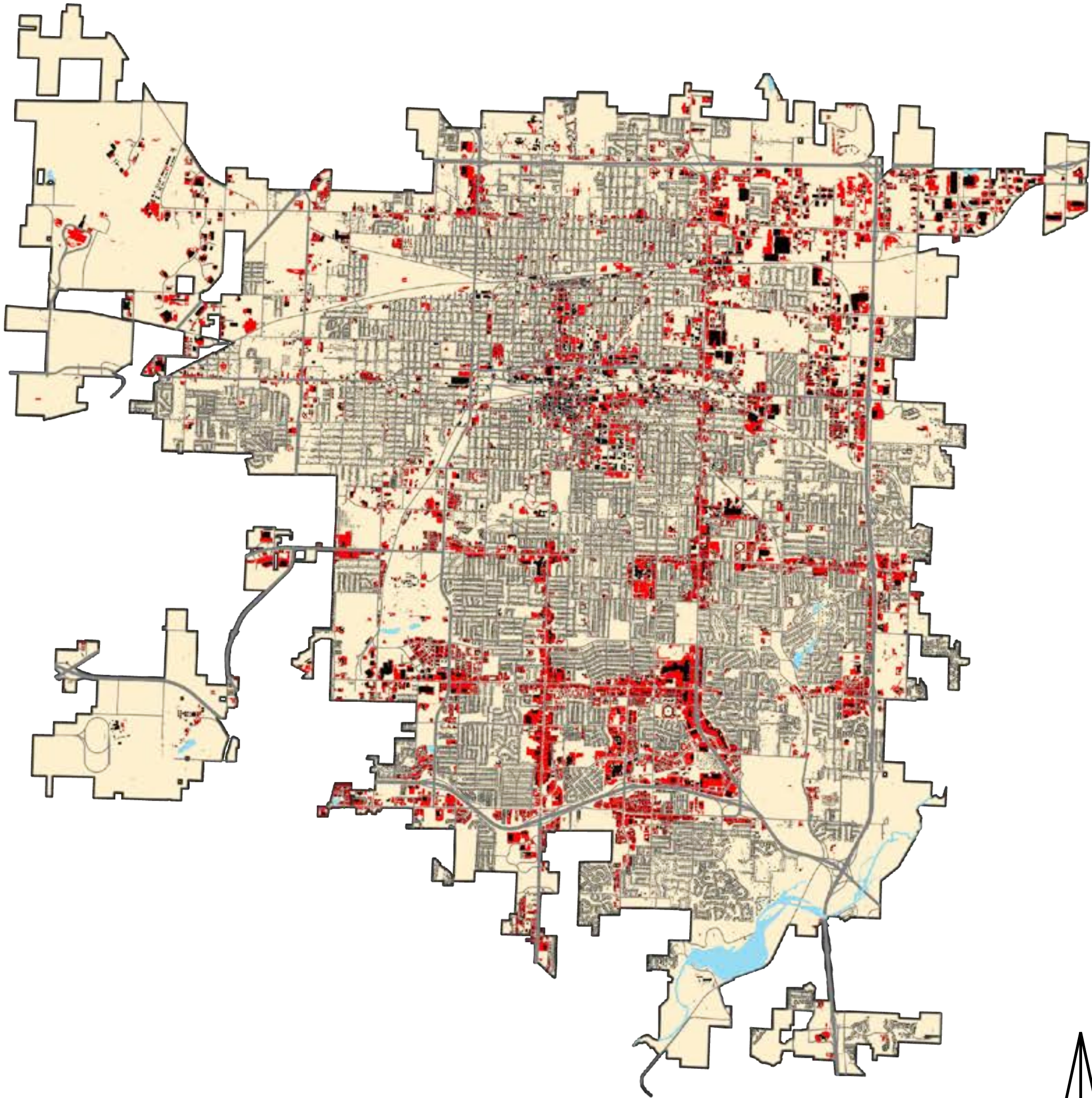
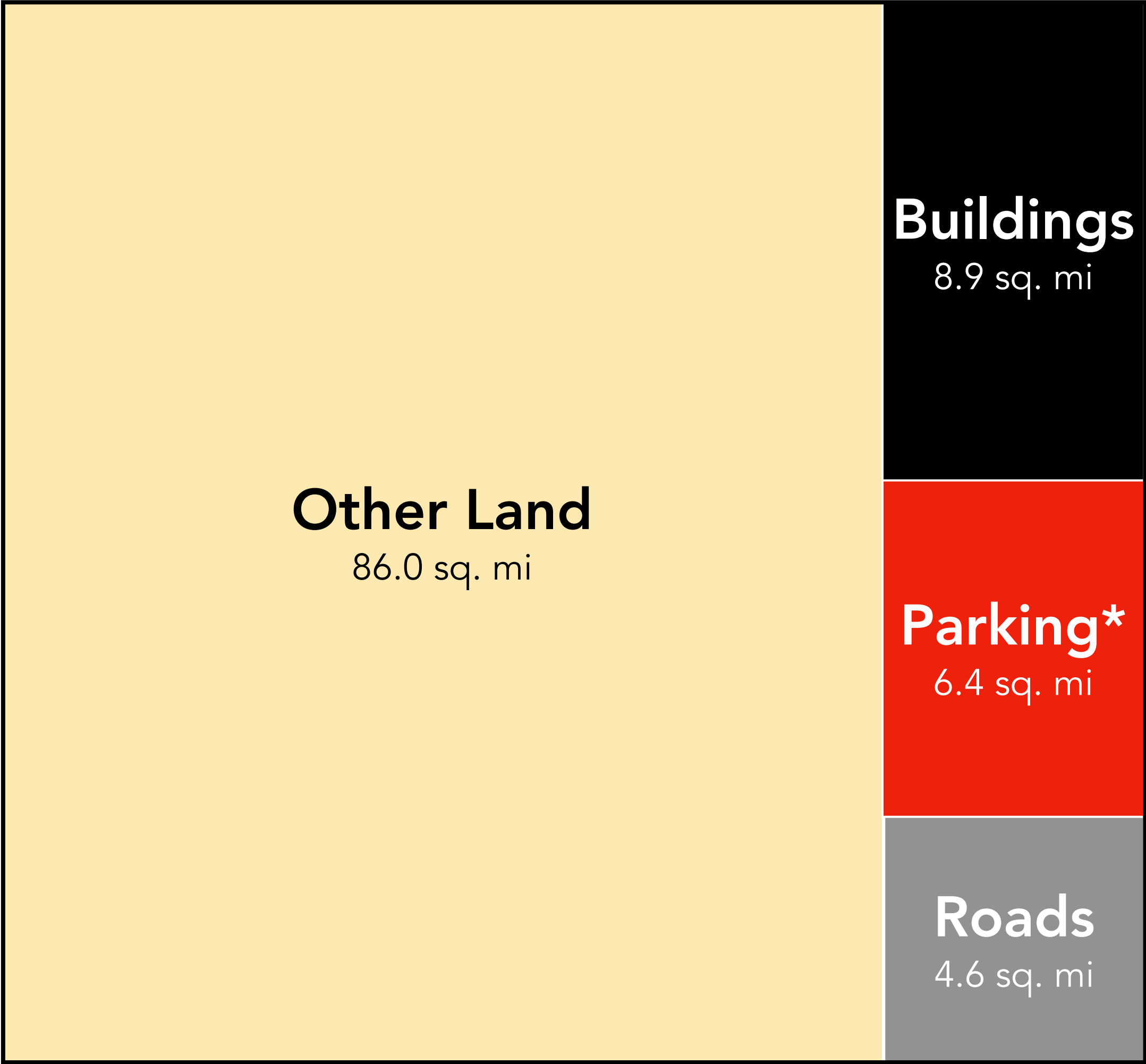
Value



* Estimate from satellite imagery

Source: City of Springfield MO (2022), Urban3 Roads Cost Estimator

Area

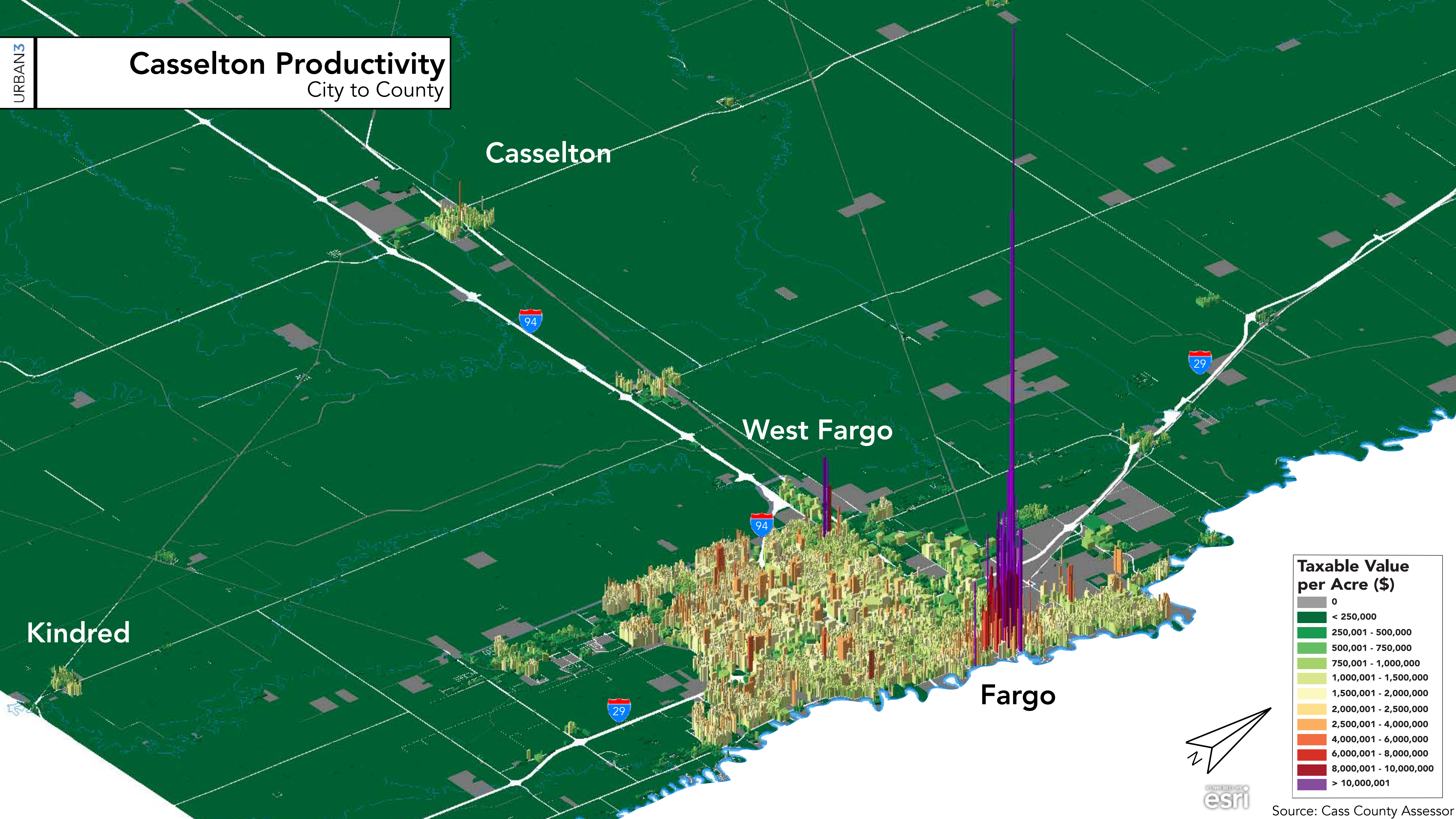


* Estimate from satellite imagery

Source: City of Springfield MO (2022)

Casselton Productivity

City to County



Casselton

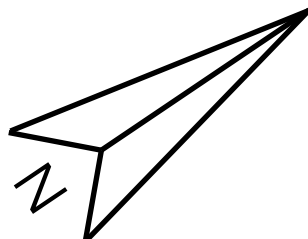
West Fargo

Kindred

Fargo

Taxable Value per Acre (\$)

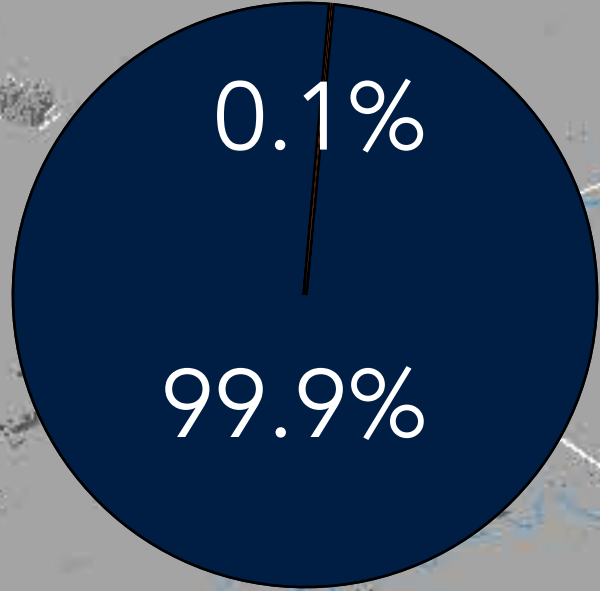
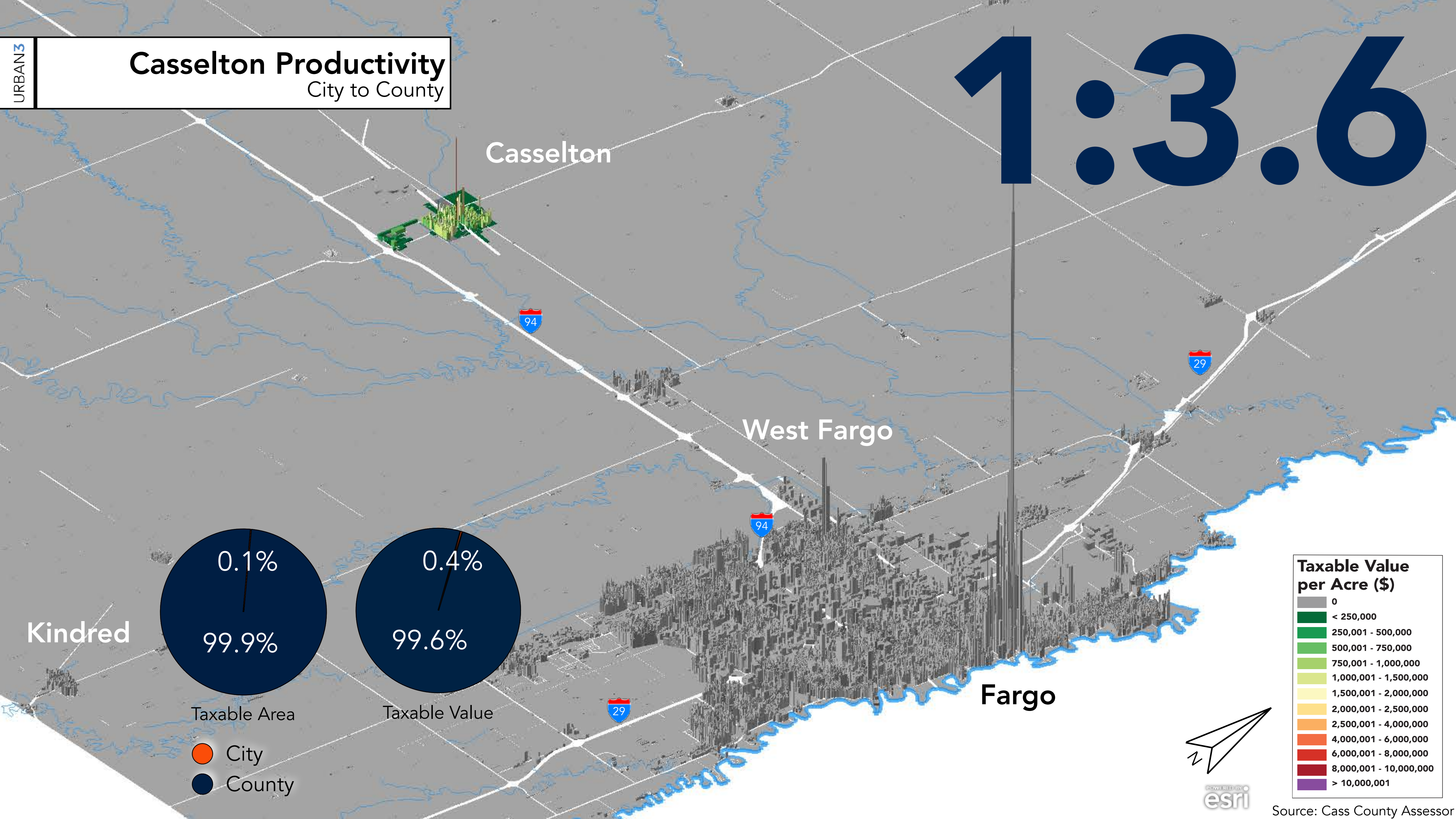
0
< 250,000
250,001 - 500,000
500,001 - 750,000
750,001 - 1,000,000
1,000,001 - 1,500,000
1,500,001 - 2,000,000
2,000,001 - 2,500,000
2,500,001 - 4,000,000
4,000,001 - 6,000,000
6,000,001 - 8,000,000
8,000,001 - 10,000,000
> 10,000,001



Casselton Productivity

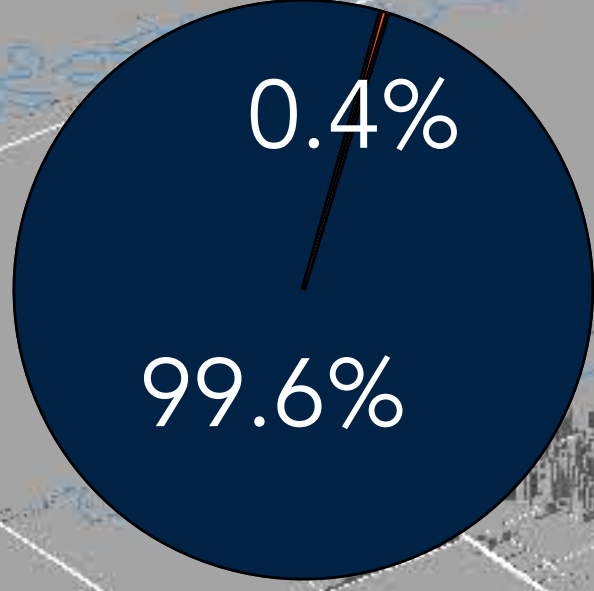
City to County

1:3.6

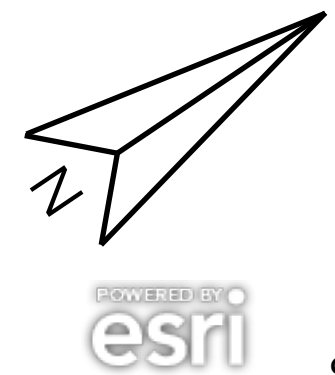
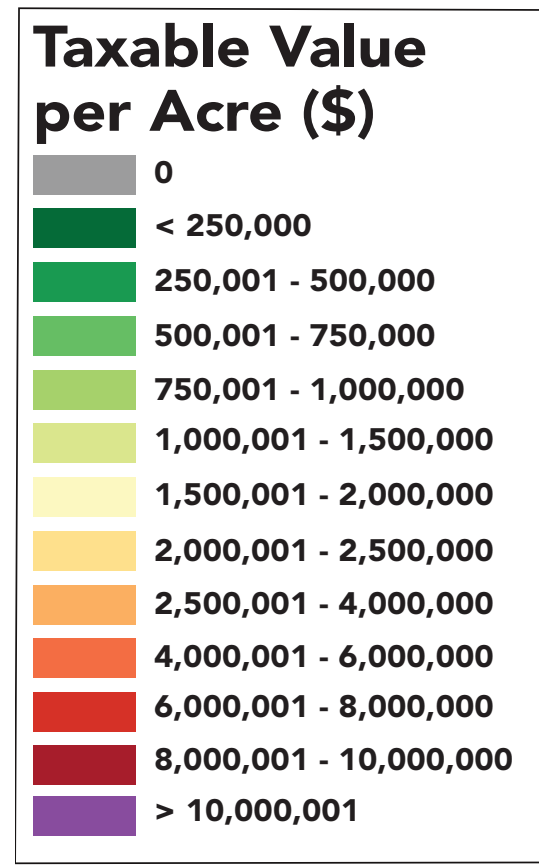


Taxable Area

- City
- County

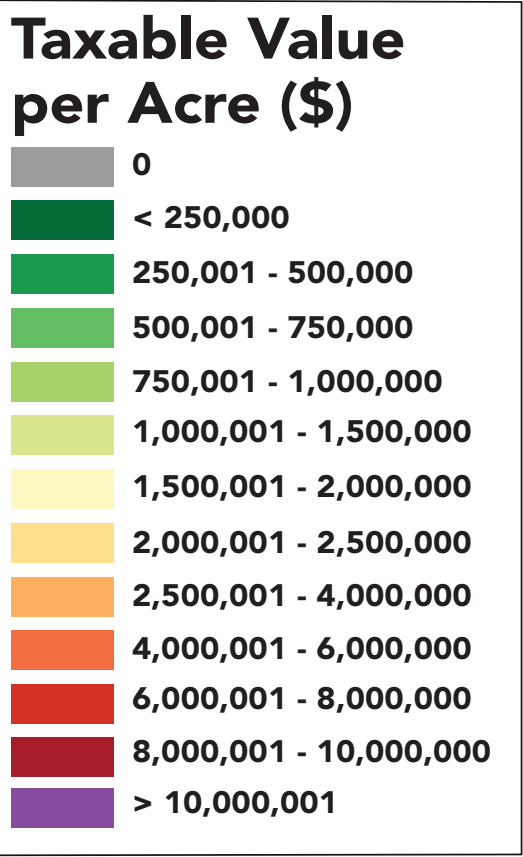
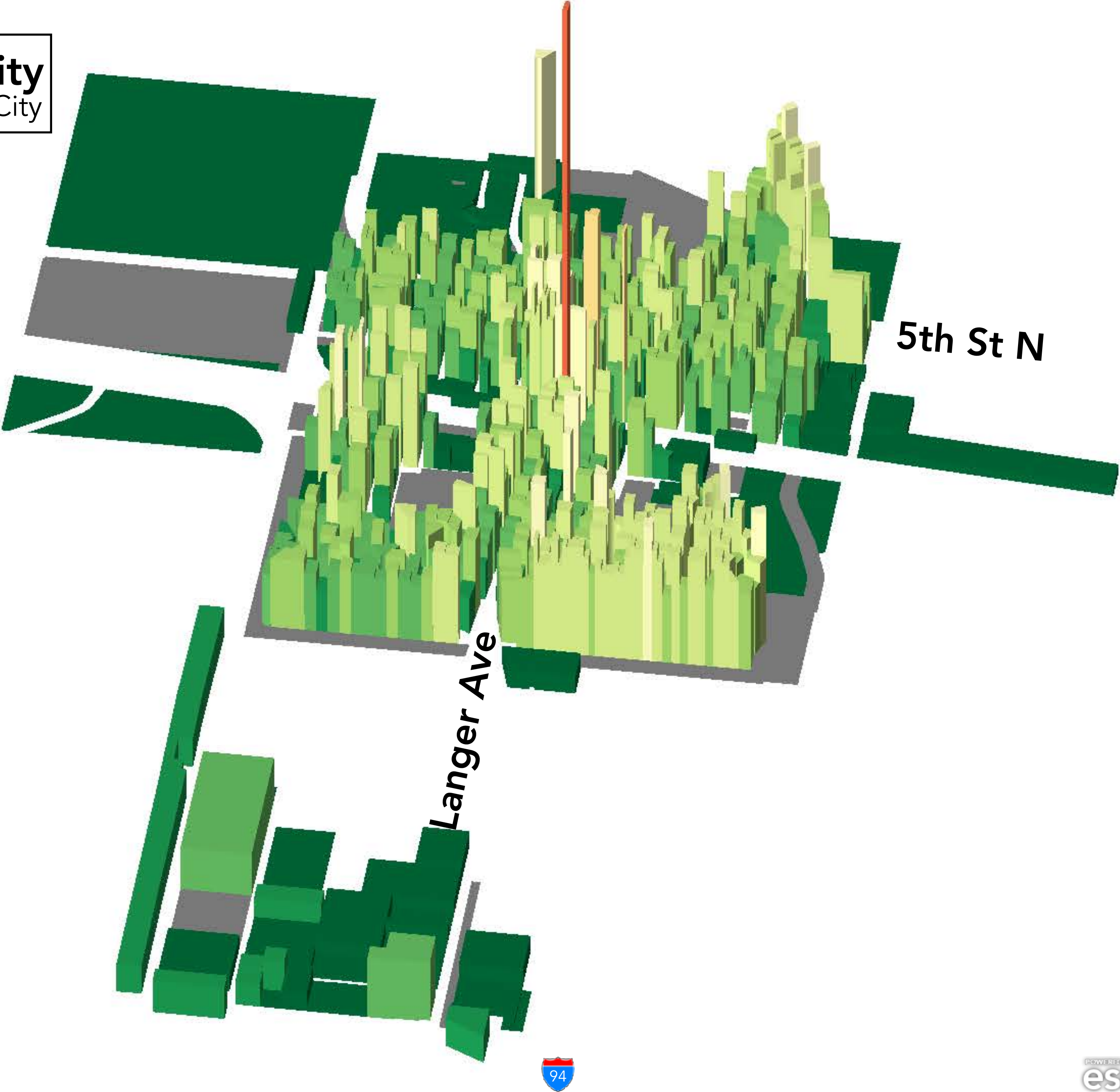


Taxable Value



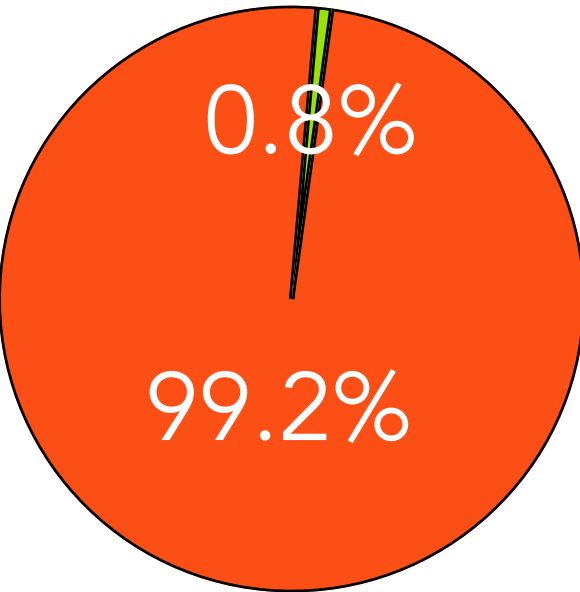
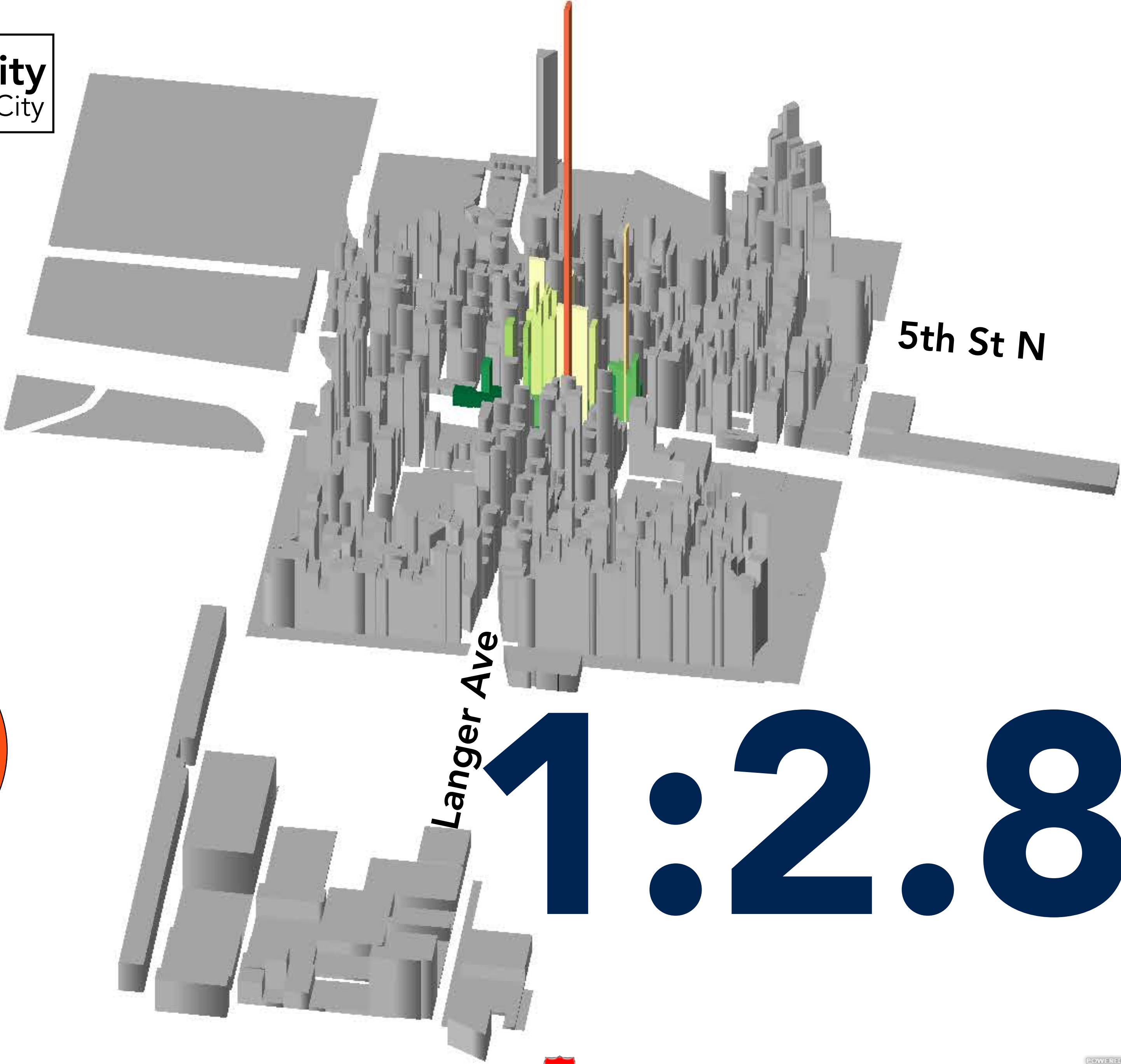
Casselton Productivity

Downtown to City



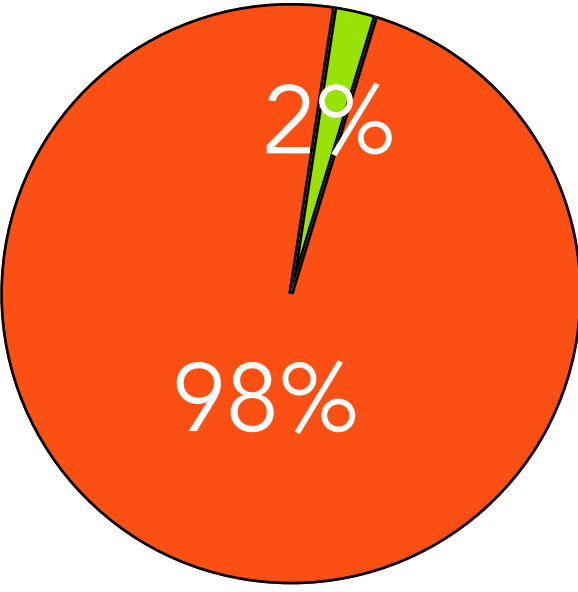
Casselton Productivity

Downtown to City

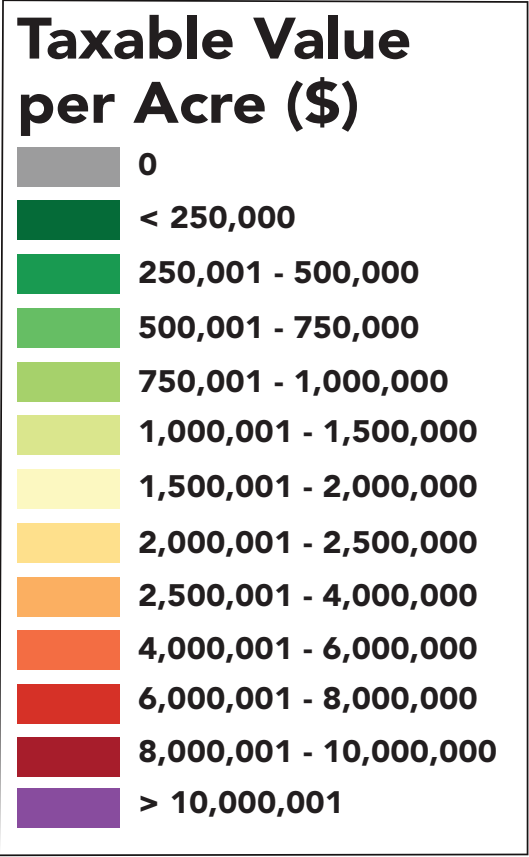


Taxable Area

- Downtown
- City

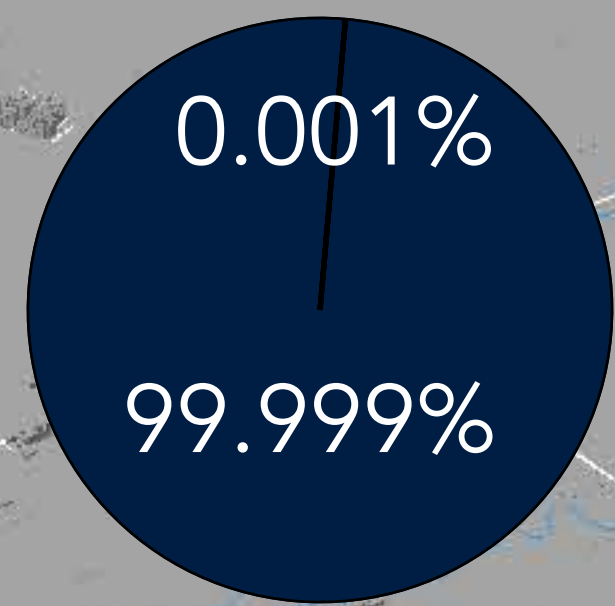


Taxable Value

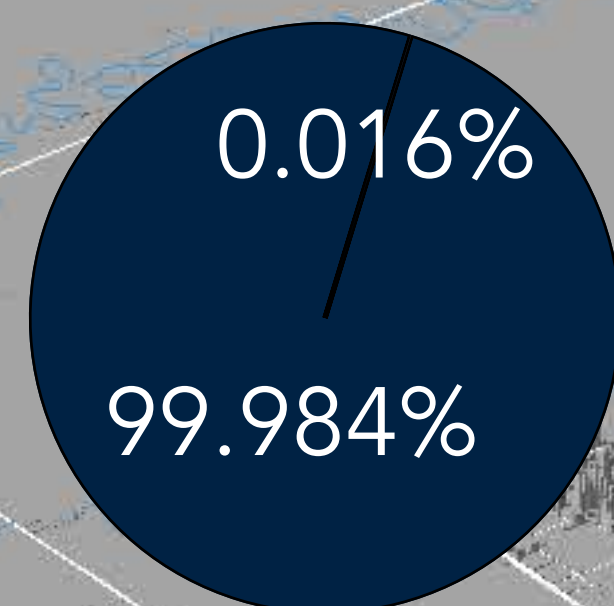


1:19

Casselton

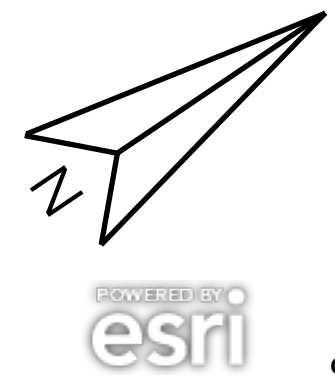
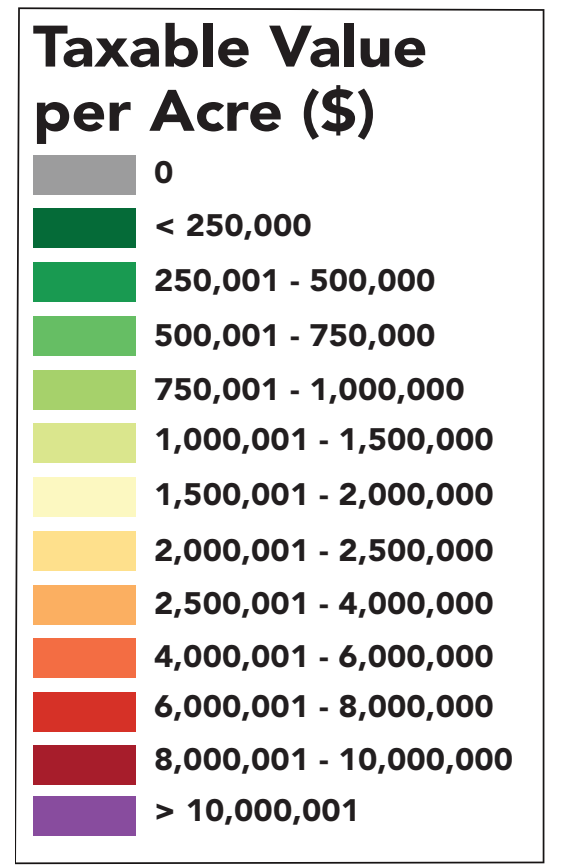


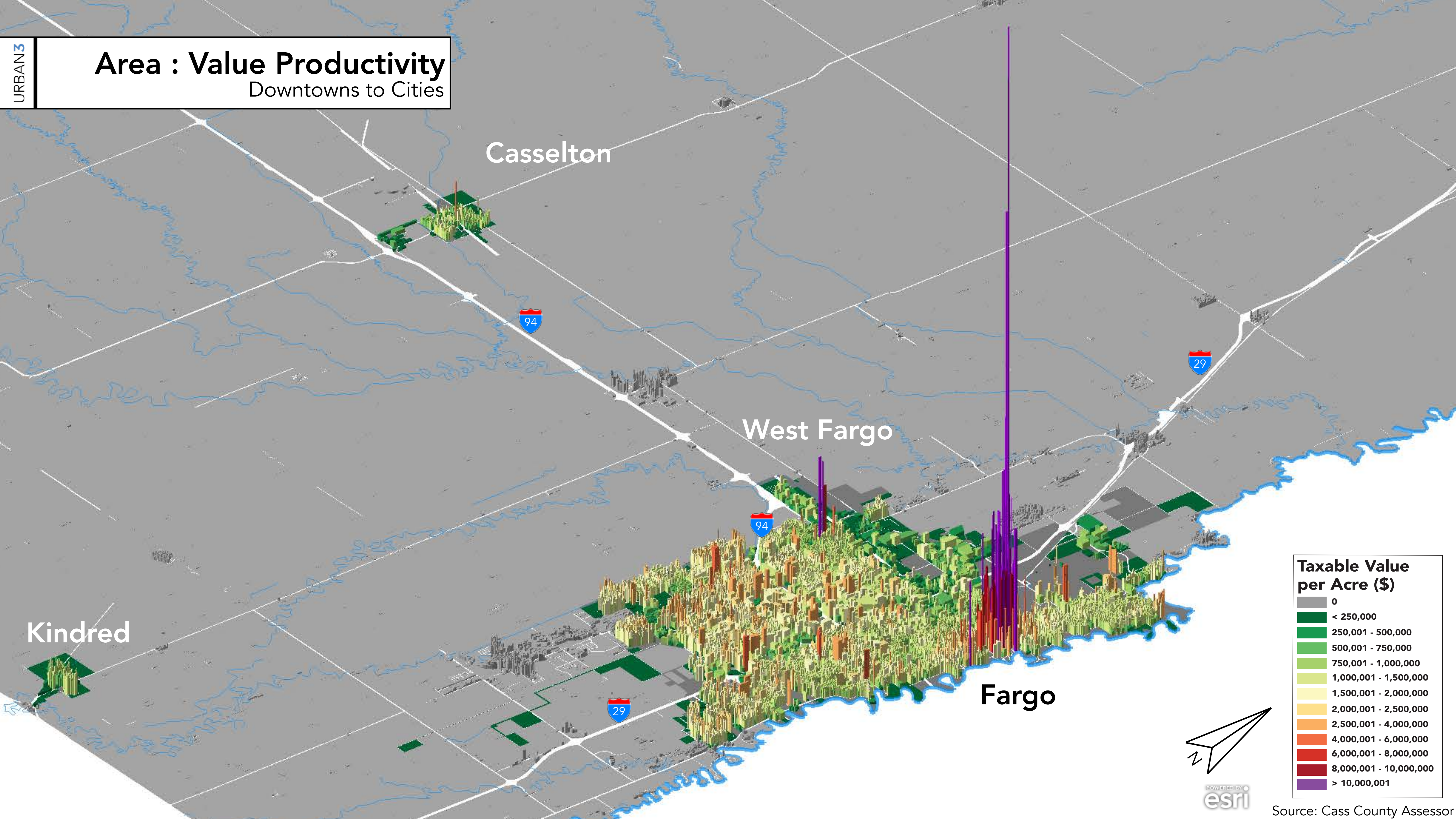
Taxable Area



Taxable Value

- City
- County





Taxable Value
per Acre (\$)

0

< 250,000

250,001 - 500,000

500,001 - 750,000

750,001 - 1,000,000

1,000,001 - 1,500,000

1,500,001 - 2,000,000

2,000,001 - 2,500,000

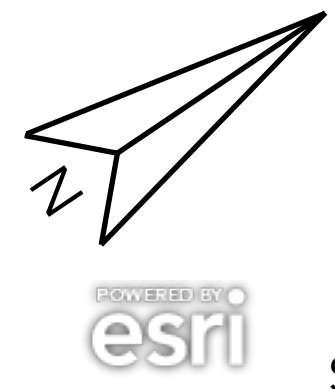
2,500,001 - 4,000,000

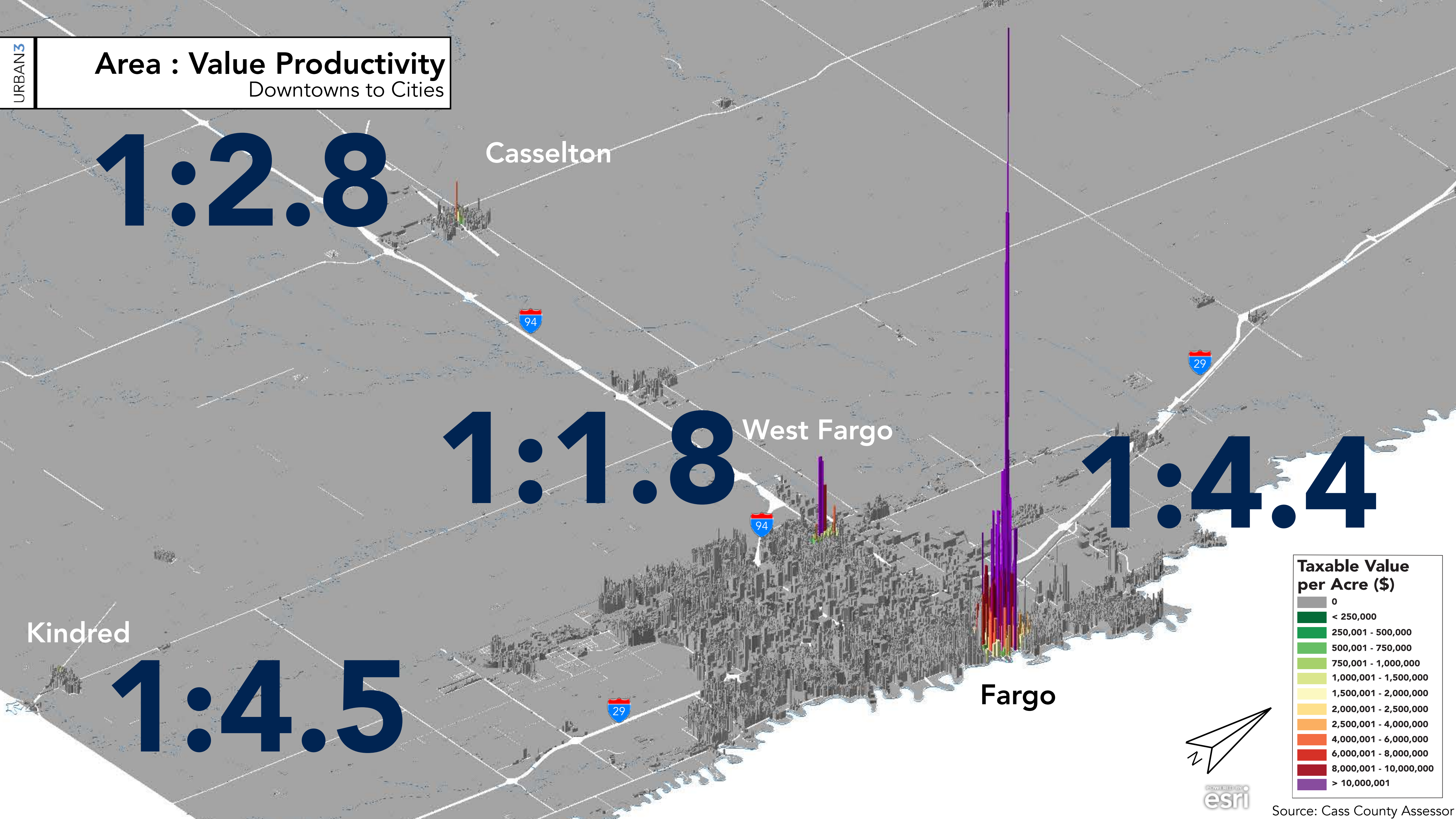
4,000,001 - 6,000,000

6,000,001 - 8,000,000

8,000,001 - 10,000,000

> 10,000,001





Area : Value Productivity
Downtowns to Cities

1:2.8

Casselton

1:1.8

West Fargo

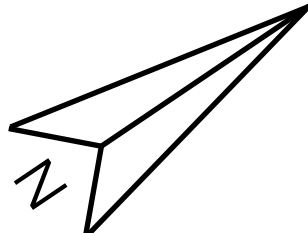
1:4.4

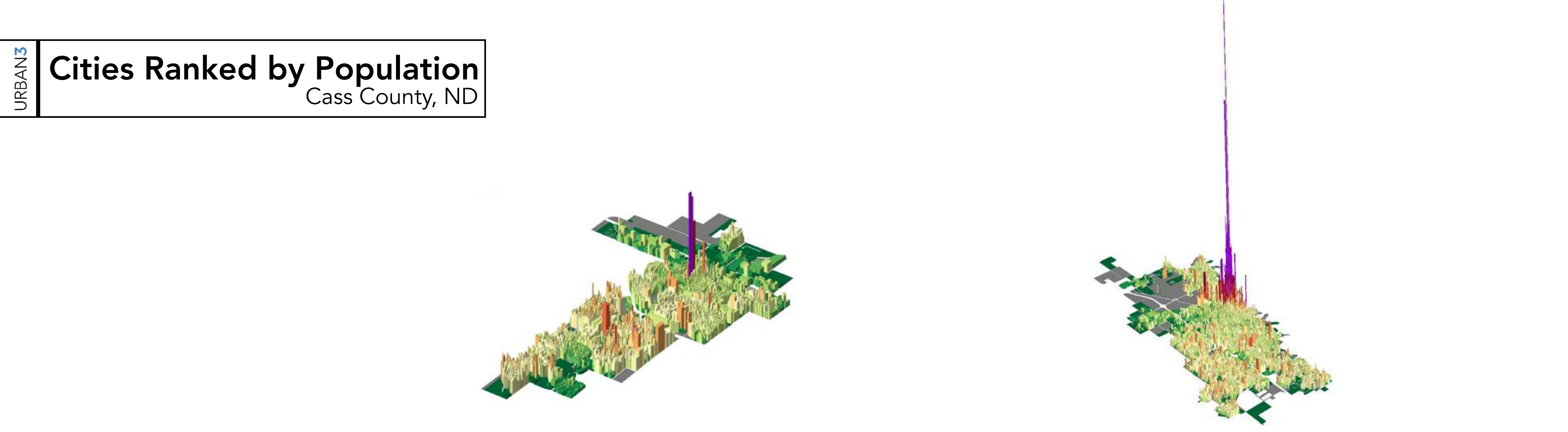
Kindred

1:4.5

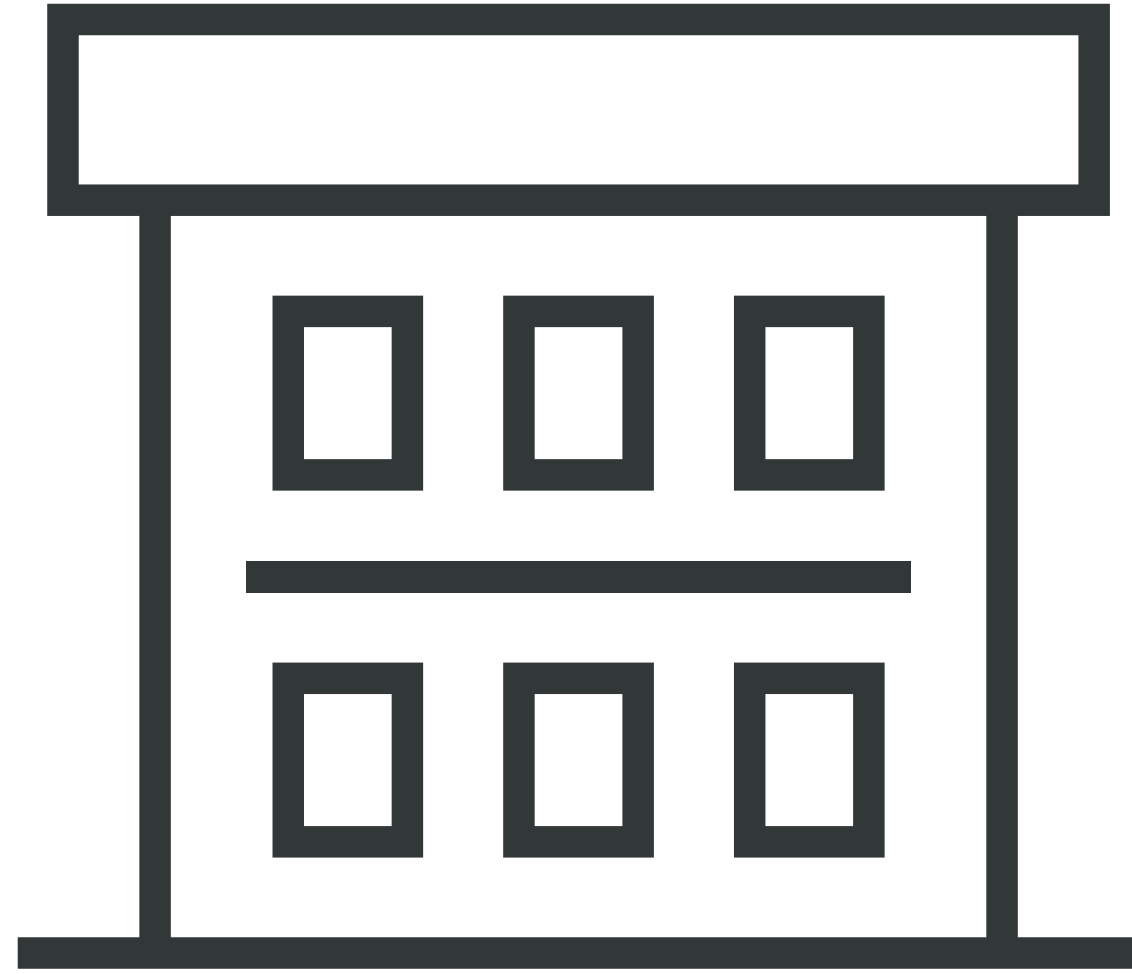
Fargo

Taxable Value per Acre (\$)	
0	
< 250,000	
250,001 - 500,000	
500,001 - 750,000	
750,001 - 1,000,000	
1,000,001 - 1,500,000	
1,500,001 - 2,000,000	
2,000,001 - 2,500,000	
2,500,001 - 4,000,000	
4,000,001 - 6,000,000	
6,000,001 - 8,000,000	
8,000,001 - 10,000,000	
> 10,000,001	





	West Fargo	Fargo	Difference
Population 2019 Estimate	38,194	125,990	3X
Area Square Miles	16.3	49.7	3X
Total Value	\$4.7B	\$14.1B	3X
Density People/Sq.Mi	2,311	2,506	1.1X
Avg VPA	\$777,012	\$860,860	1.1X
Peak VPA	\$11M	\$78M	7.1X

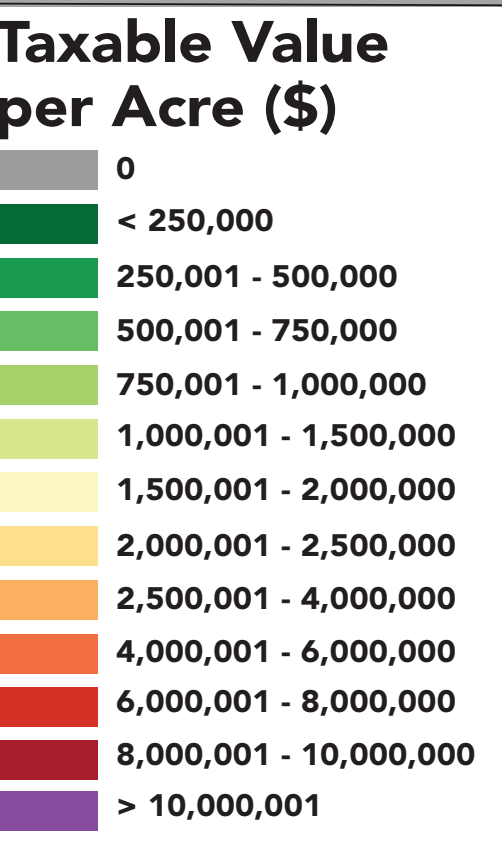


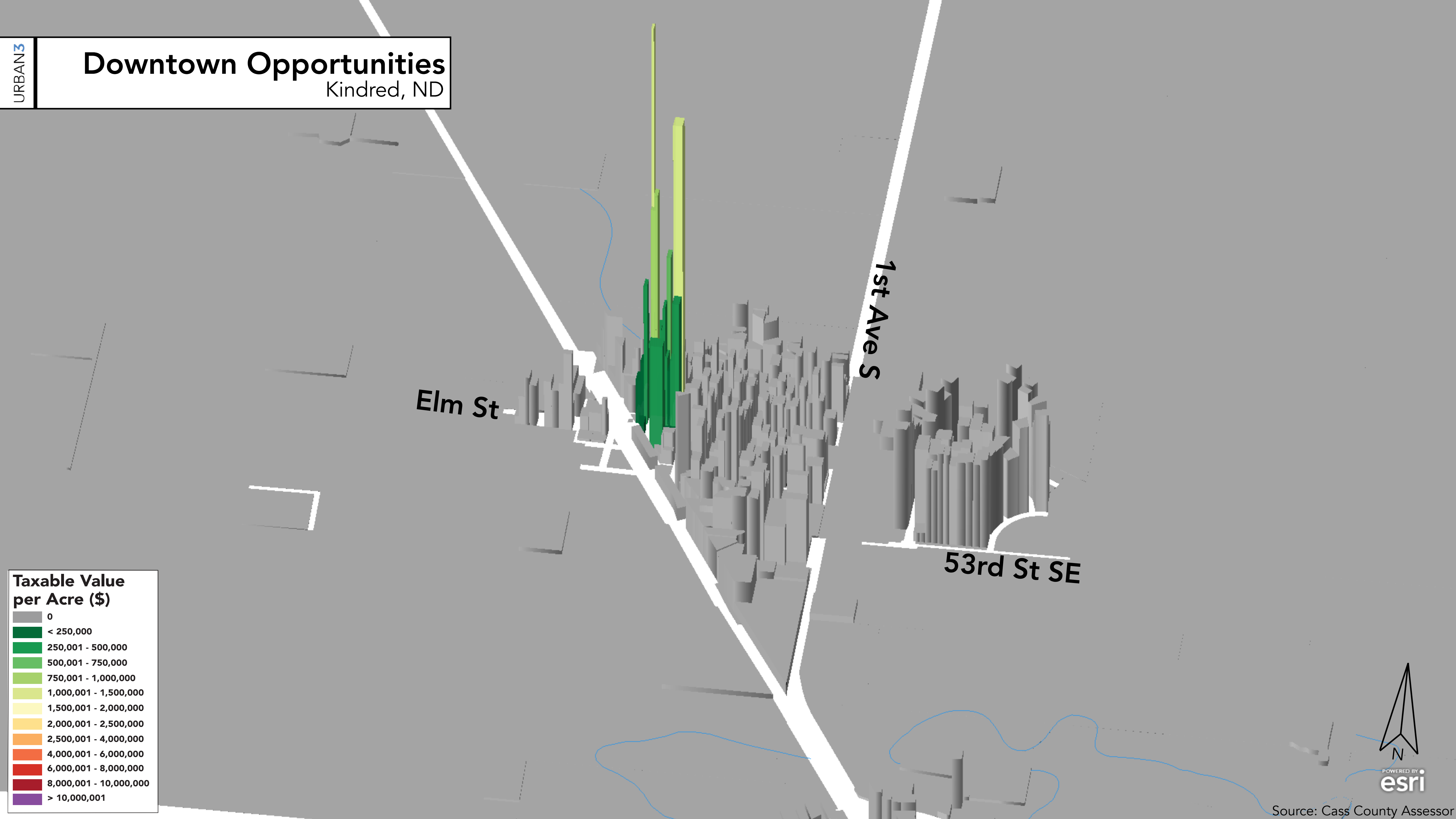
Kindred

Sample of Buildings

Downtown Opportunities

Kindred, ND





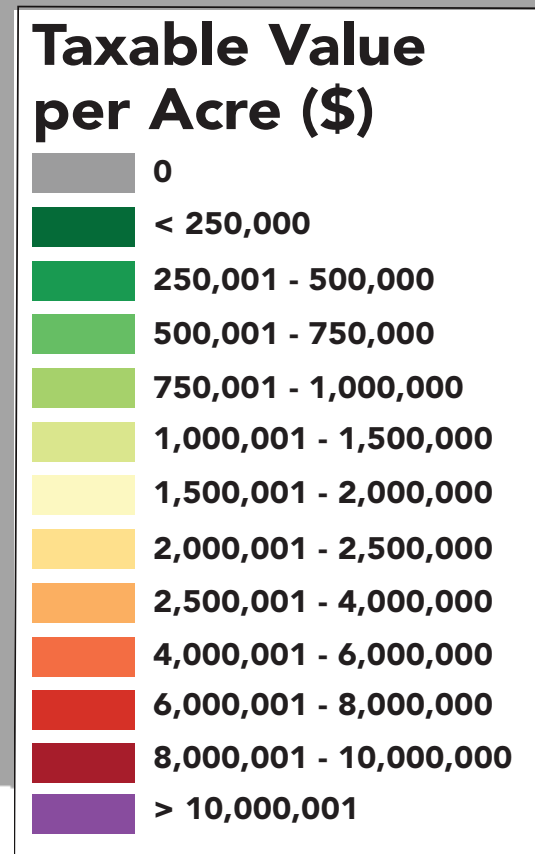
Downtown Opportunities

Kindred, ND

Elm St

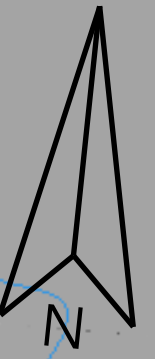
1st Ave S

53rd St SE



Downtown Opportunities

Kindred, ND



Downtown Opportunities

Kindred, ND

Hawk's Market & Bodega
\$471,414 Value Per Acre

Spring Brook Tavern
\$576,682 Value Per Acre



Downtown Opportunities

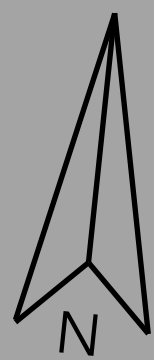
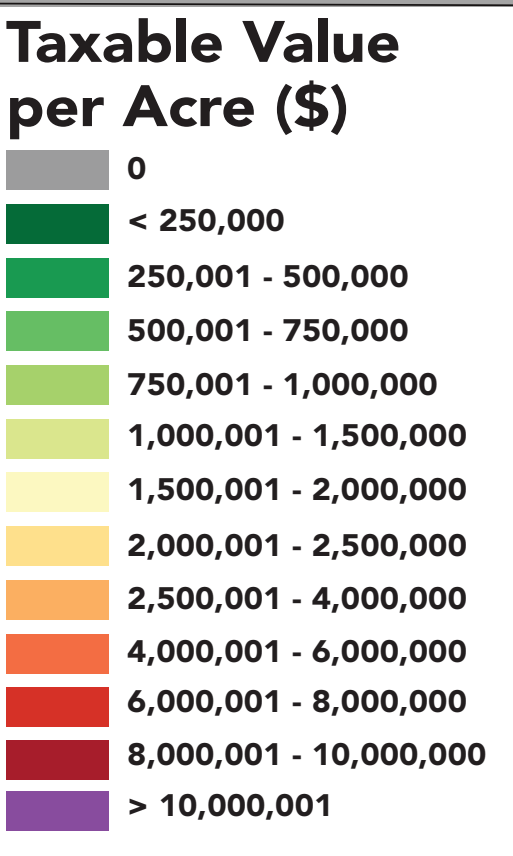
Kindred, ND



Elm St

1st Ave S

53rd St SE



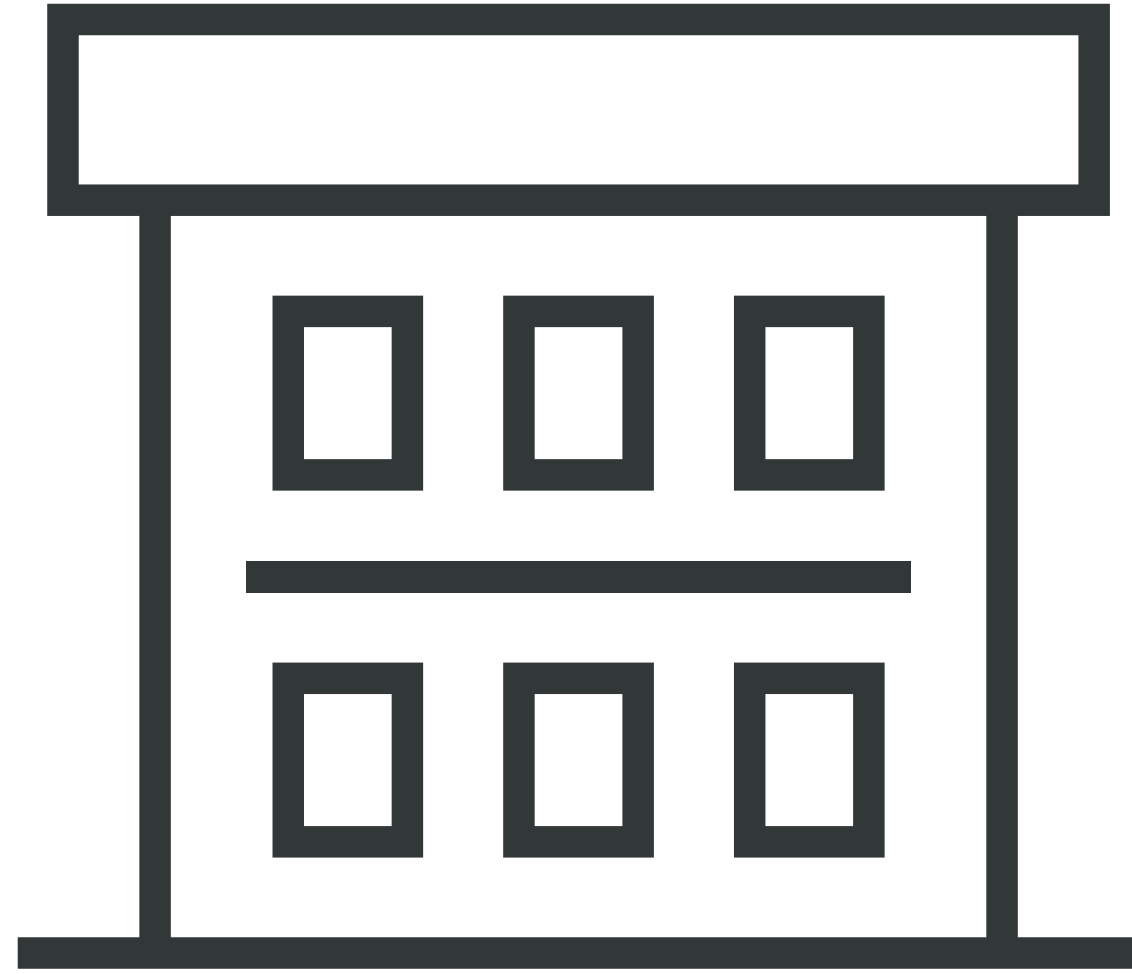


URBAN3

Cost and Revenue Tradeoffs

Selected site comparison Cass County, ND

	Core	East	
Homes	108	108	
Acres	28	41	
Value/Acre	\$601k	\$624k	
Road Length (Miles)	1.1	1.5	
Road Width (Feet)	24	30	
Road Area (Sq. Feet)	139k	238k	



Casselton

Sample of Buildings



URBAN3

Downtown Casselton

Casselton, ND

First Bank
\$1,640,963 Value Per Acre

The Portland
\$1,262,573 Value Per Acre

Bank North
\$5,349,804 Value Per Acre

Casselton Lumber
\$281,064 Value Per Acre

544 Front St
\$100,299 Value Per Acre

Value Per Acre

Casselton, ND

Front & Langer
\$1.6M per acre



Walmart
\$534,342 per acre

Value Per Acre

Casselton, ND

Insurance Office
\$2.3M per acre



Walmart
\$534,342 per acre

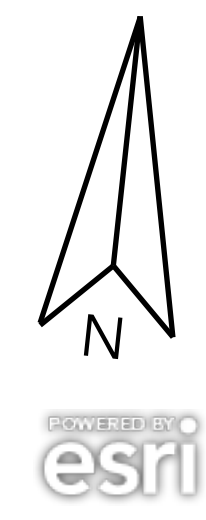
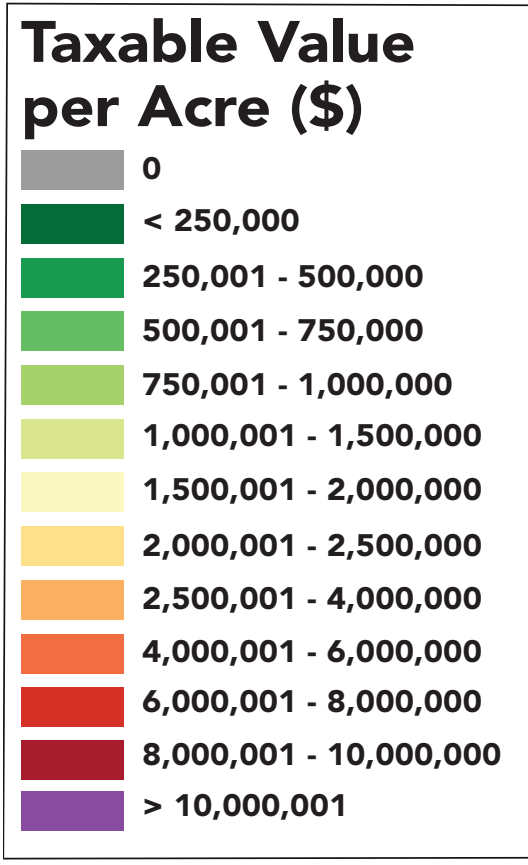
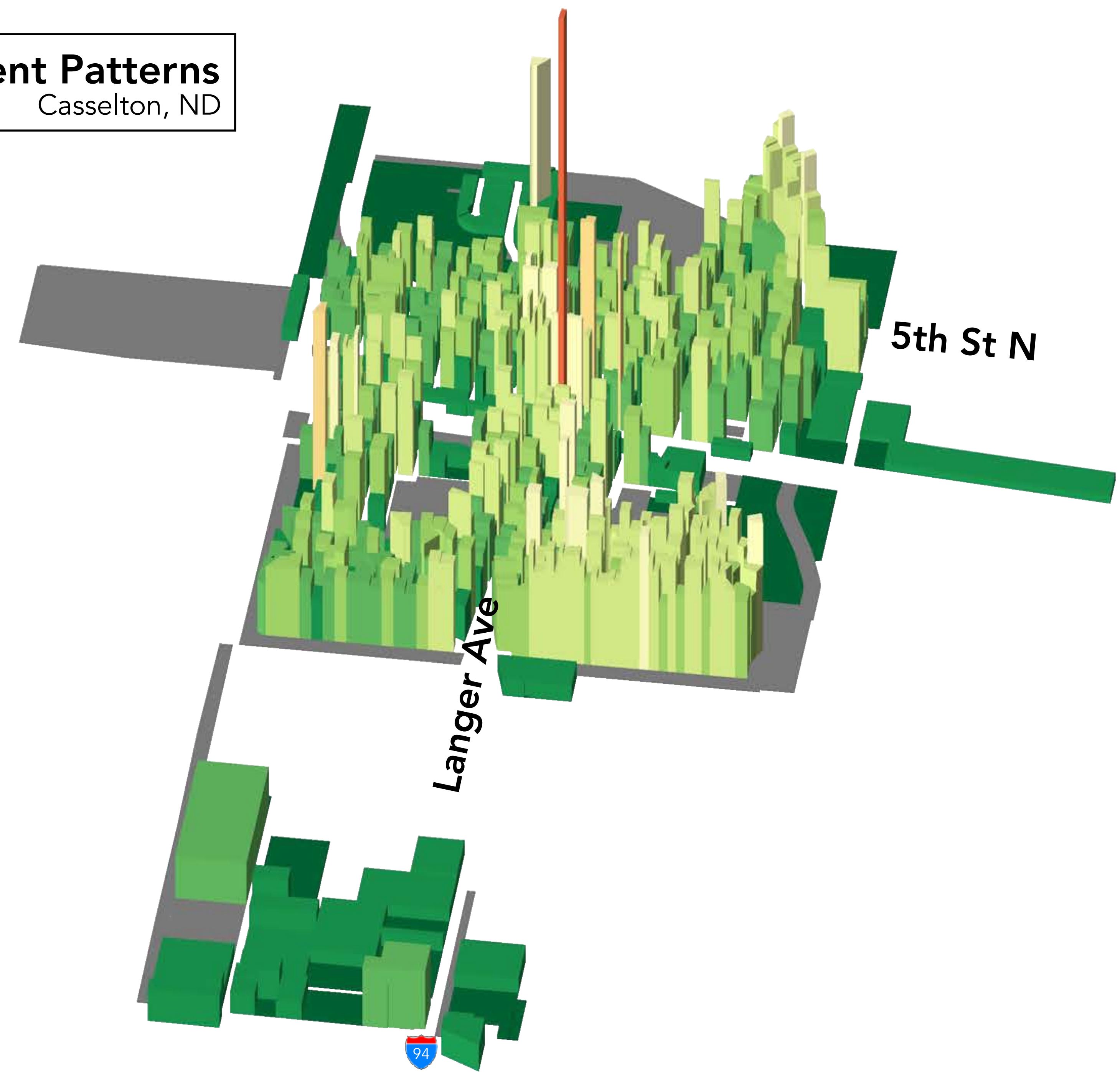
Value Per Acre

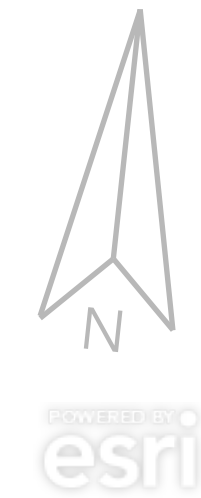
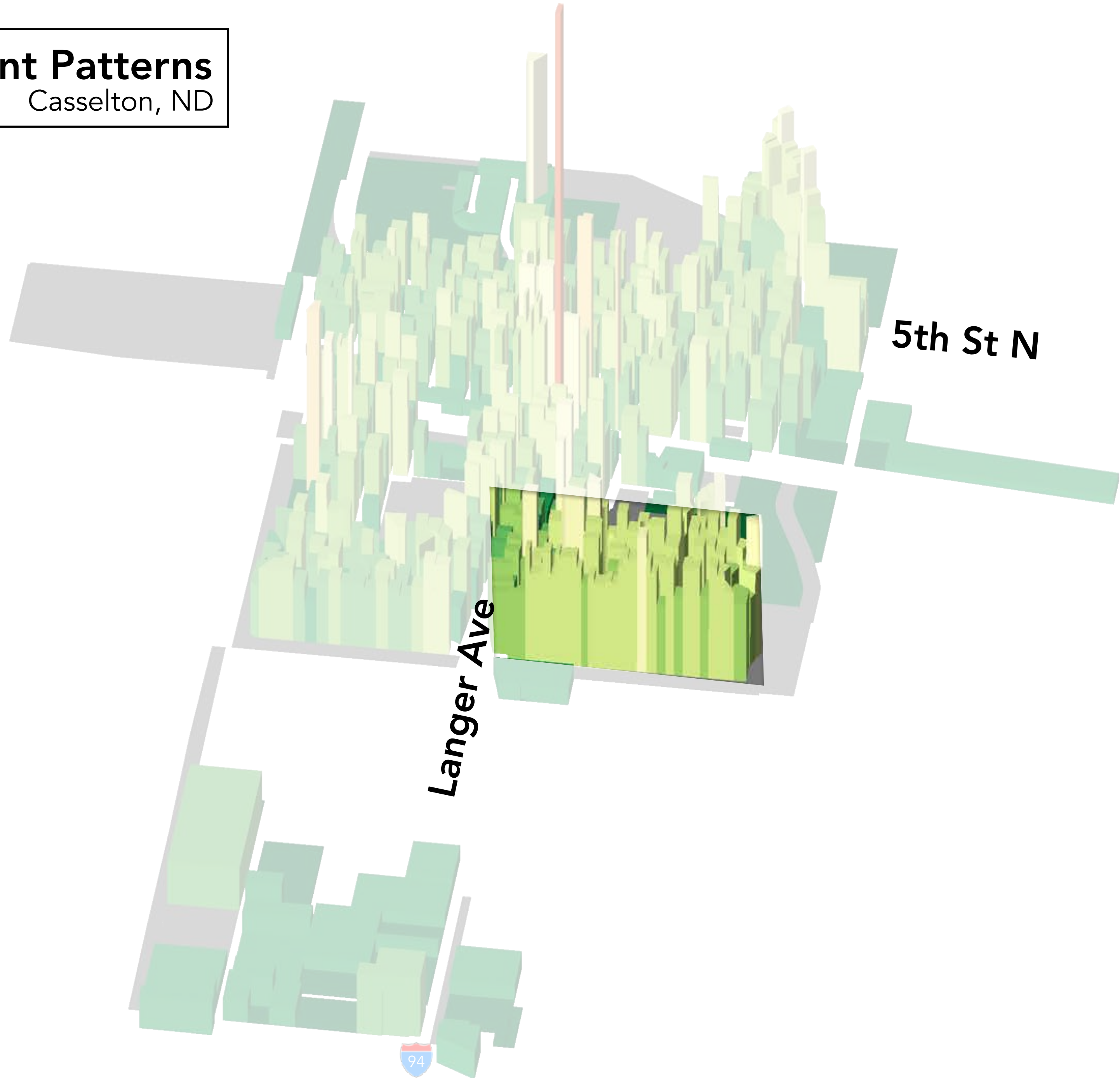
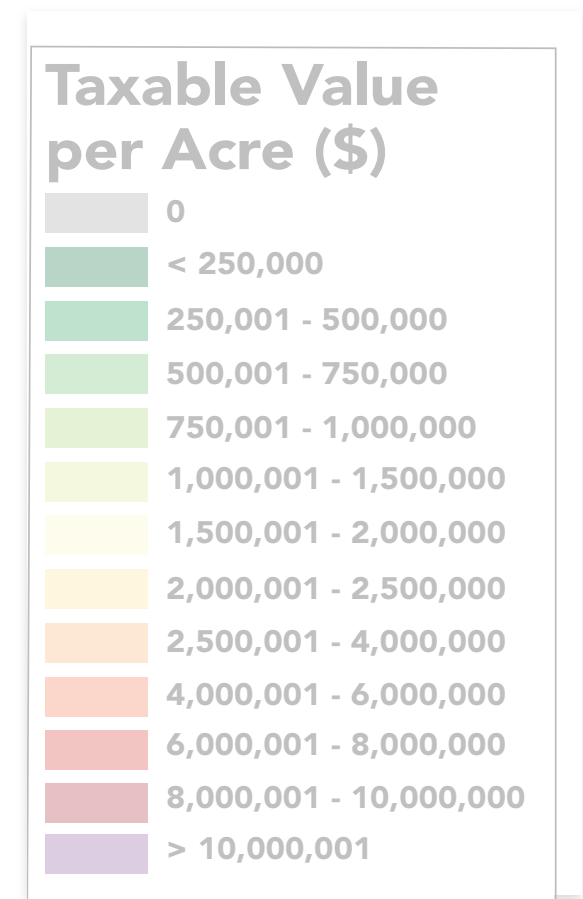
Casselton, ND

Bank Offices
\$5.3M per acre



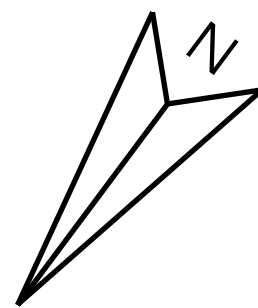
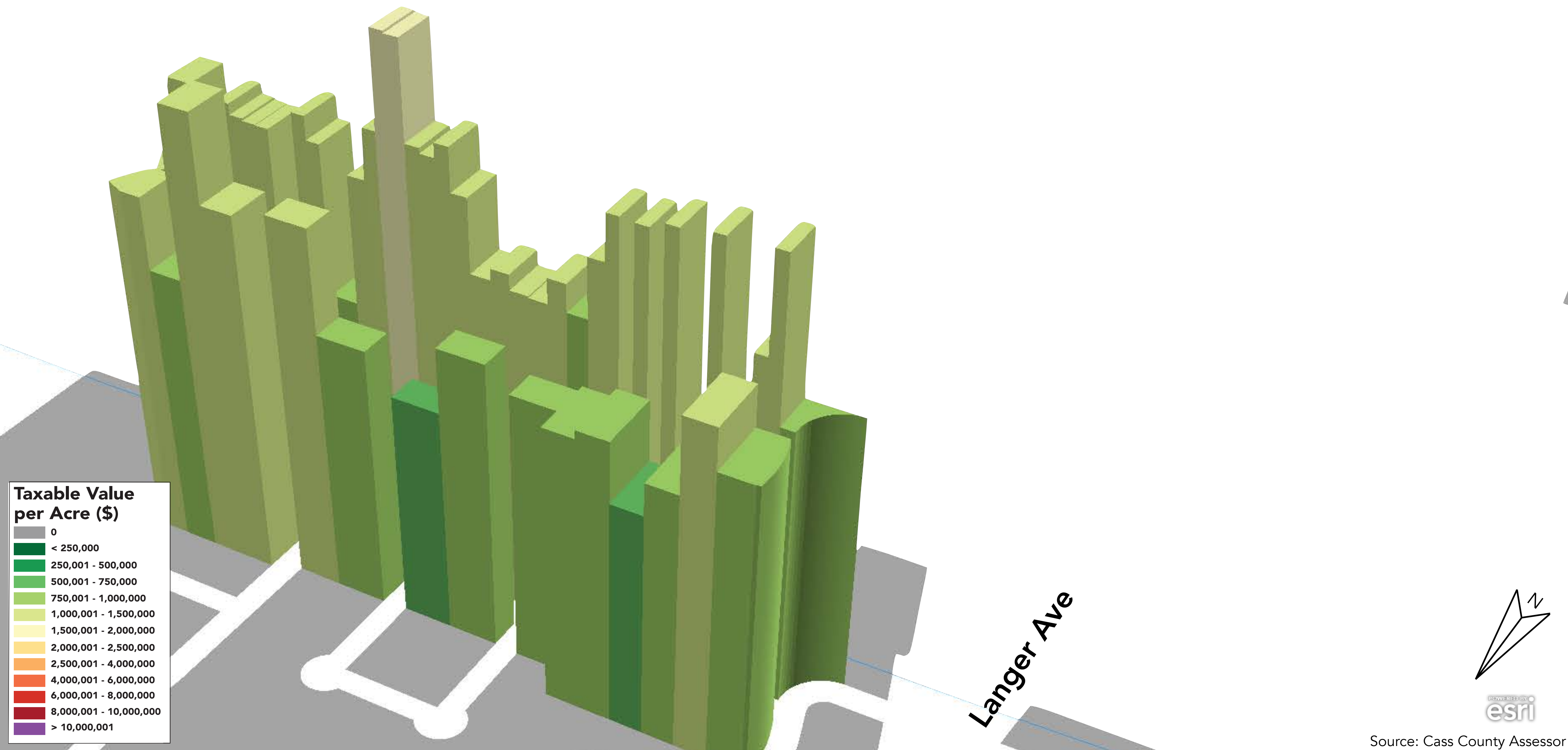
Walmart
\$534,342 per acre

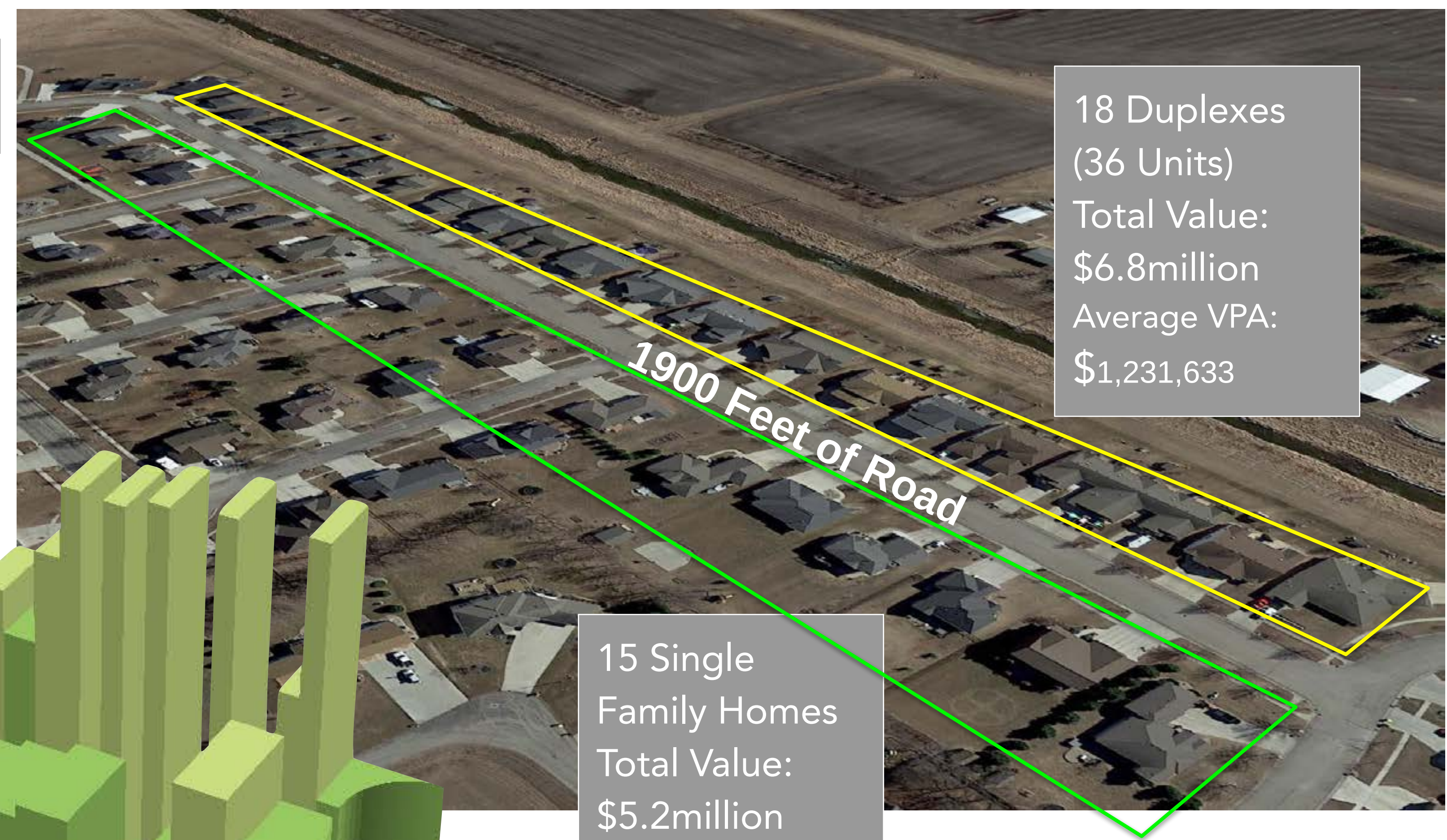
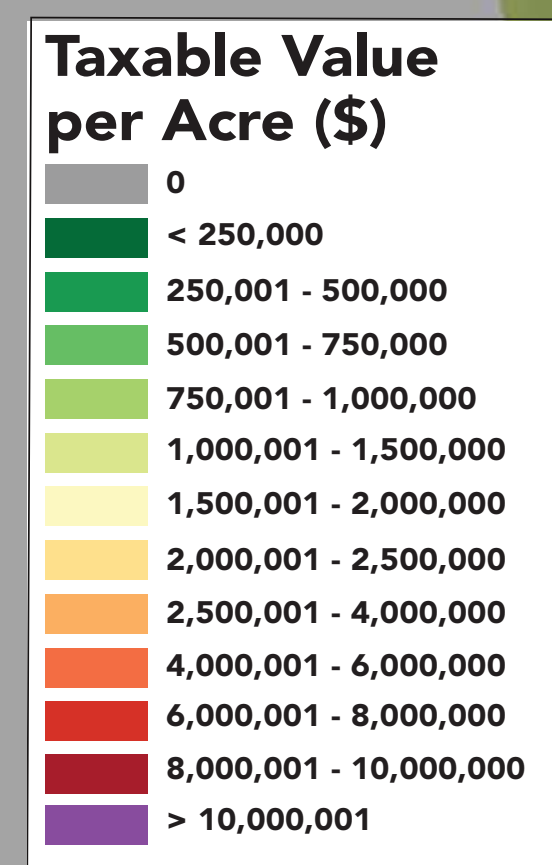
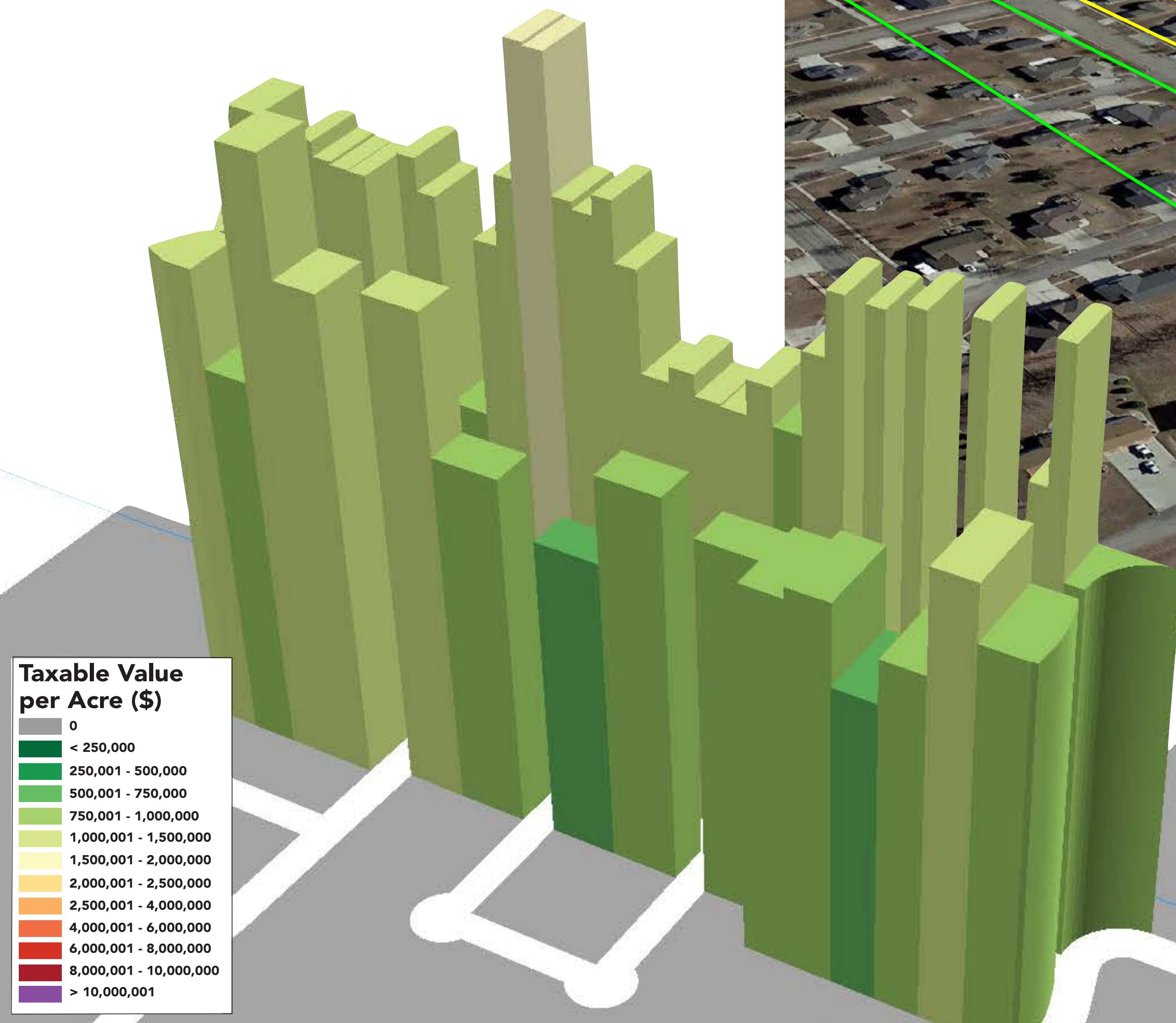




Different Development Patterns

Casselton, ND

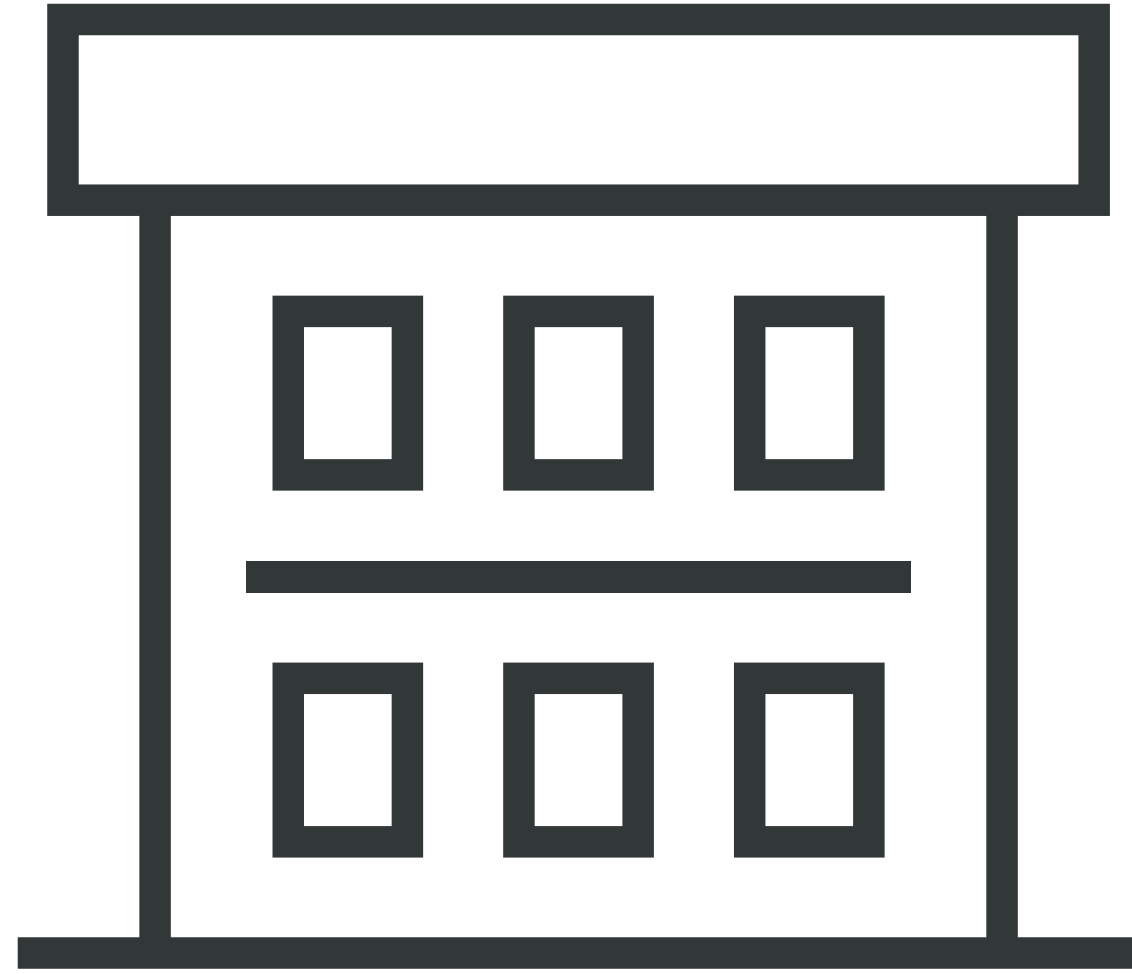




18 Duplexes
(36 Units)
Total Value:
\$6.8million
Average VPA:
\$1,231,633

15 Single
Family Homes
Total Value:
\$5.2million
Average VPA:
\$942,878

Langer Ave



West Fargo

Samples of West Fargo Buildings

Value Per Acre

West Fargo, ND

The Lights
\$4.3M per acre



Walmart
\$534,342 per acre

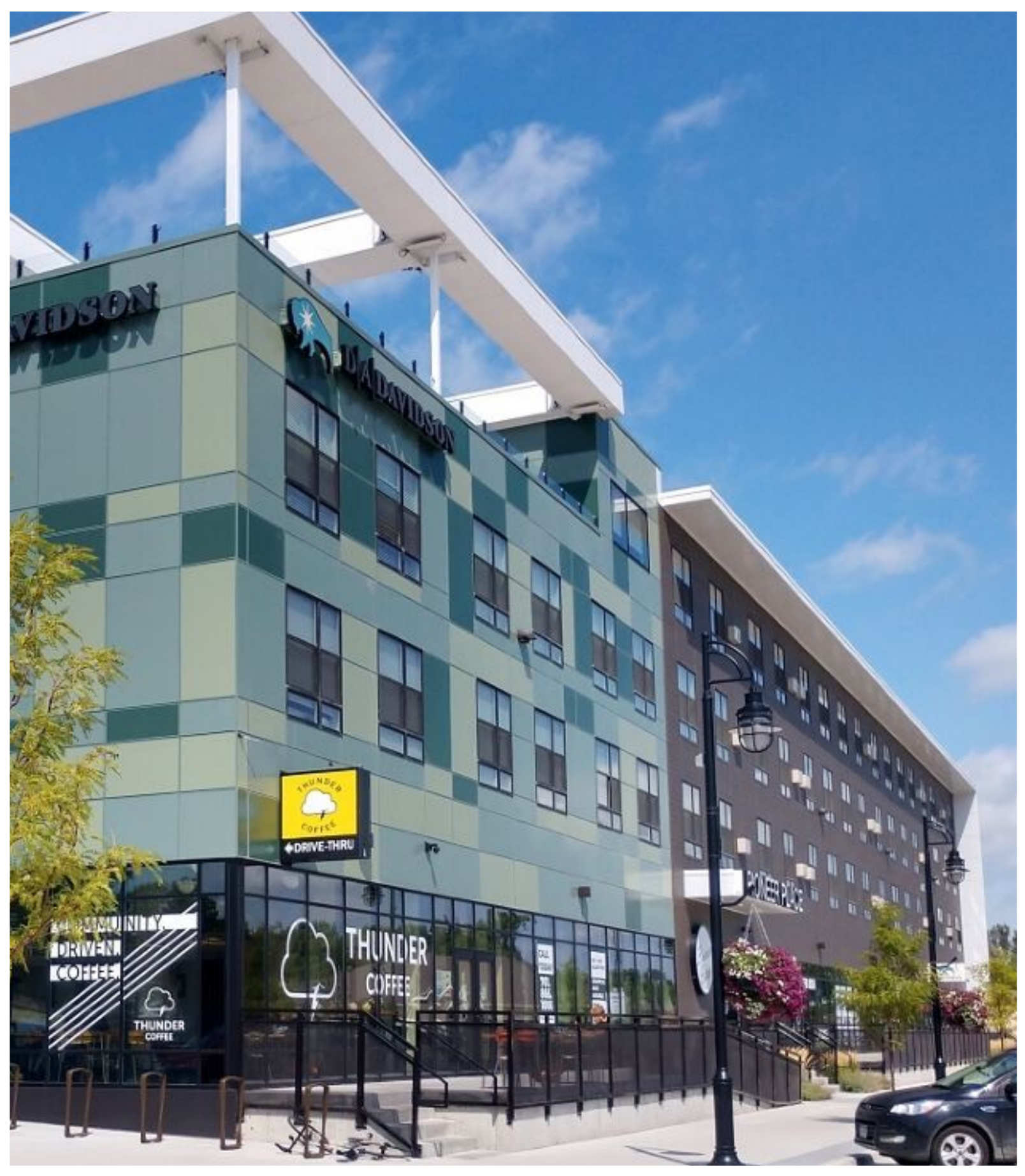
Value Per Acre

West Fargo, ND

Sheyenne Plaza
\$10.8M per acre



Walmart
\$534,342 per acre



Pioneer Place
\$7M value per acre



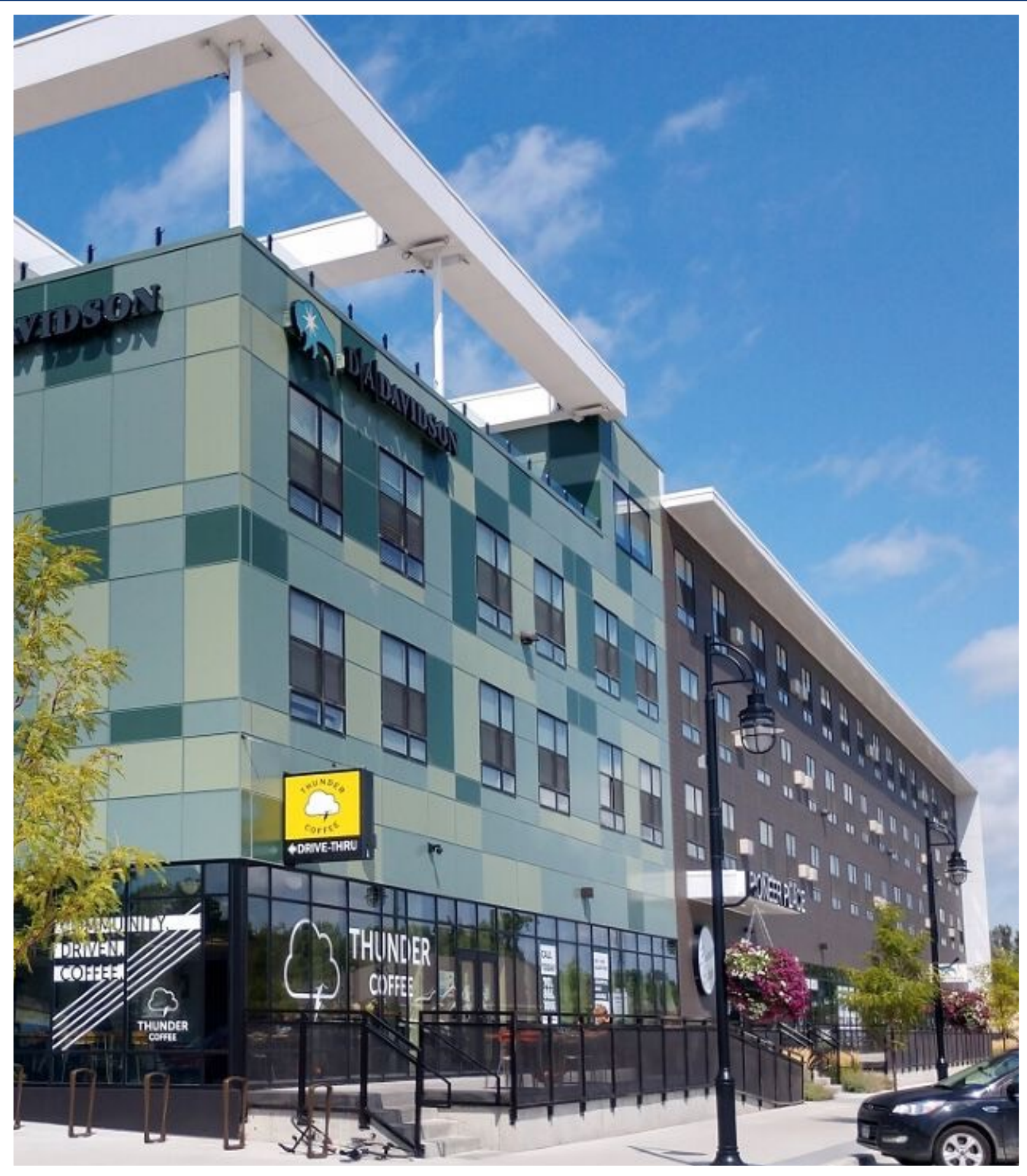
West Acres Mall
\$1.4M value per acre

Walmart
\$534,342 per acre

Comparative Impact

West Fargo, ND

14 acres of Pioneer Plaza equals the total value of the 70 acre West Acres Mall



Pioneer Place
\$7M value per acre



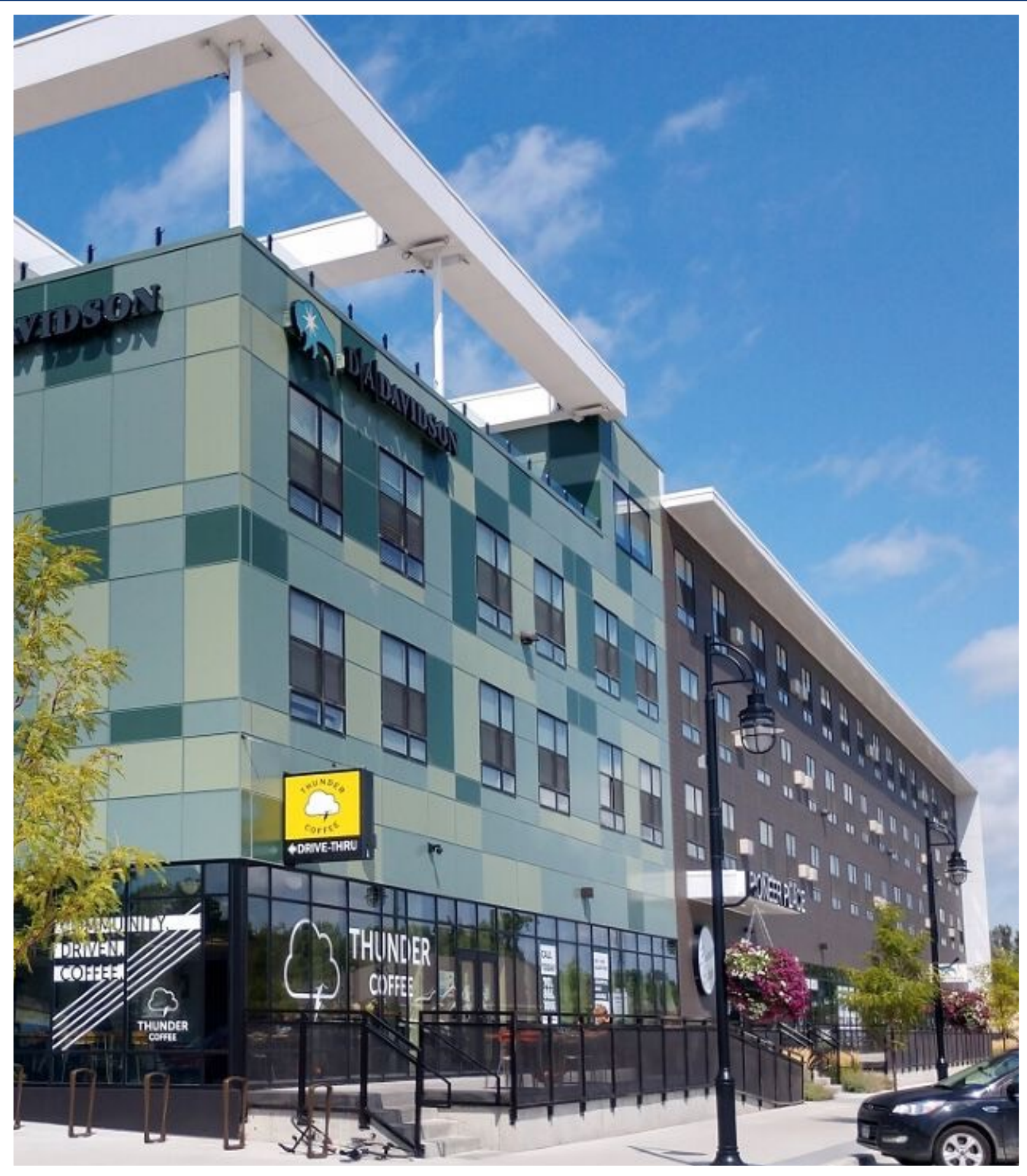
West Acres Mall
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Walmart
\$534,342 per acre

Comparative Impact

West Fargo, ND

14 acres of Pioneer Plaza equals the total value of the 70 acre West Acres Mall

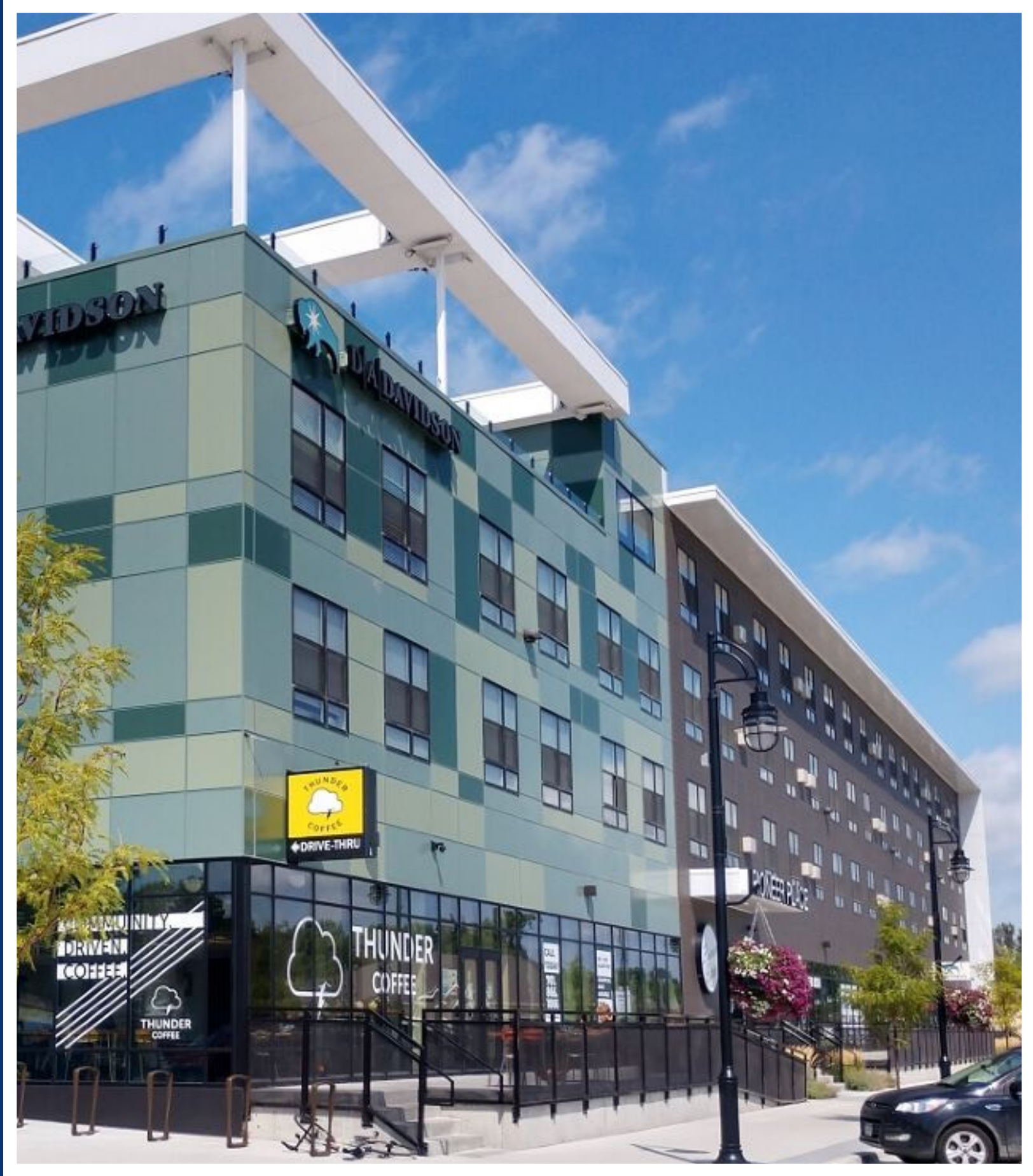


Pioneer Place
\$7M value per acre



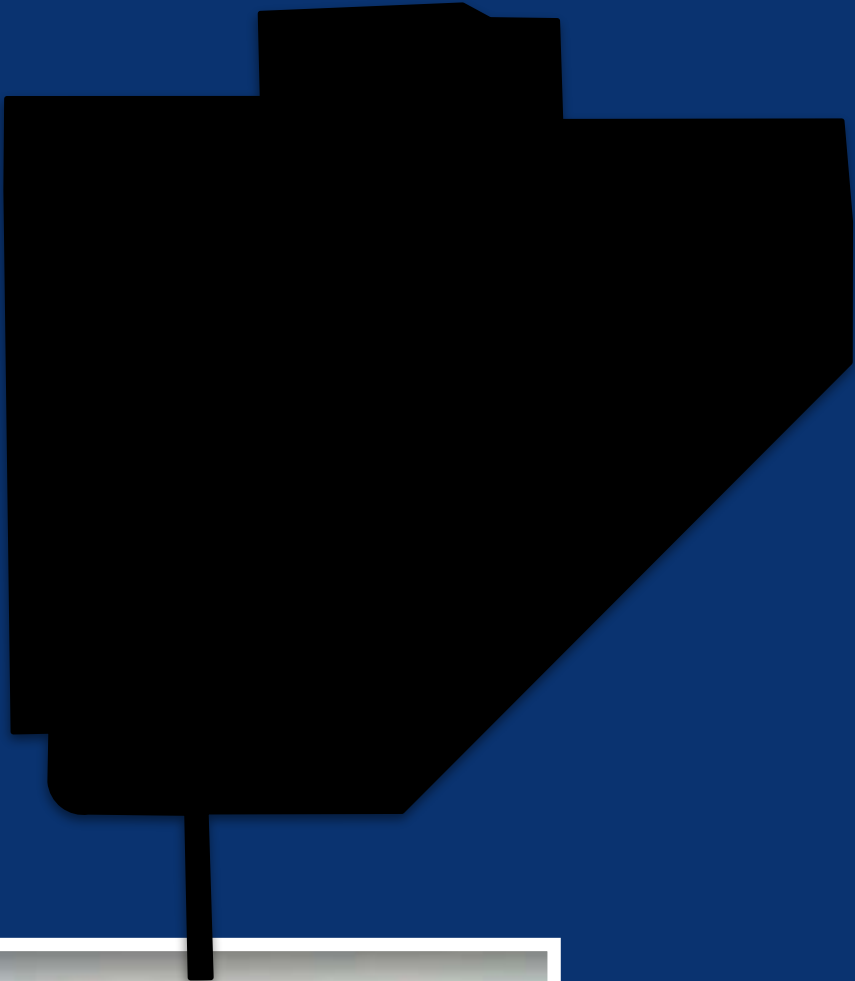
West Acres Mall
\$1.4M value per acre

Walmart
\$534,342 per acre



Pioneer Place
\$7M value per acre

14 acres of Pioneer Plaza equals the total value of the 70 acre West Acres Mall

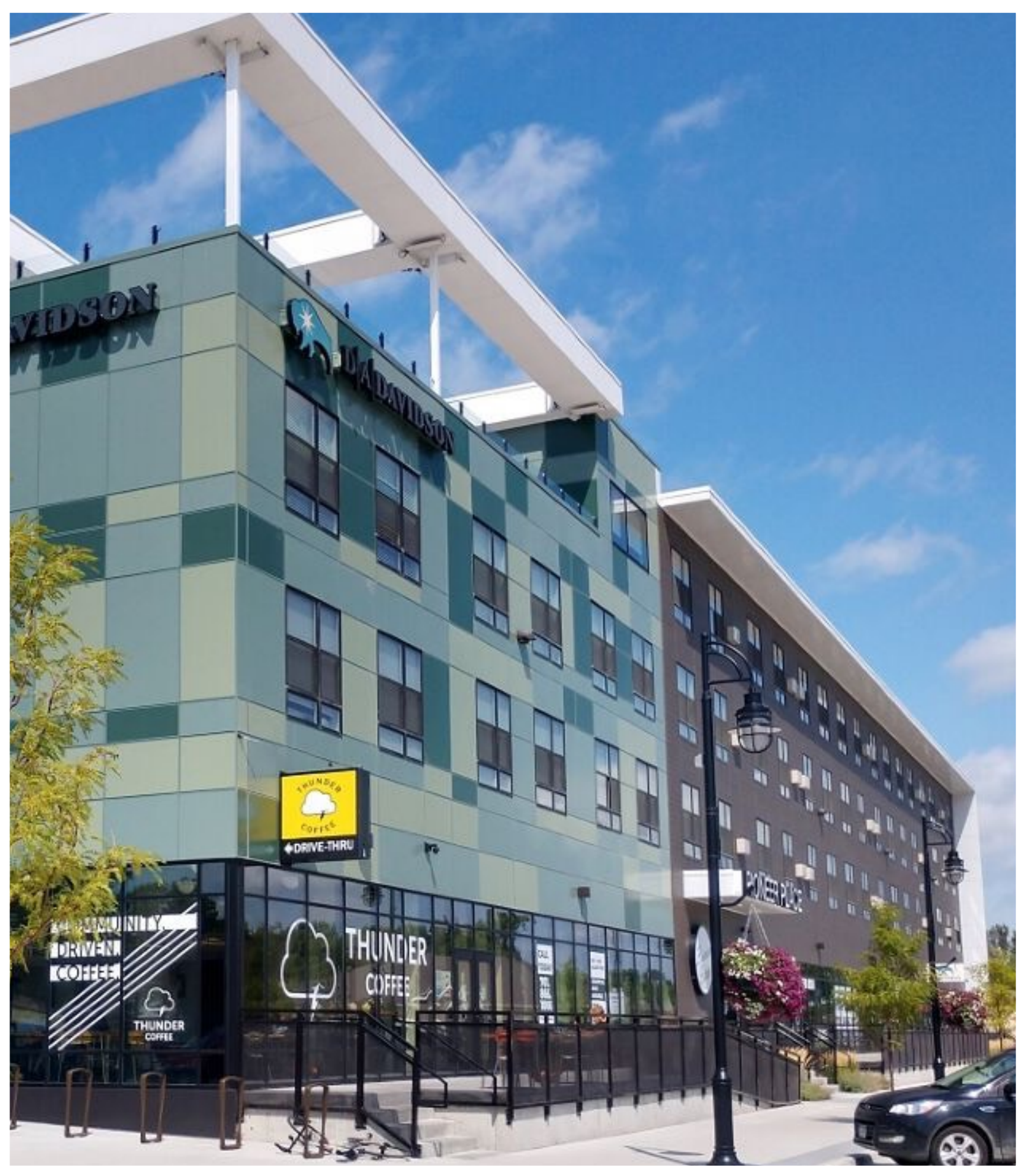


West Acres Mall
\$1.4M value per acre

Walmart
\$534,342 per acre

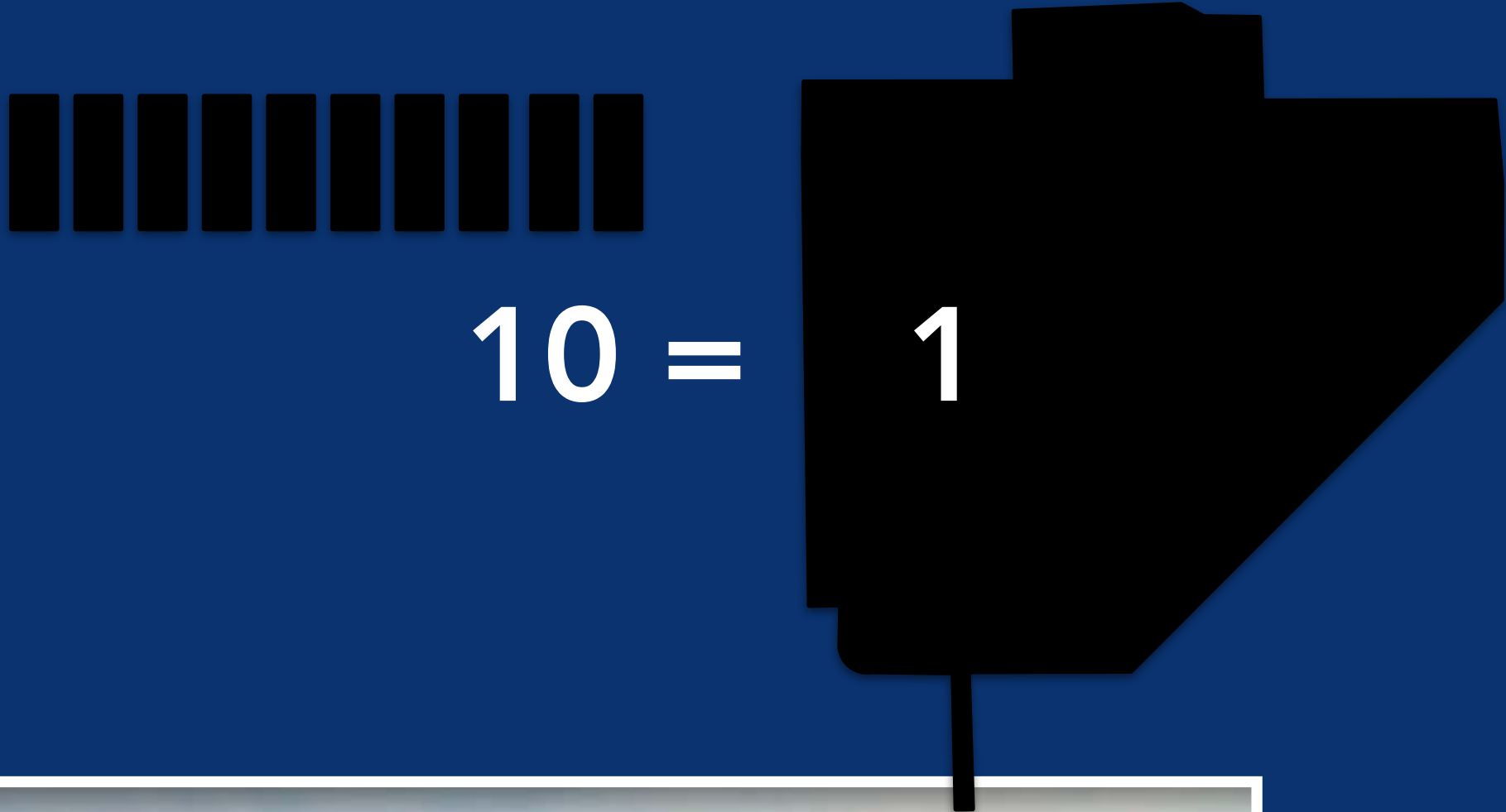
Comparative Impact

West Fargo, ND



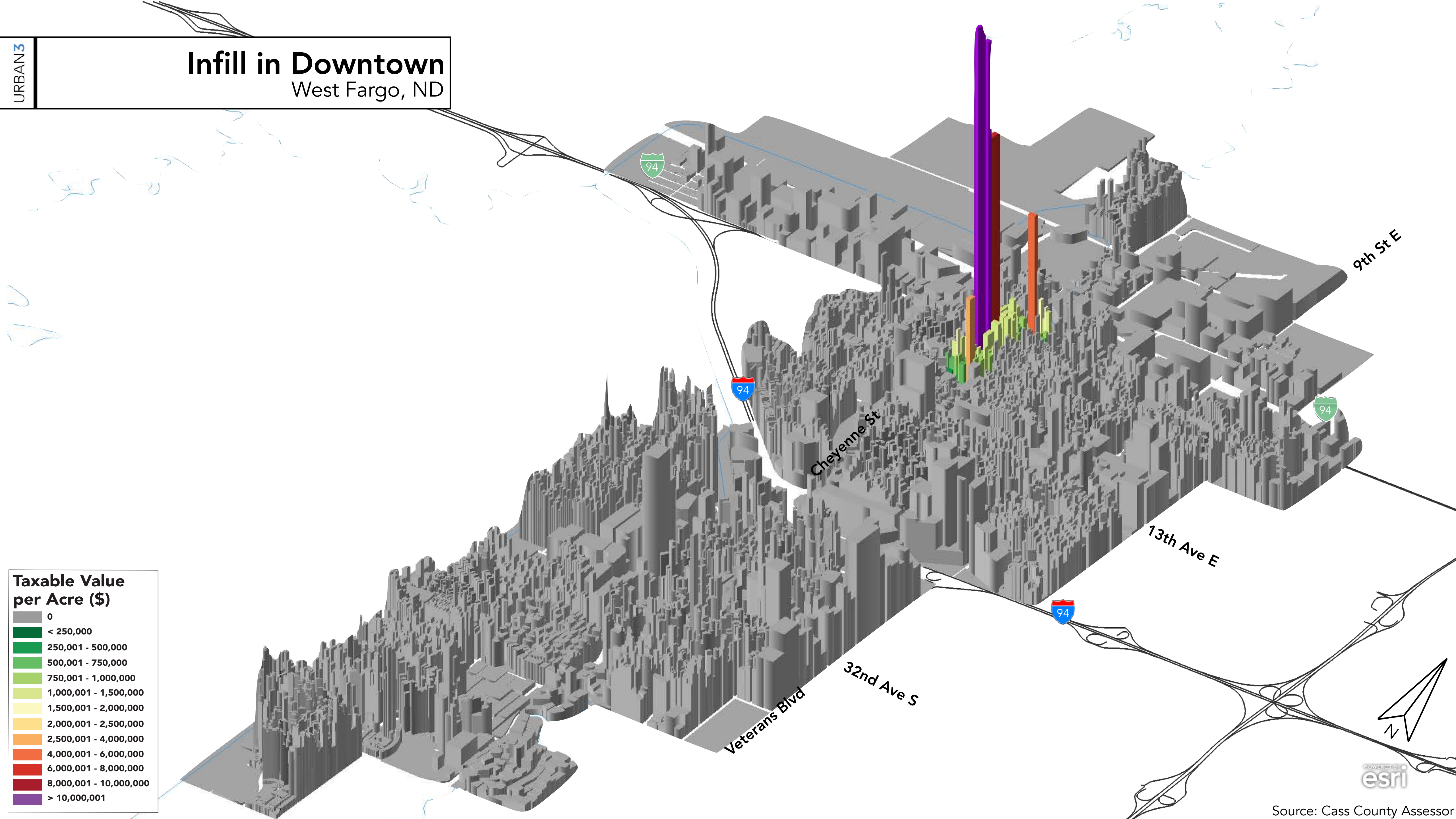
Pioneer Place
\$7M value per acre

14 acres of Pioneer Plaza equals the total value of the 70 acre West Acres Mall



West Acres Mall
\$1.4M value per acre

Walmart
\$534,342 per acre



Infill in Downtown

West Fargo, ND

URBAN3

Taxable Value per Acre (\$)	
0	
< 250,000	
250,001 - 500,000	
500,001 - 750,000	
750,001 - 1,000,000	
1,000,001 - 1,500,000	
1,500,001 - 2,000,000	
2,000,001 - 2,500,000	
2,500,001 - 4,000,000	
4,000,001 - 6,000,000	
6,000,001 - 8,000,000	
8,000,001 - 10,000,000	
> 10,000,001	

POWERED BY
esri

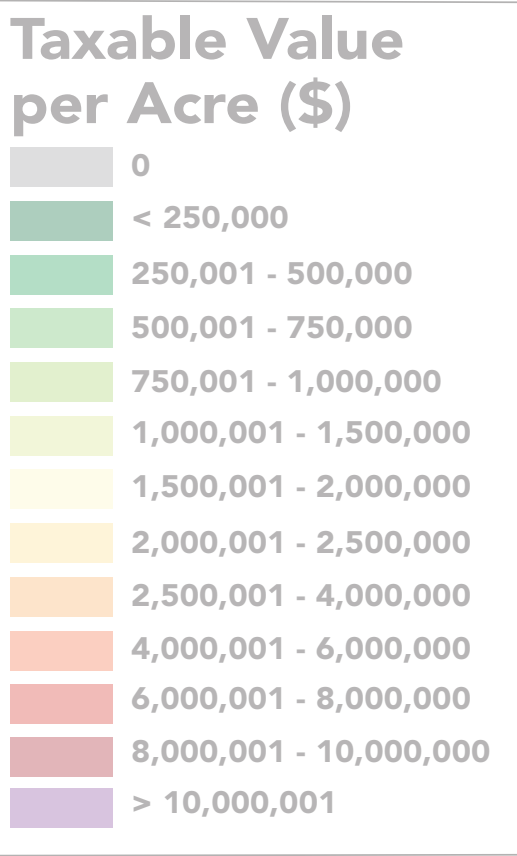
Source: Cass County Assessor

Infill in Downtown

West Fargo, ND

The Firm
\$10,117,321 Value Per Acre

Choice Bank
\$1,197,795 Value Per Acre



Pioneer Place Apts
\$7,057,319 Value Per Acre

Pioneer Place 2nd Addition
\$10,117,321 Value Per Acre

Infill in Downtown

West Fargo, ND

Before



Choice Bank
\$1,197,795 Value Per Acre

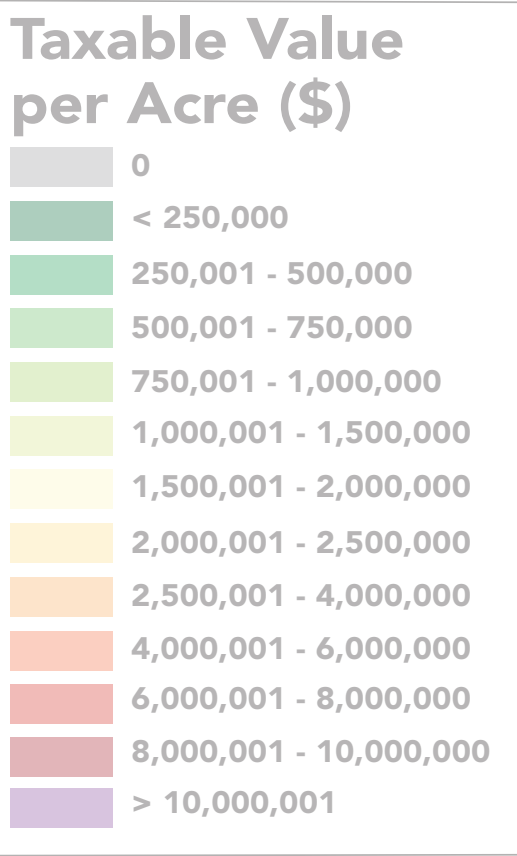


The Firm
\$10,117,321 Value Per Acre



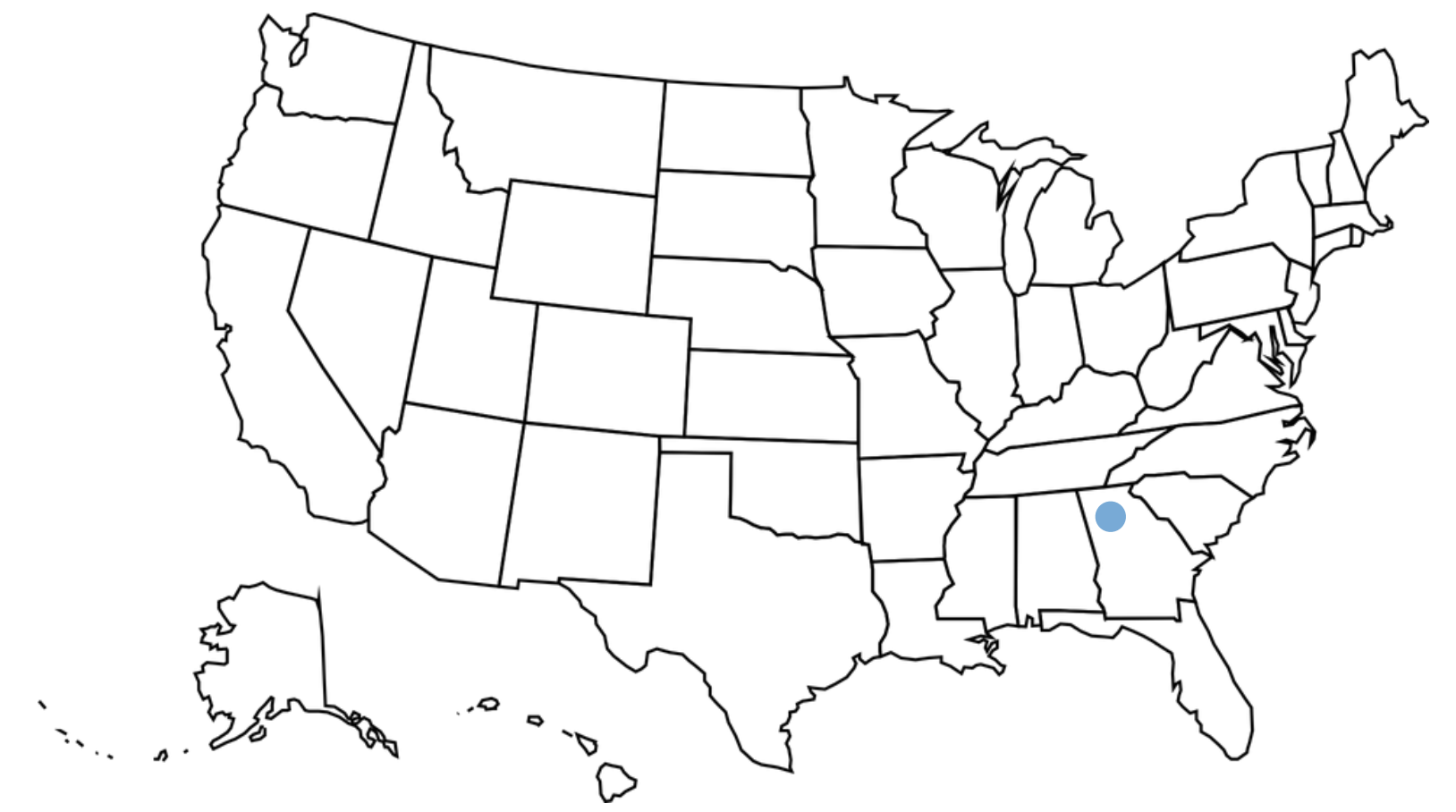
Pioneer Place Apts
\$7,057,319 Value Per Acre

Pioneer Place 2nd Addition
\$10,117,321 Value Per Acre



Question:

**But is this just about big
buildings?**



Case Study: Economic MRI®
2014

Gwinnett County, Georgia

What are the numbers for Gwinnett County?



Downtown Row

Lawrenceville
(Assessed)



Doug's Work Boots

Taxable

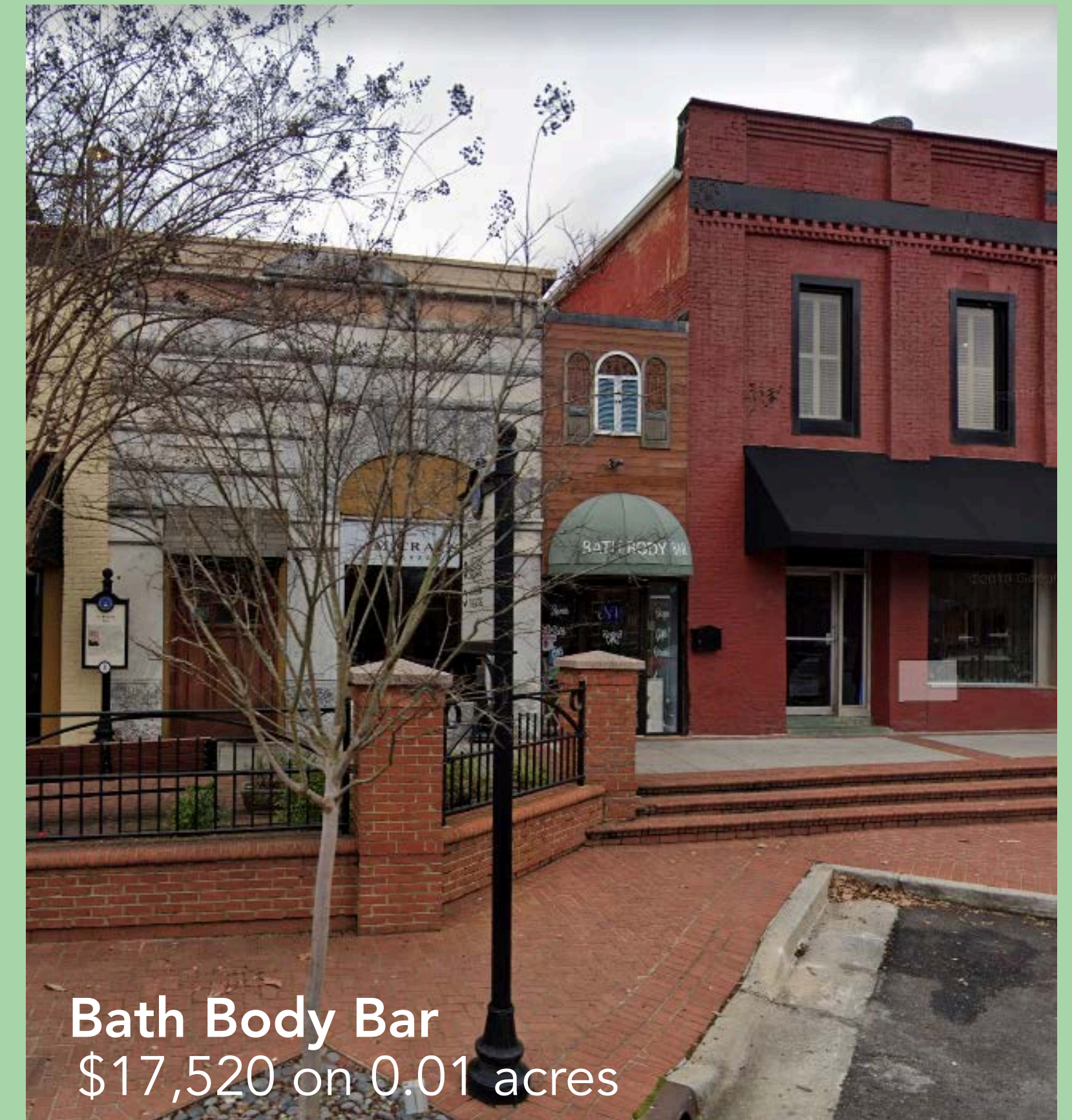
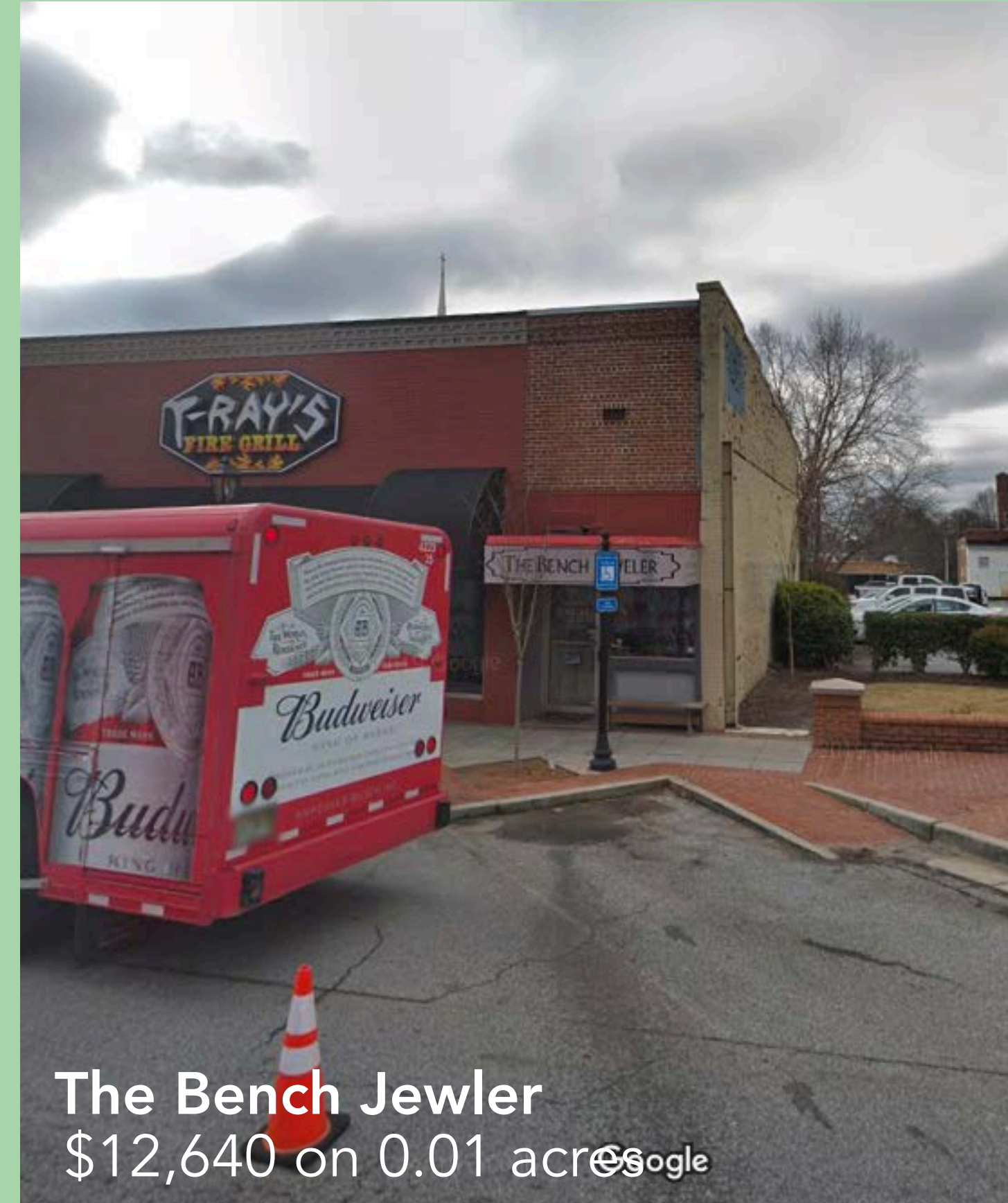
\$ 400,667/acre



Gwinnett County Property Tax Revenue Profile: 2019 Tax Yield per Acre



Gwinnett County Property Tax Revenue Profile: 2019 Tax Yield per Acre



Gwinnett County Property Tax Revenue Profile: 2019 Tax Yield per Acre



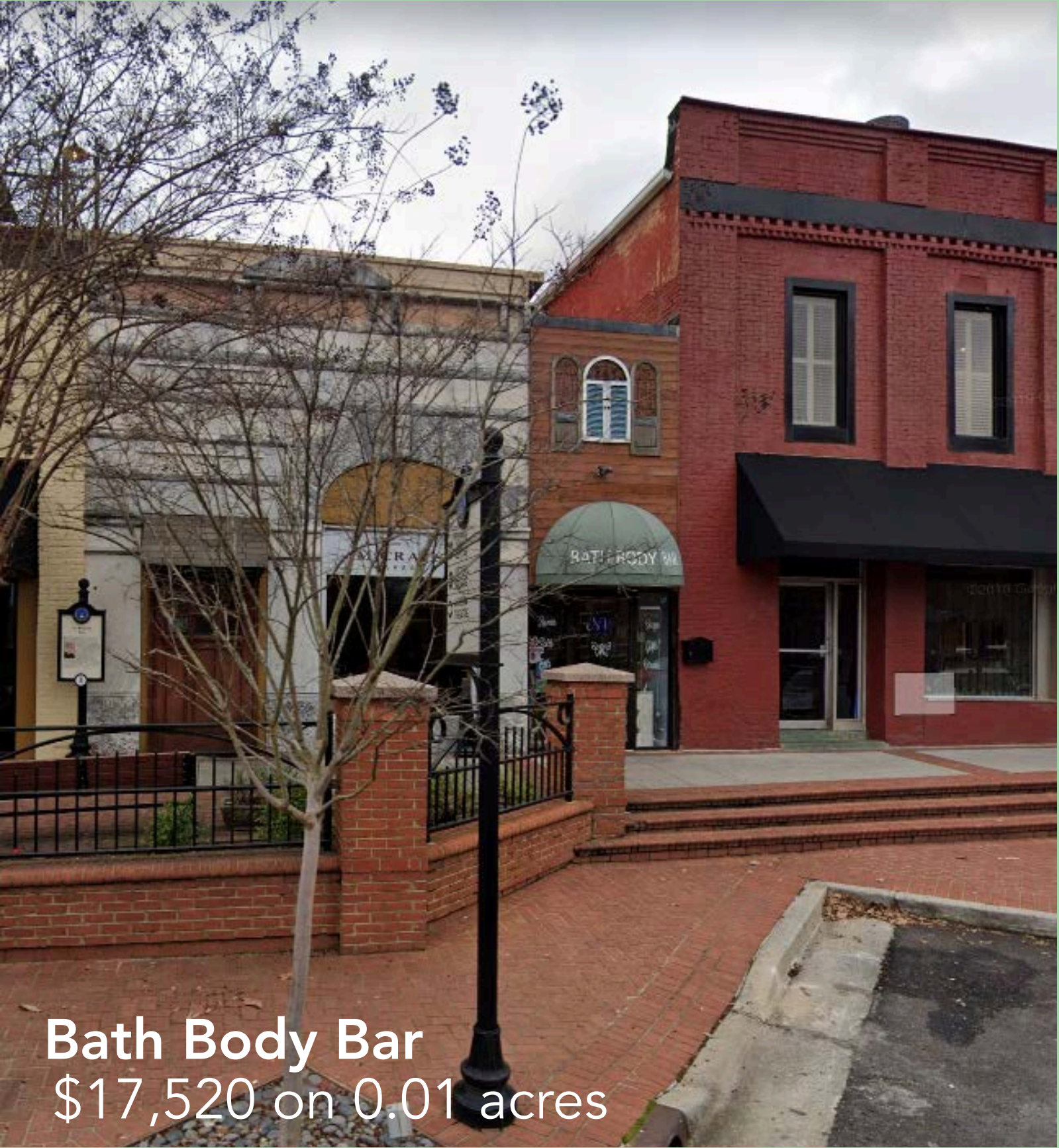
Doug's Boots
\$24,040 on 0.06 acres

\$400,667
taxable value/acre



The Bench Jeweler
\$12,640 on 0.01 acres

\$1,264,000
taxable value/acre



Bath Body Bar
\$17,520 on 0.01 acres

\$1,752,000
taxable value/acre

Gwinnett County Property Tax Revenue Profile: 2019 Tax Yield per Acre



Doug's Boots
\$24,040 on 0.06 acres



Sugarloaf Mall
\$32M on 113 acres

80 acres of the Doug's Boots would equal the taxable value of the **113** acre Sugarloaf Mall



Gary Morris Law Office
\$3,228,128 per acre



Gary Morris Law Office
\$3,228,128 per acre



Chase Bank
\$3,315,609 per acre



Gary Morris Law Office
\$3,228,128 per acre



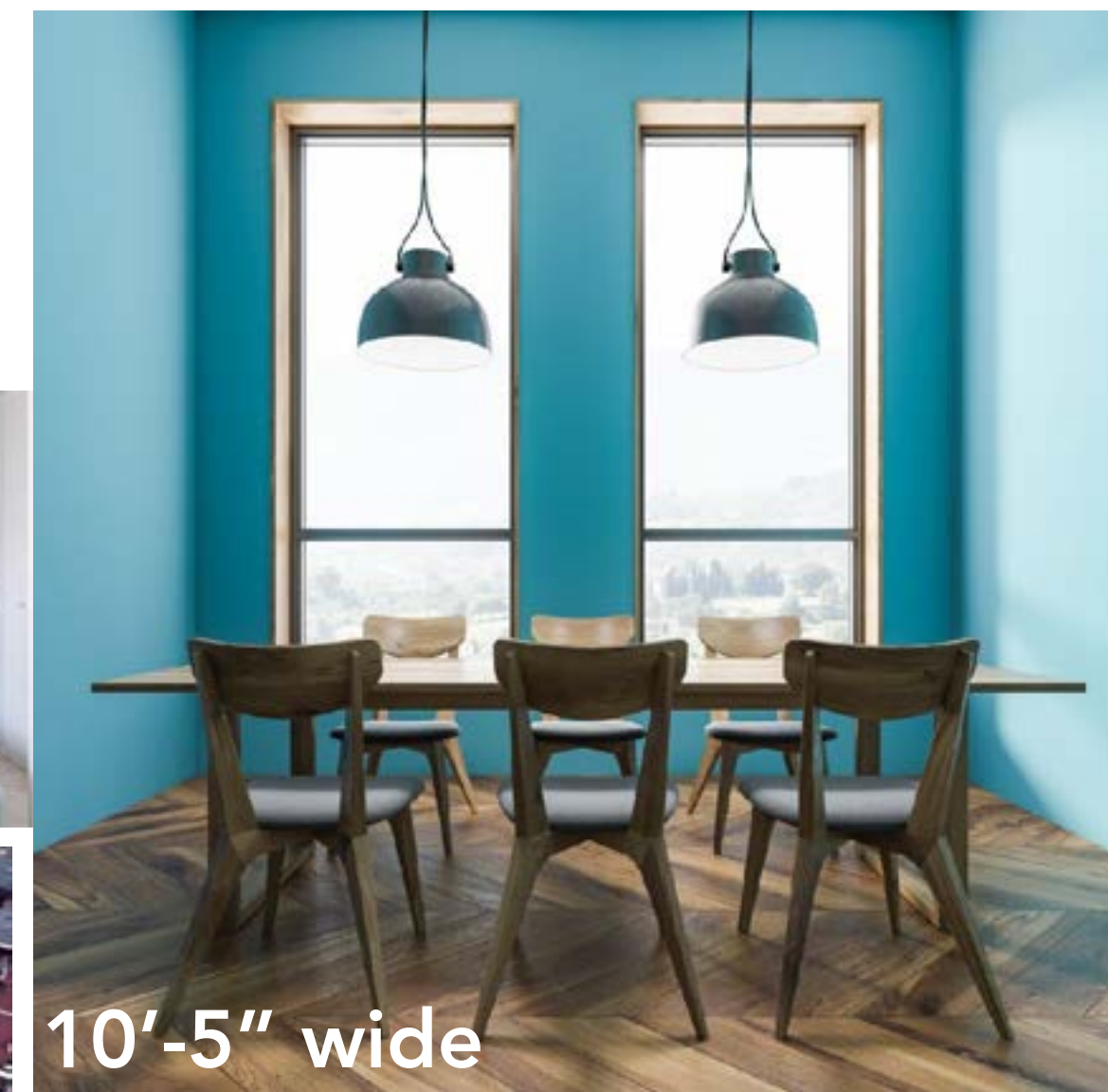


"Skinny House"

Boston,

Massachusetts

44 Hull Street



\$62,109,381
taxable value/acre

Ca.: 1874

Alexandria, Virginia

523 Queen Street



\$64,417,794
taxable value/acre

URBAN3



Big Productivity in Little Packages

Cass County, ND



8th St. S.

Main Ave

Google

Map navigation controls including a compass, 3D view toggle, and zoom in/out buttons.



Big Productivity in Little Packages

Cass County, ND

Walmart
\$534,342 per acre

All Buildings Are On the Same Parcel
\$2,204,117 Value Per Acre

Rando Art Studio

Roza's Sewing

Tuxedos

Barber Shop

Boutique

Are the
economics of
incremental, and
small
development
positive in
North Dakota?

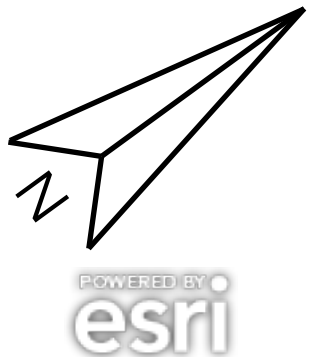
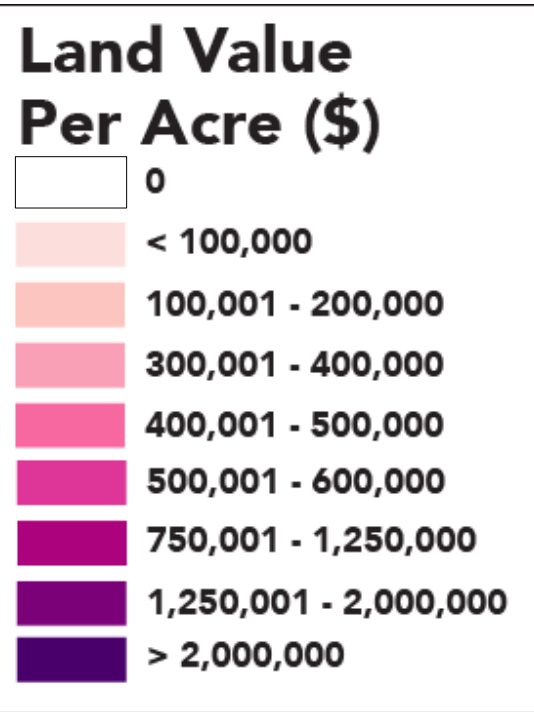
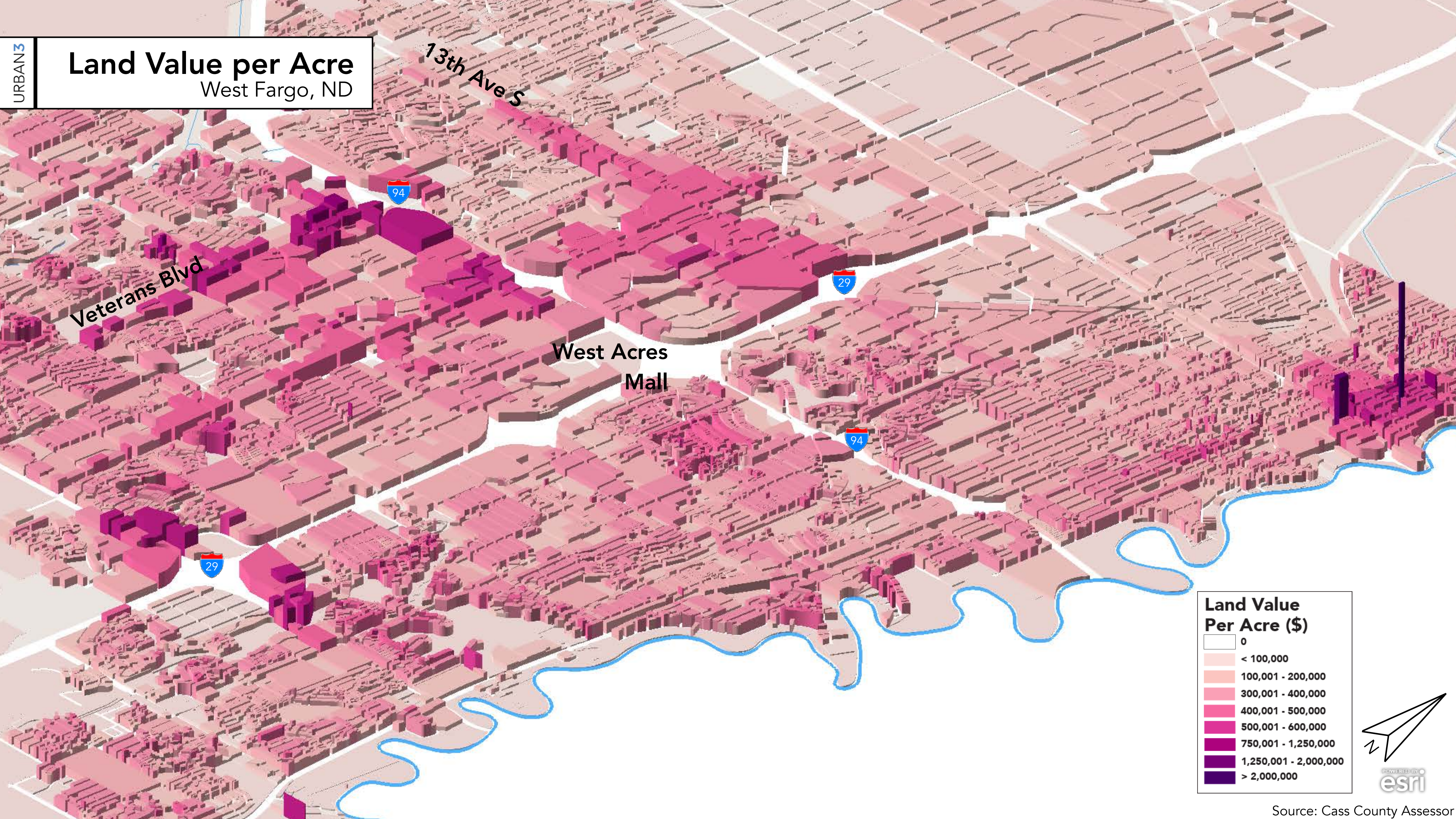


oh yeah

URBAN3

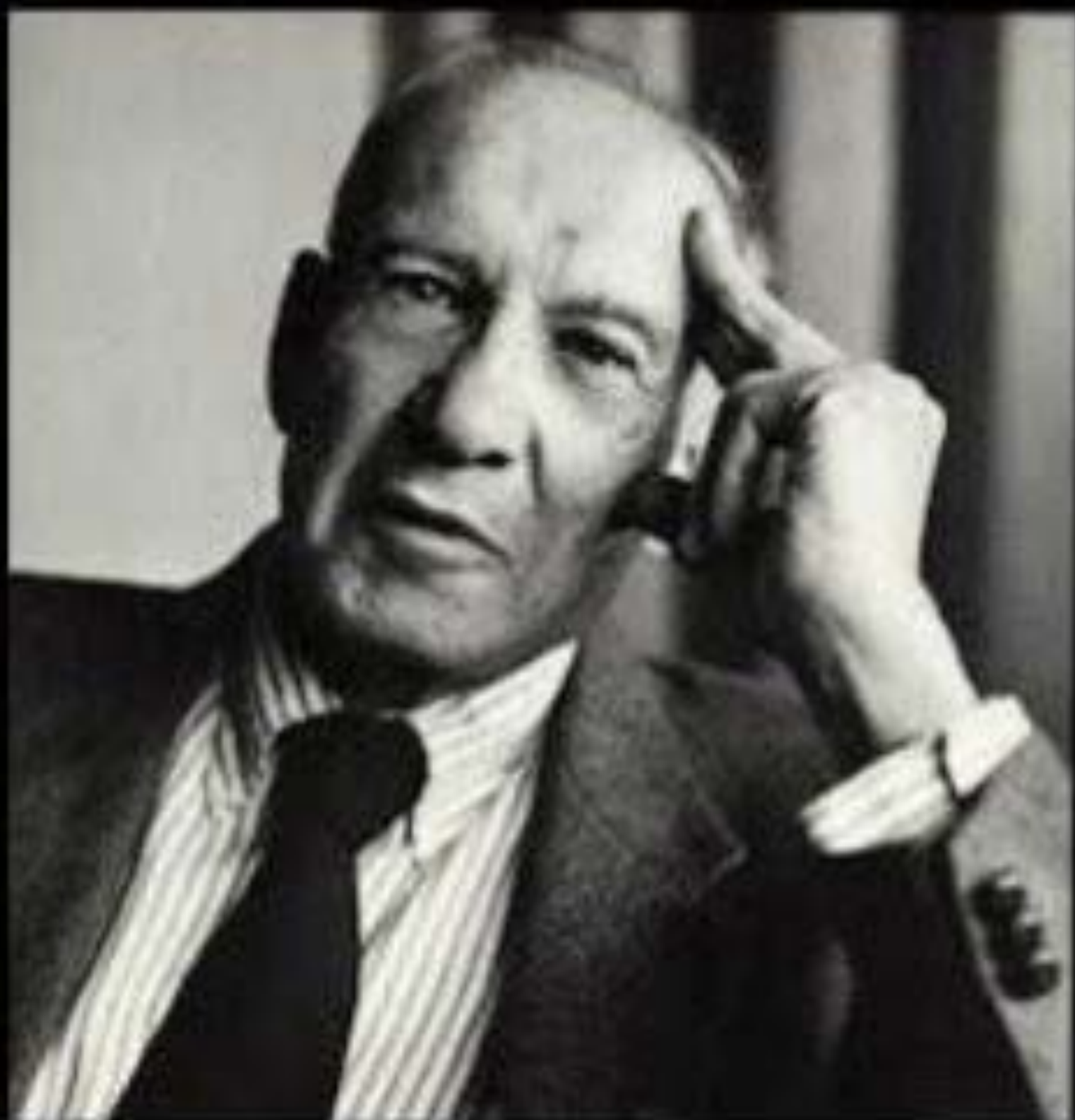
Land Value per Acre

West Fargo, ND



Comment :

Know your infrastructure!



**“If you can’t
measure it,
you can’t
manage it”**

Peter Drucker



URBAN3

Cost and Revenue Tradeoffs

Cass County, ND

	Core	East	Difference
Homes	108	108	0x
Acres	28	41	1.5x
Value/Acre	\$601k	\$624k	1x
Road Length (Miles)	1.1	1.5	1.4x
Road Width (Feet)	24	30	1.3x
Road Area (Sq. Feet)	139k	238k	1.7x

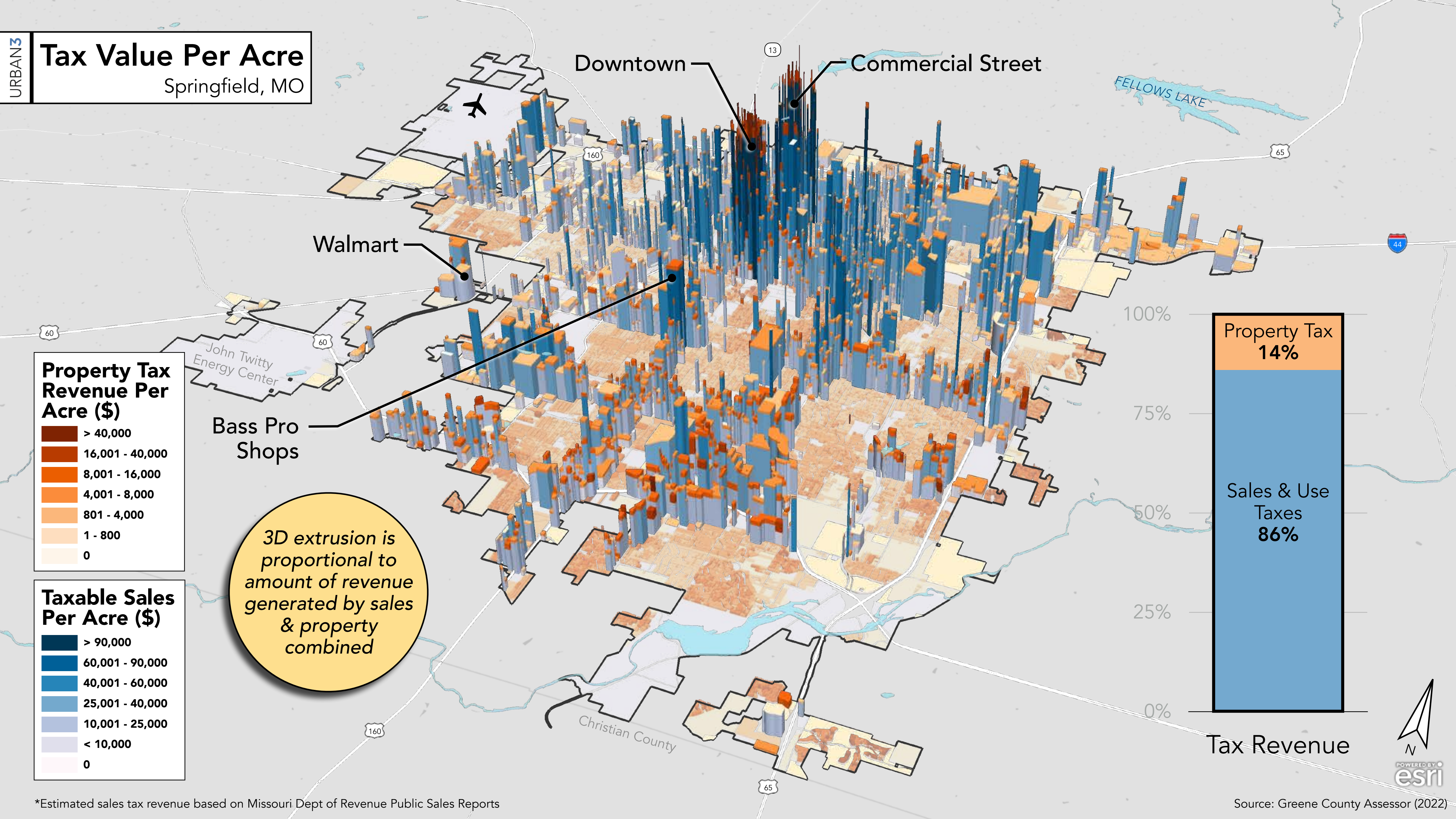


Return on Investment

Comparing Revenues & Costs of Infrastructure

Tax Value Per Acre

Springfield, MO



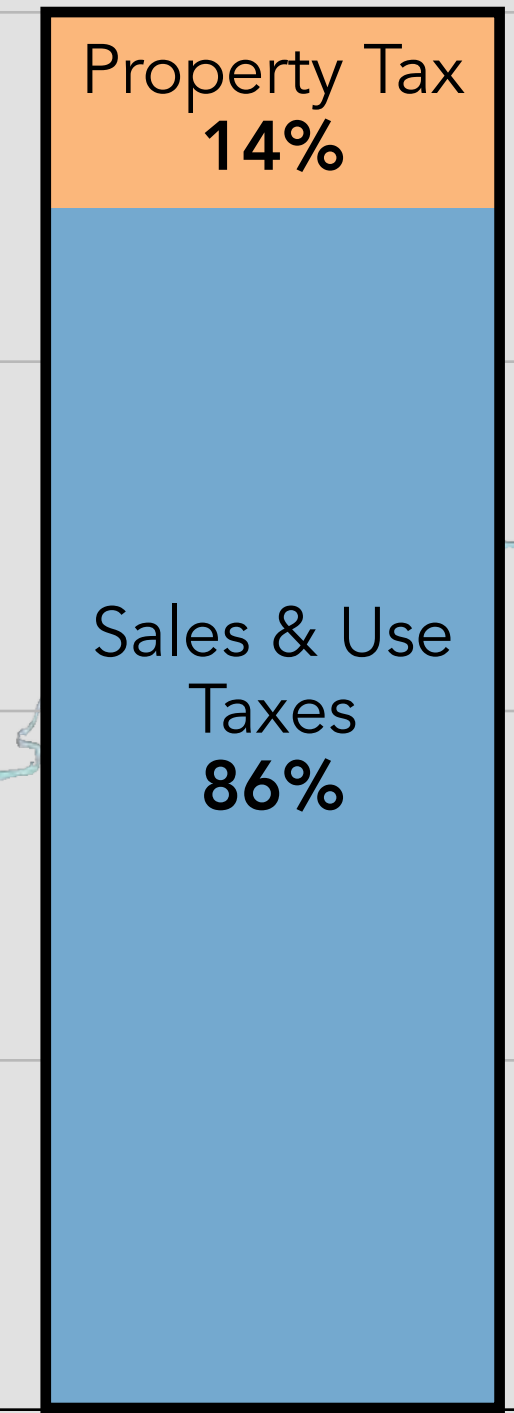
Property Tax Revenue Per Acre (\$)

- > 40,000
- 16,001 - 40,000
- 8,001 - 16,000
- 4,001 - 8,000
- 801 - 4,000
- 1 - 800
- 0

Taxable Sales Per Acre (\$)

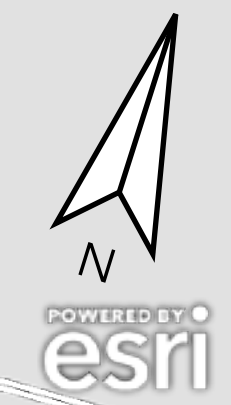
- > 90,000
- 60,001 - 90,000
- 40,001 - 60,000
- 25,001 - 40,000
- 10,001 - 25,000
- < 10,000
- 0

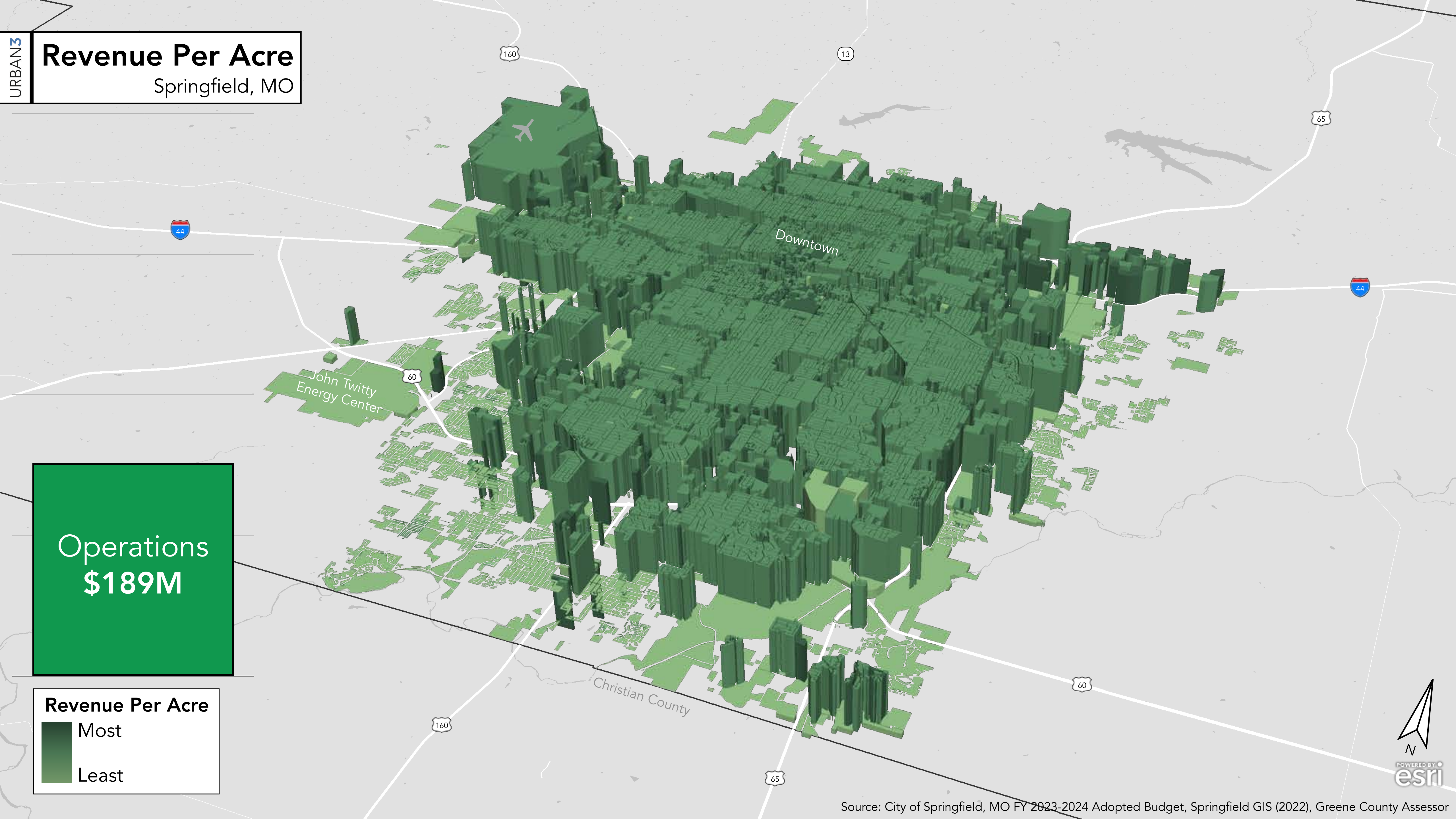
3D extrusion is proportional to amount of revenue generated by sales & property combined



Tax Revenue

*Estimated sales tax revenue based on Missouri Dept of Revenue Public Sales Reports





Revenue Per Acre

Springfield, MO

Operations
\$189M

Revenue Per Acre

Most
Least



Revenue Per Acre
Springfield, MO

\$446M

Property Tax \$25M

Sales Tax
\$170M

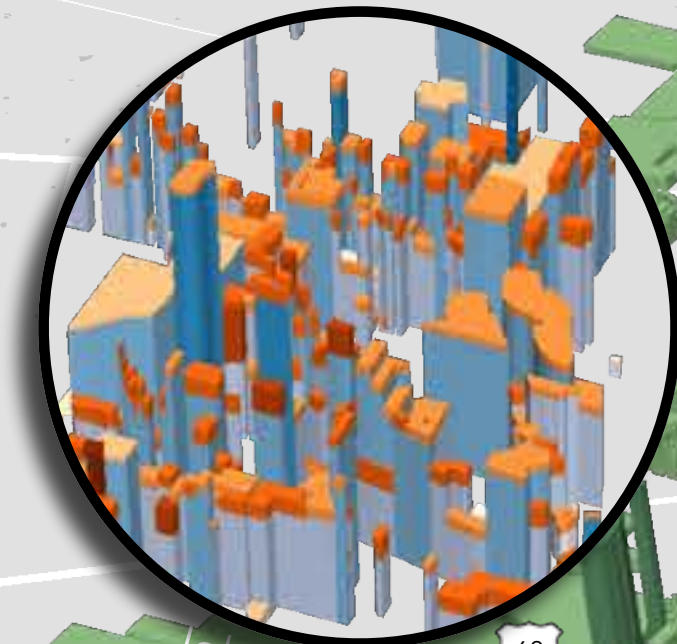
Charges for Services
\$61M

Operations
\$189M

Revenue Per Acre

Most

Least



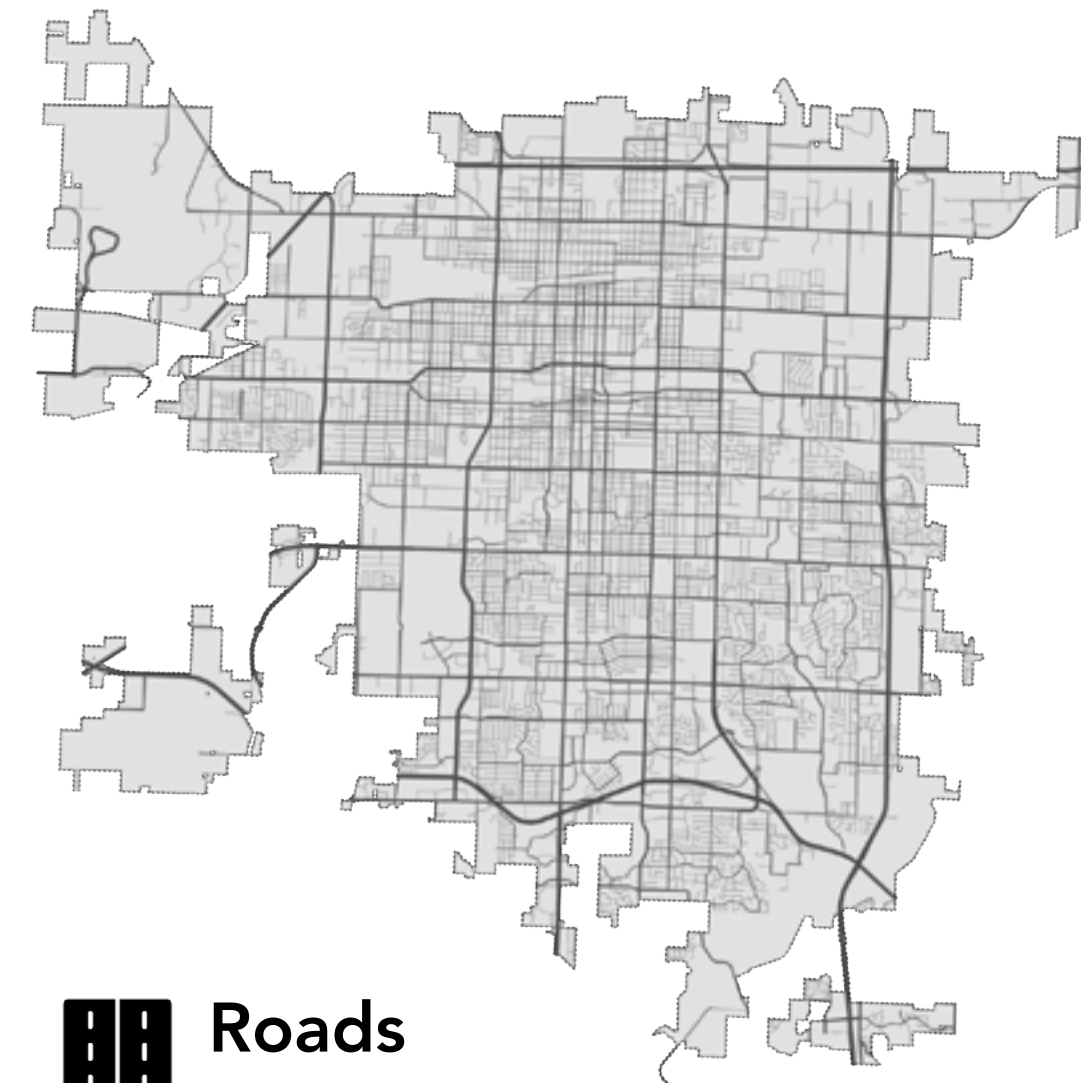
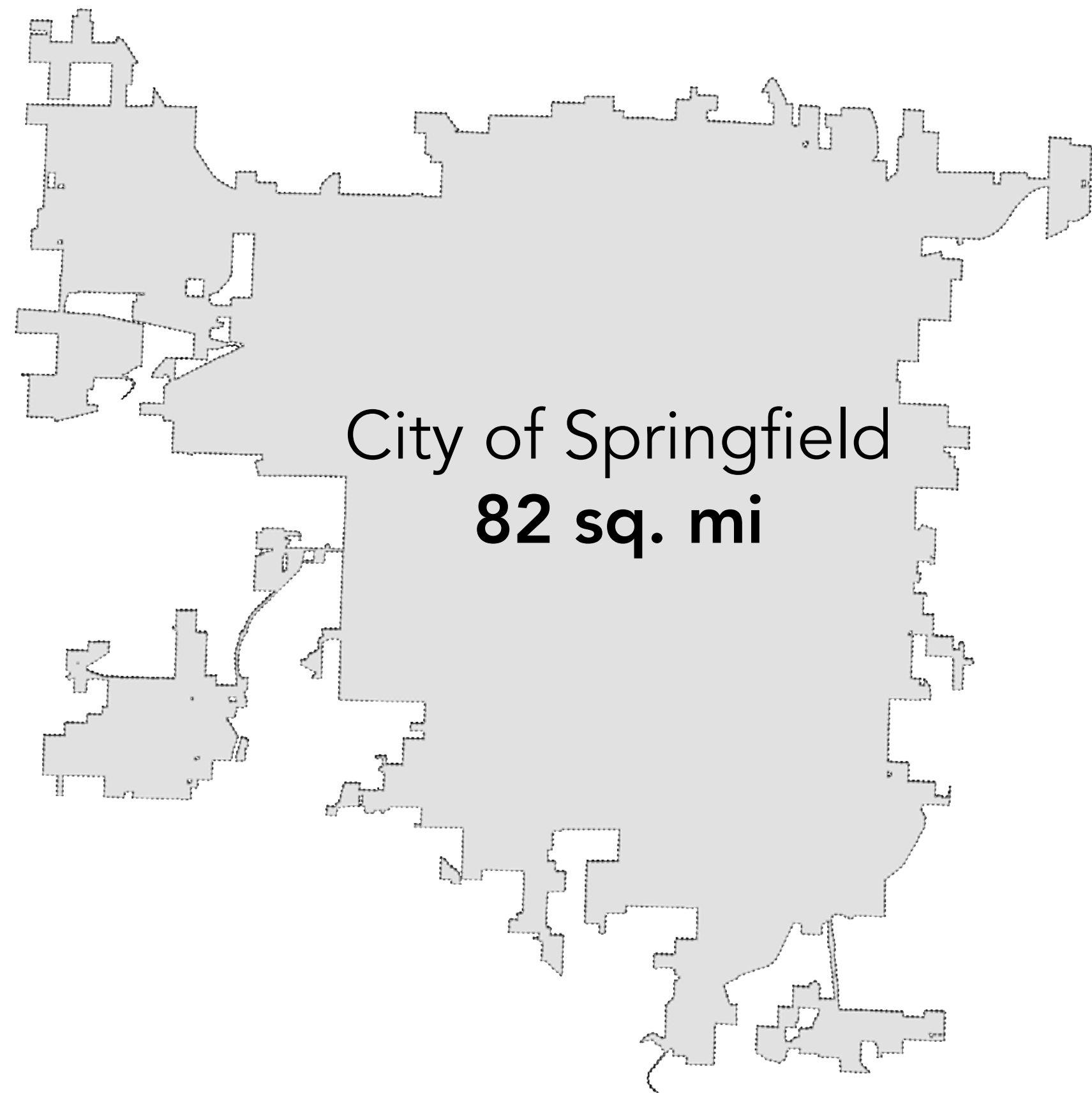
John Twitty
Energy Center

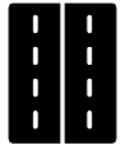
Downtown

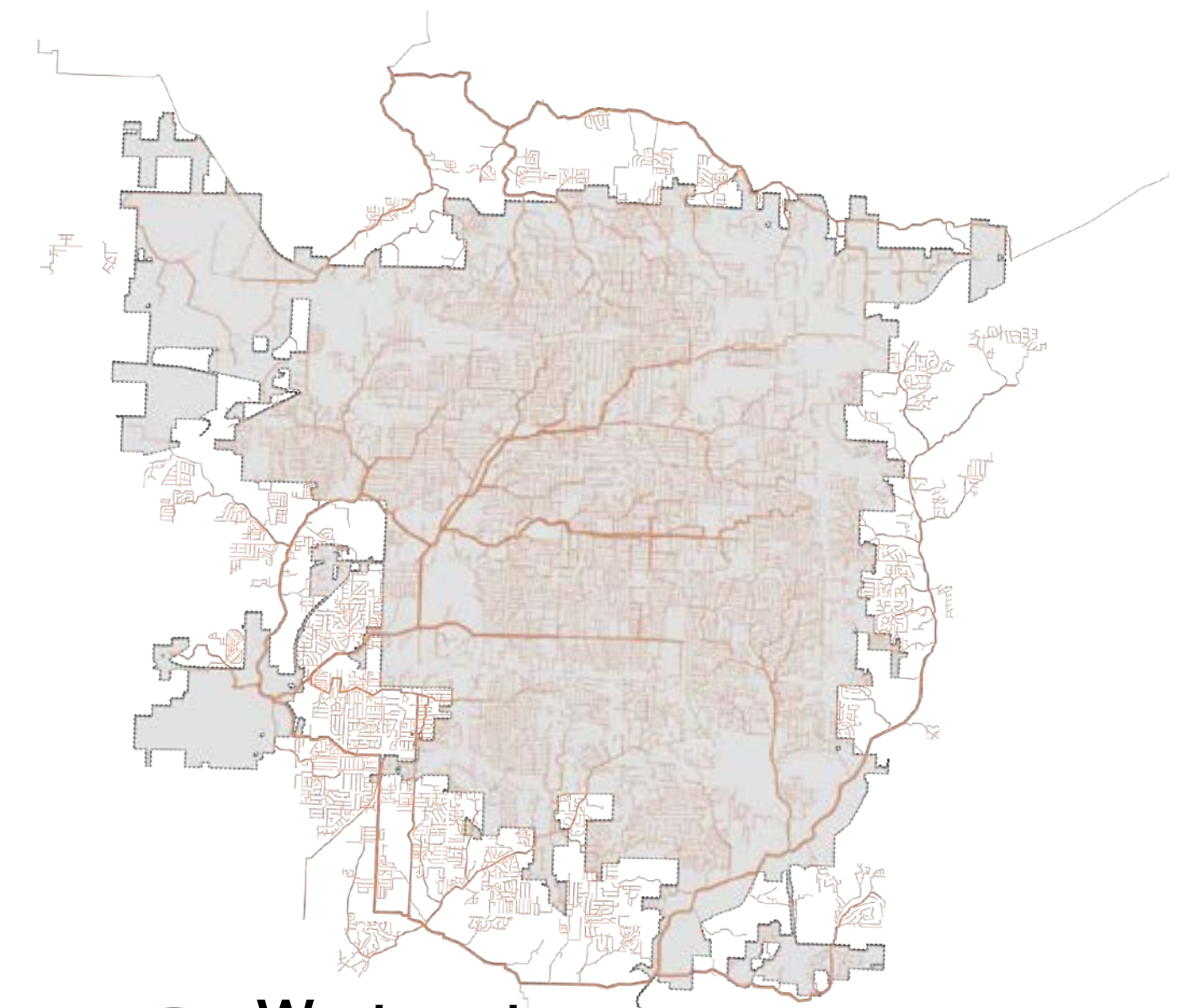
Christian County

Infrastructure Systems

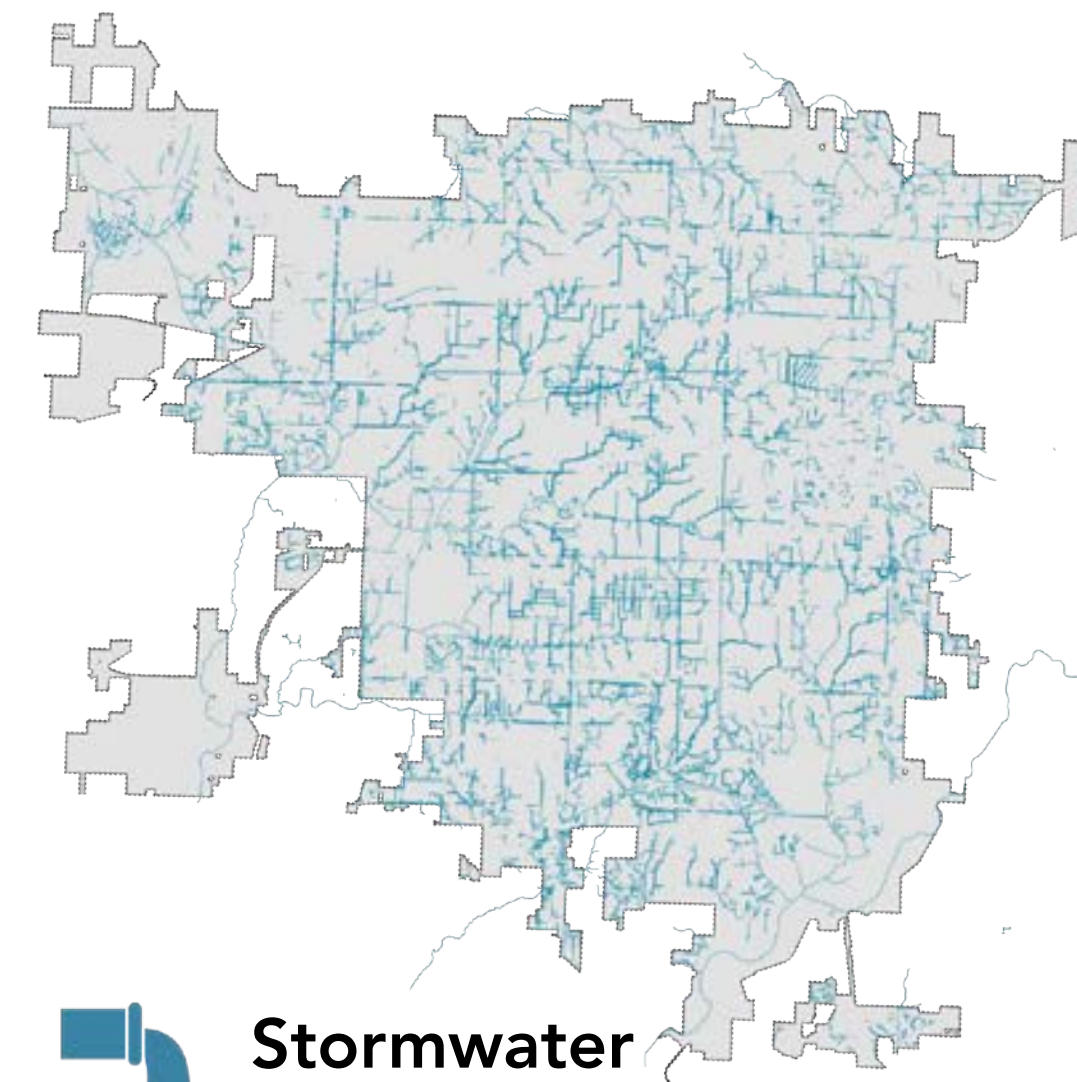
Springfield, MO



 **Roads**
1,900 miles

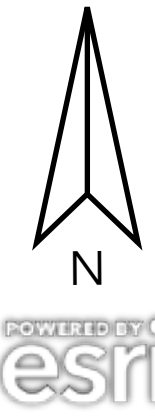
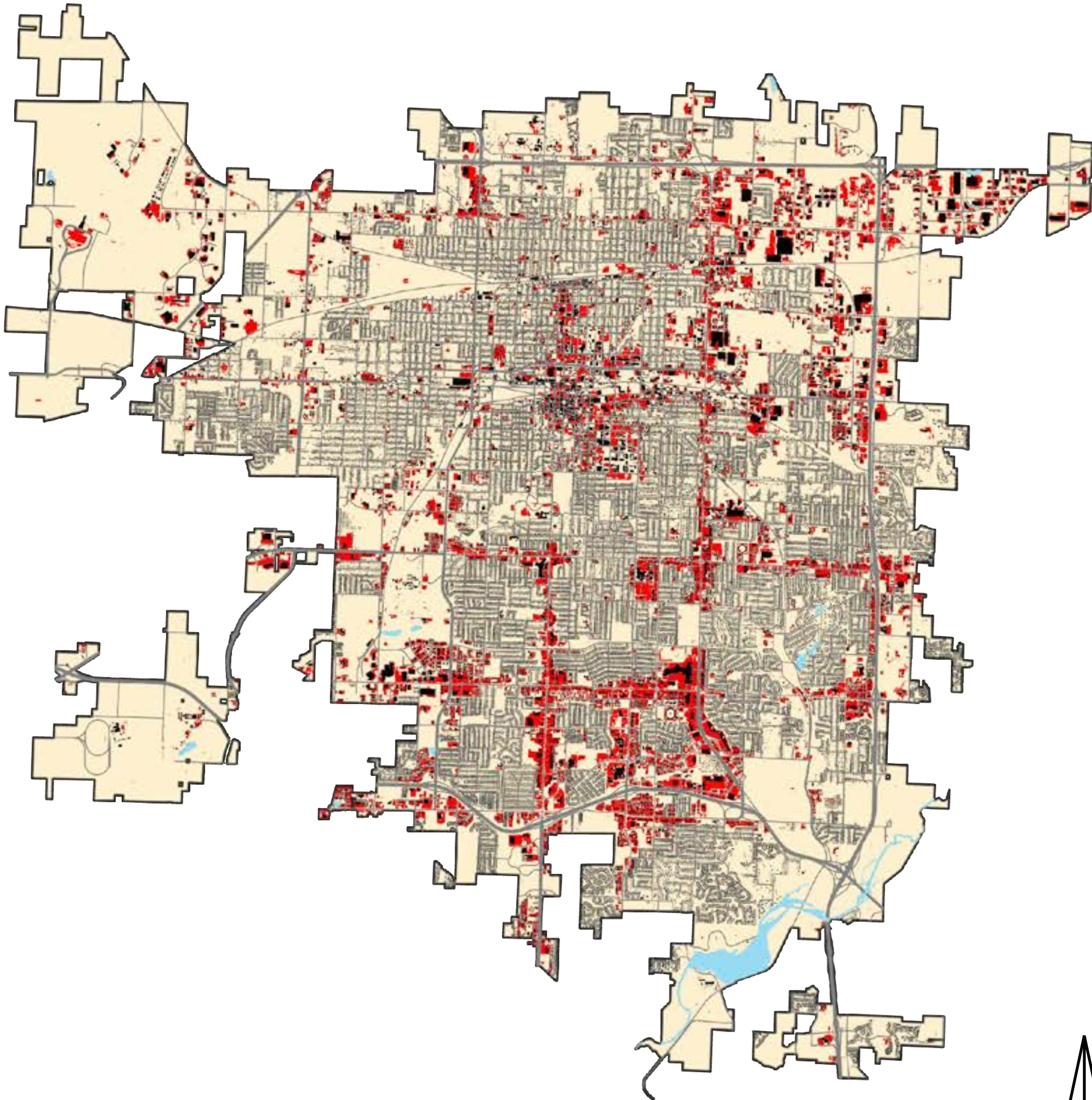
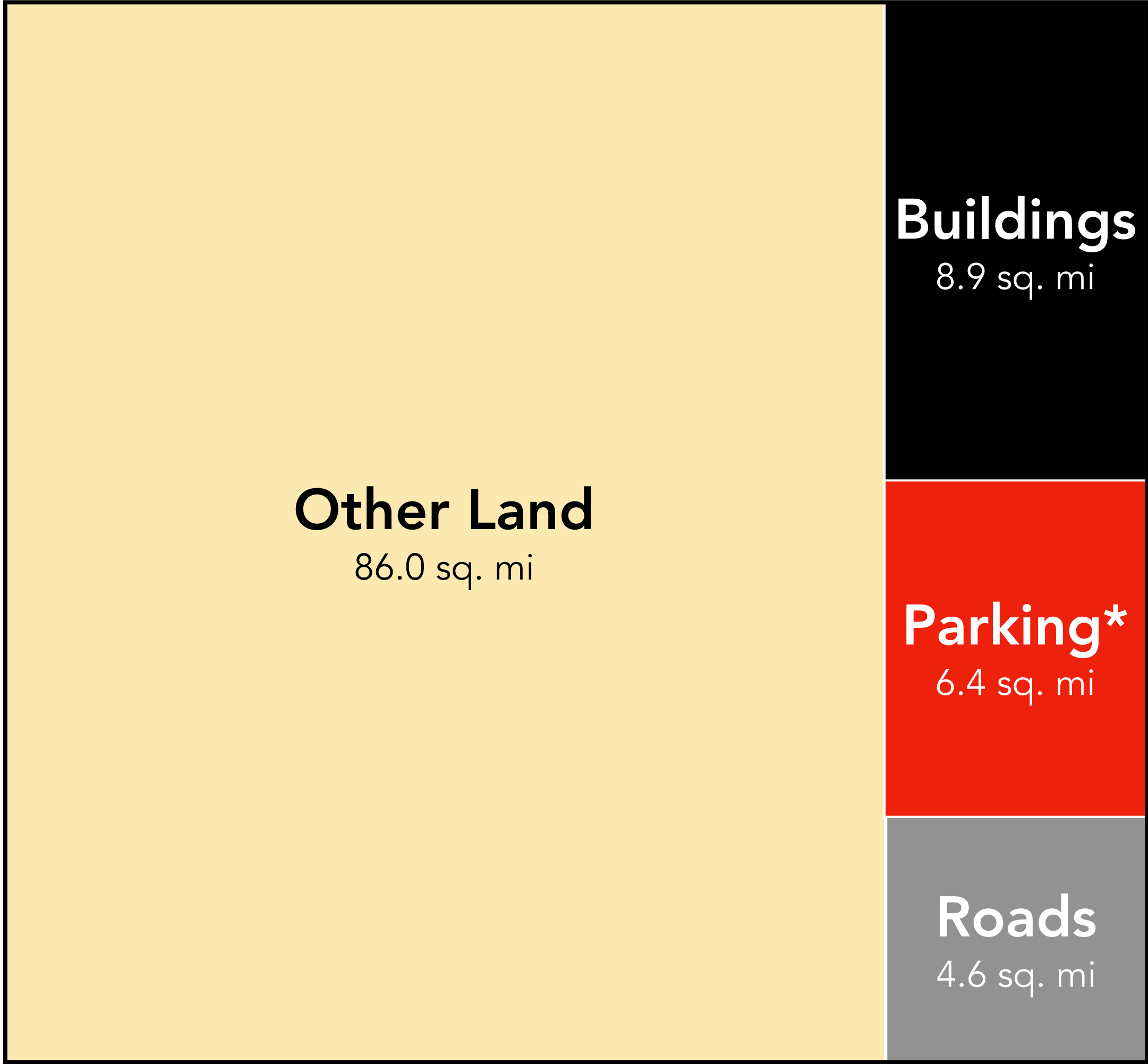


 **Wastewater**
1,300 miles



 **Stormwater**
300 miles

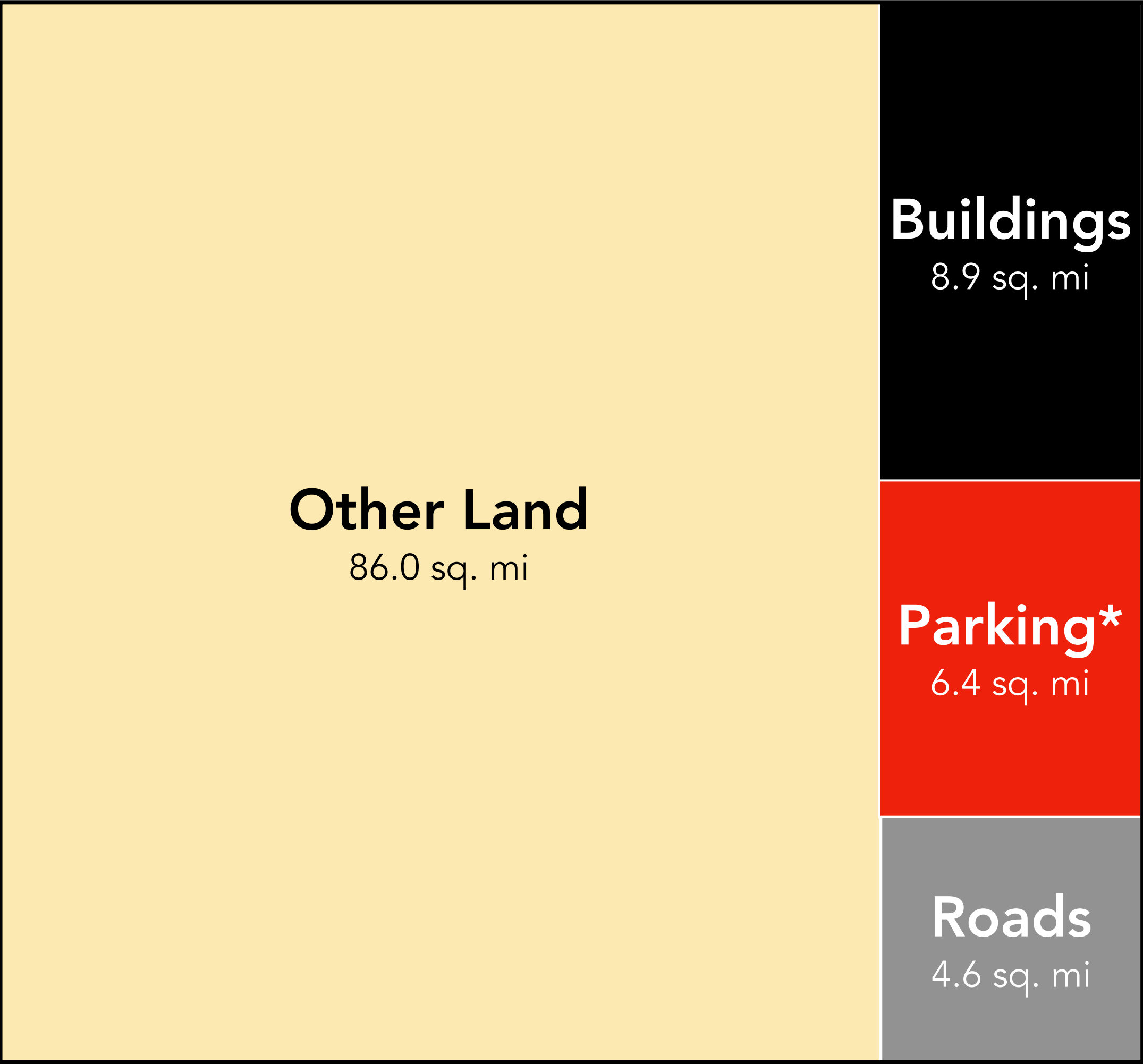
Area



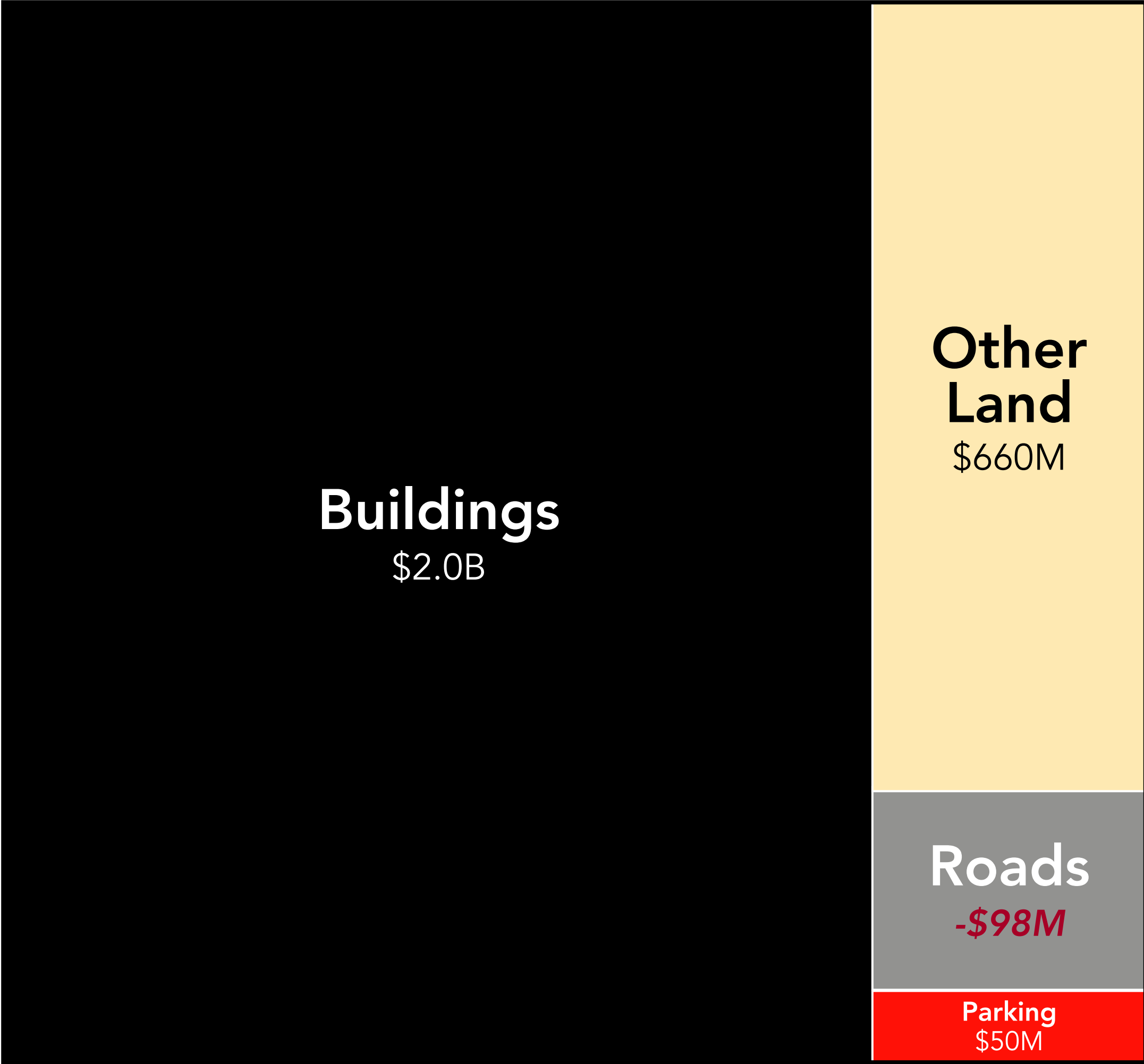
* Estimate from satellite imagery

Source: City of Springfield MO (2022)

Area



Value



* Estimate from satellite imagery

Source: City of Springfield MO (2022), Urban3 Roads Cost Estimator



Springfield's Lane Miles:

1,963

Route 66: 2,400 mi

Chicago, IL

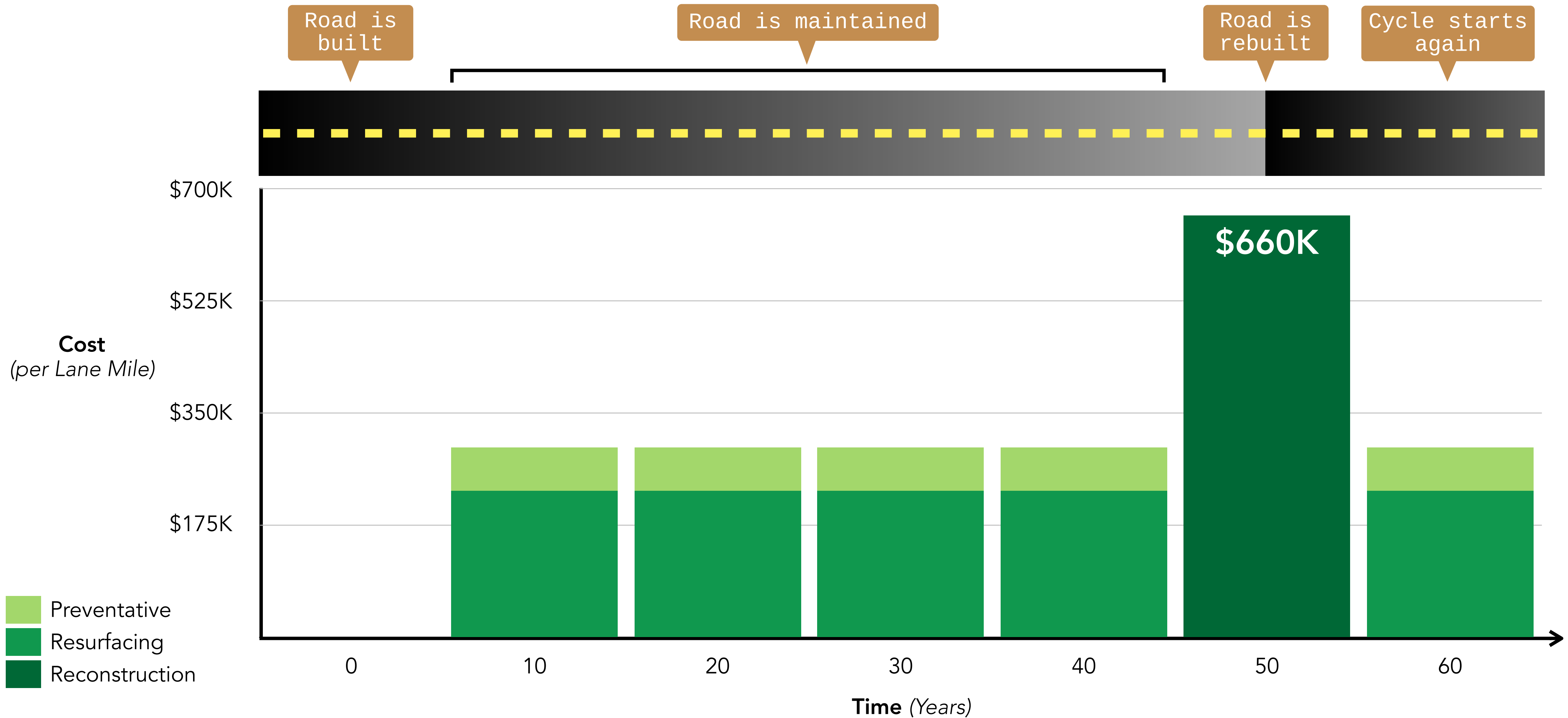
Los Angeles, CA

Springfield



What Happens to a Road Over Time?

Springfield, MO



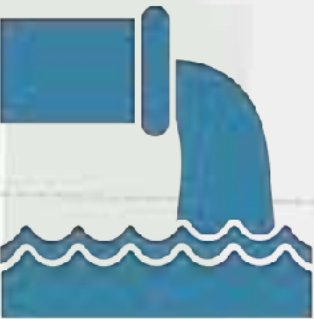


A ROAD IS FOREVER

Annual Costs: Stormwater

Springfield, MO

URBAN3



300 mi



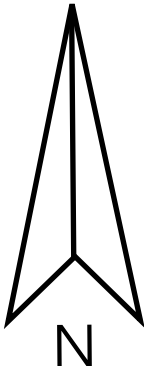
\$6M

Current
Spending



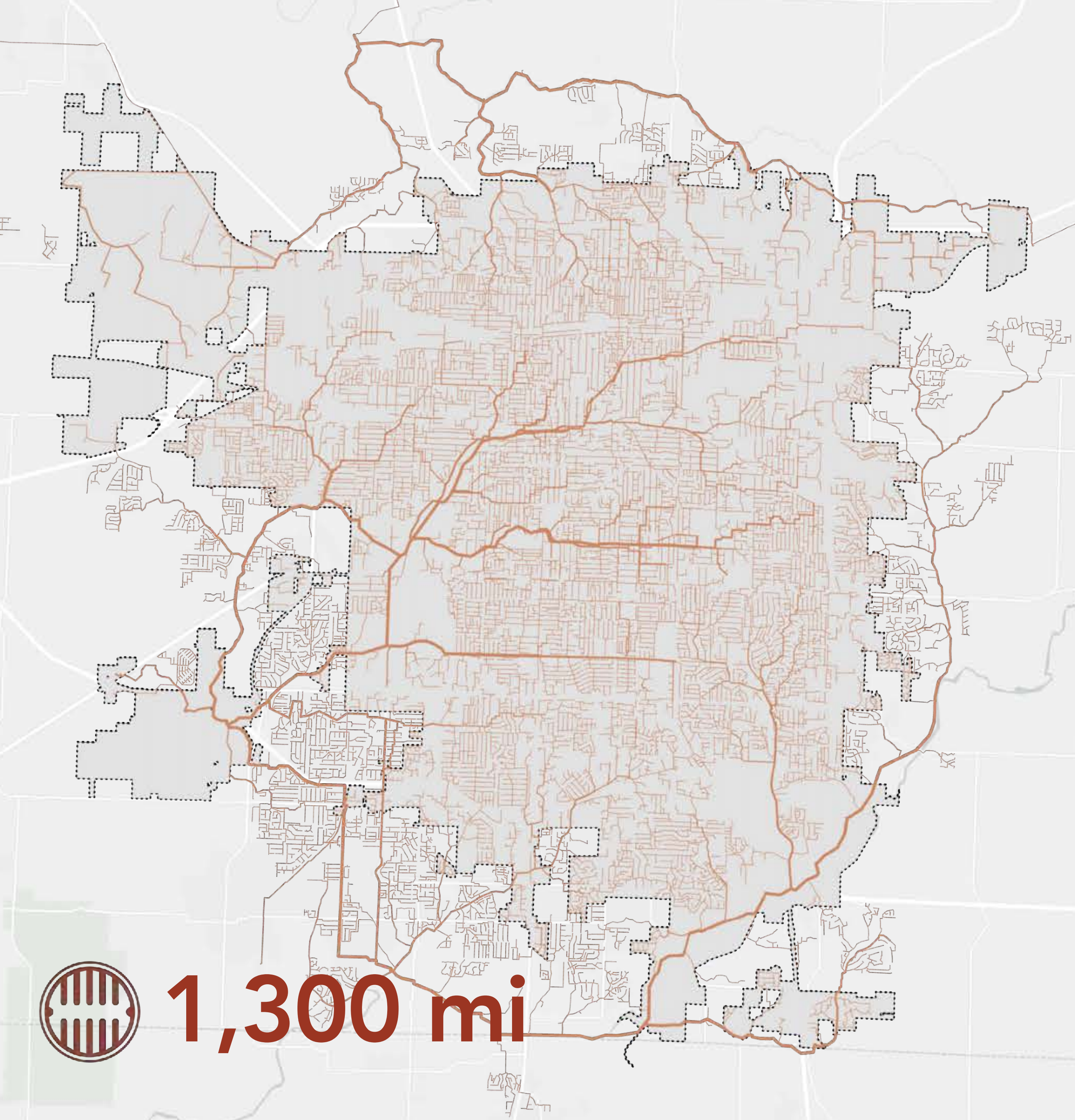
\$15M

Needed
Spending
(Lifecycle Costs)



POWERED BY
esri

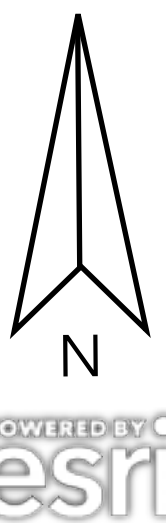
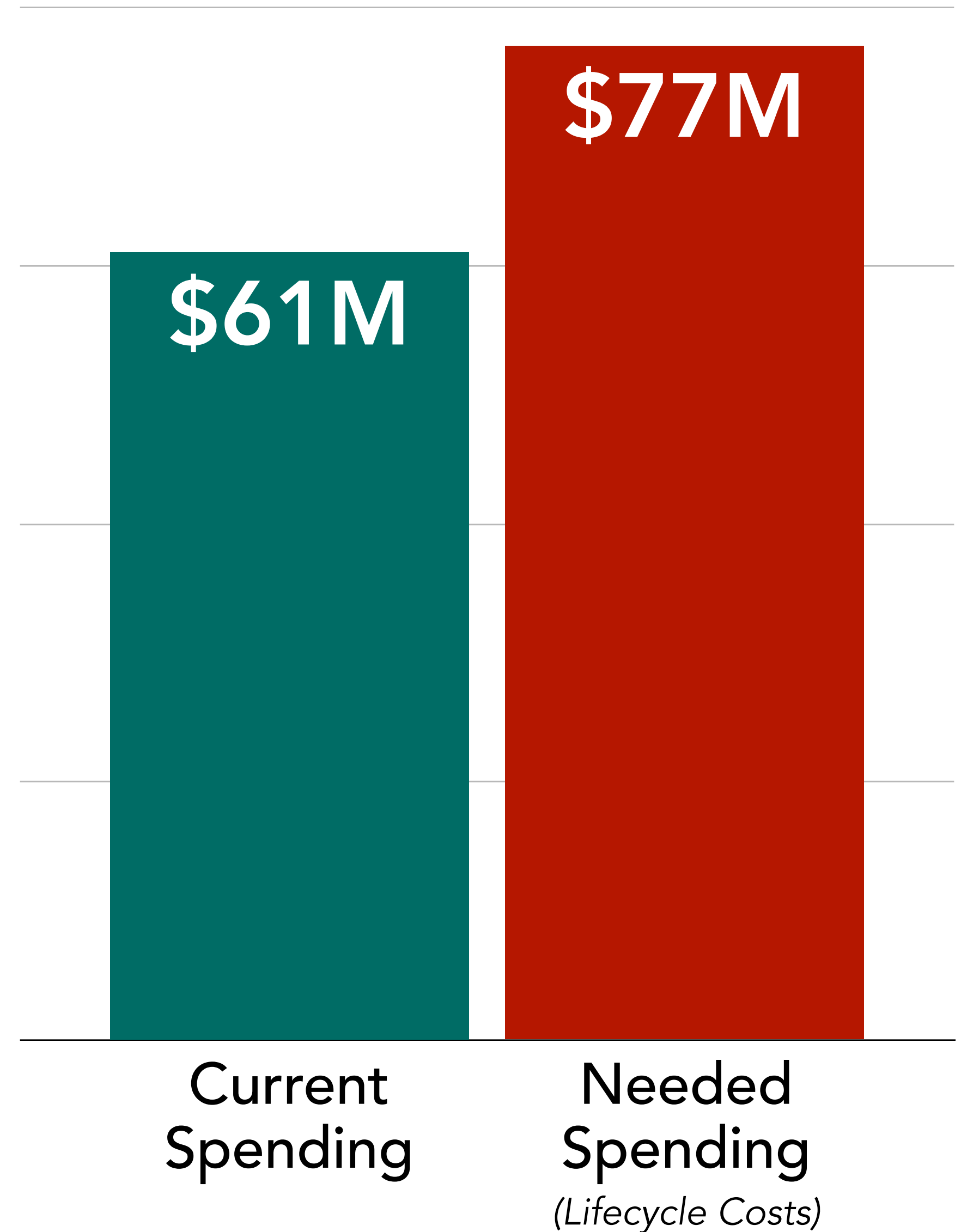
Source: City of Springfield, MO FY 2023-2024 Adopted Budget, Springfield, MO GIS (2022)

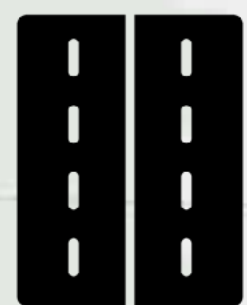


Annual Costs: Wastewater

Springfield, MO

URBAN3



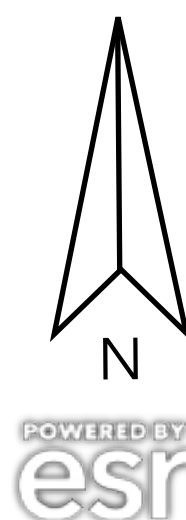
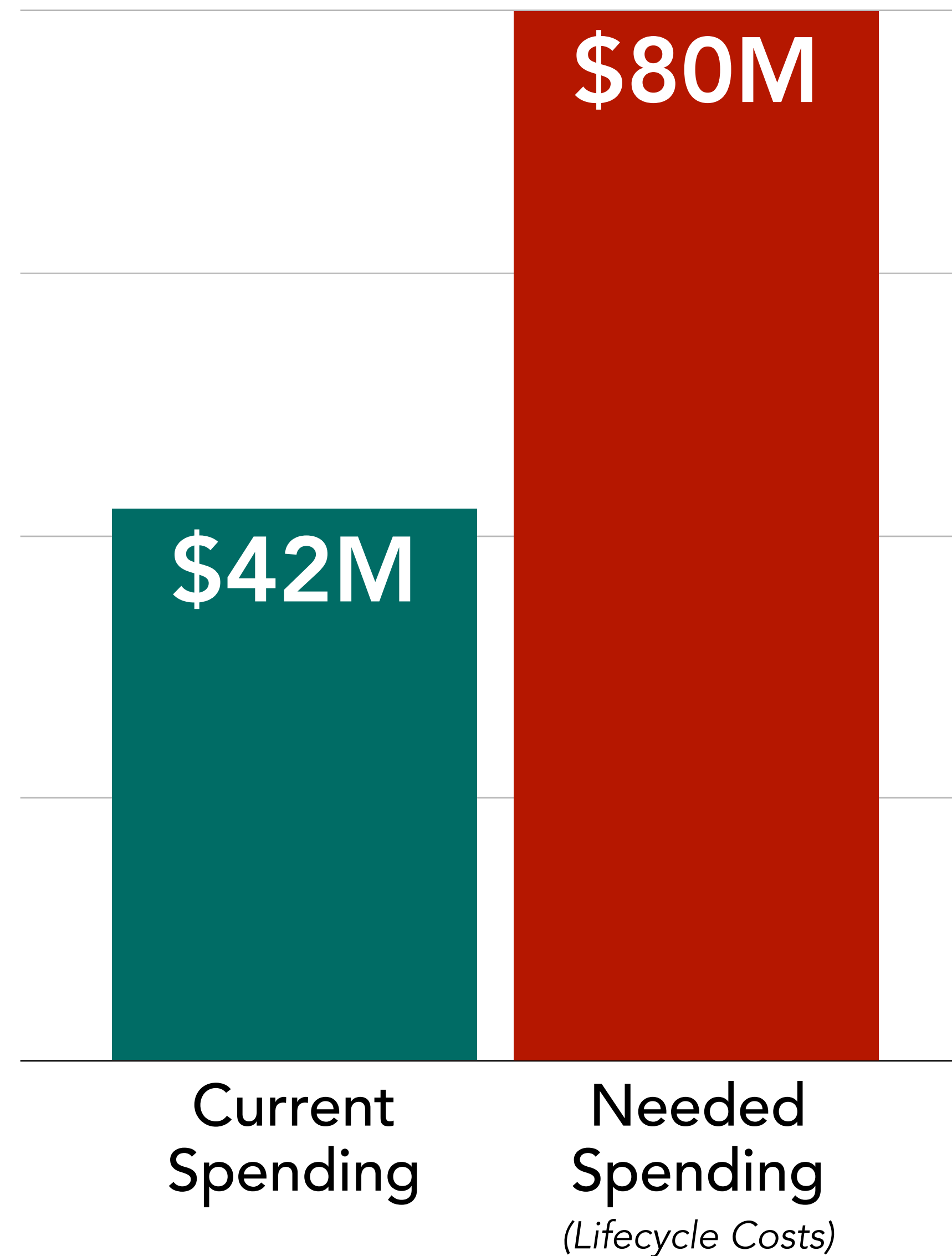
 **1,900 mi**



Annual Costs: Roads

Springfield, MO

URBAN3

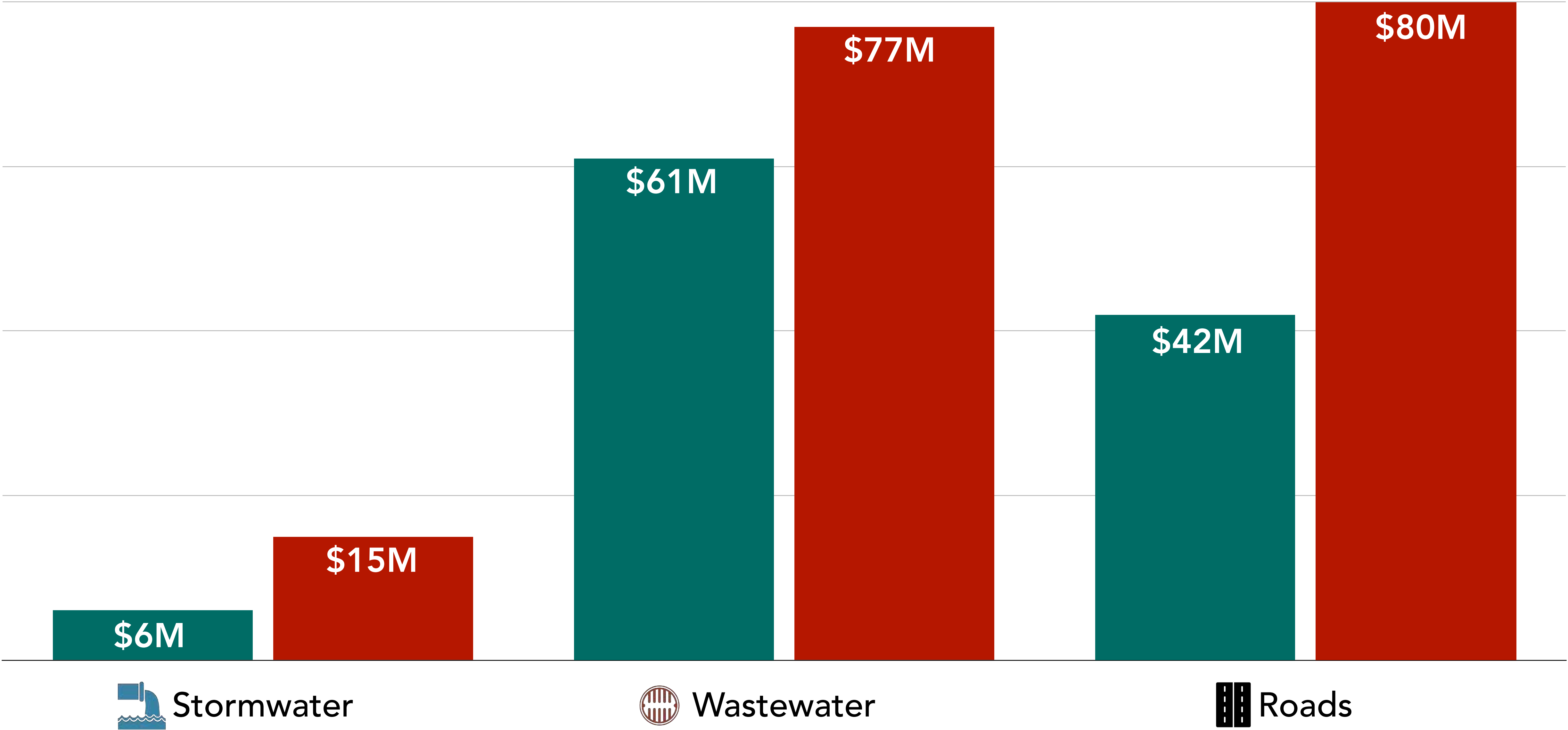


Infrastructure System Costs

Springfield, MO

Current Spending

Needed Spending (*Lifecycle Cost*)



\$109M
annually



Current Spending



Lifecycle Cost

\$173M
annually

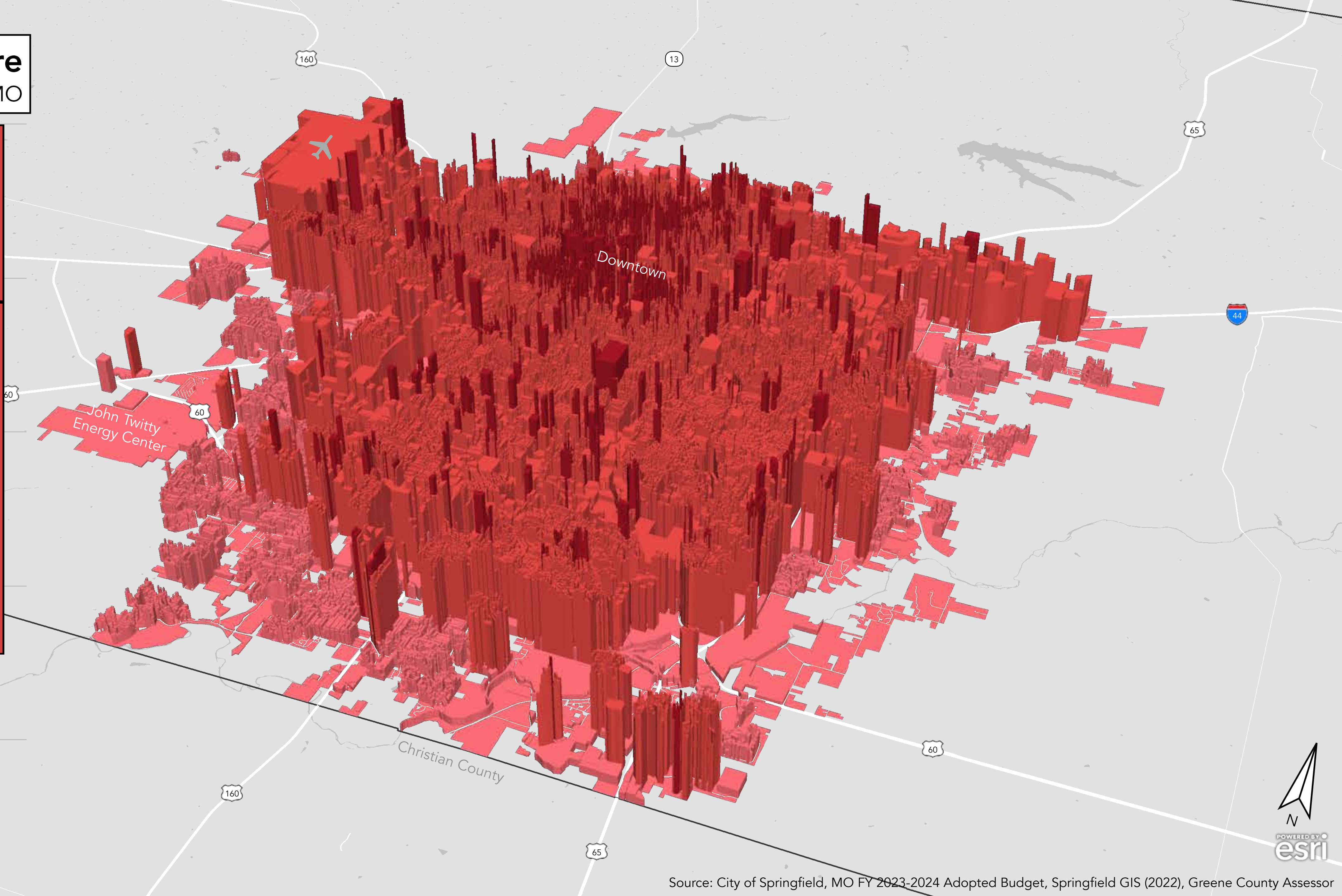
Costs Per Acre

Springfield, MO

Operations & Maintenance
\$173M

Government Expenses
\$344M

\$497M



Costs Per Acre

Springfield, MO

Operations & Maintenance
\$173M

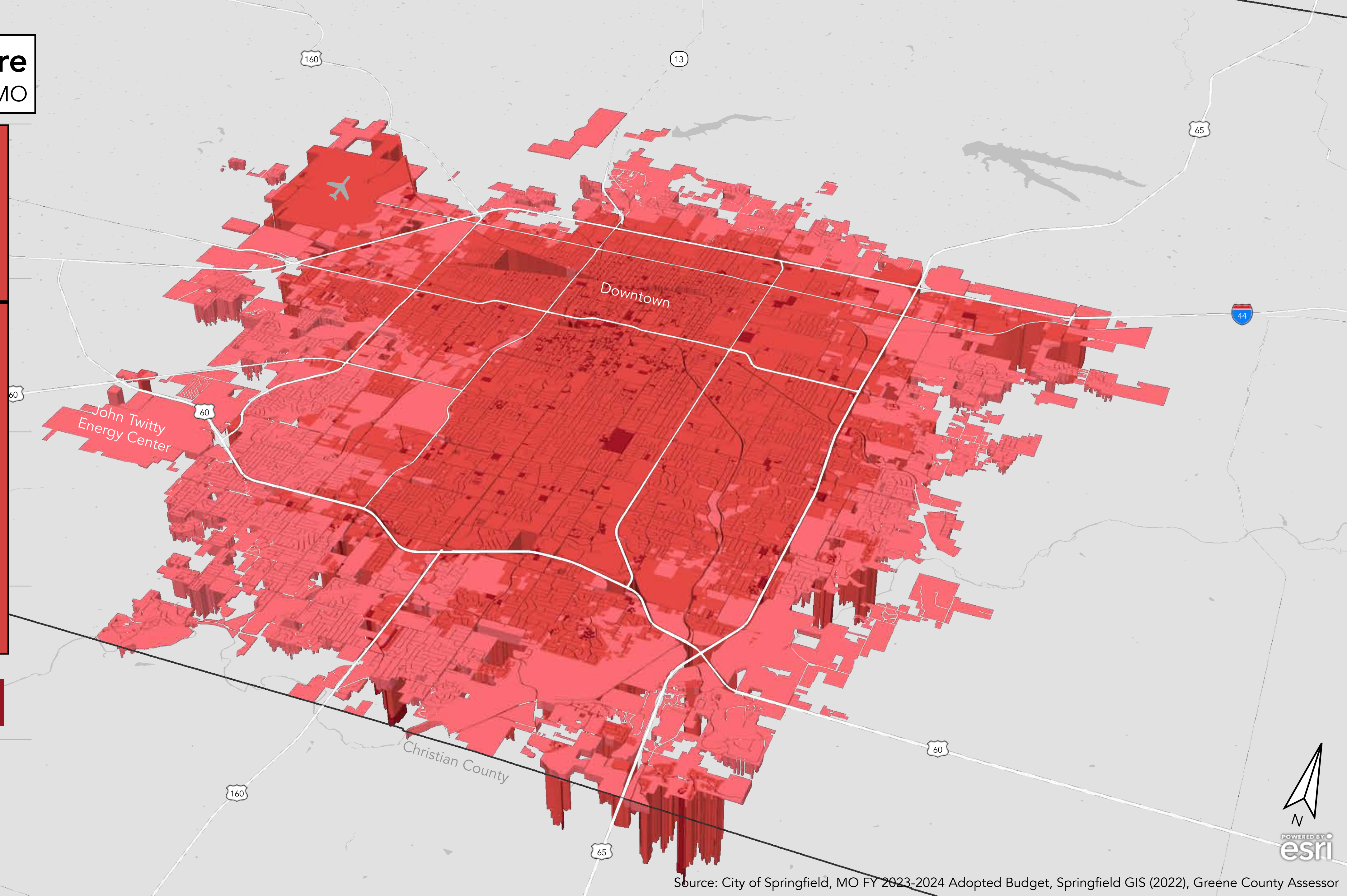
Government Expenses
\$344M

\$497M

Cost Per Acre

Least

Most



Revenues & Costs Per Acre

Springfield, MO

\$446M

\$497M

Revenue Per Acre

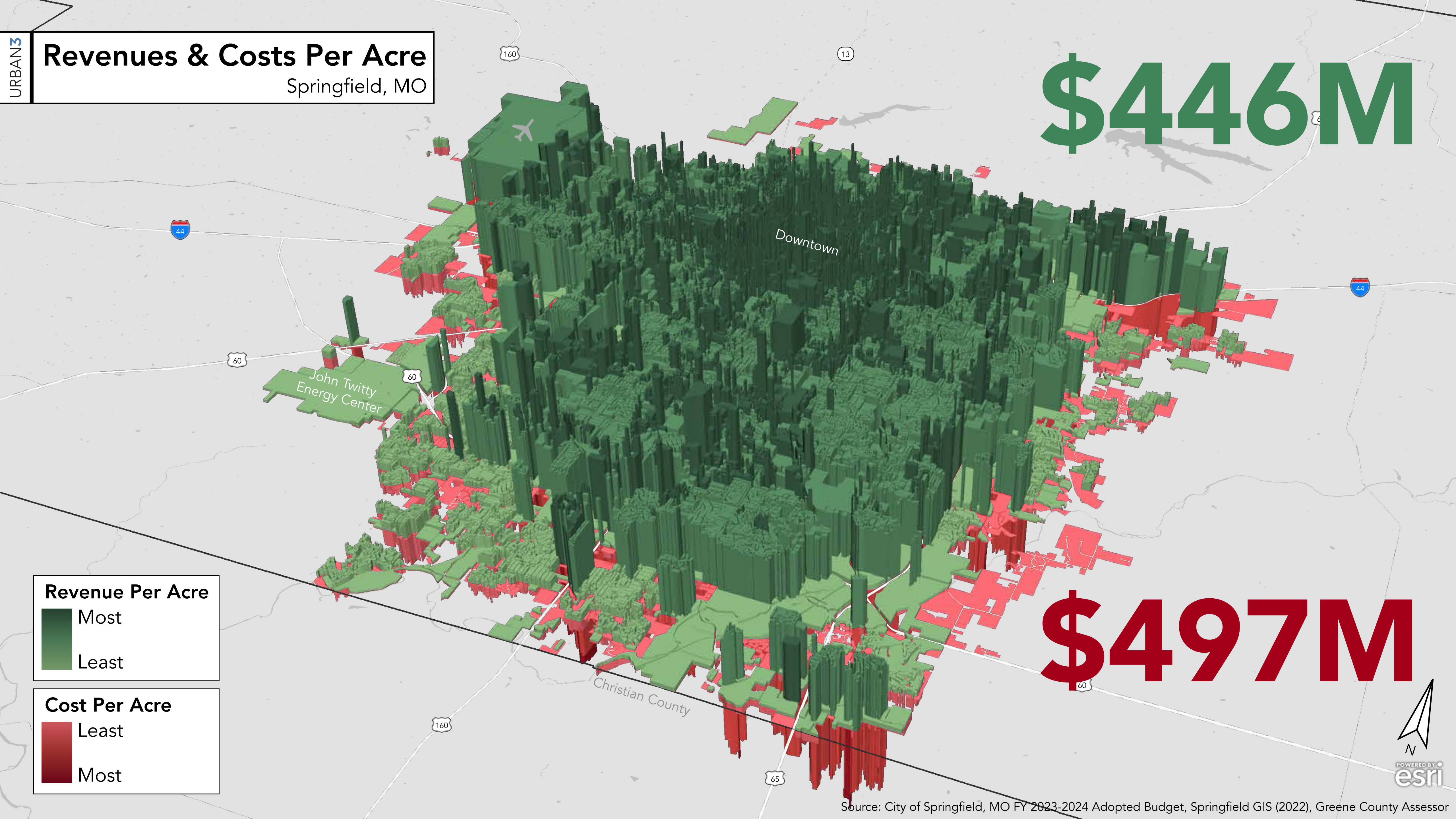
Most

Least

Cost Per Acre

Least

Most



Revenues & Costs Per Acre

Springfield, MO

\$446M

Downtown

Revenue Per Acre

Most

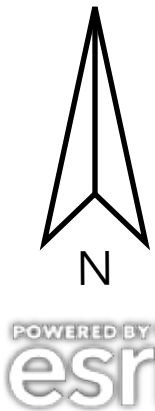
Least

Cost Per Acre

Least

Most

\$497M



Revenues & Costs Per Acre

Springfield, MO

Net

Net Positive Per Acre

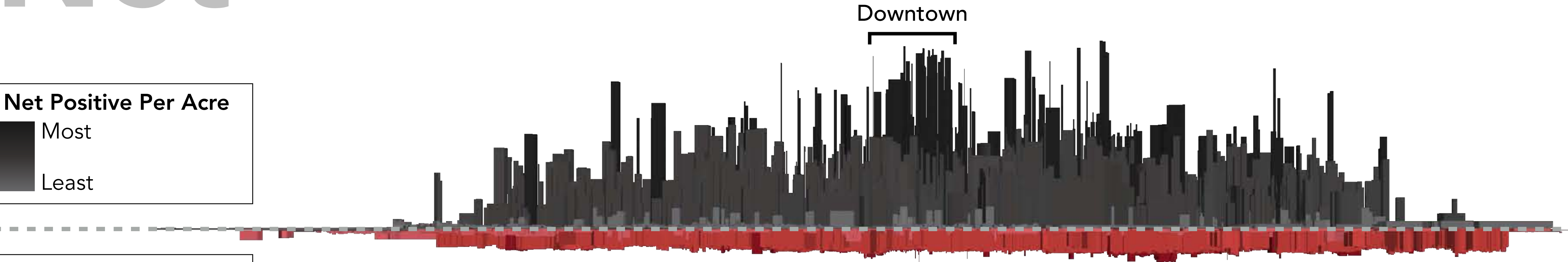
Most

Least

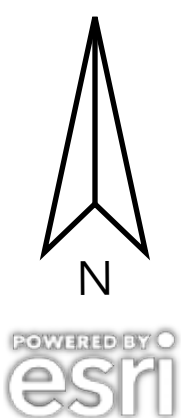
Net Negative Per Acre

Least

Most

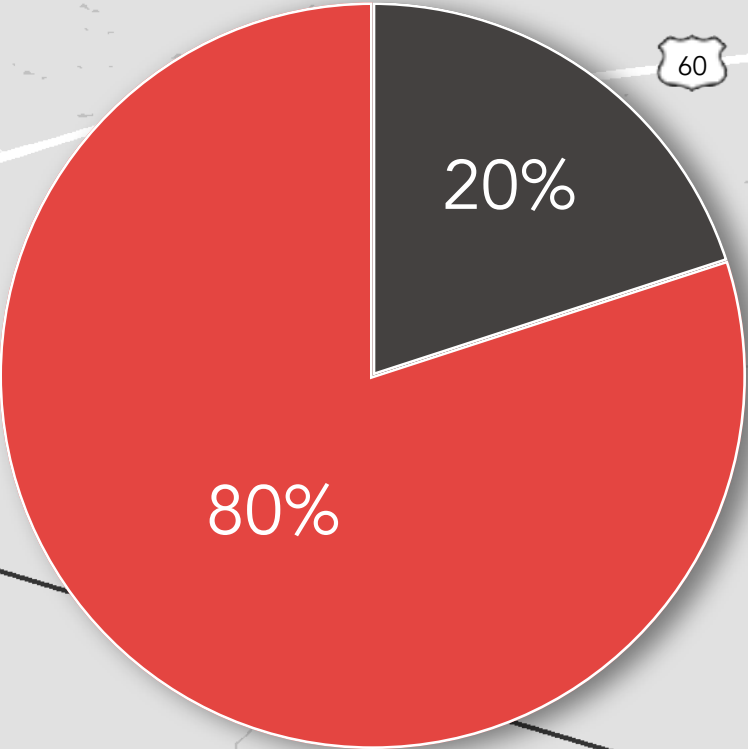


-\$48M



Revenues & Costs Per Acre

Springfield, MO



Net Positive Per Acre

- Most (Black)
- Least (Dark Grey)

Net Negative Per Acre

- Least (Red)
- Most (Dark Red)

Missouri State University

Industrial Park

Downtown

John Twitty Energy Center

Battlefield Mall

Christian County

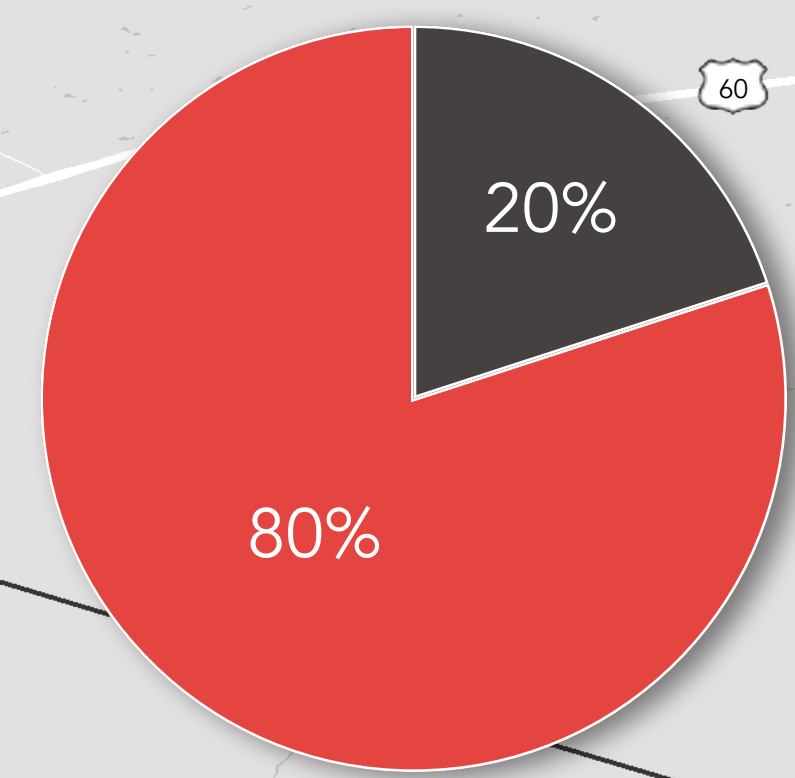


Revenues & Costs Per Acre

Springfield, MO



-\$48M



Net Positive Per Acre

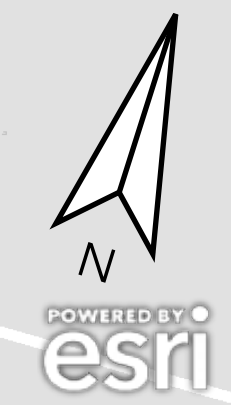
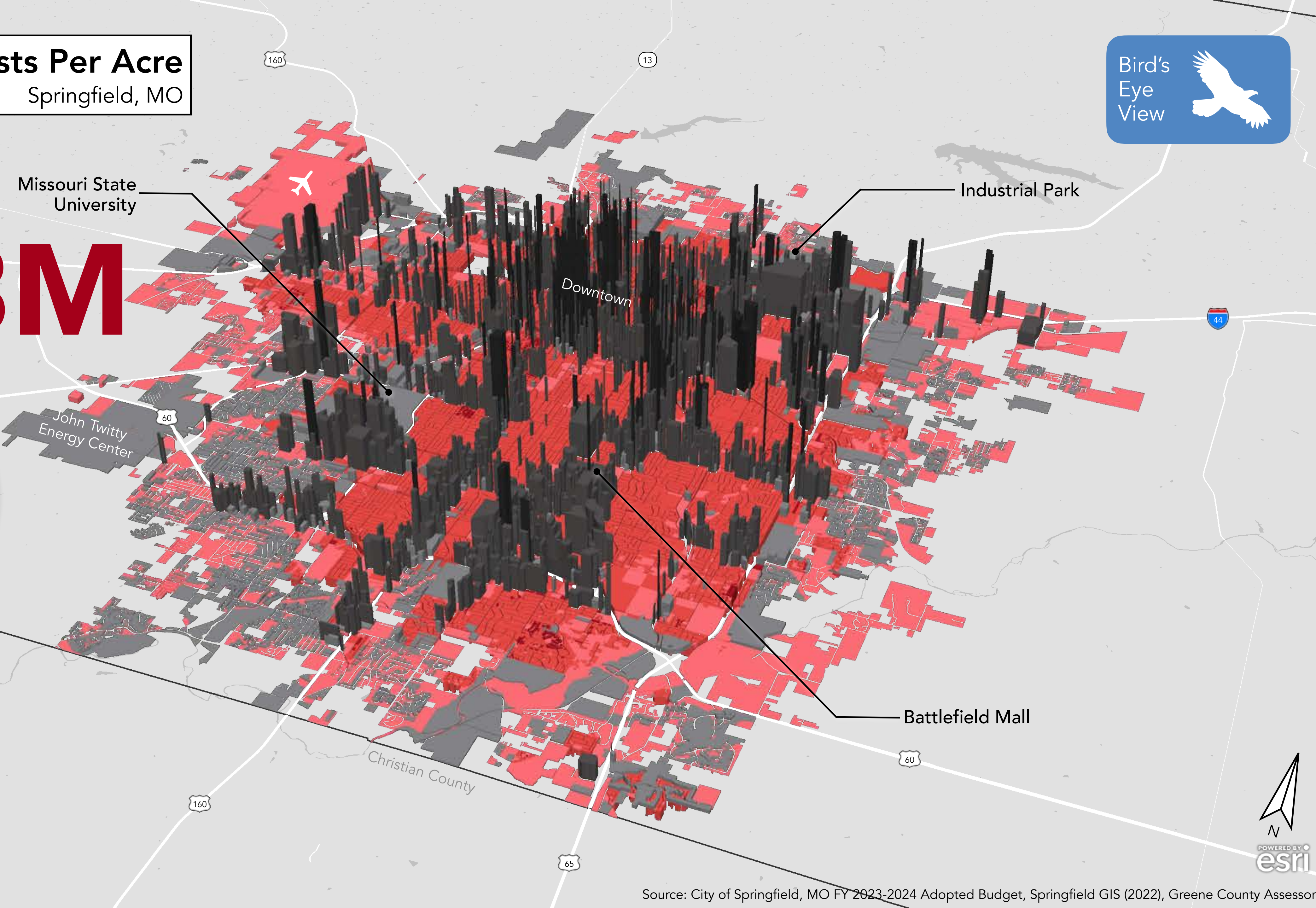
Most

Least

Net Negative Per Acre

Least

Most





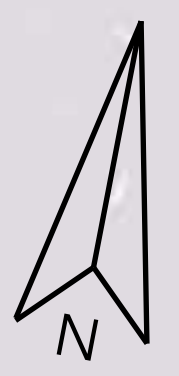
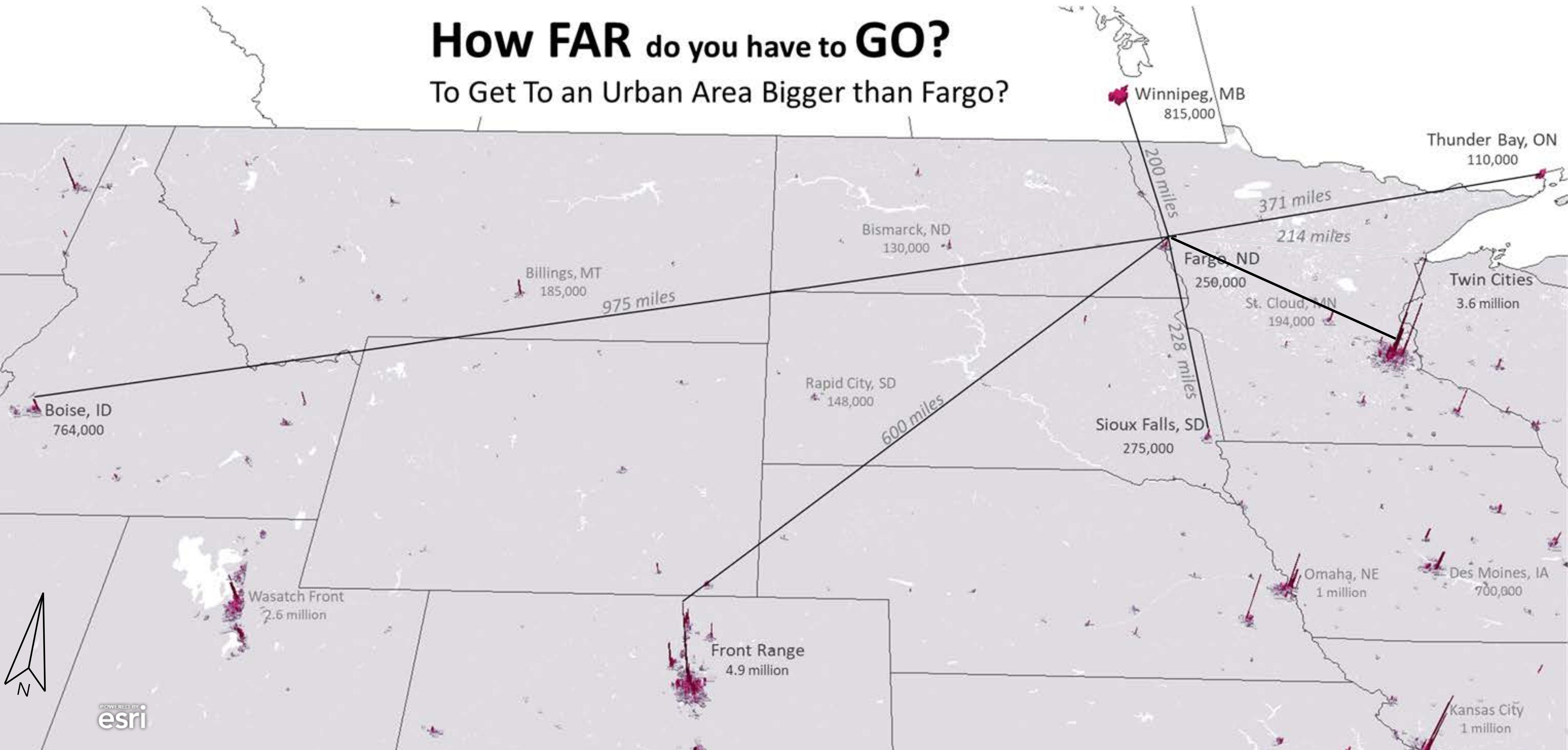
BUY NOW
PAY LATER

What you can do:

1. Learn from each other

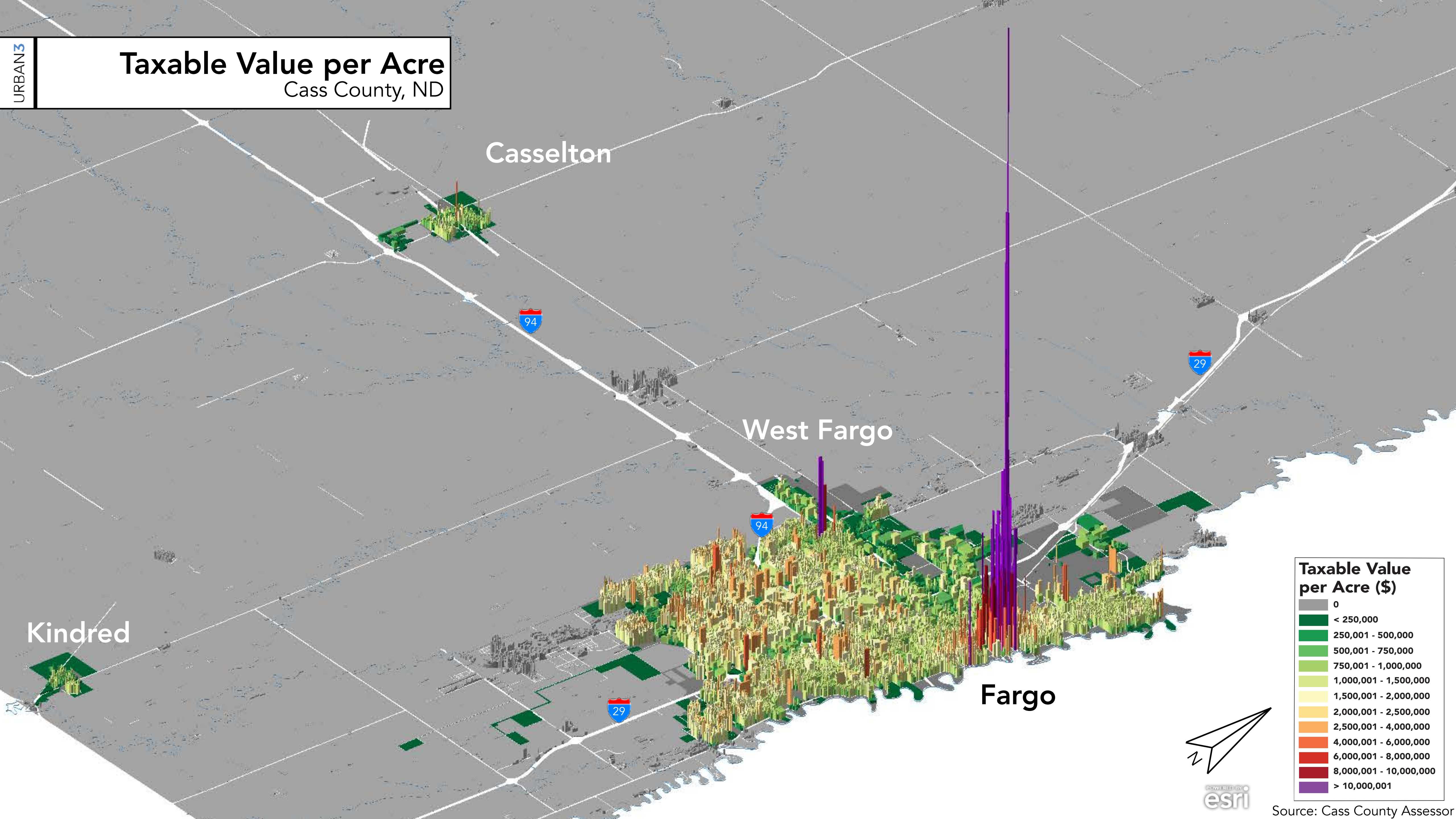
How FAR do you have to GO?

To Get To an Urban Area Bigger than Fargo?



Taxable Value per Acre

Cass County, ND

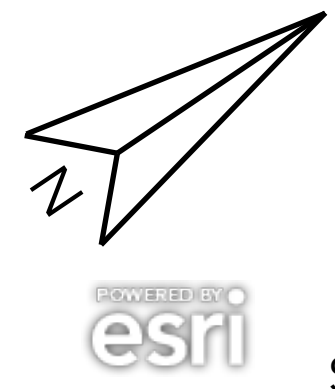
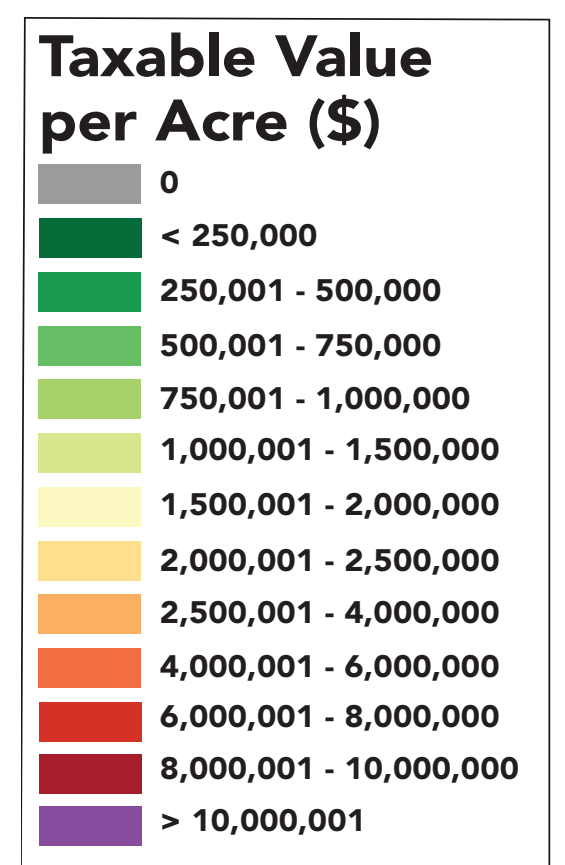


Kindred

Casselton

West Fargo

Fargo



What you can do:

2. Know your costs, and map them!



URBAN3

Cost and Revenue Tradeoffs

Cass County, ND

	Core	East	Difference
Homes	108	108	0x
Acres	28	41	1.5x
Value/Acre	\$601k	\$624k	1x
Road Length (Miles)	1.1	1.5	1.4x
Road Width (Feet)	24	30	1.3x
Road Area (Sq. Feet)	139k	238k	1.7x

What you can do:

**3. Thicken up! You're
already paying for it.**



Kindred State Bank
\$1,029,315 Value Per Acre

Spring Brook Tavern
\$576,682 Value Per Acre

Hawk's Market & Bodega
\$471,414 Value Per Acre

510 Elm St
\$45,318 Value Per Acre

490 Elm St
\$1,383,785 Value Per Acre

Infill in Downtown

West Fargo, ND

Before



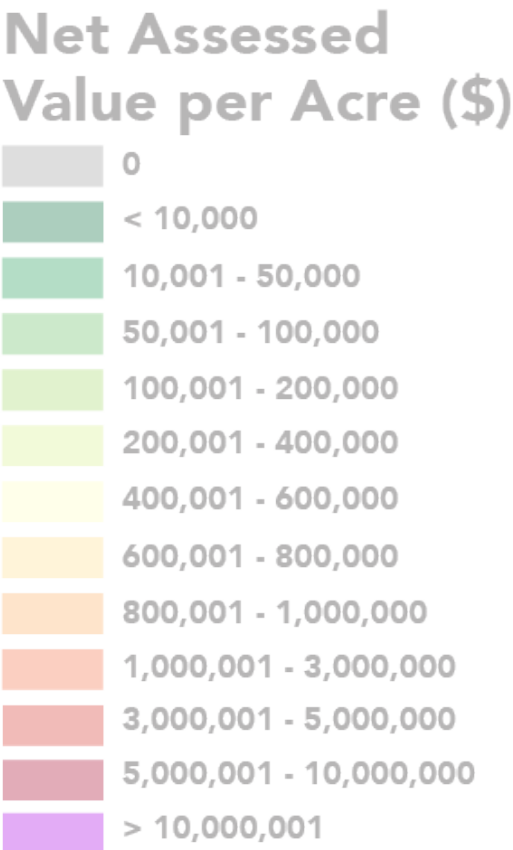
The Firm
\$10,117,321 Value Per Acre

Choice Bank
\$1,197,795 Value Per Acre



Pioneer Place Apts
\$7,057,319 Value Per Acre

Pioneer Place 2nd Addition
\$10,117,321 Value Per Acre



9th St E

94

What you can do:

4. Big Things come in Little Packages



Big Productivity in Little Packages

Cass County, ND

Walmart
\$534,342 per acre

All Buildings Are On the Same Parcel
\$2,204,117 Value Per Acre

Rando Art Studio

Roza's Sewing

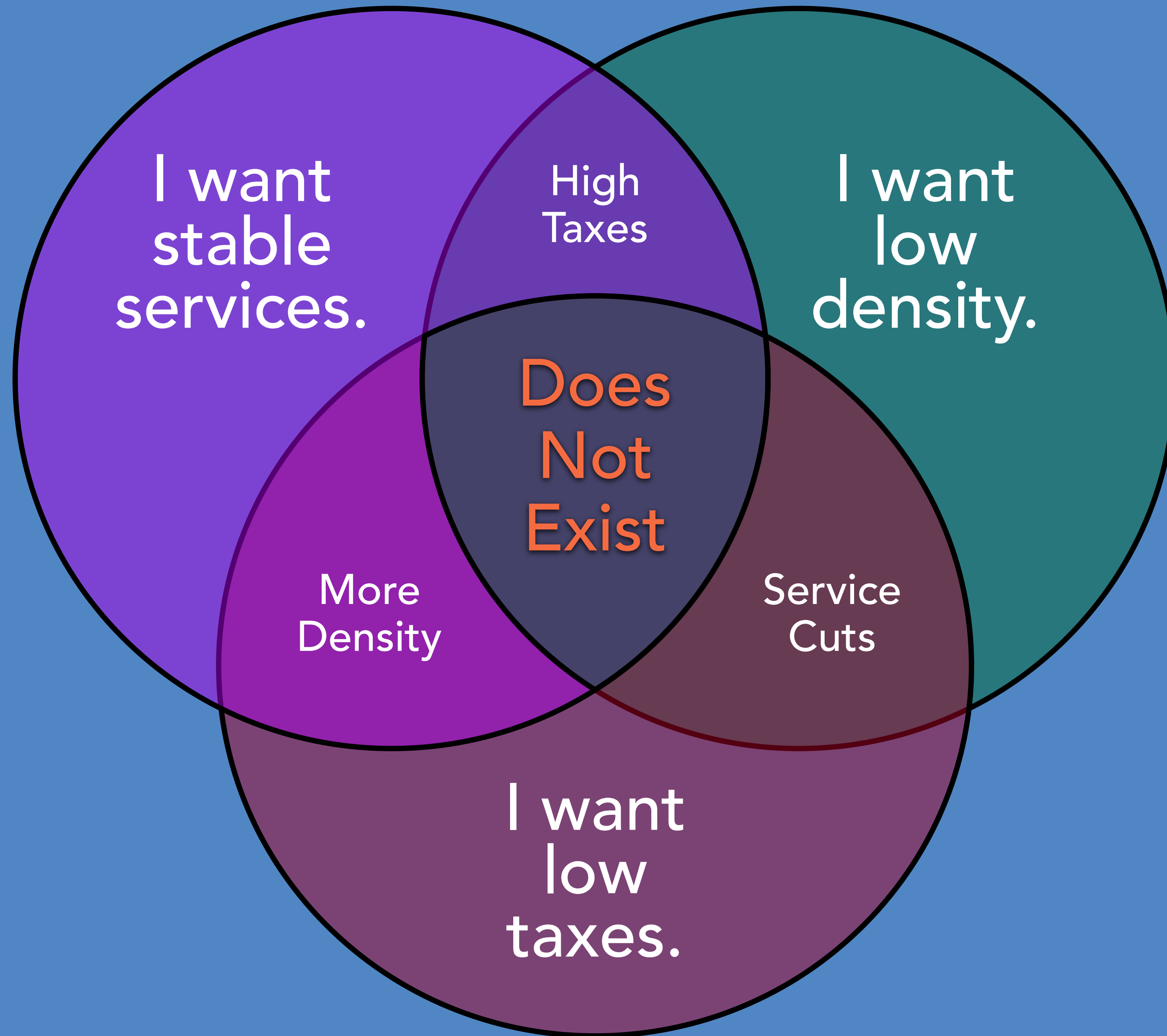
Tuxedos

Barber Shop

Boutique

What you can do:

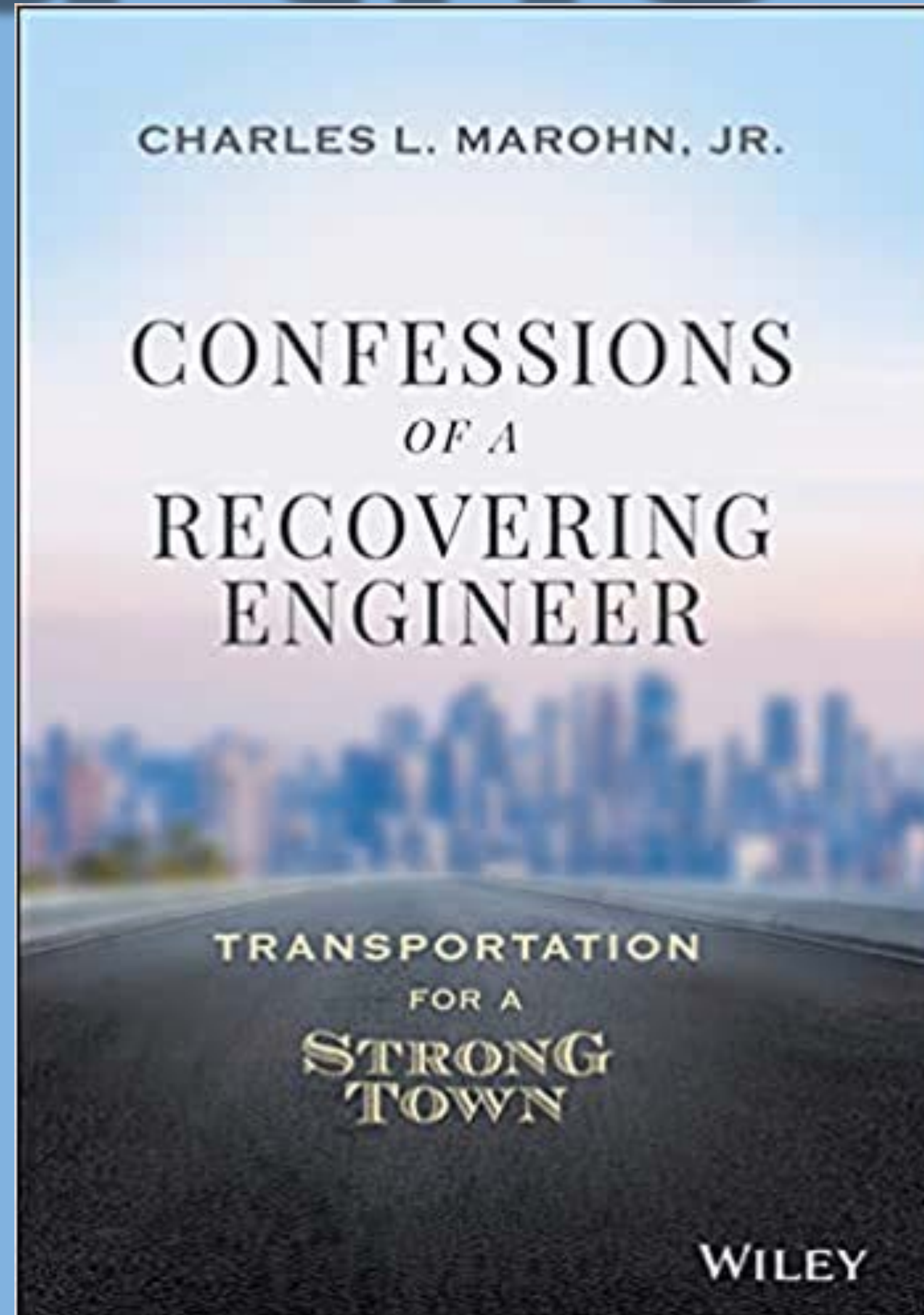
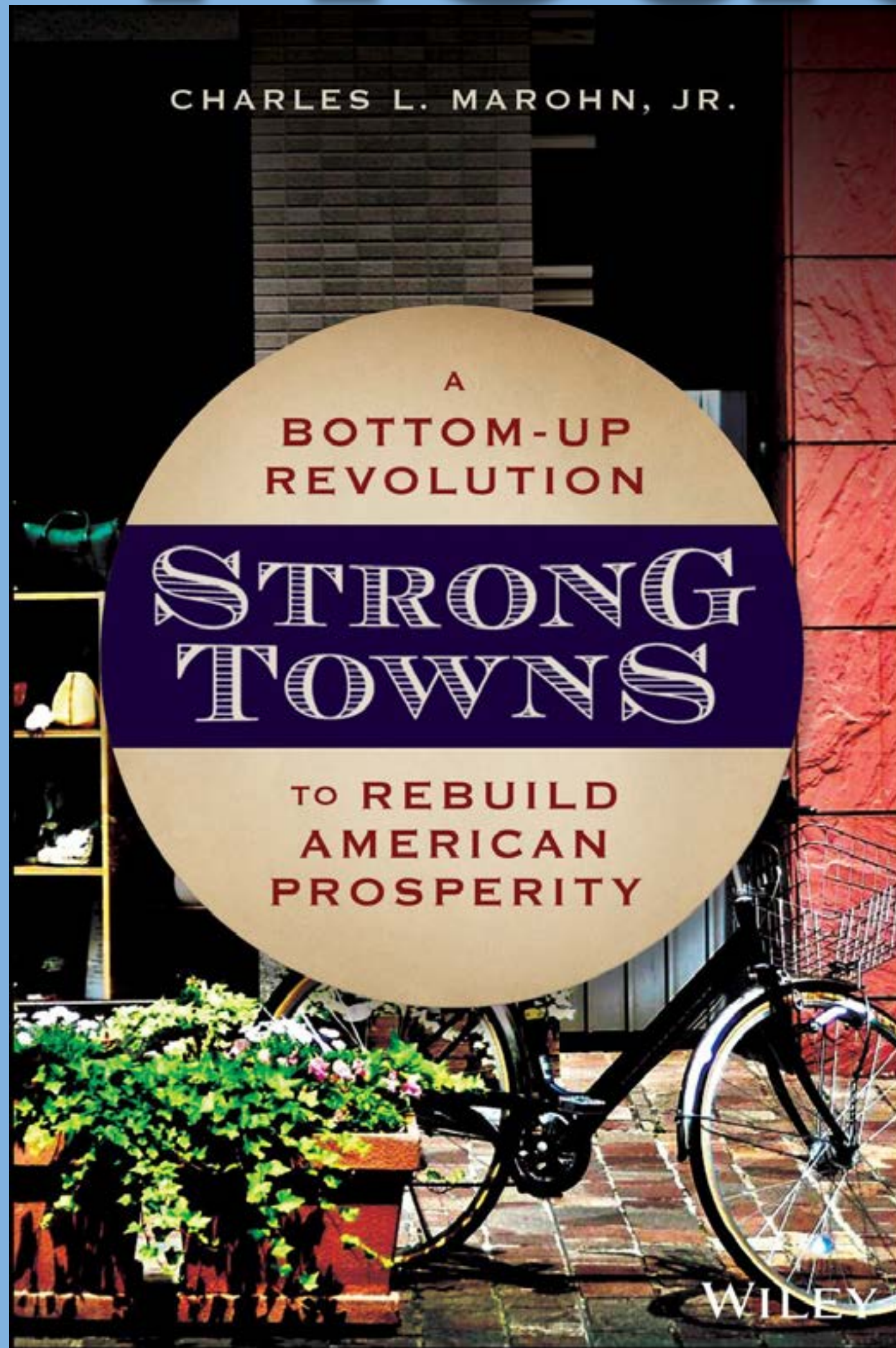
**5. Understand choices:
conscious, and unconscious.**





GeoaccountingTM

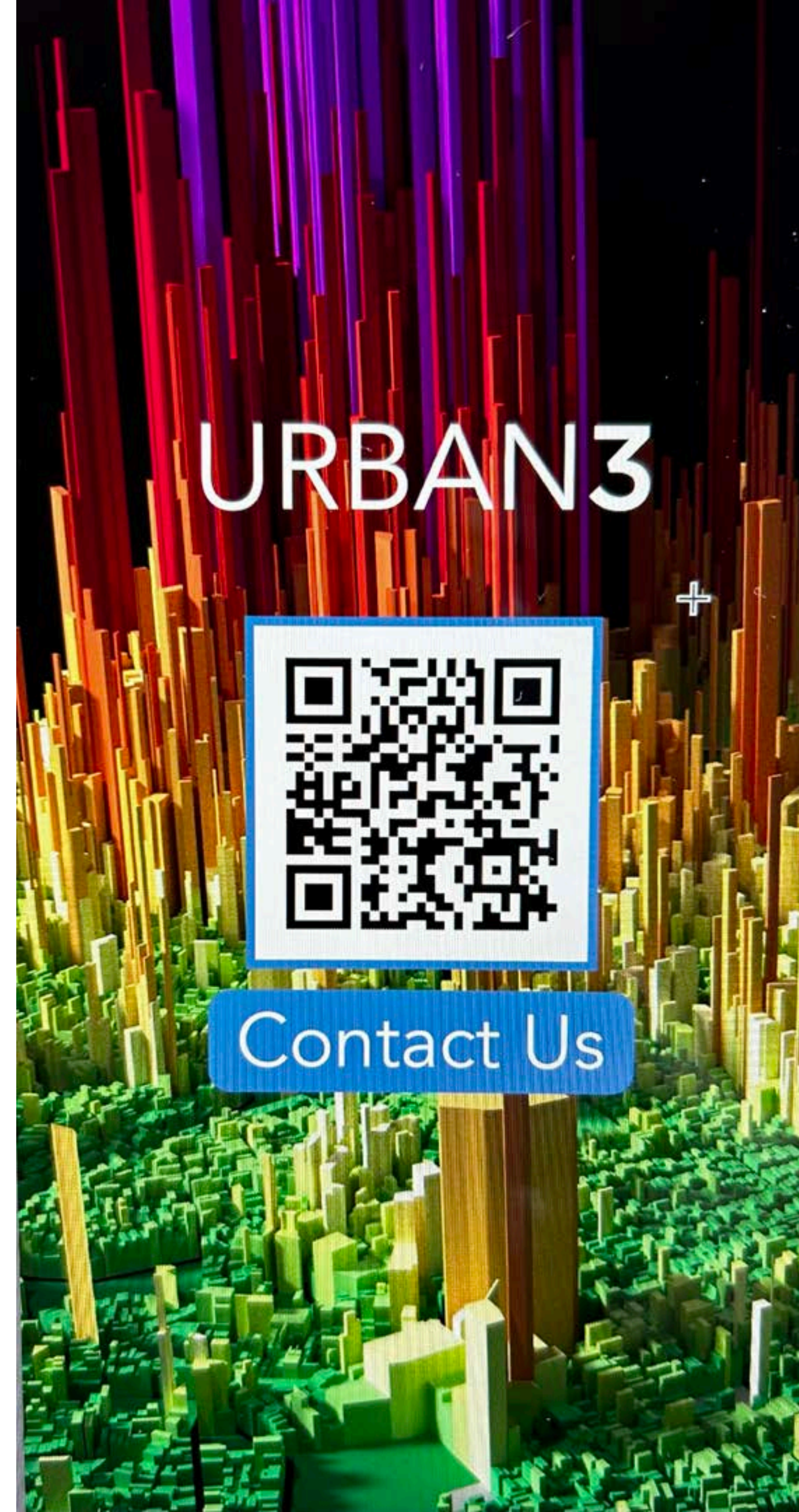
Read the books!



Heather Worthington, Principal

Urban3

heather@urbanthree.com





Appendix

Additional Analysis and Research