



Purple Line FTA TOD Planning Grant

Technical Approaches

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Planning Directors Technical Advisory Committee
MWCOG
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The Purple Line



- **21 stops under construction**
- **Will connect New Carrollton to Bethesda**
- **Connections to Metro and MARC**
- **16-mile corridor most affected by construction and economic shifts**



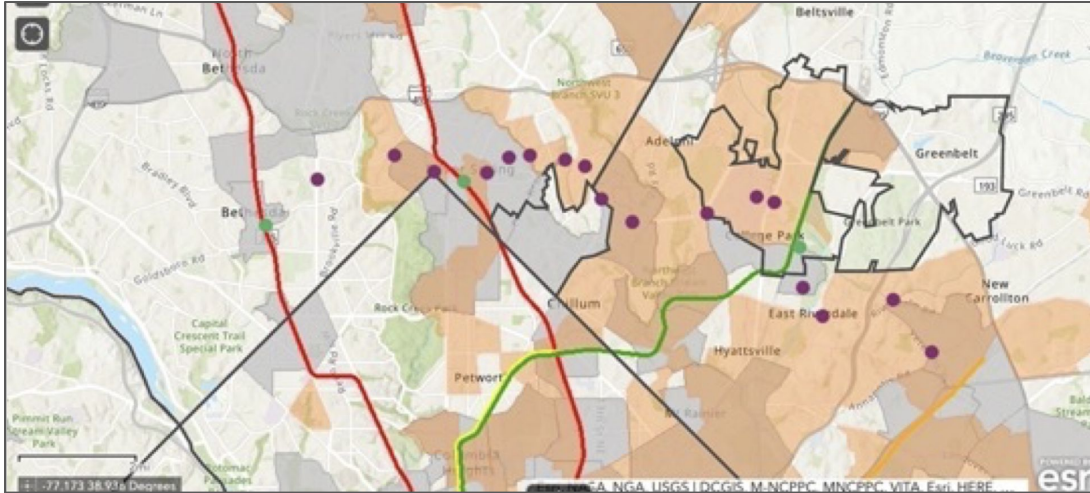
About PLCC



The Purple Line Corridor Coalition (PLCC) works to maximize the economic benefits of Maryland's largest transit investment in the 21st century for the 16-mile corridor's low- and moderate-income residents. PLCC's racial equity agenda prioritizes housing stability, economic vitality, and neighborhood livability.

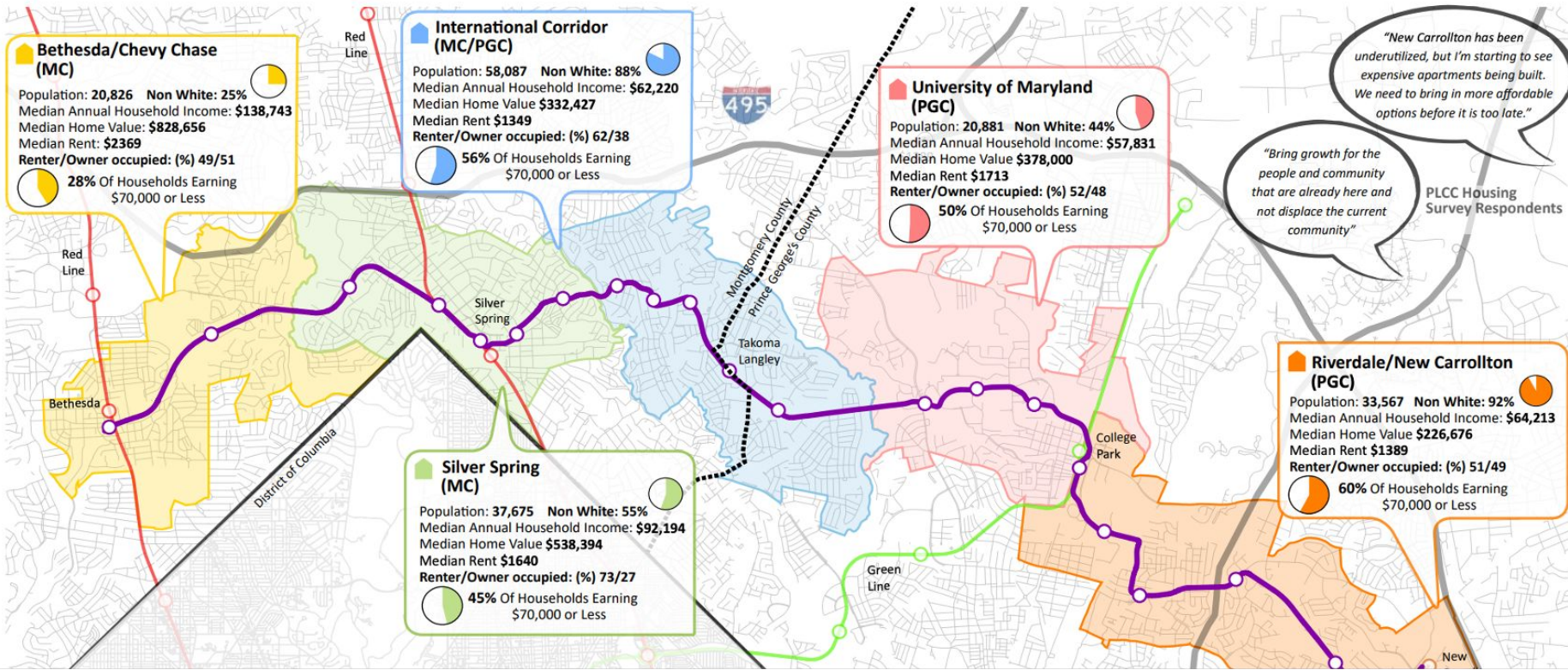


MWCOG Alignment



- 21 high-capacity transit stations
- 19 station areas in a MWCOG equity emphasis area
- 19 station areas within a MWCOG Activity Center

Purple Line Corridor - Data Snapshot





- Multi-sector collaborative formed in 2013: UMD, CASA, Enterprise, Prince George's and Montgomery Counties
- Led and administered by UMD's National Center for Smart Growth
- Led creation of the Community Development Agreement for the Purple Line Corridor, a collective vision for vibrant economic and community development

Established four goal areas:

Affordable housing

Small business preservation and growth

Workforce development

Vibrant communities



FTA TOD Planning Grant

- *The Pilot Program for TOD Planning helps support FTA's mission of improving America's communities through public transportation by providing funding to local communities to integrate land use and transportation planning with a new fixed guideway or core capacity transit capital investment.*
- PLCC applied successfully in 2018 to support technical planning and partnership development to drive the goals of the CDA

Two year grant, two streams of technical work:

'Multimobility' Assessment

- Internal
- Rich Kuzmyak, consultant
- Accessibility analysis

TOD Assessment

- ECONorthwest, consultant
- NCSG as technical support
- Land market analysis

Products

- Accessibility Assessment
 - TOD Assessment
- Economic Development Assessment
- TOD Strategy (Final Report, combines all three of the above)
 - All are available at:

<https://www.umdsmartgrowth.org/projects/purple-line-fta-mta-tod-planning-grant/>

Accessibility -- Definition

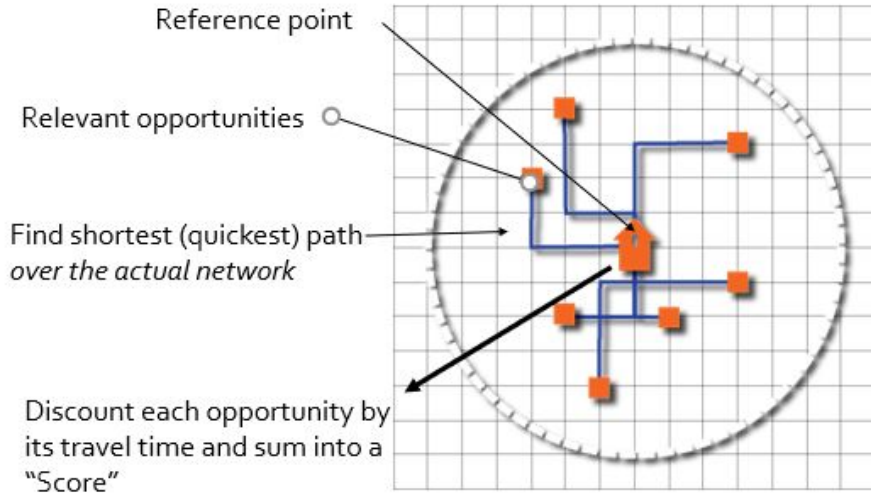
Accessibility:

- The most basic measure of transportation system performance
- Quantity and quality of things I can get to that I *need* (jobs, food, health care) or *want* (shops, restaurants, parks)

Multimodal Accessibility:

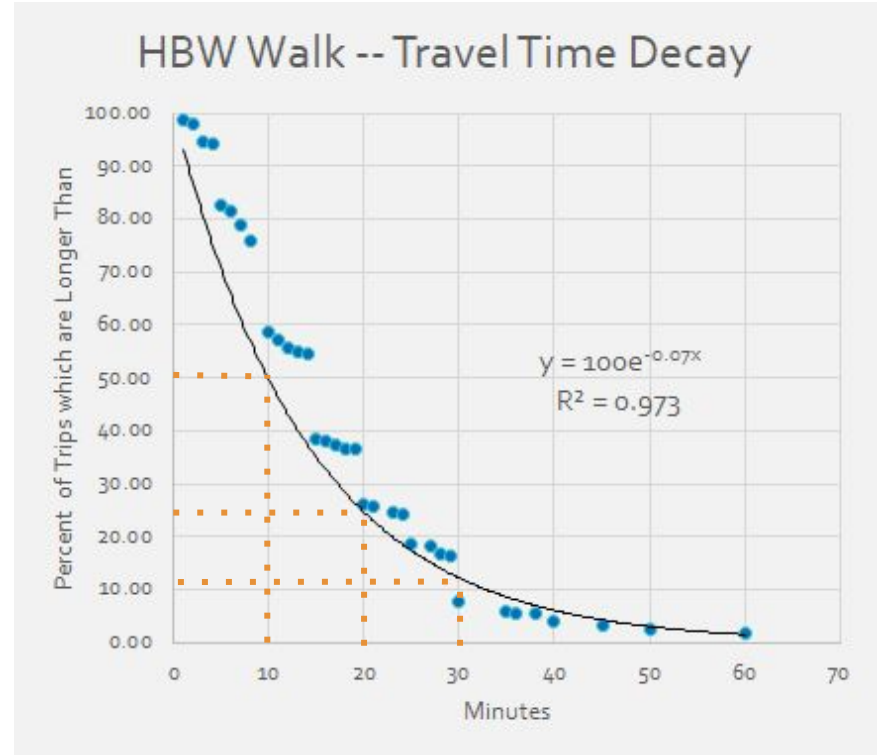
- I have good access across *several* modes -- i.e., not dependent on only one mode
- *Speed* is less important than *proximity* and *alternatives*:
 - auto travel speeds may be slower, but many more opportunities can be reached in a given time period by a larger set of alternative modes for all residents

Calculating Weighted Accessibility



We calculate these scores at block level for:

- Work and non-work travel
- Auto, transit, walk, and bike



What is Sugar Access?

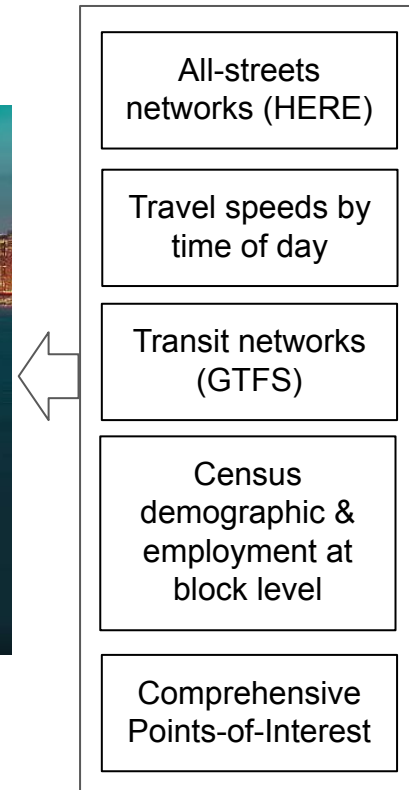


Software platform we are using for our analyses -- runs in ArcGIS

- Provides all critical data we need
- Fast cloud computing
- Excellent (GIS) mapping
- Now known as Cube access

Allows us to:

- Efficiently develop & analyze scenarios
- Test alternative assumptions
- Identify most effective measures

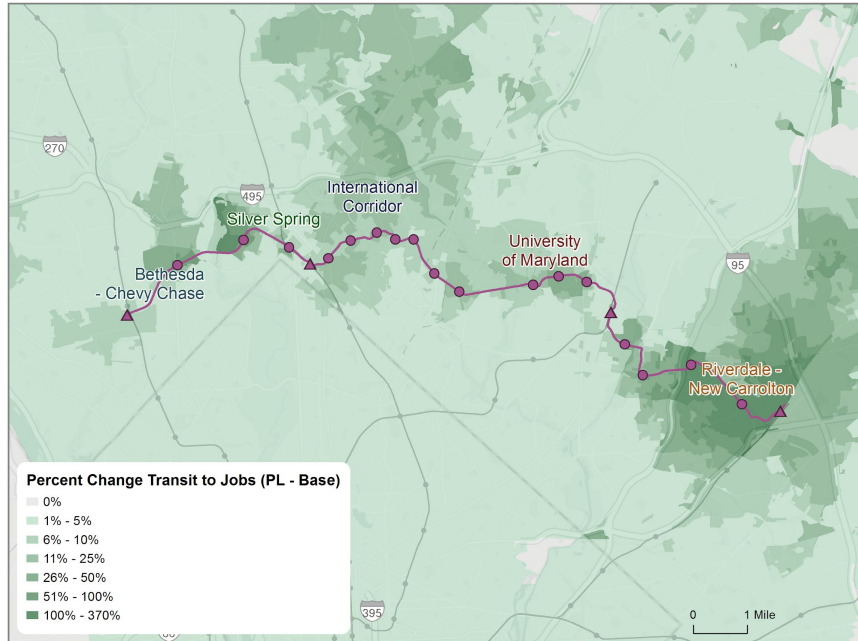


Multimobility: Overview of Findings

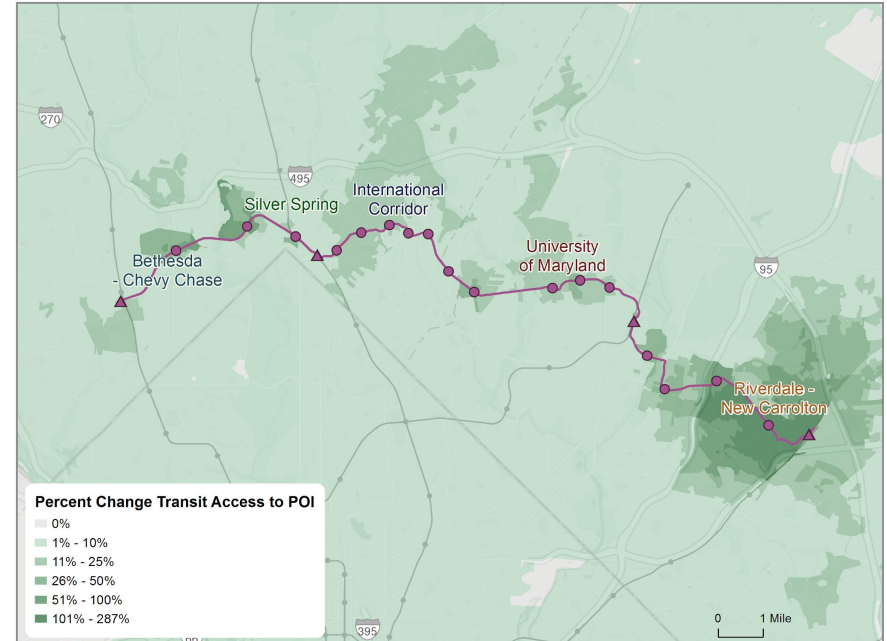


The Purple Line will increase transit accessibility compared to today

Increased Access to Jobs



Increased Access to Points of Interest



In these maps, the **only** change to the transportation network is to add the Purple Line.

Multimobility Key Findings



- The Purple Line will **increase transit accessibility** compared to today—especially in areas without metro access and Riverdale-New Carrollton
- **Walking is the most important** access mode for transit and TOD
- Planned **walk/bike improvements** show **modest** accessibility improvements
 - Impediments remain on **arterial/state highways**—not addressed in current improvement plans
 - Impediments are a major **safety issue**—especially in equity emphasis areas
 - Plans leave gaps in connected, **separated bike facilities**
- Critical **bus service revisions** are now underway among providers—**not finalized**
 - NCSG **sensitivity tests** of potential changes could change transit accessibility by 10-50%
- Increasing **Purple Line headways** from 6-min to 7.5-min, it could **decrease transit access** to jobs by 5-15% (e.g. Riverdale-New Carrollton)

Overview of Findings: Transit and Bicycling



Bus:

- **Service Revision Plans** still in process
- **Importance:** Sensitivity tests on potential service changes showed typical changes of 10-50% to transit accessibility

What we don't know:

- How is the Purple Line factoring into bus system redesigns?
- Issues with jurisdictional coordination?
- Timeframe for new plans?

Purple Line Service:

- **Level of Service:** If headways are increased from 6-min to 7.5-min could decrease transit access to jobs by 5-15% (e.g. Riverdale-New Carrollton)

What we don't know:

- What will be the fare structure?
- Will it integrate media & policy with WMATA?

Bicycle:

- **Separated, safe, and a connected network** of facilities are most immediate concern
 - Some separated facilities are in the plans, but gaps remain

What we don't know:

- Time frames for implementing these plans?
- Issues of right-of-way availability, approval of SHA?

Overview of Findings:

Pedestrian and Bike Planned Improvements

Near-Term Improvements from County Plans

Planned Improvement	Chevy Chase Lake	16th St/ Woodside	Long Branch	Piney Branch Road	Takoma-Langley Transit Center	Riggs Road	Adelphi Road	Baltimore Ave/East Campus	Riverdale Park	Beacon Heights	New Carrollton
Reduce posted speeds	X	X	X	X	X						
Electronic enforcement	X	X		X	X						
New/enhanced crosswalks	X	X	X	X	X	X	X	X	X	X	X
New/enhanced sidewalks	X	X	X	X	X	X	X	X		X	X
Improve driveway aprons	X	X	X	X	X						
Curb extensions				X	X	X	X	X	X	X	X
Median extensions					X		X	X			X
Reduce curb cuts, move parking to rear											X
On-road/separated bike lanes	X		X	X	X		X	X	X	X	X
Sidepaths with vegetative buffer									X	X	X
New signalized crossing	X	X									
Leading pedestrian interval for right-turning vehicles						X	X	X	X	X	X
APC Signals	X	X	X	X	X						
HAWK signal		X					X				X

Proposed Recommendations: Address Remaining Pedestrian Challenges



Remaining Infrastructure or Operational Issues		Station Area										
		Chew Chase Lake	16th/Woodside	Long Branch	Piney Branch Road	Takoma-Langley Transit Center	Riggs Road	Adelphi Road	Baltimore Ave/East Campus	Riverdale Park	Beacon Heights	New Carrollton
Pedestrian Infrastructure	Inadequate Sidewalks (width, buffer, condition)	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Yellow	Orange	Orange	Orange
	Distance Between Crossings	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Yellow	Orange	Orange	Orange
Land Use & Connectivity	Direct/Unobstructed Path to Center/Station	White	Orange	Orange	Orange	Orange	Orange	Yellow	White	Orange	Orange	Orange
Automobile Traffic Management	Traffic Speed & Enforcement	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Yellow	Orange	Orange	Orange
	Auto vs. Pedestrian Signal Timing/Synchronization, Left Turn Cycles	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Yellow	Orange	Orange	Orange
	Channelized Right Turns	Orange	Orange	White	White	Orange	Orange	Orange	White	Orange	Orange	Orange
	Large Radius Curbs with Setback or Poor Crosswalks	Orange	Orange	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
	Right Turn on Red	Orange	Yellow	Yellow	Orange	Orange	Orange	Orange	Yellow	Orange	Orange	Orange
	Frequent Curb Cuts	Orange	Yellow	Orange	Orange	Orange	Orange	Orange	Yellow	Orange	Orange	Orange

- Moderate severity, deserves attention
- High importance, must address
- Critical issue, must be aggressively addressed

Bike and Transit Recommendations



Bicycle:

- Prioritize safe, connected, and separated bicycle routes directly to PL stations and as part of an integrated network

Bus:

- To realize PL's full potential, ensure that PL is a priority consideration in current bus service revision plans

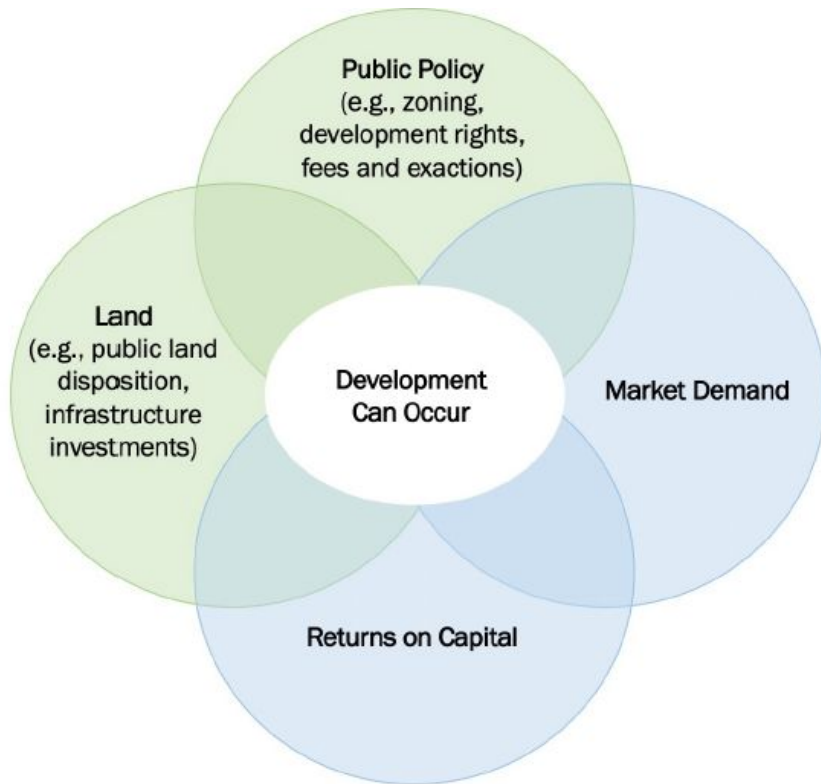
Purple Line Service:

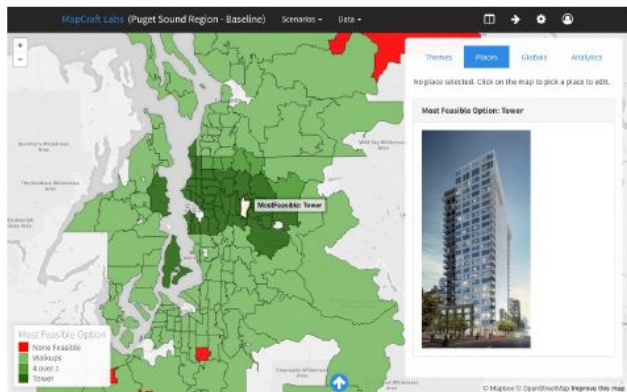
- Make it a priority to determine the final service parameters (headways, fare structure, and integration assumptions)
- Advocate for best scenario

TOD Study



Real Estate
Development
and Public
Sector
Influence





MAPCRAFT

ECONorthwest
ECONOMICS • FINANCE • PLANNING

- Urban form explained through developers' ability to pay for land
- Run pro formas in the cloud to test financial feasibility under various policy scenarios
- Appreciate opportunities and risks for ETOD



Factors considered previously:

- Transit station accessibility
- Rezoning and zoning code changes
- Zoning overlays
- Parking reductions and in-lieu fees
- Inclusionary housing and in-lieu fees
- Property taxes and exemptions
- Impact fees and waivers
- Linkage fees
- Construction excise taxes
- Direct subsidies
- Tax increment financing
- Assessment districts
- Infrastructure investments
- Urban design enhancements
- Accessibility improvements

Exhibit 3. MapCraft Production Funnel

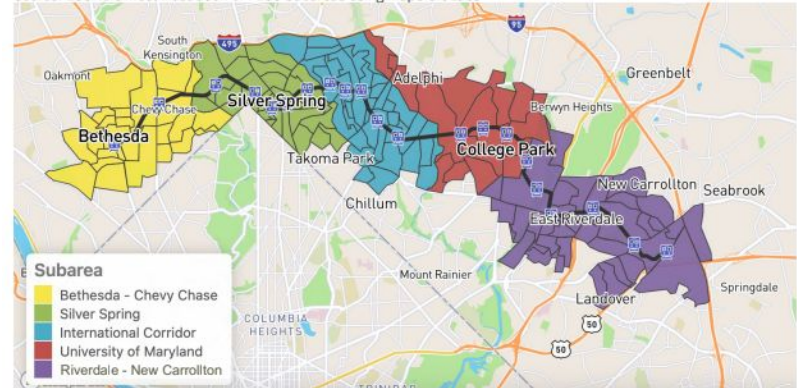
Source: ECONorthwest, MapCraft Labs



Key Findings - Development Capacity

- There is still substantial development capacity in the Corridor, particularly in Prince George's County
- Purple Line is expected to have the greatest impact on areas between places with existing Metro stations

Exhibit 1. Purple Line Corridor and Subareas Used in This Analysis
 Source: ECDNorthwest illustration of PLCC Subareas using MapCraft Labs



Key Findings - Development Capacity

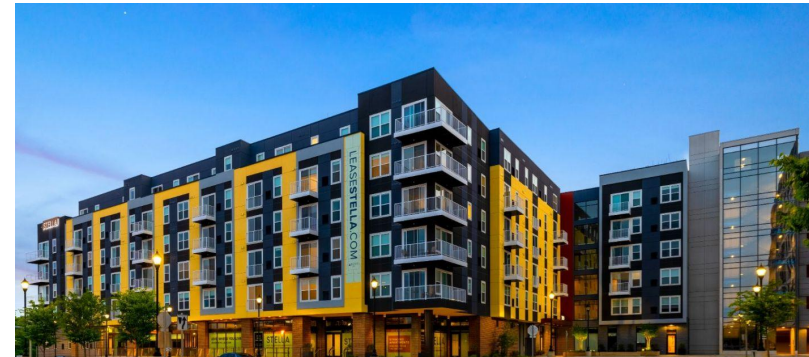


Purple Line's impact on development capacity:

- 5% greater development capacity
- Mostly driven by higher density apartments (5 to 7 story “mid-rises”)
- Mostly within International Corridor and Riverdale-New Carrollton subareas
- Long term, higher potential rents could support new office development in Riverdale-New Carrollton subarea
- Depth/pace of demand for high-end space and other factors will continue to limit actual production



Domain College Park. Image credit: UDR



The Stella, New Carrollton. Image credit: Bozzuto

Key Findings - IZ and Missing Middle

- The Purple Line will increase likelihood of success for IZ/MPDU programs
 - MPDU programs will not solve our affordable housing gap
 - total affordable unit capacity projections produced by IZ/MPDU are around 1000-1200 units
- Allowing diverse missing middle housing types in residential neighborhoods could substantially boost development capacity
 - The Purple Line makes such missing middle development more attractive
 - These units will be market rate
 - But expanding the supply of market rate housing reduces demand pressure on lower cost housing



The Remy II, New Carrollton. Image credit: BCT Design Group

Key Findings - Redevelopment

- Displacement can occur over time without redevelopment through increased rents or remodeling
- The redevelopment math “pencils out” for many low density apartments and commercial properties **today**, even without the Purple Line
- The Purple Line will boost likelihood of redevelopment in and around Langley Park
- Placemaking efforts can increase value and amenities that boost rents - and potentially lead toward higher risk of redevelopment

September Report Release Event



The Purple Line Corridor Coalition examines how development coming to future Maryland light-rail stations can be most equitable ~ Washington Post

Purple Line Corridor Coalition releases report on economic development, housing and multimodal access along light-rail corridor ~ Bethesda Beat





Thank you!

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