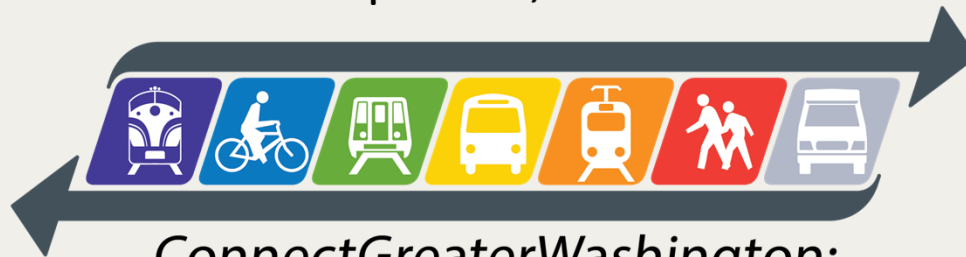




Washington Metropolitan Area Transit Authority

ConnectGreaterWashington Transit Corridor Expansion Guidelines

Presentation to the TPB
Regional Public Transportation Subcommittee
April 28, 2015



*ConnectGreaterWashington:
The 2040 Regional Transit System Plan*

Purpose of Guidelines

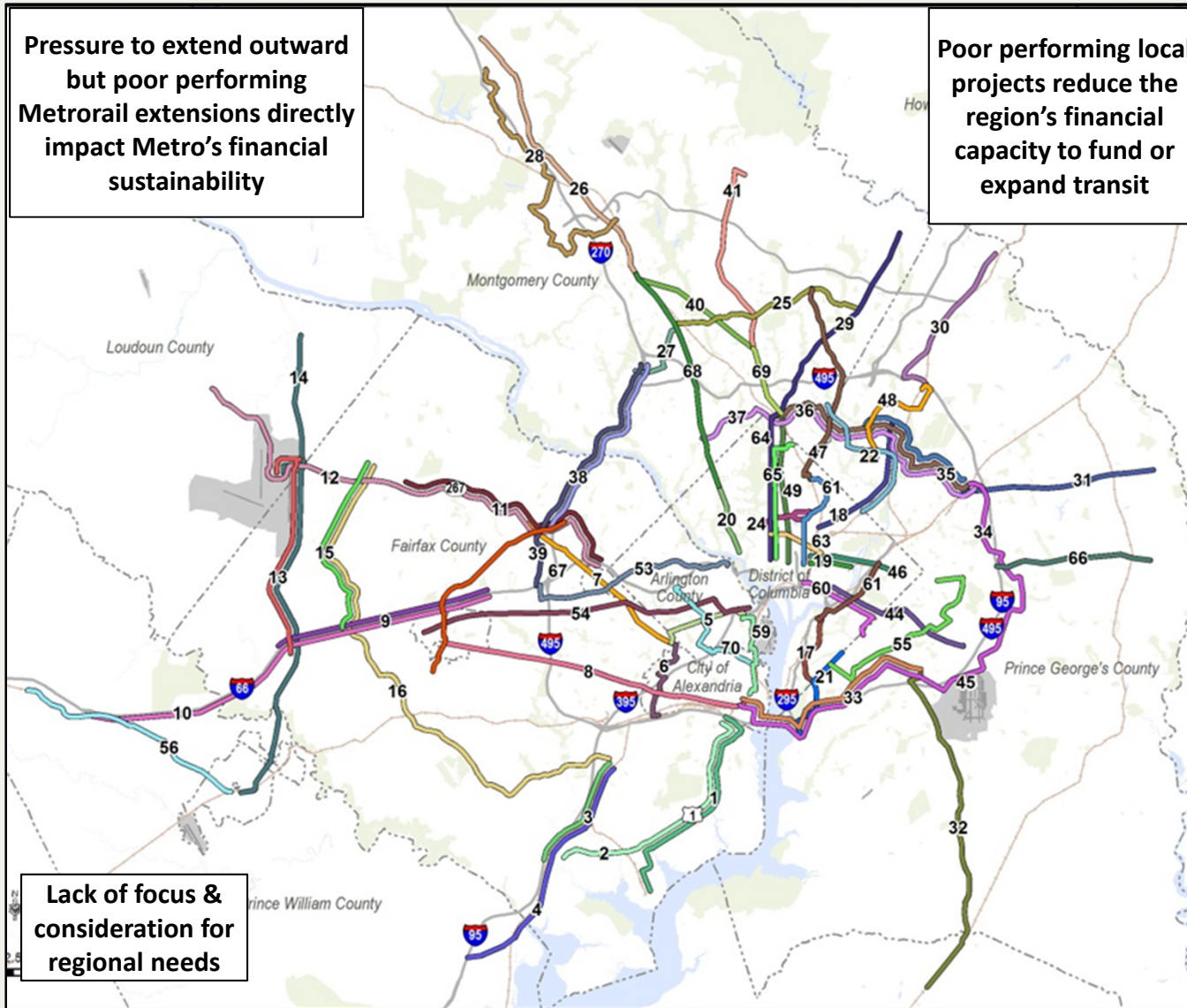
- Develop criteria to screen and select new regional high capacity transit lines
- Supports *Momentum, ConnectGreaterWashington* (CGW) and COG's *Region Forward*
- Supports cost effective, financially sustainable transit expansion within the region's resources



Is this viable? Can the region afford it?

Pressure to extend outward but poor performing Metrorail extensions directly impact Metro's financial sustainability

Poor performing local projects reduce the region's financial capacity to fund or expand transit



Lack of focus & consideration for regional needs



Washington:
The 2040 Regional Transit System Plan

Criteria/Thresholds from State of the Practice Review

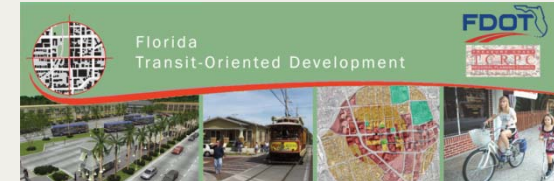
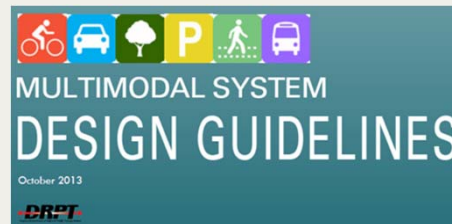


Table 2-5: Ridership Criteria

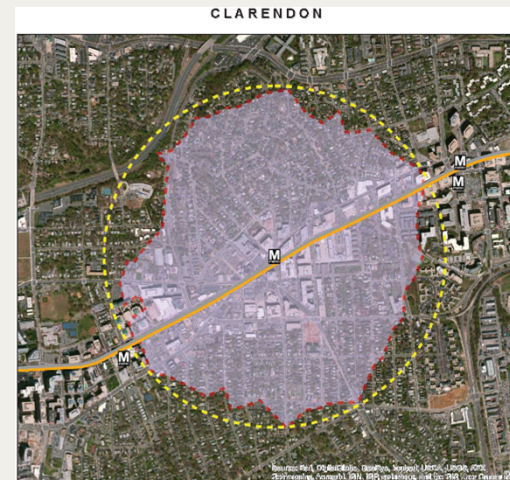
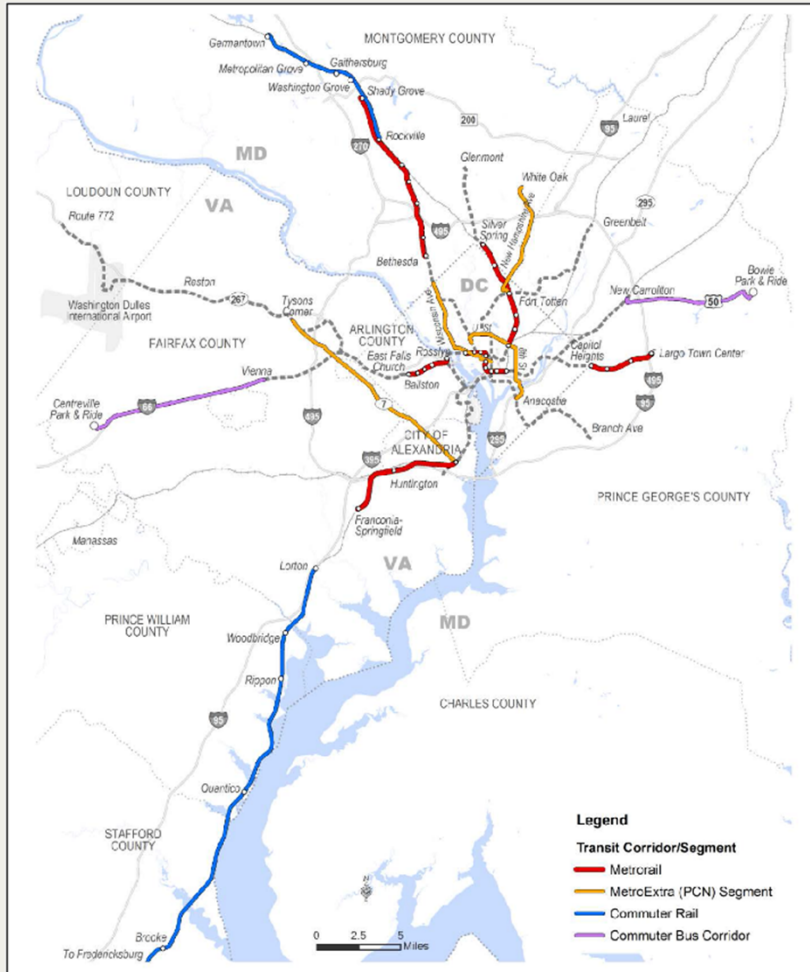
Document	New and Small Starts Evaluation	BART System Expansion Policy		
		Existing Estimated Ridership based on Land Use Densities		Horizon Year Forecast Ridership based on Ridership Development Plan
Criteria by Overall Suitability	Mobility Improvements			
	Estimated Annual Trips ¹	Daily Residential Trips ² (Average per New Station)	Daily Employment Trips ³ (Average per New Station)	Daily Ridership ⁴ (Average per New Station)
High	30 Million or more	Greater than 9,000	Greater than 10,000	Greater than 20,000
Medium-High	15 Million – 29.9 Million	5,401 - 9,000	5,001 - 10,000	14,000 - 20,000
Medium	5 Million – 14.9 Million	3,601 - 5,400	2,001 - 5,000	10,000 - 13,999

Table 2-2: Residential Density – Households per Acre within ½ mile of Station

Mode	New and Small Starts Evaluation ¹		BART System Expansion Policy		Guerra and Cervero Research ²		Florida TOD Guidebook		Bay Area MTC Resolution 3434	
	Min.	High	Min.	High	Min.	High	Min.	High	Min.	High
High Capacity Transit (Non-Specific Mode)	3	9	10	25	-	-	-	-	-	-
Heavy Rail	-	-	-	-	19	-	12	55	8	-
LRT/Streetcar	-	-	-	-	25	-	9	35	7	-
BRT	-	-	-	-	-	-	7	20	5	-
Commuter Rail	-	-	-	-	-	-	9	35	4	-



Criteria Refined with Local Benchmarks



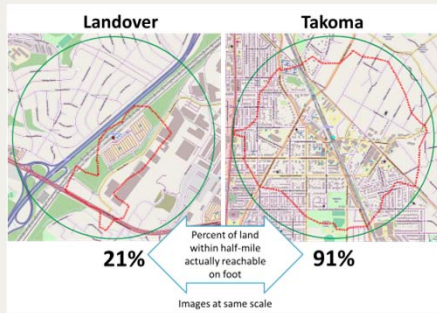
Most Relevant Criteria for each High Capacity Transit Mode



Density



Ridership



Built Environment



Light Rail



Metrorail



Streetcar



Bus Rapid Transit



Commuter Rail



Limited Stop Bus



High Capacity Transit Rating Criteria & Thresholds

Corridor must meet “medium” threshold in 2 of 3 criteria to pass

Unique Urban & Suburban Metrorail thresholds

Table 4-6: Rating Criteria by Mode

Mode	Criteria	Metric	Thresholds		
			Low	Medium	High
Suburban Metrorail	Density	Households per Acre	<12	12-18	>18
		Employment per Acre	<19	19-26	>26
	Ridership	Ridership per Mile	<3,500	3,500-7,000	>7,000
	Built Environment	WMATA Walkshed Rating	<50%	50%-65%	>65%
Urban Metrorail	Density	Households per Acre	<15	15-20	>20
		Employment per Acre	<75	75-150	>150
	Ridership	Ridership per Mile	<7,000	7,000-20,000	>20,000
	Built Environment	WMATA Walkshed Rating	<65%	65%-75%	75%
Light Rail	Density	Households per Acre	<2	2-5	>5
		Employment per Acre	<6	6-13	>13
	Ridership	Ridership per Mile	<2,500	2,500-3,500	>3,500
	Built Environment	WMATA Walkshed Rating	<50%	50%-70%	>70%
Bus Rapid Transit	Density	Households per Acre	<2	2-5	>5
		Employment per Acre	<6	6-13	>13
	Ridership	Ridership per Mile	<1,000	1,000-2,000	>2,000
	Built Environment	WMATA Walkshed Rating	<50%	50%-70%	>70%
Streetcar	Density	Households per Acre	<2	2-5	>5
		Employment per Acre	<4	4-11	>11
	Ridership	Ridership per Mile	<1,500	1,500-2,500	>2,500
	Built Environment	WMATA Walkshed Rating	<50%	50%-70%	>70%
Commuter Rail	Density	Households per Acre	<1	1-2	>2
		Employment per Acre	N/A	N/A	N/A
	Ridership	Ridership per Mile	<80	80-90	>90
	Built Environment	WMATA Walkshed Rating	N/A	N/A	N/A
Limited-Stop Bus	Density	Households per Acre	<1	1-2	>2
		Employment per Acre	<4	4-11	>11
	Ridership	Ridership per Mile	<1,000	1,000-2,000	>2,000
	Built Environment	WMATA Walkshed Rating	<50%	50%-70%	>70%

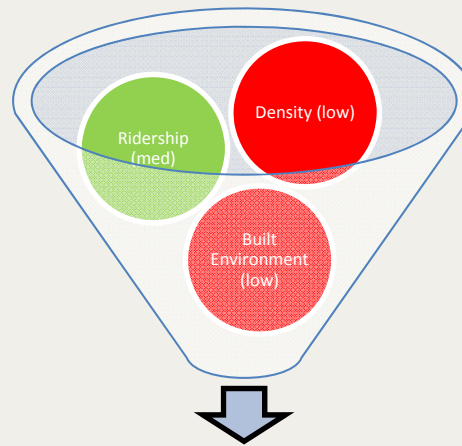
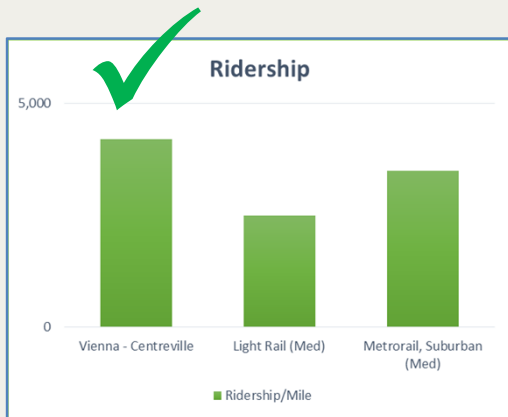
Generally lower capacity modes have lower thresholds



Guideline Application: Orange Line Extension, Vienna to Centreville

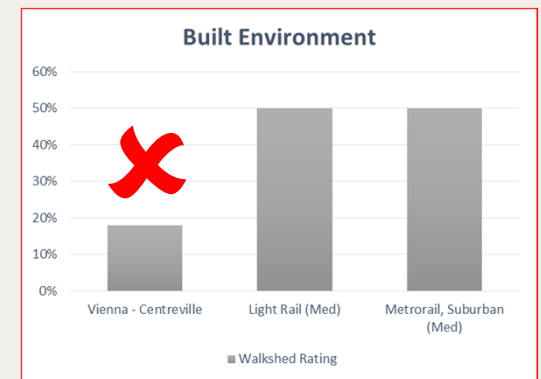


Apply thresholds



Fails 2/3 criteria, does not pass* (for Metrorail)

*Would need 3x current density or built environment rating to pass (via planning requirements)



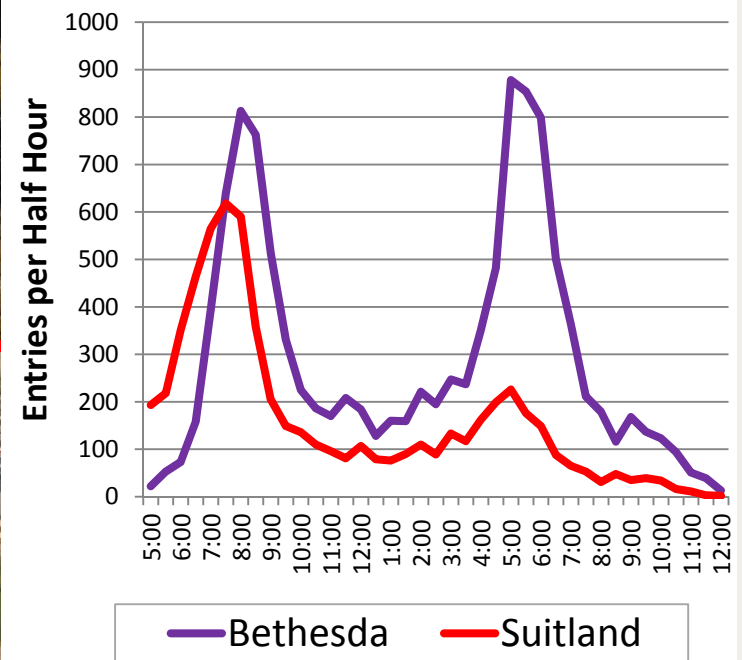
Why Not Only Use Ridership? Not all Ridership is Equal

Bethesda

Daily Ridership: 11,500
Daily Revenue: \$33,000

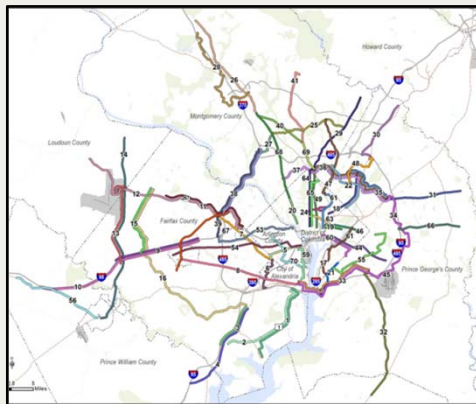
Suitland

Daily Ridership: 6,300
Daily Revenue: \$18,000

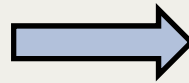


Guidelines Support Regional Priorities

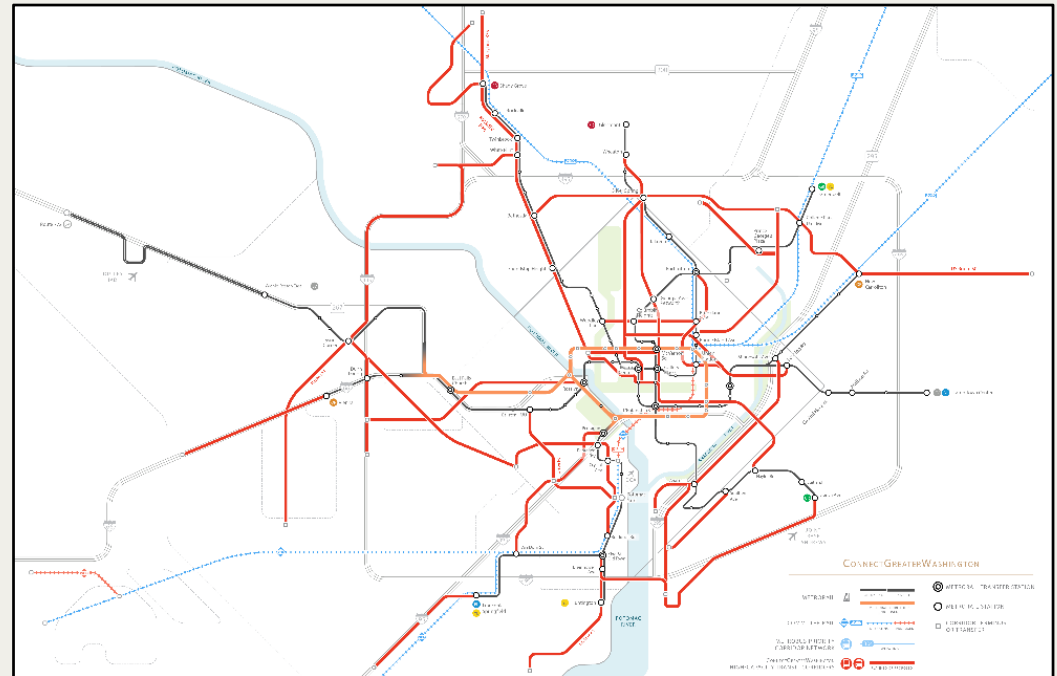
Collection of local plans



CGW analysis,
Expansion policy

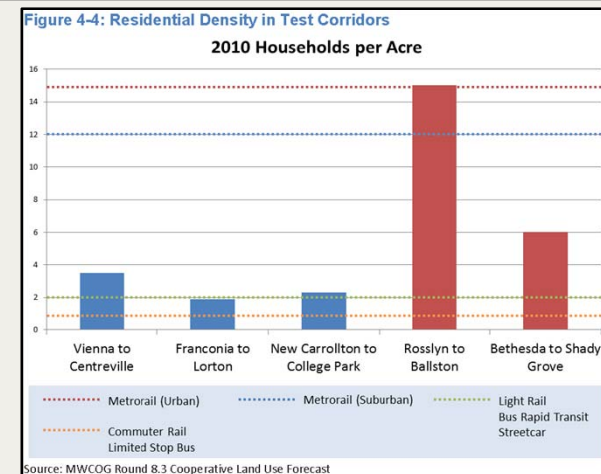
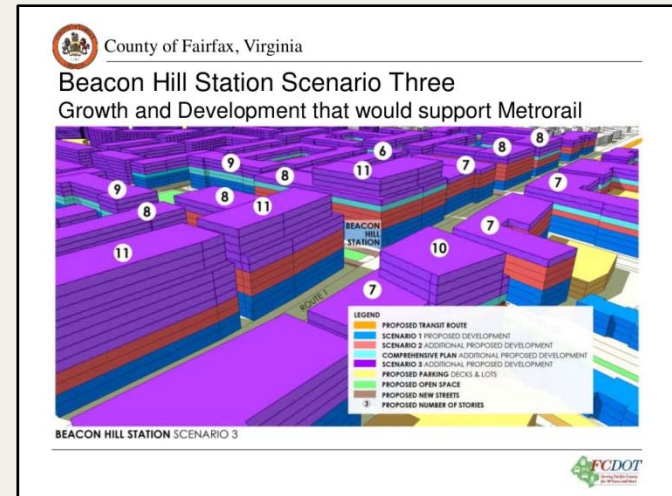


Cohesive regional plan



Considerations

- Existing Metrorail System: not all segments meet thresholds
- Proposed local plans: many lines do not meet thresholds
- Expansion guidelines do not explicitly address core capacity impacts or funding



Implications?

- Metro Board
- Jurisdictions
- Implementation
- What is financially sustainable ridership?

