

# Transit Implementation Study

Northwest Corridor Light Rail Transit System  
Atlanta, Georgia

## Master Developer Approach

Submitted to  
Cobb County Department of Transportation  
Cumberland Community Improvement District  
Town Center Area Community Improvement District

Submitted by  
Bechtel Infrastructure Corporation  
Mayes, Sudderth & Etheredge, Inc.



MARTA Arts Center Station

Cumberland Circulator

Trunkline

Marietta Branch

Town Center Area Circulator

Barrett Parkway Transfer Station

Chastain Road / I-575 Transfer Station

Town Center Mall Transfer Station

Central Maintenance and Storage Facility

Robbins Air Force Base

Cobb Parkway

Windy Ridge Parkway / Herodian Way Transfer Station

Cumberland Mall

Cumberland Boulevard Transfer Station

Fulton Corridor

**Transit Implementation Study  
for the Northwest Corridor Light Rail Transit System**

- Sponsors: Cumberland and Town Center Area CIDs
- Performance Period: Spring of 1999 to Summer of 2001
- Cost: \$3.8 million
- Scope: Study Work Tasks Included:
  - Transportation Planning and Demand Forecasting
  - Conceptual Facilities Engineering
  - Operations Planning
  - Vehicle Technology and Systems Engineering
  - Economic, Financial and Environmental Assessments
  - Capital and Operations Cost Estimating
  - Recommended Project Phasing
  - Strategic Implementation Planning
  - Coordination with Marietta to Lawrenceville Study

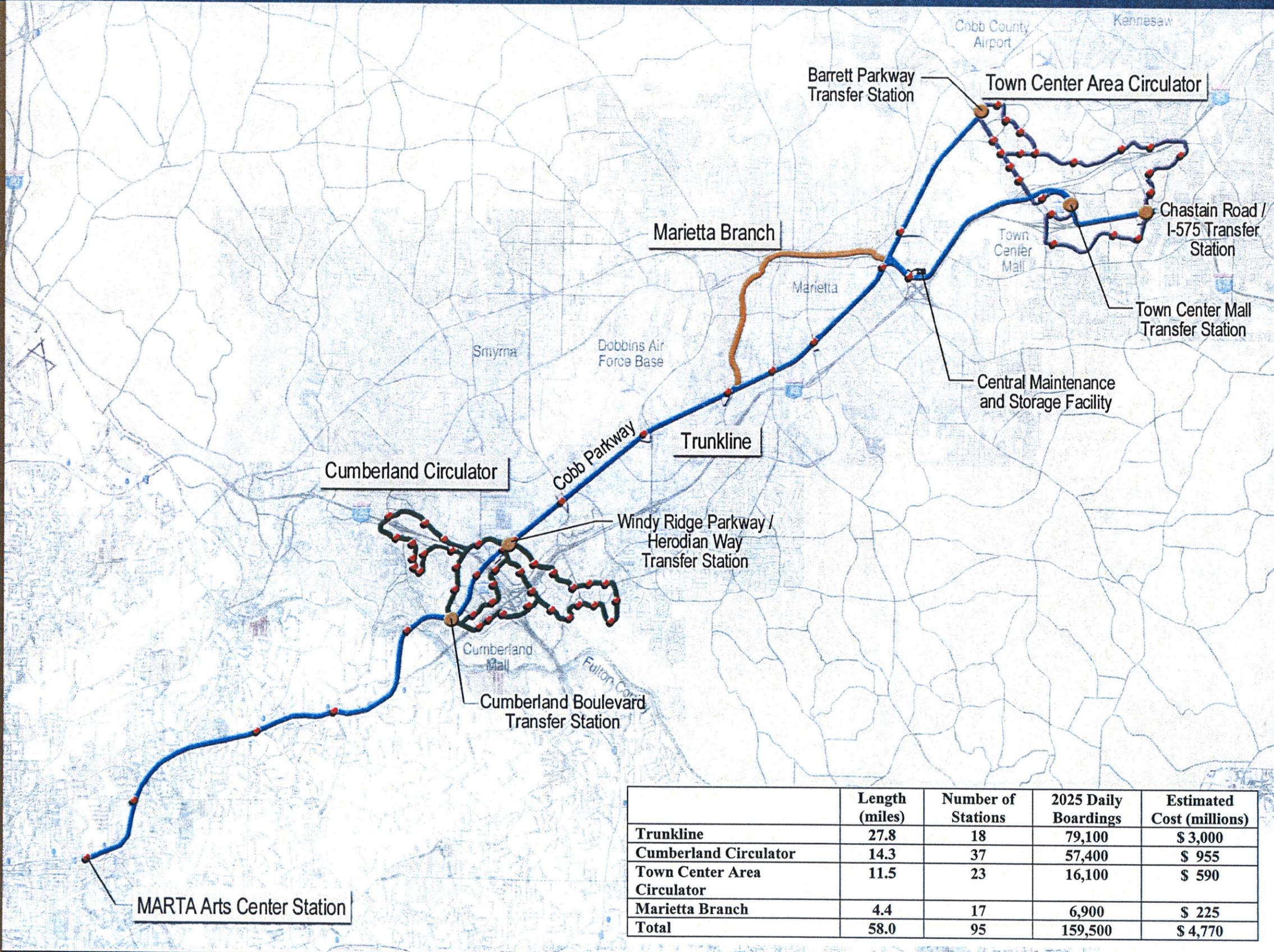
**The Cumberland and Town Center Area CIDs**

- The Cumberland Community Improvement District (CID) and the Town Center Area (CID) represent two of the largest and fastest growing Activity Centers in the Atlanta Region
- The Cumberland area currently contains:
  - more than 20 million square-feet of office space
  - 3.5 million square-feet of major retail space
- The Town Center Area currently contains:
  - more than 4.5 million square-feet of major retail space
  - 4 million square-feet of office space
  - 2.3 million square-feet of industrial space
  - Kennesaw State University, with more than 13,000 students
- Based on the results of the Study, both areas will experience tremendous growth in employment and population:

	Cumberland Area		Town Center Area	
	<u>2000</u>	<u>2025</u>	<u>2000</u>	<u>2025</u>
Population	33,759	45,846	8,408	15,874
Employment	70,565	140,138	32,815	55,582

**Concepts of Light Rail Transit in the Northwest Corridor**

- The need for a light rail transit line serving the northwest corridor has been identified in several previous studies and is included in the Regional Transportation Plan (RTP).
- The RTP includes the development of a light rail trunkline extending from MARTA's Arts Center Station through Cumberland to Town Center and a light rail circulator in the Cumberland area. The proposed system would include 26.8 miles of light rail at a budgeted cost of \$1.927 billion.
- The *Draft Cobb County Comprehensive Transportation Plan (DCCCTP)* developed a more detailed analysis of the light rail trunkline and the Cumberland area circulator. The plan also identified the need for a light rail transit circulator in the Town Center area.
- The *Transit Implementation Study for the Northwest Corridor* built upon the previous work and provided a detailed analysis of the system necessary to provide service to the portion of the corridor in Cobb County.
- The Study identified the Ultimate System necessary to provide service throughout the Cumberland, Town Center, and Downtown Marietta areas.
- The Study also analyzed various construction phasing alternatives to identify a Preferred Initial Project to serve the area.

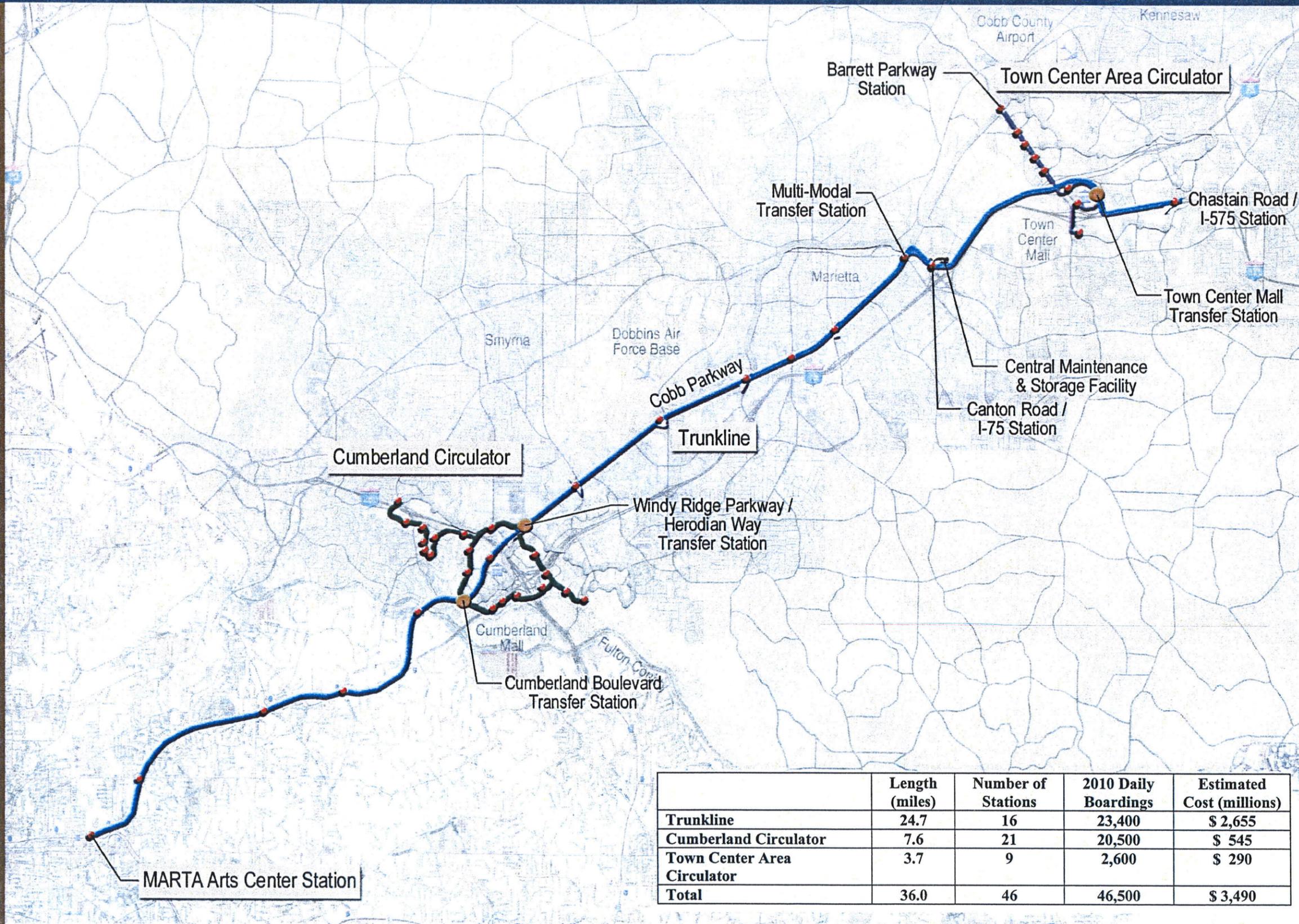


**LEGEND**

- Trunkline
- Cumberland Circulator
- Town Center Area Circulator
- Marietta Branch
- Transfer Station
- Station

	Length (miles)	Number of Stations	2025 Daily Boardings	Estimated Cost (millions)
<b>Trunkline</b>	27.8	18	79,100	\$ 3,000
<b>Cumberland Circulator</b>	14.3	37	57,400	\$ 955
<b>Town Center Area Circulator</b>	11.5	23	16,100	\$ 590
<b>Marietta Branch</b>	4.4	17	6,900	\$ 225
<b>Total</b>	58.0	95	159,500	\$ 4,770

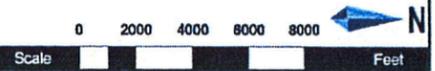




**LEGEND**

-  Trunkline
-  Cumberland Circulator
-  Town Center Circulator
-  Transfer Station
-  Station

	Length (miles)	Number of Stations	2010 Daily Boardings	Estimated Cost (millions)
<b>Trunkline</b>	24.7	16	23,400	\$ 2,655
<b>Cumberland Circulator</b>	7.6	21	20,500	\$ 545
<b>Town Center Area Circulator</b>	3.7	9	2,600	\$ 290
<b>Total</b>	36.0	46	46,500	\$ 3,490



# IMPLEMENTATION OF THE NORTHWEST CORRIDOR LIGHT RAIL TRANSIT SYSTEM

## Traditional Approach

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	Alternatives Analysis and NEPA	Oct		Jan							
				15 mos.							
2	FTA Approval (LPA)			Jan	Jun						
				6 mos.							
3	Preliminary Engineering			Jun		Jan					
						18 mos.					
4	Final Engineering				Jun			Jan			
								30 mos.			
5	Construction						Jun				Jun
											48 mo
6	Financial Planning		Mar	Jun							
				15 mos.							
7	Assemble Funding			Jun			Jun				
											36 mos.
8	Financial Management						Jun				Jun
											48 mo
9	Operations Planning									Jun	Jun
											12 mo

## Disadvantages of the Traditional Approach

- Higher Project Costs
- Larger Federal and Local Funding Shares Required
- Longer Project Schedule – June 2010 vs. June 2008
- Public Sector Assumes 100% of the Risk
- Operating Subsidies Required from Public Sector
- Probable Significant Reduction in Project Scope

**Note:**

**Commencement of Final Engineering:**

Approval to begin Final Engineering is required from the FTA, and takes place after the completion of the Preliminary Engineering work. A 6-month overlap is shown here in consideration of the potential of completing the PE work in two stages; first – the portion of the System within Cobb County being able to proceed on a faster basis given the extensive amount of work accomplished as part of the *Transit Implementation Study*, and second – the Fulton County portion of the System which was not the subject of conceptual engineering as part of that *Study*.

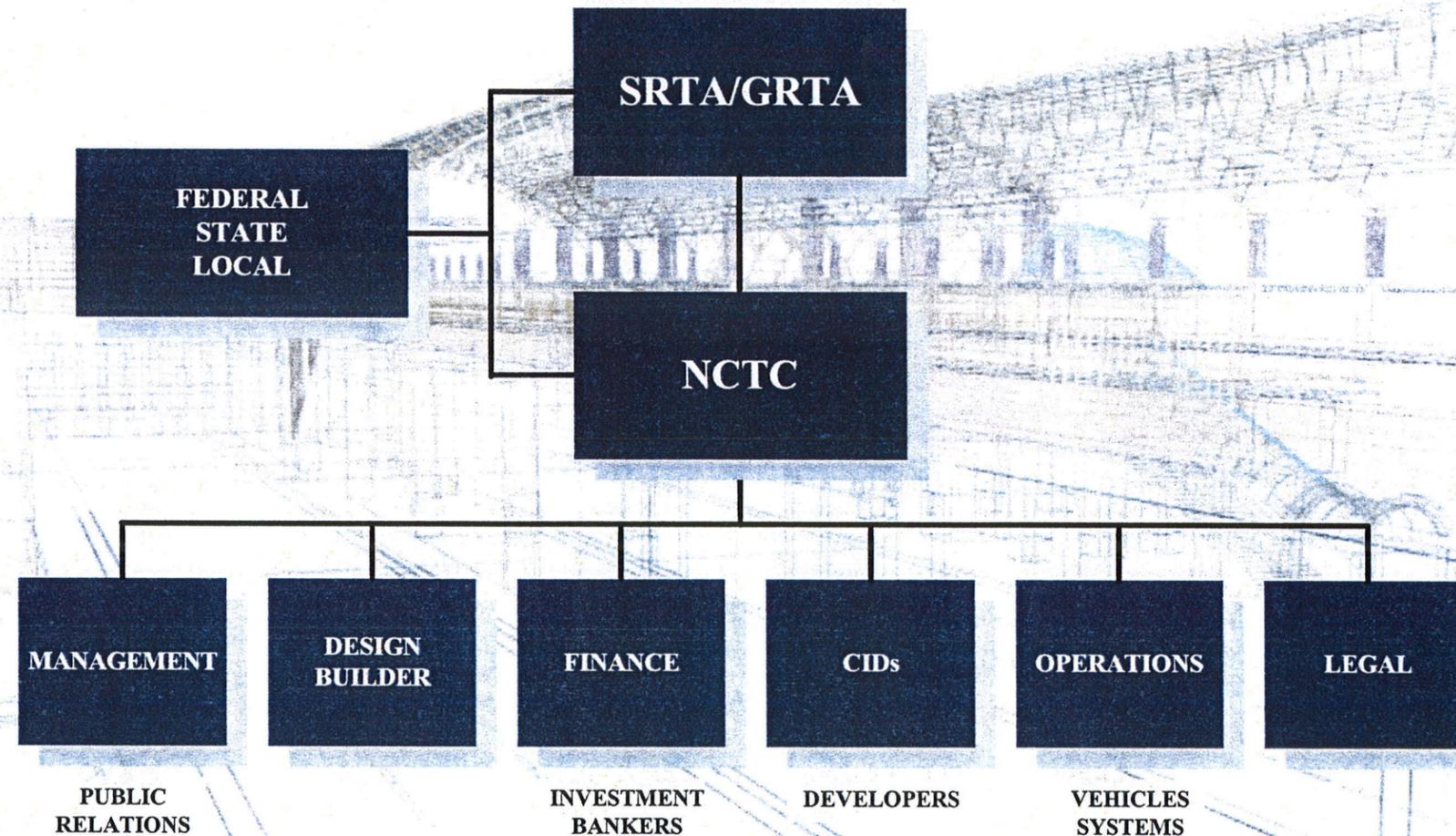
**Commencement of Construction:**

Similarly, the Bechtel/MSE Team feels that approval to commence construction on the Cobb County portion of the System could be received 6 months previous to approval to begin construction on the Fulton County portions.

# DEFINING THE MASTER DEVELOPER

## Corporate Organization

The Northwest Corridor Transit Corporation (NCTC)



## Corporate Functions

- Develop Financial Plan and assemble funding in concert with the State Road and Tollway Authority (SRTA).
- Plan, Design, Construct, Operate, and Maintain the Northwest Corridor LRT System, all under SRTA and GRTA Leadership
- Oversee the Planning Prerequisites and Institutional Requirements in Concert with GRTA; Alternatives Analysis Process, NEPA Requirements, etc.
- Implement a Public/Private Partnership (PPP) Approach to the Project's Financial Requirements.
- Utilize a Design /Build Project Implementation Methodology In Order to Achieve:
  - Cost Savings
  - Time Savings
  - Operational Input to Design
  - Risk Assumptions
- Establish an Operating and Maintenance Entity

# IMPLEMENTATION OF THE NORTHWEST CORRIDOR LIGHT RAIL TRANSIT SYSTEM

## Master Developer Approach

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	Alternatives Analysis and NEPA	Oct		Jan							
				15 mos.							
2	FTA Approval (LPA)			Jan Jun							
				6 mos.							
3	Preliminary Engineering			Jun	Oct						
				15 mos.							
4	Final Engineering				Jun		Jun				
					24 mos.						
5	Construction					Jan			Jun		
						42 mos.					
6	Financial Planning	Oct		Jun							
				15 mos.							
7	Assemble Funding	Oct				Jan					
						39 mos.					
8	Financial Management	Oct							Jun		
									81 mos.		
9	Operations Planning	Oct							Jun		
									81 mos.		

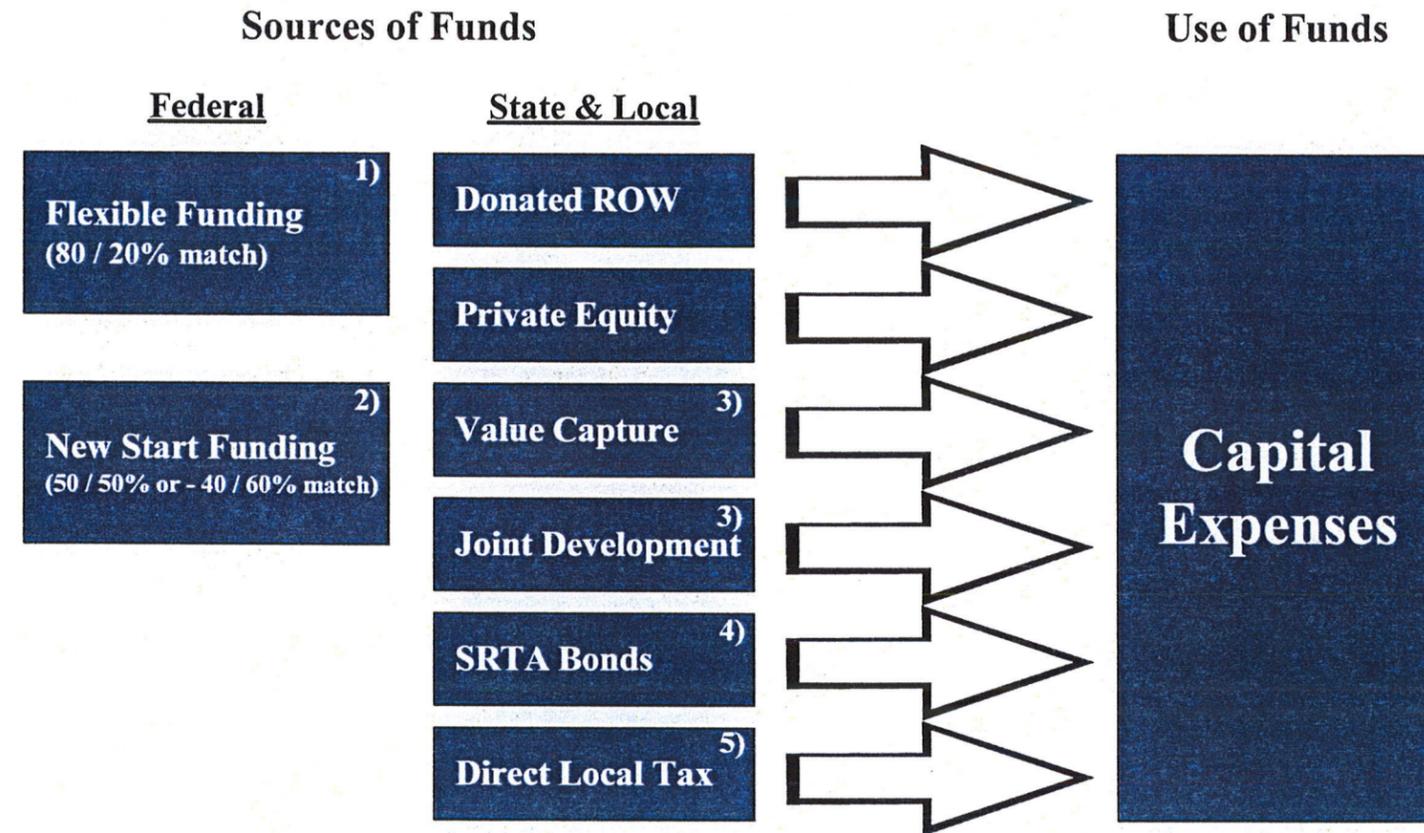
## Advantages of Master Developer Approach

- Lower Project Costs  
(Potential \$360 million savings in inflation costs over 2 years)
- Smaller Federal and Local Funding Shares Required
- Shorter Project Schedule – June 2008 vs. June 2010
- Public and Private Sectors Share the Risk
- No Operating Subsidies Are Required from the Local Public Sector

## Relevant Master Developer Examples

- Dulles Corridor Transportation Project
  - Washington METRO Extension to Dulles Airport
  - \$2.5 Billion
- Tacoma Narrows Bridge
  - \$600 Million Suspension Bridge
  - Franchise Agreement
  - DBOM
- Portland LRT Extension to Airport
  - 5.3 Mile LRT Extension
  - To Portland International Airport
  - \$125 Million – No Federal Funding
  - Bechtel Equity Participation

# SOURCES OF CAPITAL FUNDING

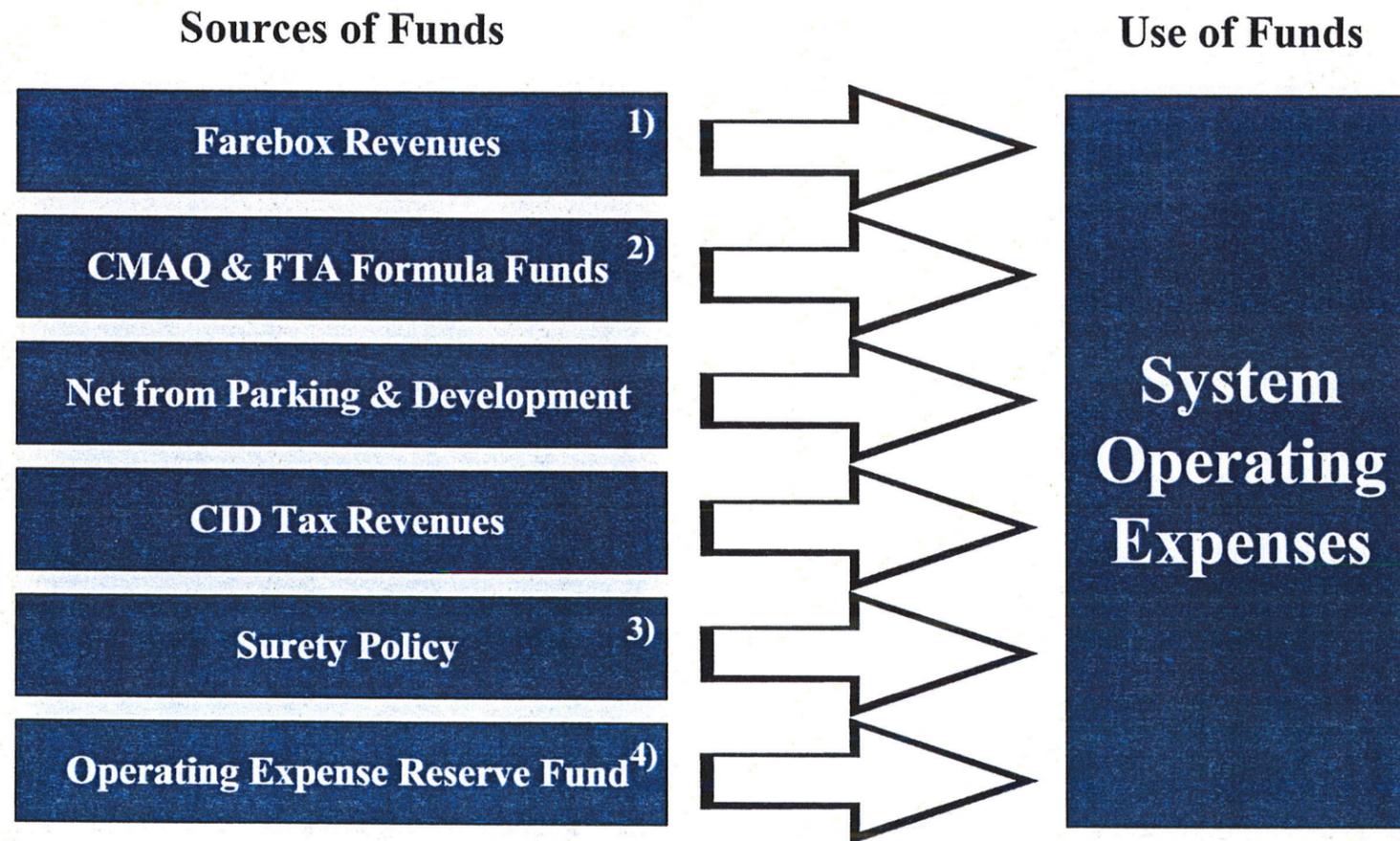


- 1) Based on ARC Plan; Region's financial capacity may require New Starts funds too
- 2) Overmatch to obtain Federal participation will limit Federal share
- 3) Leveraged; for example, as source for TIFIA loan
- 4) Revenue stream to service bonds is indeterminate at present
- 5) For example, Regional Sales Tax

## Advantages Under Master Developer Approach

- Potential for reduction of project costs through private profit motive, design-build construction, value engineering, and accelerated project delivery; for example, reducing schedule by 1 day saves about \$500,000
- Flexible funding at 80% Federal share substantially reduces requirements for non-federal funds compared to traditional approach and strengthens the argument for New Starts funding
- Innovative project approach increases likelihood of maximum Federal participation
- Non-federal funding from a variety of sources instead of a single, massive new tax increase
- Commercial quality financial plan assures interests of the Master Developer, SRTA, GRTA, and FTA are blended in a viable way and the project is managed to this plan; integration of capital and operating ensures long-term viability of plan beyond construction period
- Master Developer approach provides SRTA with the best opportunity to maximize financial resources

# SOURCES OF OPERATING FUNDING



- 1) A rate covenant will ensure bondholder protection
- 2) First three years; FTA funds continue as "preventative maintenance" at 25% of operating cost
- 3) Policy will guarantee minimum level of farebox as well as provide force majeure protections
- 4) Funded by equity, proceeds of CID debt and/or unutilized construction fund contingency

## Advantages Under Master Developer Approach

- Master Developer operates project from identified funding sources  
(Federal funds for "preventative maintenance" and initial-year CMAQ funding will apply to operating expense—as currently provided in ARC Regional Plan.)
- Operating self-sufficiency requires project design maximizing ridership at lowest possible cost
- CID participation aligns risk with benefit and ensures the program serves local needs
- Operating standards jointly developed to protect the public interest
- Master Developer approach ensures "value pricing" of rail service and operating efficiencies
- Master Developer creates a "safety net" to ensure operating expenses are adequately covered  
(These funds to be based on a combination of "value capture" and joint development mechanisms, possibly collected under CID auspices. Any funds collected for this "safety net" not required for operating expense, will be applied to system expansion.)
- Additional mechanisms to further guarantee operating expense requirements will include operating reserves and a surety policy; for example, equity from system supplier could be used to establish a reserve fund

# FEDERAL, STATE AND LOCAL REGULATORY ISSUES AFFECTING THE IMPLEMENTATION OF THE NWCLRT SYSTEM

## State Law – GRTA Act and Procurement Policies

- GTRA's powers include the power to "plan, design, acquire, construct, add to, extend, improve, equip, operate, and maintain or cause to be operated and maintained land public transportation systems and other land transportation projects and all facilities and appurtenances necessary or beneficial thereto... and **to contract with... any private person, firm, or corporation, for those purposes...**" '50-32-11(a)(3), O.C.G.A. (emphasis added).
- GRTA's current procurement policies adopted by the board of directors require a competitive selection process for professional services contracts in excess of \$20,000. RFQ required; however, GRTA could amend its policies to permit the consideration of unsolicited proposals.

## State Law – Purchasing Statutes

Do the State's purchasing and competitive bidding requirements and restrictions contained in O.C.G.A. '50-5-50 through '50-5-81 (the "State Purchasing Statutes") apply to GRTA?

- The argument that GRTA is **not** a department, institution or agency of the State as such terms are used in the State Purchasing Statutes is very strong. This argument leads to the conclusion that GRTA may purchase supplies, materials, services and equipment without complying with the DOAS rules and regulations under the State Purchasing Statutes.
- However, the references in '50-5-69 to "instrumentality" and "authority" blur this argument slightly.

## Federal – Master Developer Contract with GRTA: FTA Procurement Requirements

The Transportation Equity Act for the 21<sup>st</sup> Century permits the recipient of a FTA grant to use **turnkey** contracting to design and build a mass transportation system.

- All procurement transactions must be conducted "in a manner providing full and open competition"; procurement procedures must be based on the *Brooks Act* when contracting for architectural and engineering services.
- GRTA could select a Master Developer; however, there must be competition.

## Federal – NEPA Process: Conflict of Interest

What role could a Master Developer play in the environmental review of the project pursuant to the National Environmental Policy Act (NEPA)?

- *Preparation of Environmental Impact Statement (EIS)* – GRTA may select a consultant to **prepare** an EIS; however, such consultant may **not** have a "financial or other interest in the outcome of the project." A consultant with the discretion to accept, reject or modify information is the **preparer**.
- *Participation in the EIS Process* – A contractor who **participates** in the preparation of significant background documents and other information used by GRTA or another consultant to prepare the EIS **can** have a financial interest in the project.

# *Suggested Steps to Maintain Project Momentum*

- **GRTA to Commence Alternatives Analysis and NEPA Work Scope Efforts**
- **SRTA to Issue RFQ for a Master Developer**

