

Appendix D

Concept Designs and Costs



CONNECT COBB
Northwest Transit Corridor Alternatives Analysis
December 2012

Option 1
I-75 Access @ Cumberland Blvd.
(Cobb County)

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars in Millions)

CAT No.	Description	(LRT 1a)	(LRT 2a)	(BRT 2a)	(LRT 4a)	(BRT 4a)
	Length (Mile):	27.89	28.53	28.29	24.96	24.70
	Number of Stations:	13	26	26	25	25
	Number of Revenue Vehicles:	26	33	17	30	15
10	GUIDEWAY & TRACK ELEMENTS	\$1,057.5	\$787.5	\$719.80	\$723.01	\$662.40
20	STATIONS, STOPS, TERMINALS, INTERMODAL	\$569.5	\$381.68	\$381.68	\$379.85	\$379.85
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	\$27.6	\$34.70	\$16.58	\$31.66	\$14.76
40	SITWORK & SPECIAL CONDITIONS	\$94.4	\$108.44	\$107.59	\$95.01	\$94.06
50	SYSTEMS	\$194.9	\$207.27	\$38.13	\$180.26	\$33.93
	Construction Subtotal (Sum Categories 10 - 50)	\$1,943.9	\$1,519.6	\$1,263.78	\$1,409.79	\$1,185.00
60	ROW, LAND, EXISTING IMPROVEMENTS	\$29.7	\$5.89	\$5.89	\$8.15	\$8.15
70	VEHICLES	\$97.2	\$123.41	\$63.57	\$112.19	\$56.09
80	PROFESSIONAL SERVICES	\$786.5	\$614.83	\$511.33	\$570.40	\$479.45
90	UNALLOCATED CONTINGENCY	\$857.2	\$679.12	\$553.37	\$630.16	\$518.61
	Art in Transit	\$19.4	\$15.20	\$12.64	\$14.10	\$11.85
	Total Project Cost	\$3,734.0	\$2,958.04	\$2,410.59	\$2,744.79	\$2,259.16
	Cost per mile	133.88	103.67	85.20	109.96	91.48

Assumptions

Alignment's footprint is a 33' corridor within the median of US-41, paralleling I-75 and/or in the median of Northside Drive Tunnel between Collier Road and MARTA Arts Center for approximately 2.5 miles (all Alts)
Tunnel between Windy Hill Rd and Cumberland Blvd for approximately 2.4 Miles (LRT 1a Alt only)

Median dedicated lanes along US-41 and Northside Drive

Average unit costs derived from:
- GRTA 03-LRT I-20 East
- MARTA Clifton Corridor AA

LTR Alt. 1a
Acworth to Midtown via I-75

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 1a) Connect Cobb
	Length (Mile):	26.65
	Number of Stations:	13
	Number of Revenue Vehicles:	26
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$94,872,896
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$92,261,970
10.05	Guideway: Built-up fill	\$124,205,071
10.06	Guideway: Underground cut & cover	\$68,129,635
10.07	Guideway: Underground tunnel	\$540,820,056
10.08	Guideway: Retained cut or fill	\$69,194,093
10.09	Track: Direct fixation	\$30,047,933
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$37,872,648
10.12	Track: Special (switches, turnouts)	\$110,000
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$8,426,510
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$12,148,388
20.03	Underground station, stop, shelter, mall, terminal, platform	\$411,771,780
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$111,210,000
20.07	Elevators, escalators	\$16,560,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$1,872,377

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

		<i>(LRT 1a)</i>
CAT No.	Description	Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$0
30.03	Heavy Maintenance Facility	\$26,324,428
30.04	Storage or Maintenance of Way Building	\$132,000
30.05	Yard and Yard Track	\$40,000
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,914,468
40.02	Site Utilities, Utility Relocation	\$34,313,153
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$6,479,737
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$3,239,869
40.05	Site structures including retaining walls, sound walls	\$2,424,715
40.06	Pedestrian / bike access and accommodation, landscaping	\$17,979,944
40.07	Automobile, bus, van accessways including roads, parking lots	\$5,249,200
40.08	Temporary Facilities and other indirect costs during construction	\$22,826,346

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 1a) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$67,153,638
50.02	Traffic signals and crossing protection	\$384,800
50.03	Traction power supply: substations	\$24,446,281
50.04	Traction power distribution: catenary and third rail	\$56,844,966
50.05	Communications	\$27,686,149
50.06	Fare collection system and equipment	\$3,641,612
50.07	Central Control	\$14,726,675
Subtotal Construction Costs		\$1,943,936,571
Construction Subtotal		\$1,943,936,571
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$29,517,690
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$29,703,690
70	VEHICLES	
70.01	Light Rail	\$97,230,120
Subtotal Vehicles		\$97,230,120

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 1a) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$93,308,955
80.02	Final Design 7.67%	\$149,099,935
80.03	Project Management for Design and Construction 10.66%	\$207,223,638
80.04	Construction Administration & Management 6.41%	\$124,606,334
80.05	Insurance 7.08%	\$137,630,709
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$24,299,207
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$34,018,890
80.08	Other 0.84%	\$16,329,067
Subtotal Professional Services		\$786,516,737
90	UNALLOCATED CONTINGENCY 30.0%	\$857,216,135
	Art in Transit 1.0%	\$19,439,366
Project Total		\$3,734,042,619

Cobb County AA
Connect Cobb Transit
(LRT 1a) Acworth to Midtown I-75

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01	Guideway: At-grade exclusive right-of-way							\$992	0%	
			Element Total		95,638	LF		\$94,872,896	\$0	\$94,872,896
					18	M				
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)							\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03	Guideway: At-grade in mixed traffic							\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04	Guideway: Aerial structure									
			bridge length		19,090	LF		\$4,833	0%	
			Element Total		4	M		\$92,261,970	\$0	\$92,261,970
10.05	Guideway: Built-up fill							\$1,443	0%	
			Element Total		86,074	LF		\$124,205,071	\$0	\$124,205,071
10.06	Guideway: Underground cut & cover							\$10,469	0%	
			Element Total		6,508	LF		\$68,129,635	\$0	\$68,129,635
10.07	Guideway: Underground tunnel							\$20,776	0%	
			Element Total		26,031	LF		\$540,820,056	\$0	\$540,820,056
10.08	Guideway: Retained cut or fill							\$7,235	0%	
			Element Total		9,564	LF		\$69,194,093	\$0	\$69,194,093
10.09	Track: Direct fixation							\$291	0%	
			Element Total		103,258	TF		\$30,047,933	\$0	\$30,047,933
10.10	Track: Embedded							\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11	Track: Ballasted							\$198	0%	
			Element Total		191,276	TF		\$37,872,648	\$0	\$37,872,648
10.12	Track: Special (switches, turnouts)									
			#6 turnout		2,500					
			double crossover		2,500			\$22	0%	
			Element Total		5,000	TF		\$110,000	\$0	\$110,000
10.13	Track: Vibration and noise dampening							\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01	At-grade station, stop, shelter, mall, terminal, platform							\$1,685,302	0%	
			Element Total		5	EA		\$8,426,510	\$0	\$8,426,510
20.02	Aerial station, stop, shelter, mall, terminal, platform							\$6,074,194	0%	
			Element Total		2	EA		\$12,148,388	\$0	\$12,148,388
20.03	Underground station, stop, shelter, mall, terminal, platform							\$68,628,630	0%	
			Element Total		6	EA		\$411,771,780	\$0	\$411,771,780
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.							\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(LRT 1a) Acworth to Midtown I-75

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0		\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		5,500	spaces		\$111,210,000		\$111,210,000
20.07			Elevators, escalators					\$1,380,000	0%	
			Element Total		12	EA		\$16,560,000		\$16,560,000
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236		\$7,513,236
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0		\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		13	Stations		\$1,872,377		\$1,872,377
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		147,267	LF		\$1,914,468		\$1,914,468
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		147,267	LF		\$34,313,153		\$34,313,153
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		147,267	LF		\$6,479,737		\$6,479,737
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		147,267	LF		\$3,239,869		\$3,239,869
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		121,236	LF		\$2,424,715		\$2,424,715
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		95,638	LF		\$17,979,944		\$17,979,944
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		1,100	spaces		\$5,249,200		\$5,249,200
40.08			Temporary Facilities and other indirect costs during construction					\$155	0%	
			Element Total		147,267	LF		\$22,826,346		\$22,826,346
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total		294,534	TF		\$67,153,638		\$67,153,638
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		10,400	TF		\$384,800		\$384,800
50.03			Traction power supply: substations					\$83	0%	
			Element Total		294,534	TF		\$24,446,281		\$24,446,281
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total		294,534	TF		\$56,844,966		\$56,844,966
50.05			Communications					\$94	0%	
			Element Total		294,534	TF		\$27,686,149		\$27,686,149

Cobb County AA
Connect Cobb Transit
(LRT 1a) Acworth to Midtown I-75

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
60.06			Fare collection system and equipment					\$280,124	0%	
			Element Total		13	Stations		\$3,641,612	\$0	\$3,641,612
60.07			Central Control					\$50	0%	
			Element Total		294,534	TF		\$14,726,675	\$0	\$14,726,675
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate					\$433,701	0%	
			Element Total		68.06	AC		\$29,517,690	\$0	\$29,517,690
60.02			Relocation of existing households and businesses					\$31	0%	
			Element Total		6,000	LF		\$186,000	\$0	\$186,000
60.03			Services					\$55	0%	
			Element Total		0	LF		\$0	\$0	\$0
60.04			Other Real Estate Costs					\$759	0%	
			Element Total		0	LF		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
Yard and Shop
(LRT 1a)

TRANSIT MODE: Light Rail Transit (LRT)

	STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END								
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS										
30.01			Administration Building: Office, sales, storage, revenue counting							
			Element Total		8,000	LF		\$139 \$1,112,000	0%	\$0 \$1,112,000
30.02			Light Maintenance Facility							
			Element Total		0	Vehicles		\$909,722 \$0	0%	\$0 \$0
30.03			Heavy Maintenance Facility							
			Element Total		26	Vehicles		\$1,012,478 \$26,324,428	0%	\$0 \$26,324,428
30.04			Storage or Maintenance of Way Building							
			Element Total		4,000	LF		\$33 \$132,000	0%	\$0 \$132,000
30.05			Yard and Yard Track							
			Element Total		8,000	TF		\$5 \$40,000	0%	\$0 \$40,000

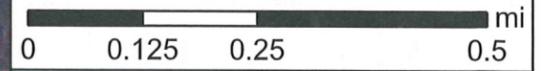
Cobb County AA
 Connect Cobb Transit
 VEHICLES
 (LRT 1a)

TRANSIT MODE: Light Rail Transit (LRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Light Rail									
		Element Total		26	EA		\$3,739,620	10%	
							\$97,230,120	\$0	\$97,230,120



1 in = 1,000 feet



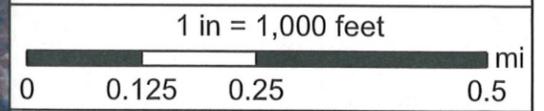
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 1a

Legend

- Corridor Limits
- Edge of Footprint
- - - Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length (feet)
- 0 - 400
- 401 - 1,000
- 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 73 feet
- At-Grade Alignment Length: 27 miles
- Underground Alignment Length: 5 miles



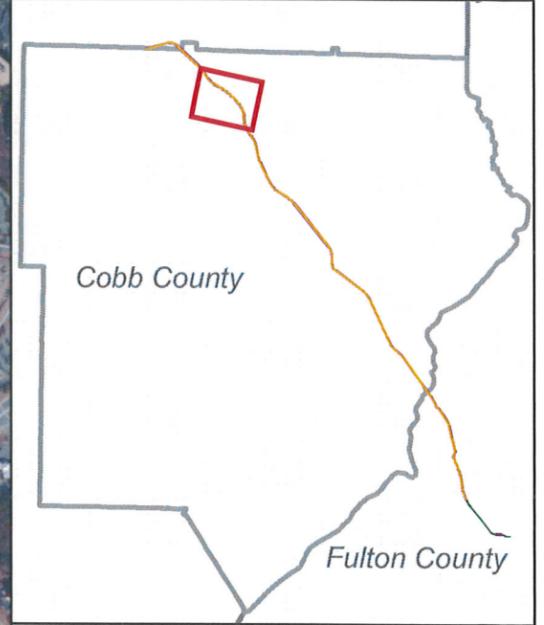


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NORTHWEST
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ALIGNMENT 1a

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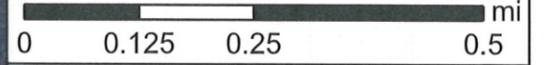
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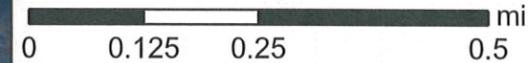
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COBB COUNTY NORTHWEST CORRIDOR

ALIGNMENT 1a

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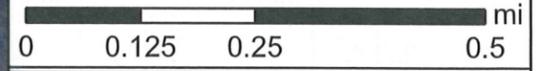
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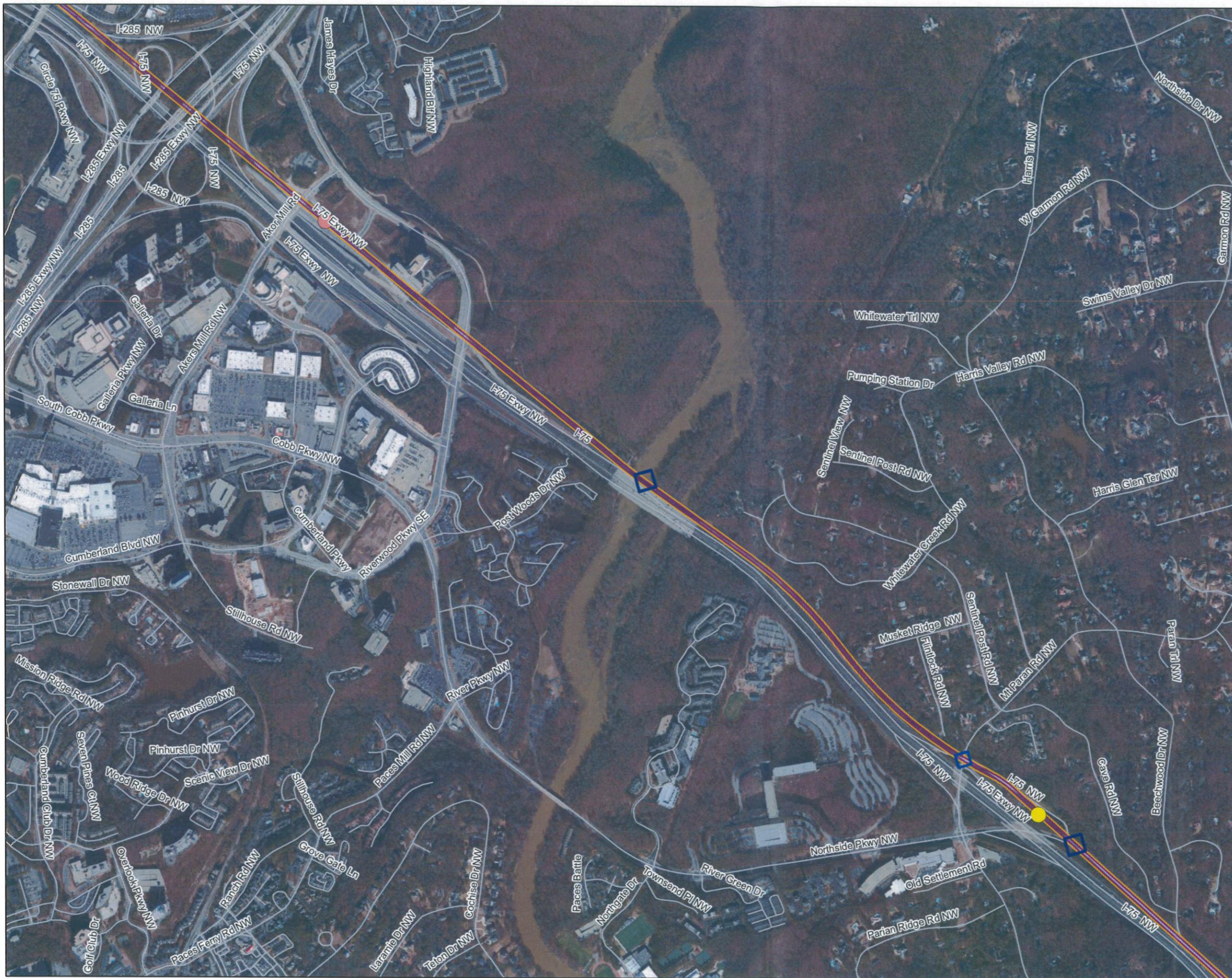
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 1a

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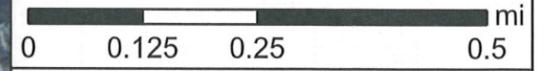
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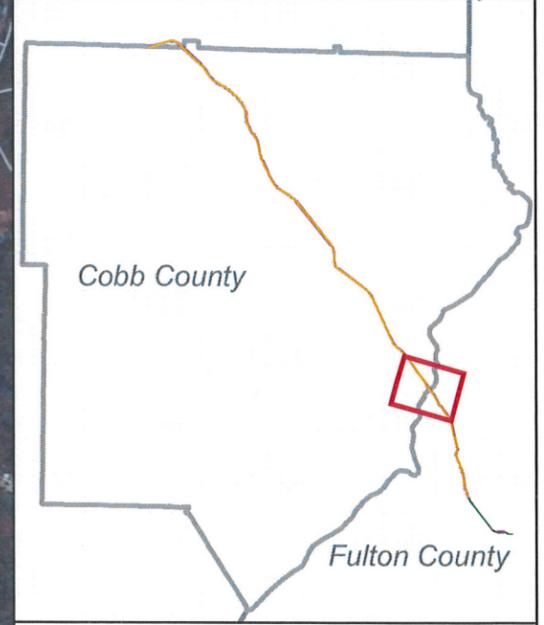


**COBB COUNTY
NORTHWEST
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ALIGNMENT 1a

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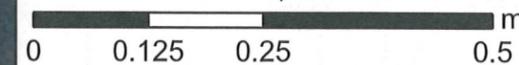
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ALIGNMENT 1a

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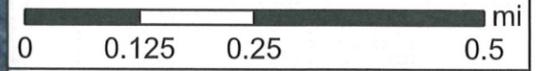
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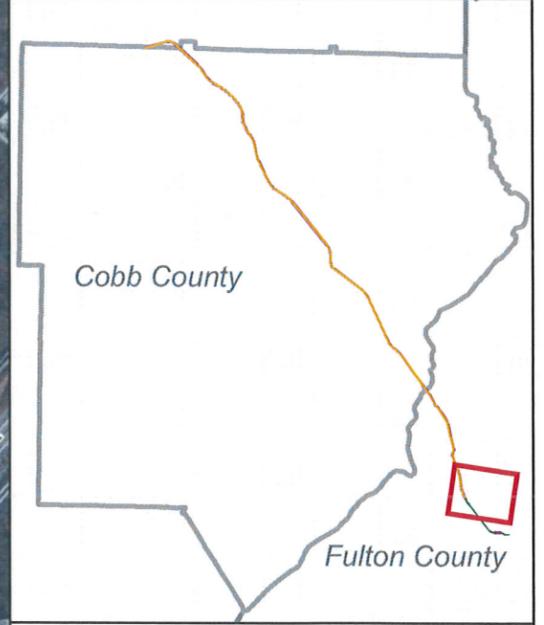


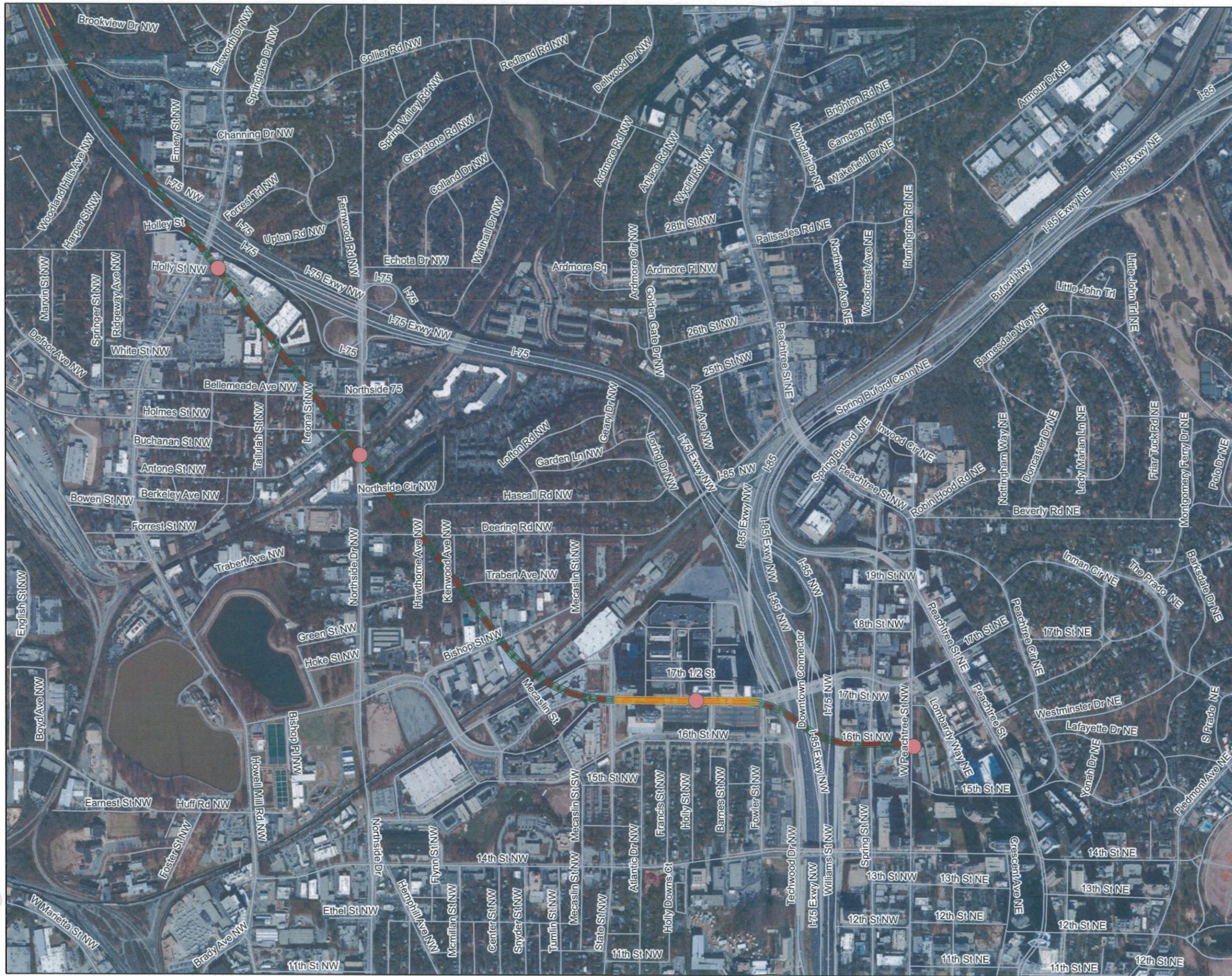
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NORTHWEST
CORRIDOR**
ALIGNMENT 1a

Legend

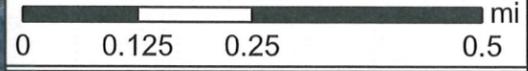
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NORTHWEST
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LTR Alt. 2a
Acworth to Midtown via U.S. 41

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 2a) Connect Cobb
	Length (Mile):	27.68
	Number of Stations:	26
	Number of Revenue Vehicles:	33
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$127,282,806
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$28,299,728
10.05	Guideway: Built-up fill	\$166,635,262
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$92,831,764
10.09	Track: Direct fixation	\$13,002,910
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$50,810,475
10.12	Track: Special (switches, turnouts)	\$110,000
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$37,076,644
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,744,754

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 2a) Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$0
30.03	Heavy Maintenance Facility	\$33,411,774
30.04	Storage or Maintenance of Way Building	\$132,000
30.05	Yard and Yard Track	\$40,000
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,958,464
40.02	Site Utilities, Utility Relocation	\$35,101,695
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$6,628,646
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$3,314,323
40.05	Site structures including retaining walls, sound walls	\$2,749,241
40.06	Pedestrian / bike access and accommodation, landscaping	\$24,122,145
40.07	Automobile, bus, van accessways including roads, parking lots	\$11,214,200
40.08	Temporary Facilities and other indirect costs during construction	\$23,350,913

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 2a) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$68,696,879
50.02	Traffic signals and crossing protection	\$4,747,443
50.03	Traction power supply: substations	\$25,008,074
50.04	Traction power distribution: catenary and third rail	\$58,151,305
50.05	Communications	\$28,322,397
50.06	Fare collection system and equipment	\$7,283,224
50.07	Central Control	\$15,065,105
Subtotal Construction Costs		\$1,519,595,501
Construction Subtotal		\$1,519,595,501
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$5,707,505
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$5,893,505
70	VEHICLES	
70.01	Light Rail	\$123,407,460
Subtotal Vehicles		\$123,407,460

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 2a) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$72,940,584
80.02	Final Design 7.67%	\$116,552,975
80.03	Project Management for Design and Construction 10.66%	\$161,988,880
80.04	Construction Administration & Management 6.41%	\$97,406,072
80.05	Insurance 7.08%	\$107,587,361
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$18,994,944
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$26,592,921
80.08	Other 0.84%	\$12,764,602
Subtotal Professional Services		\$614,828,340
90	UNALLOCATED CONTINGENCY 30.0%	\$679,117,442
	Art in Transit 1.0%	\$15,195,955
Project Total		\$2,958,038,203

Cobb County AA
Connect Cobb Transit
(LRT 2a) Acworth to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01	Guideway: At-grade exclusive right-of-way							\$992	0%	
			Element Total		128,309	LF		\$127,282,806	\$0	\$127,282,806
					24	M				
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)							\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03	Guideway: At-grade in mixed traffic							\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04	Guideway: Aerial structure									
			bridge length		5,856	LF		\$4,833	0%	
			Element Total		1	M		\$28,299,728	\$0	\$28,299,728
10.05	Guideway: Built-up fill							\$1,443	0%	
			Element Total		115,478	LF		\$166,635,262	\$0	\$166,635,262
10.06	Guideway: Underground cut & cover							\$10,469	0%	
			Element Total		3,297	LF		\$34,518,910	\$0	\$34,518,910
10.07	Guideway: Underground tunnel							\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08	Guideway: Retained cut or fill							\$7,235	0%	
			Element Total		12,831	LF		\$92,831,764	\$0	\$92,831,764
10.09	Track: Direct fixation							\$291	0%	
			Element Total		44,684	TF		\$13,002,910	\$0	\$13,002,910
10.10	Track: Embedded							\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11	Track: Ballasted							\$198	0%	
			Element Total		256,619	TF		\$50,810,475	\$0	\$50,810,475
10.12	Track: Special (switches, turnouts)									
			#6 turnout		2,500					
			double crossover		2,500			\$22	0%	
			Element Total		5,000	TF		\$110,000	\$0	\$110,000
10.13	Track: Vibration and noise dampening							\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01	At-grade station, stop, shelter, mall, terminal, platform							\$1,685,302	0%	
			Element Total		22	EA		\$37,076,644	\$0	\$37,076,644
20.02	Aerial station, stop, shelter, mall, terminal, platform							\$6,074,194	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform							\$68,628,630	0%	
			Element Total		4	EA		\$274,514,520	\$0	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.							\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(LRT 2a) Acworth to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		2,500	spaces		\$50,550,000	\$0	\$50,550,000
20.07			Elevators, escalators					\$1,360,000	0%	
			Element Total		6	EA		\$8,280,000	\$0	\$8,280,000
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236	\$0	\$7,513,236
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		26	Stations		\$3,744,754	\$0	\$3,744,754
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		150,651	LF		\$1,958,464	\$0	\$1,958,464
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		150,651	LF		\$35,101,695	\$0	\$35,101,695
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		150,651	LF		\$6,628,646	\$0	\$6,628,646
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		150,651	LF		\$3,314,323	\$0	\$3,314,323
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		137,462	LF		\$2,749,241	\$0	\$2,749,241
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		128,309	LF		\$24,122,145	\$0	\$24,122,145
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		2,350	spaces		\$11,214,200	\$0	\$11,214,200
40.08			Temporary Facilities and other indirect costs during construction					\$155	0%	
			Element Total		150,651	LF		\$23,350,913	\$0	\$23,350,913
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total		301,302	TF		\$68,696,879	\$0	\$68,696,879
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		128,309	TF		\$4,747,443	\$0	\$4,747,443
50.03			Traction power supply: substations					\$83	0%	
			Element Total		301,302	TF		\$25,008,074	\$0	\$25,008,074
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total		301,302	TF		\$58,151,305	\$0	\$58,151,305
50.05			Communications					\$94	0%	
			Element Total		301,302	TF		\$28,322,397	\$0	\$28,322,397

Cobb County AA
 Connect Cobb Transit
 (LRT 2a) Acworth to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
60.06			Fare collection system and equipment					\$280,124	0%	
			Element Total		26	Stations		\$7,283,224	\$0	\$7,283,224
60.07			Central Control					\$50	0%	
			Element Total		301,302	TF		\$15,065,105	\$0	\$15,065,105
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate					\$433,701	0%	
			Element Total		13.16	AC		\$5,707,505	\$0	\$5,707,505
60.02			Relocation of existing households and businesses					\$31	0%	
			Element Total		6,000	LF		\$186,000	\$0	\$186,000
60.03			Services					\$55	0%	
			Element Total		0	LF		\$0	\$0	\$0
60.04			Other Real Estate Costs					\$759	0%	
			Element Total		0	LF		\$0	\$0	\$0

Cobb County AA
 Connect Cobb Transit
 Yard and Shop
 (LRT 2a)

TRANSIT MODE: Light Rail Transit (LRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS									
30.01 Administration Building: Office, sales, storage, revenue counting									
		Element Total		8,000	LF		\$139 \$1,112,000	0% \$0	\$1,112,000
30.02 Light Maintenance Facility									
		Element Total		0	Vehicles		\$909,722 \$0	0% \$0	\$0
30.03 Heavy Maintenance Facility									
		Element Total		33	Vehicles		\$1,012,478 \$33,411,774	0% \$0	\$33,411,774
30.04 Storage or Maintenance of Way Building									
		Element Total		4,000	LF		\$33 \$132,000	0% \$0	\$132,000
30.05 Yard and Yard Track									
		Element Total		8,000	TF		\$5 \$40,000	0% \$0	\$40,000

Cobb County AA
 Connect Cobb Transit
 VEHICLES
 (LRT 2a)

TRANSIT MODE: Light Rail Transit (LRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Light Rail									
		Element Total		33	EA		\$3,739,620	10%	\$123,407,460
							\$123,407,460	\$0	\$123,407,460

BRT Alt. 2a
Acworth to Midtown via U.S. 41

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 2b) Connect Cobb
	Length (Mile):	27.68
	Number of Stations:	26
	Number of Revenue Vehicles:	17
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$126,031,616
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$28,321,380
10.05	Guideway: Built-up fill	\$164,997,238
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$91,919,228
10.09	Track: Direct fixation	\$0
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$0
10.12	Track: Special (switches, turnouts)	\$0
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$37,076,644
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,744,754

Cobb County AA
 Connect Cobb Transit
 Capital Cost Estimate
 (2011 Dollars)

		(BRT 2b)
CAT No.	Description	Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$15,465,274
30.03	Heavy Maintenance Facility	\$0
30.04	Storage or Maintenance of Way Building	\$0
30.05	Yard and Yard Track	\$0
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,942,125
40.02	Site Utilities, Utility Relocation	\$34,808,860
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$6,573,347
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$3,286,674
40.05	Site structures including retaining walls, sound walls	\$2,724,105
40.06	Pedestrian / bike access and accommodation, landscaping	\$23,885,024
40.07	Automobile, bus, van accessways including roads, parking lots	\$11,214,200
40.08	Temporary Facilities and other indirect costs during construction	\$23,156,109

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 2b) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$0
50.02	Traffic signals and crossing protection	\$2,763,794
50.03	Traction power supply: substations	\$0
50.04	Traction power distribution: catenary and third rail	\$0
50.05	Communications	\$28,086,119
50.06	Fare collection system and equipment	\$7,283,224
50.07	Central Control	\$0
Subtotal Construction Costs		\$1,263,783,044
Construction Subtotal		\$1,263,783,044
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$5,707,505
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$5,893,505
70	VEHICLES	
70.01	Light Rail	\$63,573,540
Subtotal Vehicles		\$63,573,540

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 2b) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$60,661,586
80.02	Final Design 7.67%	\$96,932,159
80.03	Project Management for Design and Construction 10.66%	\$134,719,273
80.04	Construction Administration & Management 6.41%	\$81,008,493
80.05	Insurance 7.08%	\$89,475,840
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$15,797,288
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$22,116,203
80.08	Other 0.84%	\$10,615,778
Subtotal Professional Services		\$511,326,620
90	UNALLOCATED CONTINGENCY 30.0%	\$553,373,013
	Art in Transit 1.0%	\$12,637,830
Project Total		\$2,410,587,552

Cobb County AA
Connect Cobb Transit
(BRT 2b) Acworth to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END								
10 GUIDEWAY & TRACK ELEMENTS										
10.01			Guideway: At-grade exclusive right-of-way					\$992	0%	
			Element Total		127,048	LF		\$126,031,616	\$0	\$126,031,616
					24	M				
10.02			Guideway: At-grade semi-exclusive (allows cross-traffic)					\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03			Guideway: At-grade in mixed traffic					\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04			Guideway: Aerial structure							
			bridge length		5,860	LF		\$4,833	0%	
			Element Total		1	M		\$28,321,380	\$0	\$28,321,380
10.05			Guideway: Built-up fill					\$1,443	0%	
			Element Total		114,343	LF		\$164,997,238	\$0	\$164,997,238
10.06			Guideway: Underground cut & cover					\$10,469	0%	
			Element Total		3,297	LF		\$34,518,910	\$0	\$34,518,910
10.07			Guideway: Underground tunnel					\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08			Guideway: Retained cut or fill					\$7,235	0%	
			Element Total		12,705	LF		\$91,919,228	\$0	\$91,919,228
10.09			Track: Direct fixation					\$291	0%	
			Element Total			TF		\$0	\$0	\$0
10.10			Track: Embedded					\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11			Track: Ballasted					\$198	0%	
			Element Total			TF		\$0	\$0	\$0
10.12			Track: Special (switches, turnouts)							
			#6 turnout double crossover					\$22	0%	
			Element Total		0	TF		\$0	\$0	\$0
10.13			Track: Vibration and noise dampening					\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01			At-grade station, stop, shelter, mall, terminal, platform					\$1,685,302	0%	
			Element Total		22	EA		\$37,076,644	\$0	\$37,076,644
20.02			Aerial station, stop, shelter, mall, terminal, platform					\$6,074,194	0%	
			Element Total			EA		\$0	\$0	\$0
20.03			Underground station, stop, shelter, mall, terminal, platform					\$68,628,630	0%	
			Element Total		4	EA		\$274,514,520	\$0	\$274,514,520
20.04			Other stations, landings, terminals: Intermodal, ferry, trolley, etc.					\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(BRT 2b) Acworth to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		2,500	spaces		\$50,550,000	\$0	\$50,550,000
20.07			Elevators, escalators					\$1,380,000	0%	
			Element Total		6	EA		\$8,280,000	\$0	\$8,280,000
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236	\$0	\$7,513,236
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		26	Stations		\$3,744,754	\$0	\$3,744,754
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		149,394	LF		\$1,942,125	\$0	\$1,942,125
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		149,394	LF		\$34,808,860	\$0	\$34,808,860
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		149,394	LF		\$6,573,347	\$0	\$6,573,347
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		149,394	LF		\$3,286,674	\$0	\$3,286,674
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		136,205	LF		\$2,724,105	\$0	\$2,724,105
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		127,048	LF		\$23,885,024	\$0	\$23,885,024
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		2,350	spaces		\$11,214,200	\$0	\$11,214,200
40.08			Temporary Facilities and other indirect costs during construction					\$155	0%	
			Element Total		149,394	LF		\$23,156,109	\$0	\$23,156,109
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total			TF		\$0	\$0	\$0
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		74,697	TF		\$2,763,794	\$0	\$2,763,794
50.03			Traction power supply: substations					\$83	0%	
			Element Total			TF		\$0	\$0	\$0
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total			TF		\$0	\$0	\$0
50.05			Communications					\$94	0%	
			Element Total		298,789	TF		\$28,086,119	\$0	\$28,086,119

Cobb County AA
 Connect Cobb Transit
 (BRT 2b) Acworth to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
60.06			Fare collection system and equipment					\$280,124	0%	
			Element Total		26	Stations		\$7,283,224	\$0	\$7,283,224
60.07			Central Control					\$50	0%	
			Element Total			TF		\$0	\$0	\$0
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate					\$433,701	0%	
			Element Total		13.16	AC		\$5,707,505	\$0	\$5,707,505
60.02			Relocation of existing households and businesses					\$31	0%	
			Element Total		6,000	LF		\$186,000	\$0	\$186,000
60.03			Services					\$55	0%	
			Element Total		0	LF		\$0	\$0	\$0
60.04			Other Real Estate Costs					\$759	0%	
			Element Total		0	LF		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
Yard and Shop
(BRT 2b)

TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS									
30.01 Administration Building: Office, sales, storage, revenue counting									
		Element Total		8,000	LF		\$139	0%	
							\$1,112,000	\$0	\$1,112,000
30.02 Light Maintenance Facility									
		Element Total		17	Vehicles		\$909,722	0%	
							\$15,465,274	\$0	\$15,465,274
30.03 Heavy Maintenance Facility									
		Element Total		0	Vehicles		\$1,012,478	0%	
							\$0	\$0	\$0
30.04 Storage or Maintenance of Way Building									
		Element Total		0	LF		\$33	0%	
							\$0	\$0	\$0
30.05 Yard and Yard Track									
		Element Total			TF		\$5	0%	
							\$0	\$0	\$0

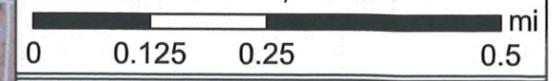
Cobb County AA
Connect Cobb Transit
VEHICLES
(BRT 2b)

TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Bus Rapid									
		Element Total		17	EA		\$3,739,620	10%	\$63,573,540
							\$0	\$63,573,540	



1 in = 1,000 feet

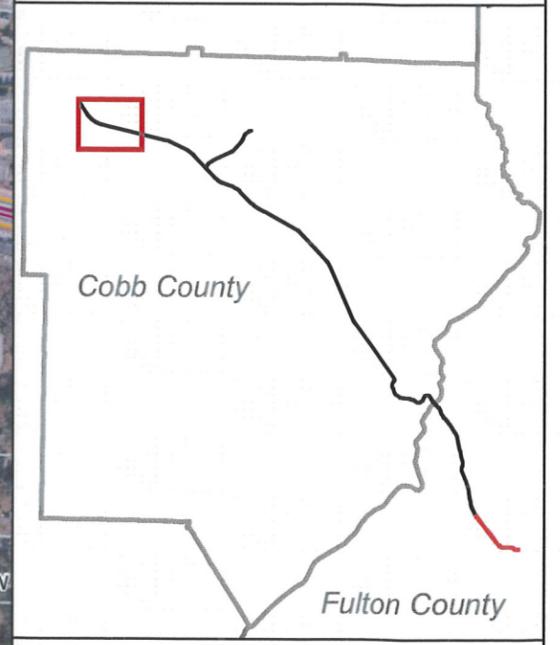


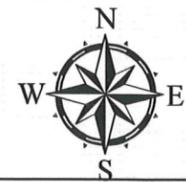
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 2a

Legend

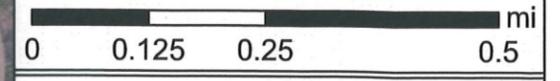
- Corridor Limits
- Edge of Footprint
- Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles





1 in = 1,000 feet

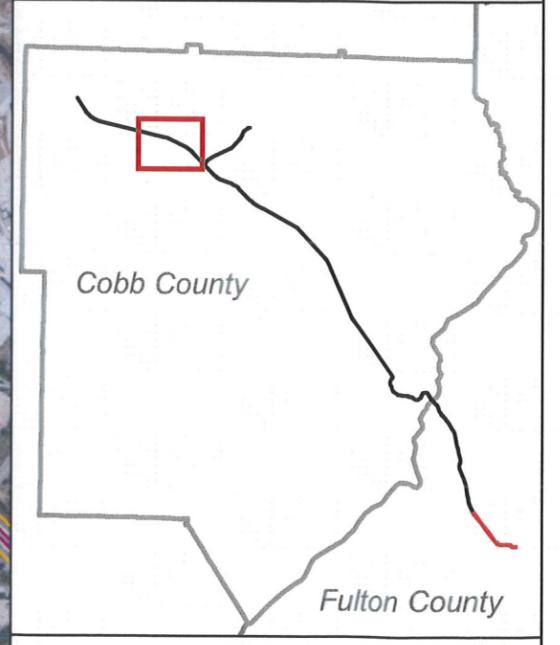


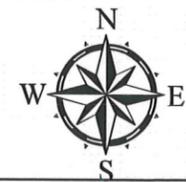
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 2a

Legend

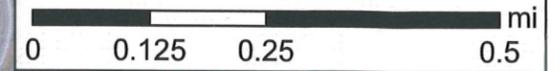
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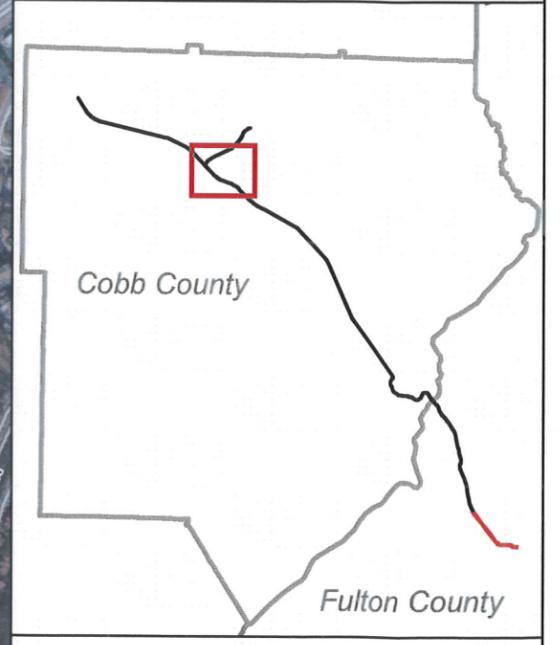


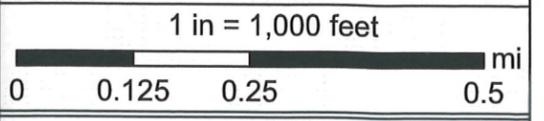
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 2a

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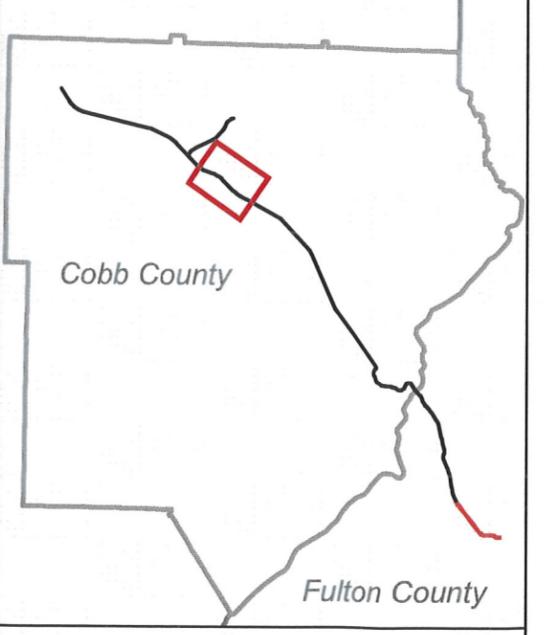


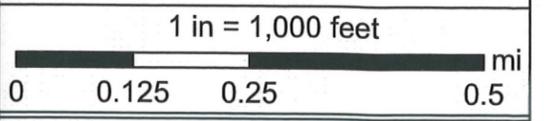
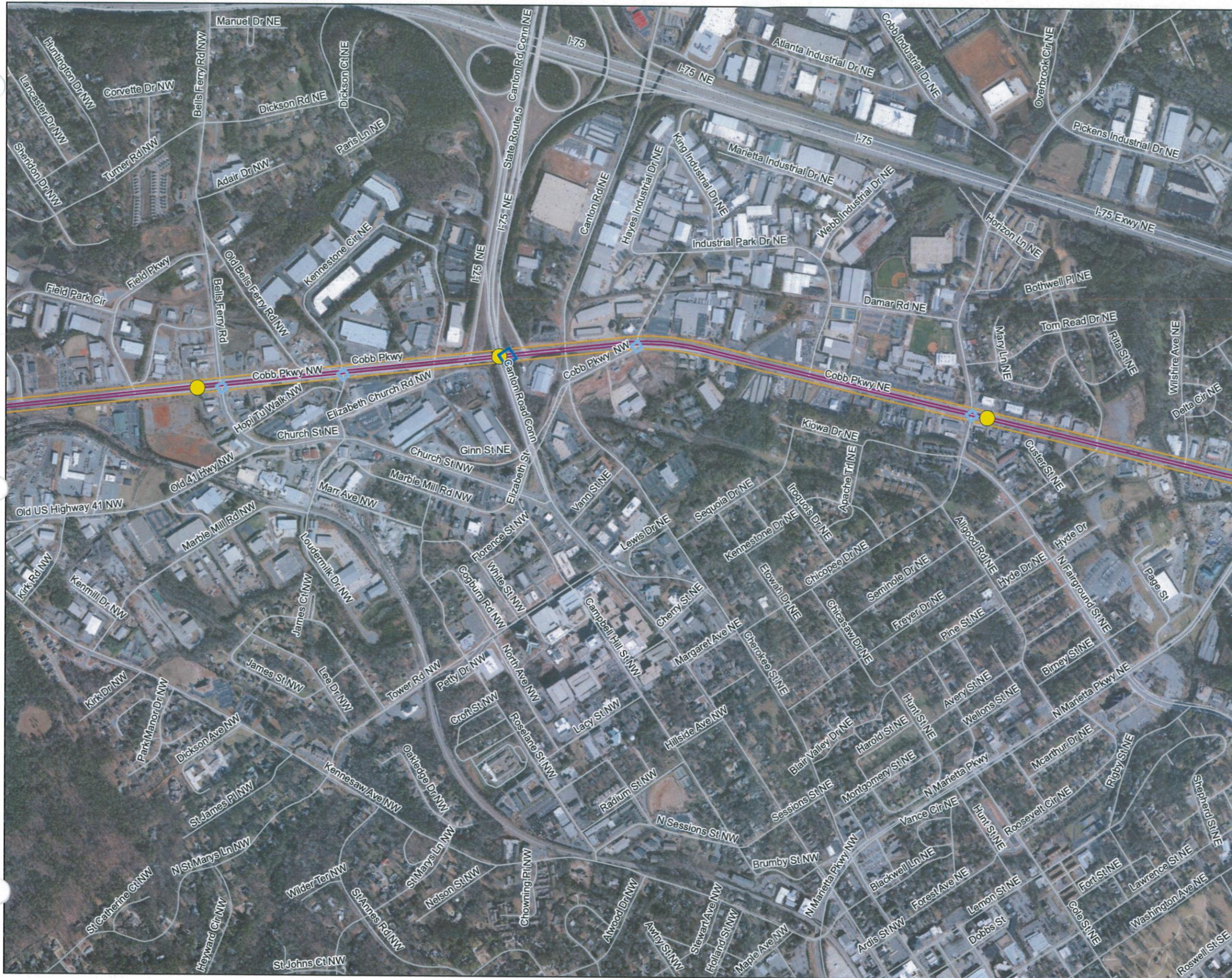


**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 2a

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**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 2a

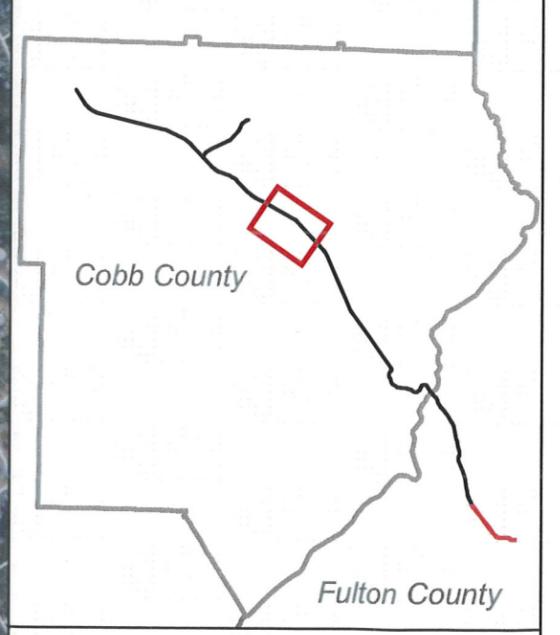
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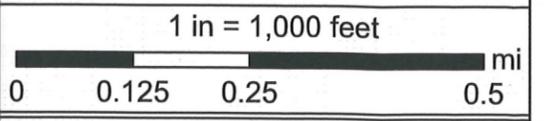
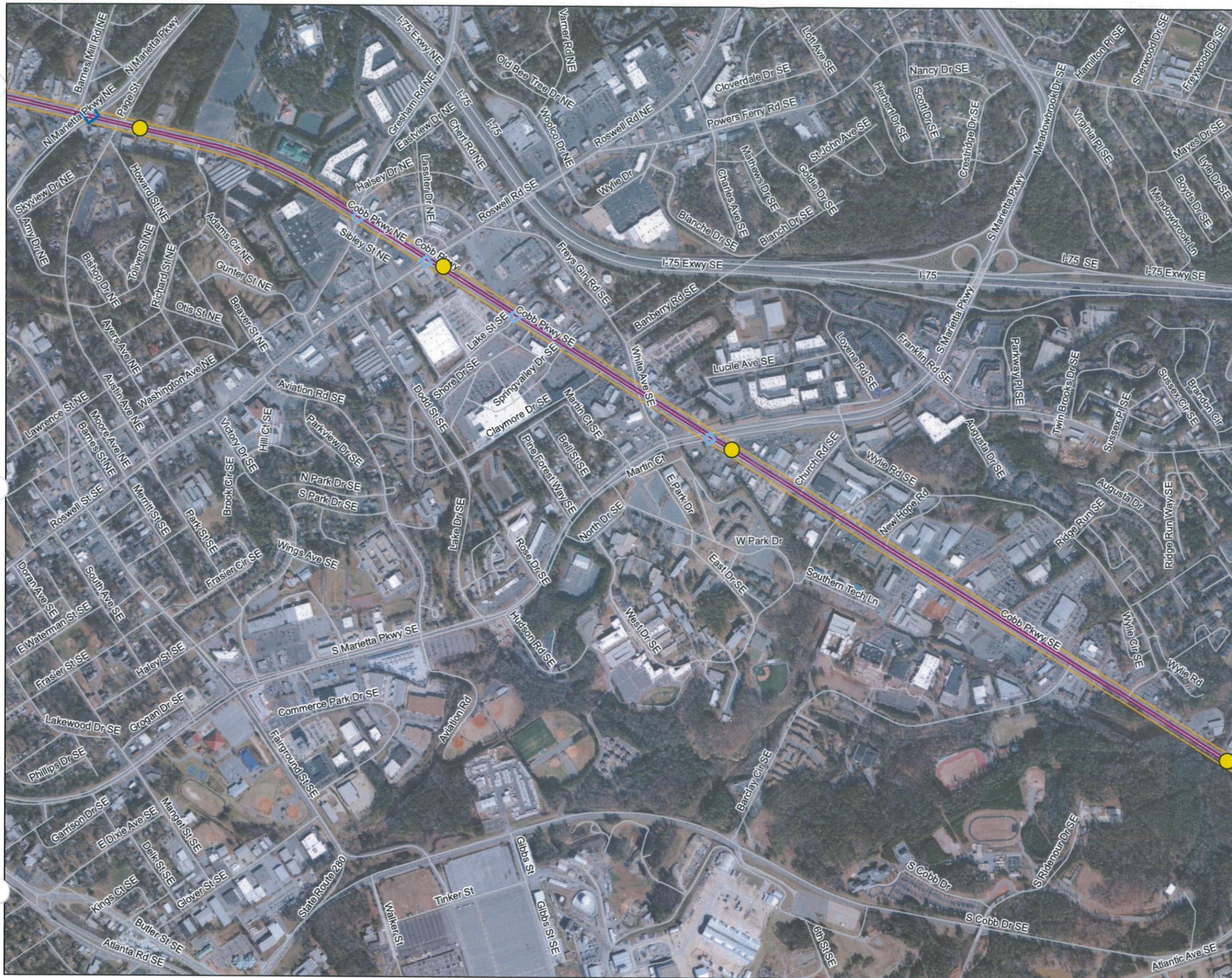
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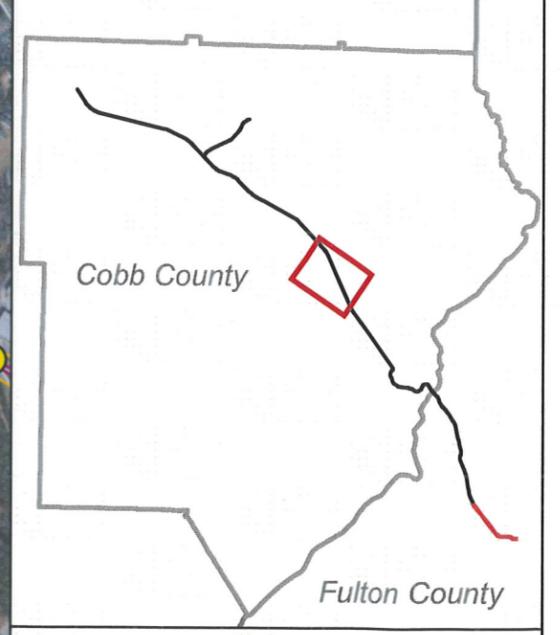


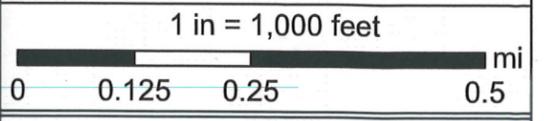


**COBB COUNTY
NORTHWEST
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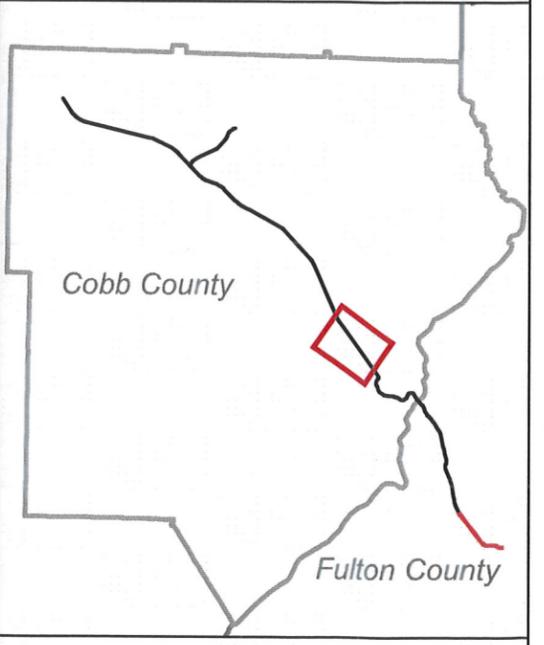


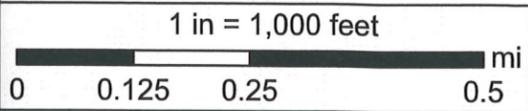
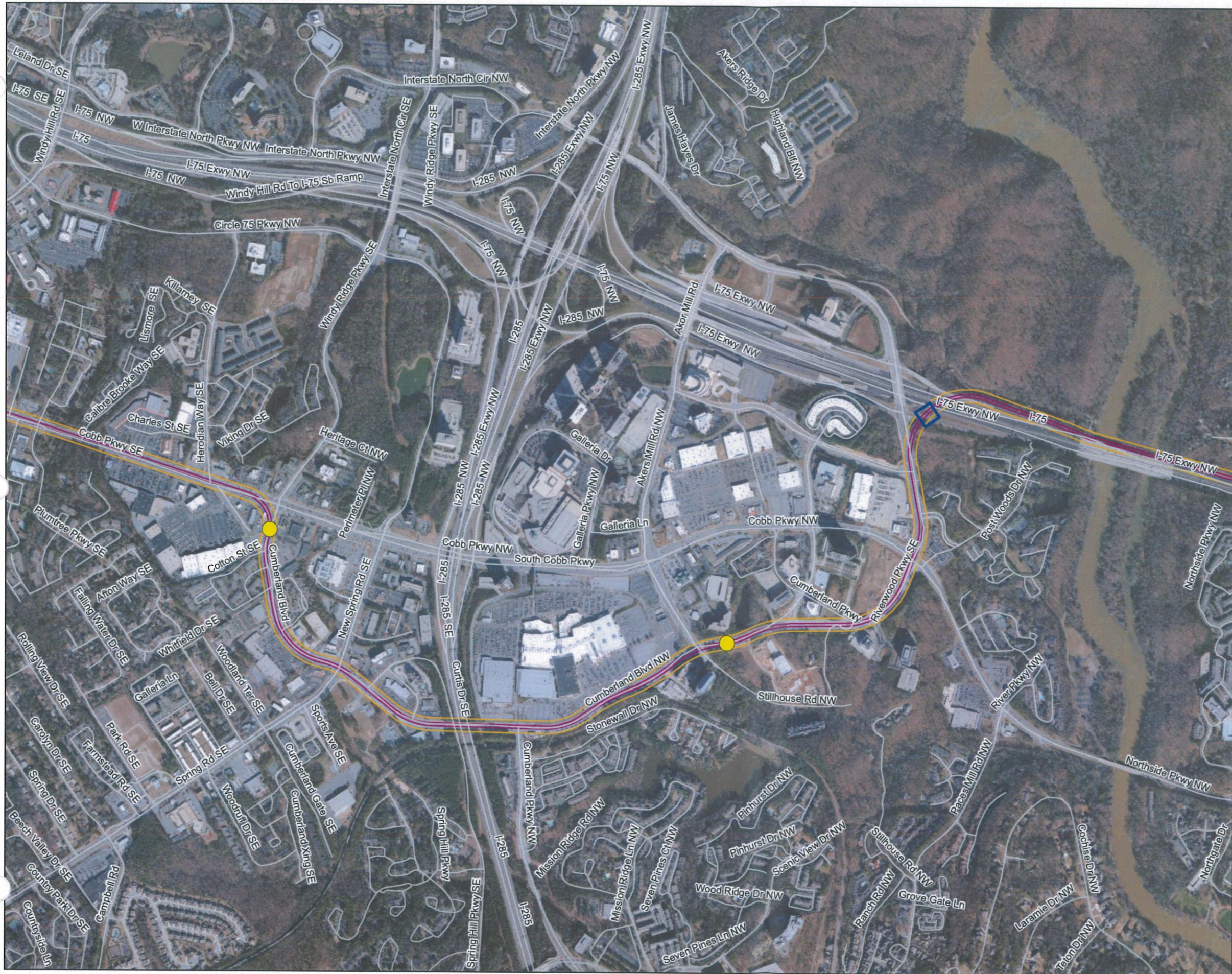


**COBB COUNTY
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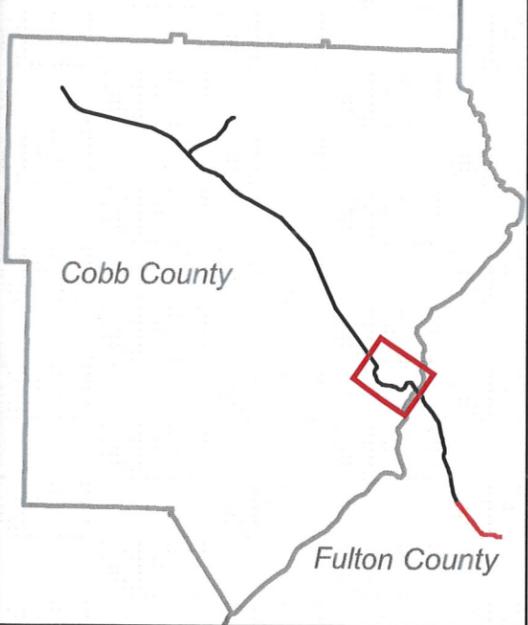


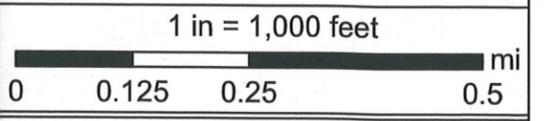


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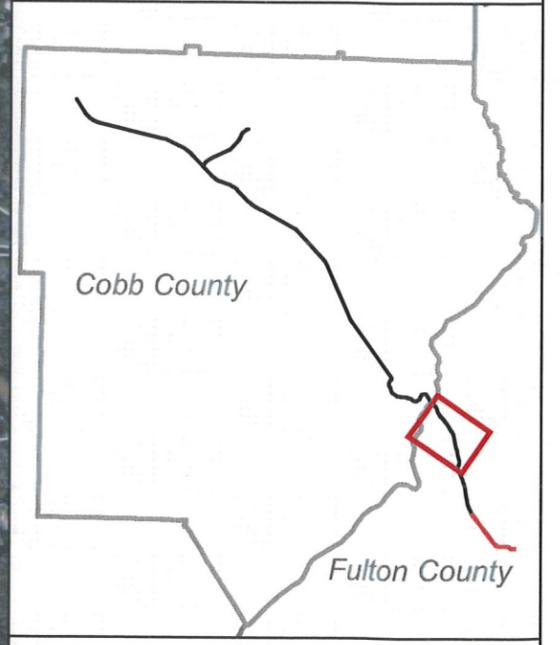


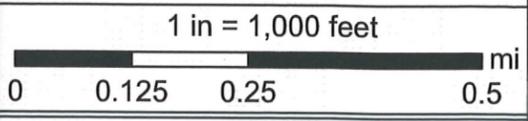


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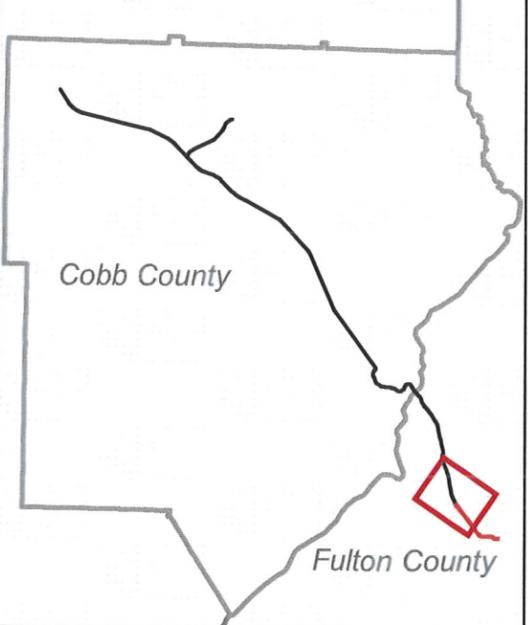


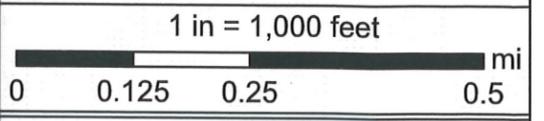
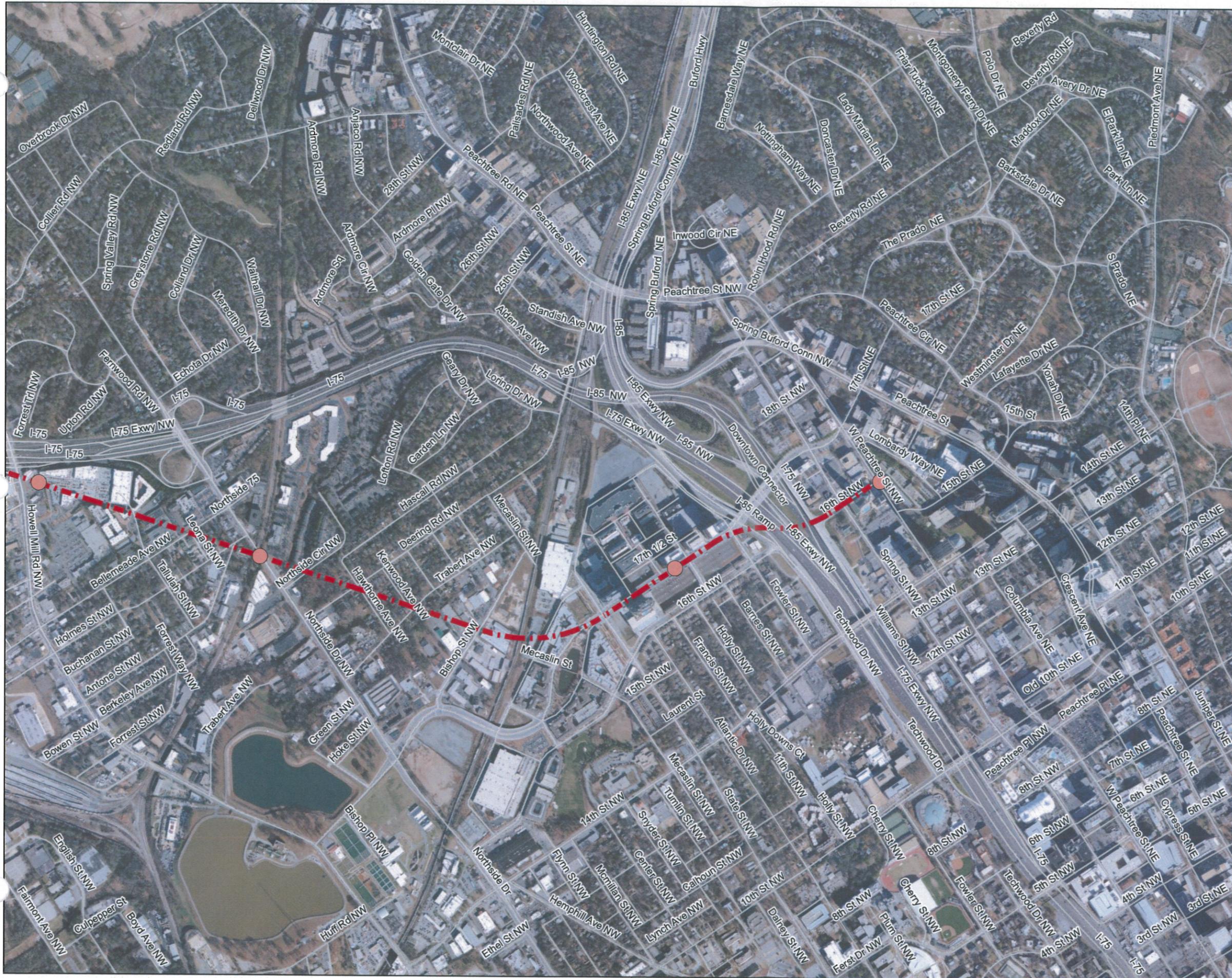


**COBB COUNTY
NORTHWEST
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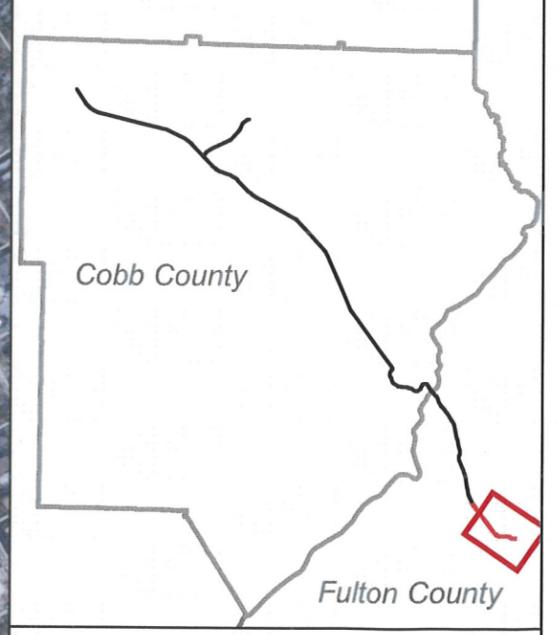




**COBB COUNTY
NORTHWEST
CORRIDOR**
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LTR Alt. 4a
KSU to Midtown via U.S. 41

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 4a) Connect Cobb
	Length (Mile):	24.07
	Number of Stations:	25
	Number of Revenue Vehicles:	30
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$108,652,093
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$27,967,991
10.05	Guideway: Built-up fill	\$142,244,429
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$79,243,740
10.09	Track: Direct fixation	\$12,962,962
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$43,373,215
10.12	Track: Special (switches, turnouts)	\$35,200
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$35,391,342
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,600,725

Cobb County AA
 Connect Cobb Transit
 Capital Cost Estimate
 (2011 Dollars)

CAT No.	Description	(LRT 4a) Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$0
30.03	Heavy Maintenance Facility	\$30,374,340
30.04	Storage or Maintenance of Way Building	\$132,000
30.05	Yard and Yard Track	\$40,000
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,713,419
40.02	Site Utilities, Utility Relocation	\$30,709,738
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$5,799,264
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$2,899,632
40.05	Site structures including retaining walls, sound walls	\$2,372,249
40.06	Pedestrian / bike access and accommodation, landscaping	\$20,591,324
40.07	Automobile, bus, van accessways including roads, parking lots	\$10,498,400
40.08	Temporary Facilities and other indirect costs during construction	\$20,429,225

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 4a) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$60,101,461
50.02	Traffic signals and crossing protection	\$2,438,327
50.03	Traction power supply: substations	\$21,879,041
50.04	Traction power distribution: catenary and third rail	\$50,875,360
50.05	Communications	\$24,778,673
50.06	Fare collection system and equipment	\$7,003,100
50.07	Central Control	\$13,180,145
Subtotal Construction Costs		\$1,409,790,723
Construction Subtotal		\$1,409,790,723
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$7,962,750
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$8,148,750
70	VEHICLES	
70.01	Light Rail	\$112,188,600
Subtotal Vehicles		\$112,188,600

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 4a) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$67,669,955
80.02	Final Design 7.67%	\$108,130,948
80.03	Project Management for Design and Construction 10.66%	\$150,283,691
80.04	Construction Administration & Management 6.41%	\$90,367,585
80.05	Insurance 7.08%	\$99,813,183
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$17,622,384
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$24,671,338
80.08	Other 0.84%	\$11,842,242
Subtotal Professional Services		\$570,401,327
90	UNALLOCATED CONTINGENCY 30.0%	\$630,158,820
	Art in Transit 1.0%	\$14,097,907
Project Total		\$2,744,786,127

Cobb County AA
Connect Cobb Transit
(LRT 4a) KSU to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01	Guideway: At-grade exclusive right-of-way							\$992	0%	
			Element Total		109,528	LF		\$108,652,093	\$0	\$108,652,093
					21	M				
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)							\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03	Guideway: At-grade in mixed traffic							\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04	Guideway: Aerial structure									
	Over Stream/CSX/Armour, Old Briarcliff Rd, Clifton Rd, CSX/Haygood, DeKalb Ind		bridge length		5,787	LF		\$4,833	0%	
			Element Total		1	M		\$27,967,991	\$0	\$27,967,991
10.05	Guideway: Built-up fill							\$1,443	0%	
			Element Total		98,575	LF		\$142,244,429	\$0	\$142,244,429
10.06	Guideway: Underground cut & cover									
	Suburban Plaza		Element Total		3,297	LF		\$34,518,910	\$0	\$34,518,910
10.07	Guideway: Underground tunnel							\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08	Guideway: Retained cut or fill							\$7,235	0%	
			Element Total		10,953	LF		\$79,243,740	\$0	\$79,243,740
10.09	Track: Direct fixation							\$291	0%	
			Element Total		44,546	TF		\$12,962,962	\$0	\$12,962,962
10.10	Track: Embedded							\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11	Track: Ballasted							\$198	0%	
			Element Total		219,057	TF		\$43,373,215	\$0	\$43,373,215
10.12	Track: Special (switches, turnouts)									
	#6 turnout				800					
	double crossover				800			\$22	0%	
			Element Total		1,600	TF		\$35,200	\$0	\$35,200
10.13	Track: Vibration and noise dampening							\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01	At-grade station, stop, shelter, mall, terminal, platform							\$1,685,302	0%	
			Element Total		21	EA		\$35,391,342	\$0	\$35,391,342
20.02	Aerial station, stop, shelter, mall, terminal, platform							\$6,074,194	0%	
			Element Total			EA		\$0	\$0	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform							\$68,628,630	0%	
			Element Total		4	EA		\$274,514,520	\$0	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.							\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(LRT 4a) KSU to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20.05	Joint development							\$43,006	0%	
			Element Total		0	EA		\$0		\$0
20.06	Automobile parking multi-story structure							\$20,220	0%	
			Element Total		2,500	spaces		\$50,650,000		\$50,650,000
20.07	Elevators, escalators							\$1,380,000	0%	
			Element Total		6	EA		\$8,280,000		\$8,280,000
20.08	Passenger Overpass							\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236		\$7,513,236
20.09	Underground Interconnecting Tunnel							\$0	0%	
			Element Total		0	EA		\$0		\$0
20.10	Signage and Graphics							\$144,029	0%	
			Element Total		25	Stations		\$3,600,725		\$3,600,725
40 SITEWORK & SPECIAL CONDITIONS										
40.01	Demolition, Clearing, Earthwork							\$13	0%	
			Element Total		131,801	LF		\$1,713,419		\$1,713,419
40.02	Site Utilities, Utility Relocation							\$233	0%	
			Element Total		131,801	LF		\$30,709,738		\$30,709,738
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments							\$44	0%	
			Element Total		131,801	LF		\$5,799,264		\$5,799,264
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks							\$22	0%	
			Element Total		131,801	LF		\$2,899,632		\$2,899,632
40.05	Site structures including retaining walls, sound walls							\$20	0%	
			Element Total		118,612	LF		\$2,372,249		\$2,372,249
40.06	Pedestrian / bike access and accommodation, landscaping							\$188	0%	
			Element Total		109,528	LF		\$20,591,324		\$20,591,324
40.07	Automobile, bus, van accessways including roads, parking lots							\$4,772	0%	
			Element Total		2,200	spaces		\$10,498,400		\$10,498,400
40.08	Temporary Facilities and other indirect costs during construction							\$155	0%	
			Element Total		131,801	LF		\$20,429,225		\$20,429,225
50 SYSTEMS										
50.01	Train control and signals							\$228	0%	
			Element Total		263,603	TF		\$60,101,461		\$60,101,461
50.02	Traffic signals and at-grade crossing protection							\$37	0%	
			Element Total		65,901	TF		\$2,438,327		\$2,438,327
50.03	Traction power supply: substations							\$83	0%	
			Element Total		263,603	TF		\$21,879,041		\$21,879,041
50.04	Traction power distribution: catenary and third rail							\$193	0%	
			Element Total		263,603	TF		\$60,875,360		\$60,875,360
50.05	Communications							\$94	0%	
			Element Total		263,603	TF		\$24,778,673		\$24,778,673

Cobb County AA
 Connect Cobb Transit
 (LRT 4a) KSU to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
60.06			Fare collection system and equipment					\$280,124	0%	
			Element Total		25	Stations		\$7,003,100	\$0	\$7,003,100
60.07			Central Control					\$50	0%	
			Element Total		263,603	TF		\$13,180,145	\$0	\$13,180,145
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate					\$433,701	0%	
			Element Total		18.36	AC		\$7,962,750	\$0	\$7,962,750
60.02			Relocation of existing households and businesses					\$31	0%	
			Element Total		6,000	LF		\$186,000	\$0	\$186,000
60.03			Services					\$55	0%	
			Element Total		0	LF		\$0	\$0	\$0
60.04			Other Real Estate Costs					\$759	0%	
			Element Total		0	LF		\$0	\$0	\$0

Cobb County AA
 Connect Cobb Transit
 Yard and Shop
 (LRT 4a)

TRANSIT MODE: Light Rail Transit (LRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS									
30.01 Administration Building: Office, sales, storage, revenue counting									
		Element Total		8,000	LF		\$139	0%	
							\$1,112,000	\$0	\$1,112,000
30.02 Light Maintenance Facility									
		Element Total		0	Vehicles		\$909,722	0%	
							\$0	\$0	\$0
30.03 Heavy Maintenance Facility									
		Element Total		30	Vehicles		\$1,012,478	0%	
							\$30,374,340	\$0	\$30,374,340
30.04 Storage or Maintenance of Way Building									
		Element Total		4,000	LF		\$33	0%	
							\$132,000	\$0	\$132,000
30.05 Yard and Yard Track									
		Element Total		8,000	TF		\$5	0%	
							\$40,000	\$0	\$40,000

Cobb County AA
 Connect Cobb Transit
 VEHICLES
 (LRT 4a)

TRANSIT MODE: Light Rail Transit (LRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Light Rail									
		Element Total		30	EA		\$3,739,820	10%	\$112,188,600
							\$112,188,600	\$0	\$112,188,600

BRT Alt. 4a
KSU to Midtown via U.S. 41

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 4b) Connect Cobb
	Length (Mile):	24.07
	Number of Stations:	25
	Number of Revenue Vehicles:	15
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$107,252,064
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$27,983,070
10.05	Guideway: Built-up fill	\$140,411,548
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$78,222,650
10.09	Track: Direct fixation	\$0
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$0
10.12	Track: Special (switches, turnouts)	\$0
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$35,391,342
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,600,725

Cobb County AA
 Connect Cobb Transit
 Capital Cost Estimate
 (2011 Dollars)

CAT No.	Description	(BRT 4b) Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$13,645,830
30.03	Heavy Maintenance Facility	\$0
30.04	Storage or Maintenance of Way Building	\$0
30.05	Yard and Yard Track	\$0
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,695,112
40.02	Site Utilities, Utility Relocation	\$30,381,627
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$5,737,303
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$2,868,652
40.05	Site structures including retaining walls, sound walls	\$2,344,085
40.06	Pedestrian / bike access and accommodation, landscaping	\$20,325,996
40.07	Automobile, bus, van accessways including roads, parking lots	\$10,498,400
40.08	Temporary Facilities and other indirect costs during construction	\$20,210,954

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 4b) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$0
50.02	Traffic signals and crossing protection	\$2,412,275
50.03	Traction power supply: substations	\$0
50.04	Traction power distribution: catenary and third rail	\$0
50.05	Communications	\$24,513,931
50.06	Fare collection system and equipment	\$7,003,100
50.07	Central Control	\$0
Subtotal Construction Costs		\$1,185,001,994
Construction Subtotal		\$1,185,001,994
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$7,962,750
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$8,148,750
70	VEHICLES	
70.01	Light Rail	\$56,094,300
Subtotal Vehicles		\$56,094,300

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 4b) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$56,880,096
80.02	Final Design 7.67%	\$90,889,653
80.03	Project Management for Design and Construction 10.66%	\$126,321,213
80.04	Construction Administration & Management 6.41%	\$75,958,628
80.05	Insurance 7.08%	\$83,898,141
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$14,812,525
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$20,737,535
80.08	Other 0.84%	\$9,954,017
Subtotal Professional Services		\$479,451,807
90	UNALLOCATED CONTINGENCY	
	30.0%	\$518,609,055
	Art in Transit	
	1.0%	\$11,850,020
Project Total		\$2,259,155,926

Cobb County AA
Connect Cobb Transit
(BRT 4b) KSU to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01	Guideway: At-grade exclusive right-of-way							\$992	0%	
			Element Total		109,117	LF		\$107,252,064	\$0	\$107,252,064
					20	M				
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)							\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03	Guideway: At-grade in mixed traffic							\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04	Guideway: Aerial structure									
			bridge length		5,790	LF		\$4,833	0%	
			Element Total		1	M		\$27,983,070	\$0	\$27,983,070
10.05	Guideway: Built-up fill							\$1,443	0%	
			Element Total		97,305	LF		\$140,411,648	\$0	\$140,411,648
10.06	Guideway: Underground cut & cover							\$10,469	0%	
			Element Total		3,297	LF		\$34,518,910	\$0	\$34,518,910
10.07	Guideway: Underground tunnel							\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08	Guideway: Retained cut or fill							\$7,235	0%	
			Element Total		10,812	LF		\$78,222,650	\$0	\$78,222,650
10.09	Track: Direct fixation							\$291	0%	
			Element Total			TF		\$0	\$0	\$0
10.10	Track: Embedded							\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11	Track: Ballasted							\$198	0%	
			Element Total			TF		\$0	\$0	\$0
10.12	Track: Special (switches, turnouts)									
			#6 turnout double crossover					\$22	0%	
			Element Total		0	TF		\$0	\$0	\$0
10.13	Track: Vibration and noise dampening							\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01	At-grade station, stop, shelter, mall, terminal, platform							\$1,685,302	0%	
			Element Total		21	EA		\$35,391,342	\$0	\$35,391,342
20.02	Aerial station, stop, shelter, mall, terminal, platform							\$6,074,194	0%	
			Element Total			EA		\$0	\$0	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform							\$68,628,630	0%	
			Element Total		4	EA		\$274,514,520	\$0	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.							\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(BRT 4b) KSU to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		2,500	spaces		\$50,550,000	\$0	\$50,550,000
20.07			Elevators, escalators					\$1,380,000	0%	
			Element Total		6	EA		\$8,280,000	\$0	\$8,280,000
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236	\$0	\$7,513,236
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		25	Stations		\$3,600,725	\$0	\$3,600,725
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		130,393	LF		\$1,695,112	\$0	\$1,695,112
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		130,393	LF		\$30,381,627	\$0	\$30,381,627
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		130,393	LF		\$5,737,303	\$0	\$5,737,303
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		130,393	LF		\$2,868,652	\$0	\$2,868,652
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		117,204	LF		\$2,344,085	\$0	\$2,344,085
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		108,117	LF		\$20,325,996	\$0	\$20,325,996
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		2,200	spaces		\$10,498,400	\$0	\$10,498,400
40.08			Temporary Facilities and other indirect costs during construction					\$155	0%	
			Element Total		130,393	LF		\$20,210,954	\$0	\$20,210,954
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total		0	TF		\$0	\$0	\$0
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		65,197	TF		\$2,412,275	\$0	\$2,412,275
50.03			Traction power supply: substations					\$83	0%	
			Element Total		0	TF		\$0	\$0	\$0
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total		0	TF		\$0	\$0	\$0
50.05			Communications					\$94	0%	
			Element Total		260,787	TF		\$24,513,931	\$0	\$24,513,931

Cobb County AA
 Connect Cobb Transit
 (BRT 4b) KSU to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
60.06			Fare collection system and equipment					\$280,124	0%	
			Element Total		25	Stations		\$7,003,100	\$0	\$7,003,100
60.07			Central Control					\$50	0%	
			Element Total		0	TF		\$0	\$0	\$0
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate					\$433,701	0%	
			Element Total		18.36	AC		\$7,962,750	\$0	\$7,962,750
60.02			Relocation of existing households and businesses					\$31	0%	
			Element Total		6,000	LF		\$186,000	\$0	\$186,000
60.03			Services					\$55	0%	
			Element Total		0	LF		\$0	\$0	\$0
60.04			Other Real Estate Costs					\$759	0%	
			Element Total		0	LF		\$0	\$0	\$0

Cobb County AA
 Connect Cobb Transf
 Yard and Shop
 (BRT 4b)

TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END								
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS									
30.01 Administration Building: Office, sales, storage, revenue counting									
		Element Total		8,000	LF		\$1,112,000	\$0	\$1,112,000
							\$139	0%	
30.02 Light Maintenance Facility									
		Element Total		16	Vehicles		\$13,645,830	\$0	\$13,645,830
							\$909,722	0%	
30.03 Heavy Maintenance Facility									
		Element Total		0	Vehicles		\$0	\$0	\$0
							\$1,012,478	0%	
30.04 Storage or Maintenance of Way Building									
		Element Total		0	LF		\$0	\$0	\$0
							\$33	0%	
30.05 Yard and Yard Track									
		Element Total		0	TF		\$0	\$0	\$0
							\$5	0%	

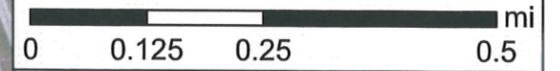
Cobb County AA
 Connect Cobb Transit
 VEHICLES
 (BRT 4b)

TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Bus Rapid									
		Element Total		15	EA		\$3,739,620	10%	
							\$56,094,300	\$0	\$56,094,300



1 in = 1,000 feet



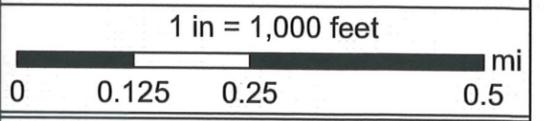
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

Legend

- Corridor Limits
- Edge of Footprint
- - - Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles

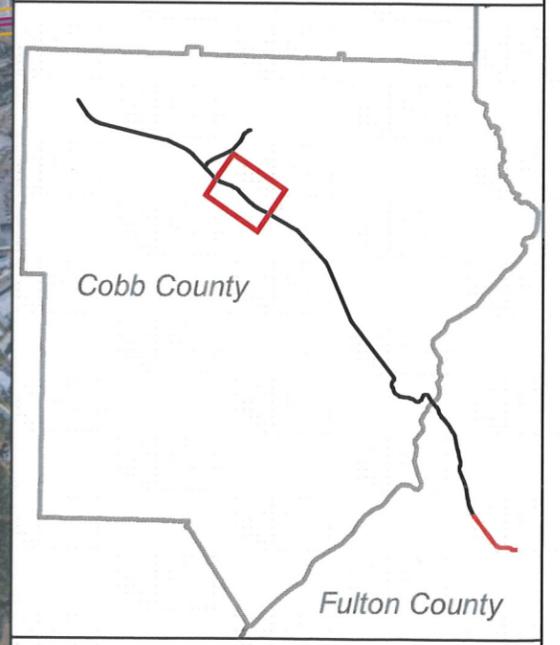


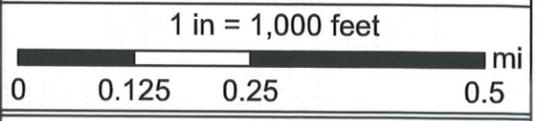
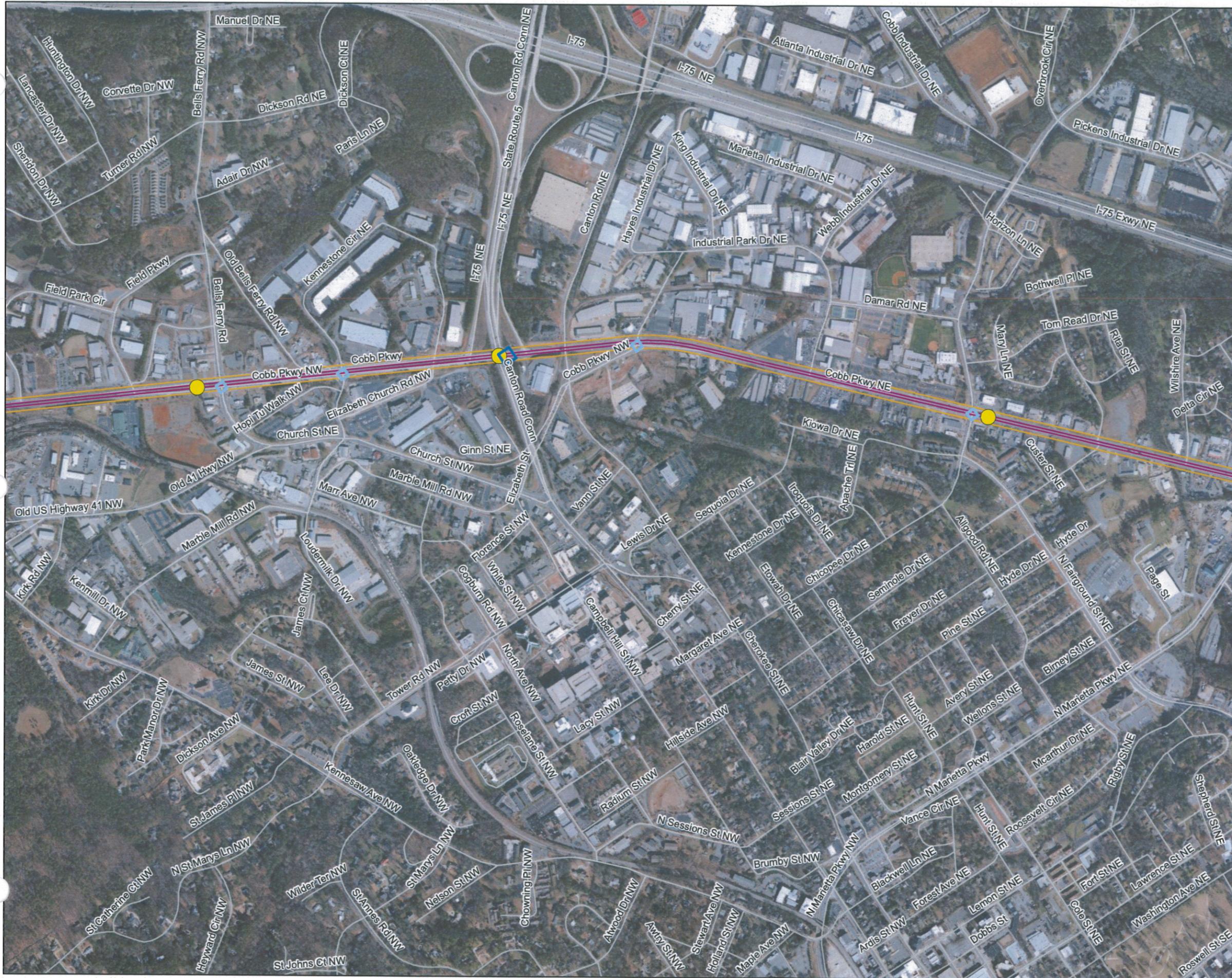


**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

- Legend**
- Corridor Limits
 - Edge of Footprint
 - - - Underground Alignment
 - Streets
 - Potential Station Location (at-grade)
 - Potential Station Location (underground)
- Potential Aerial Structure Length
- 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles





**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

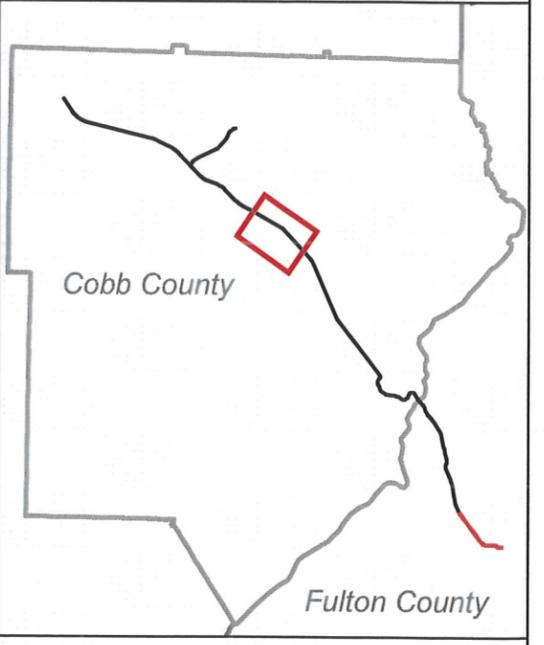
Legend

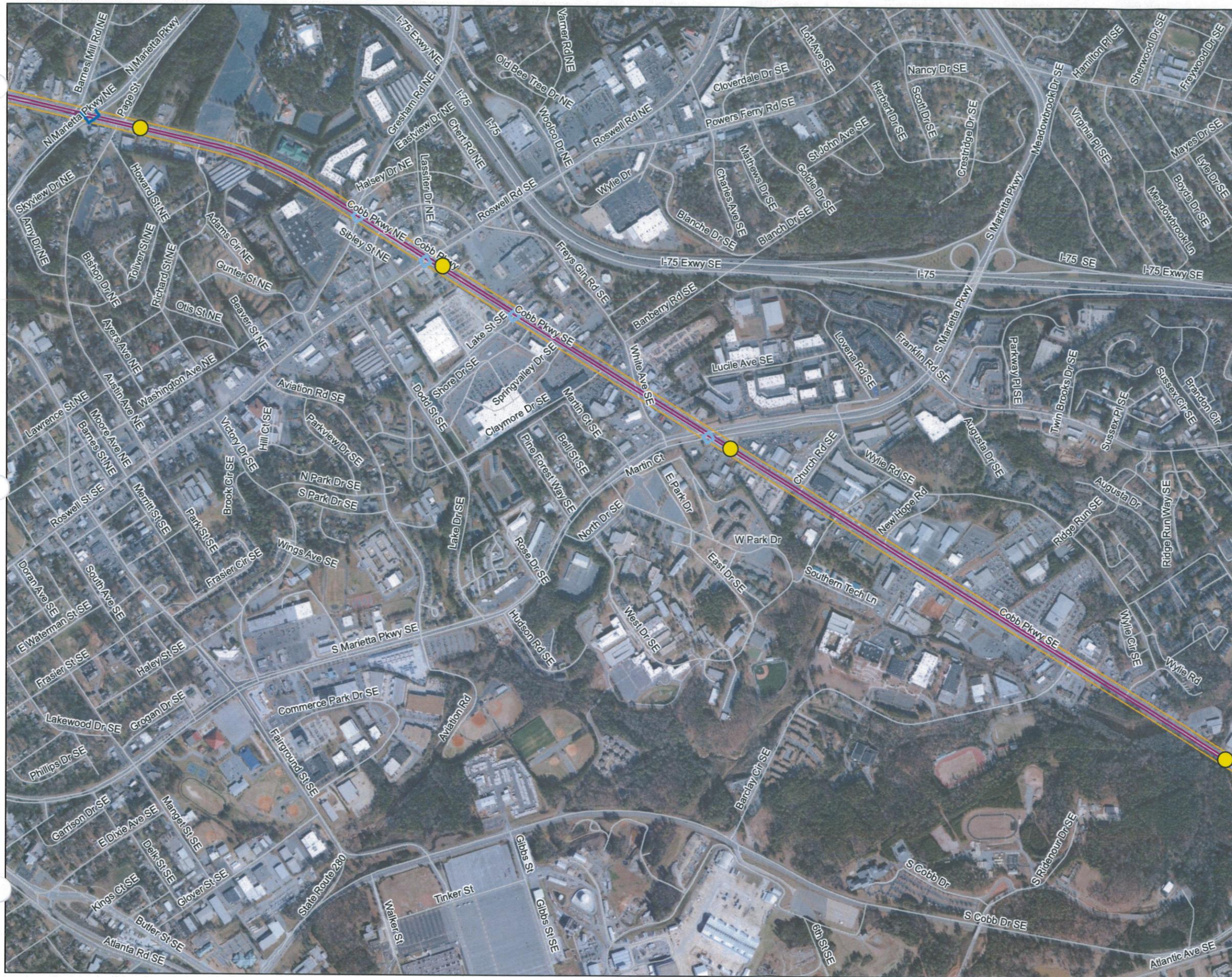
- Corridor Limits
- Edge of Footprint
- - - Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)

Potential Aerial Structure Length

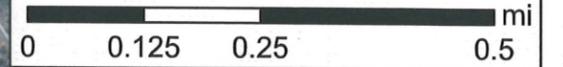
- 0 - 400
- 401 - 1,000
- 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles





1 in = 1,000 feet



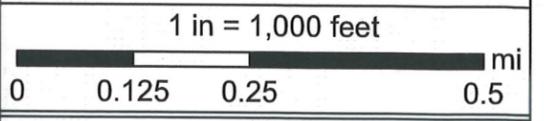
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

Legend

- Corridor Limits
- Edge of Footprint
- - - Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles

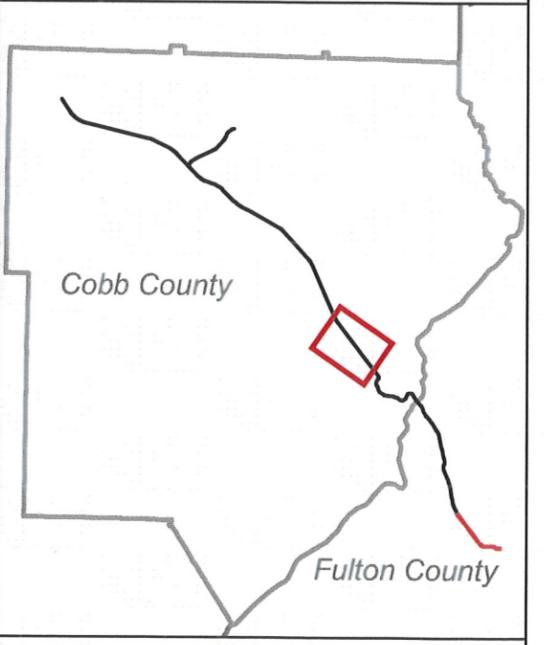


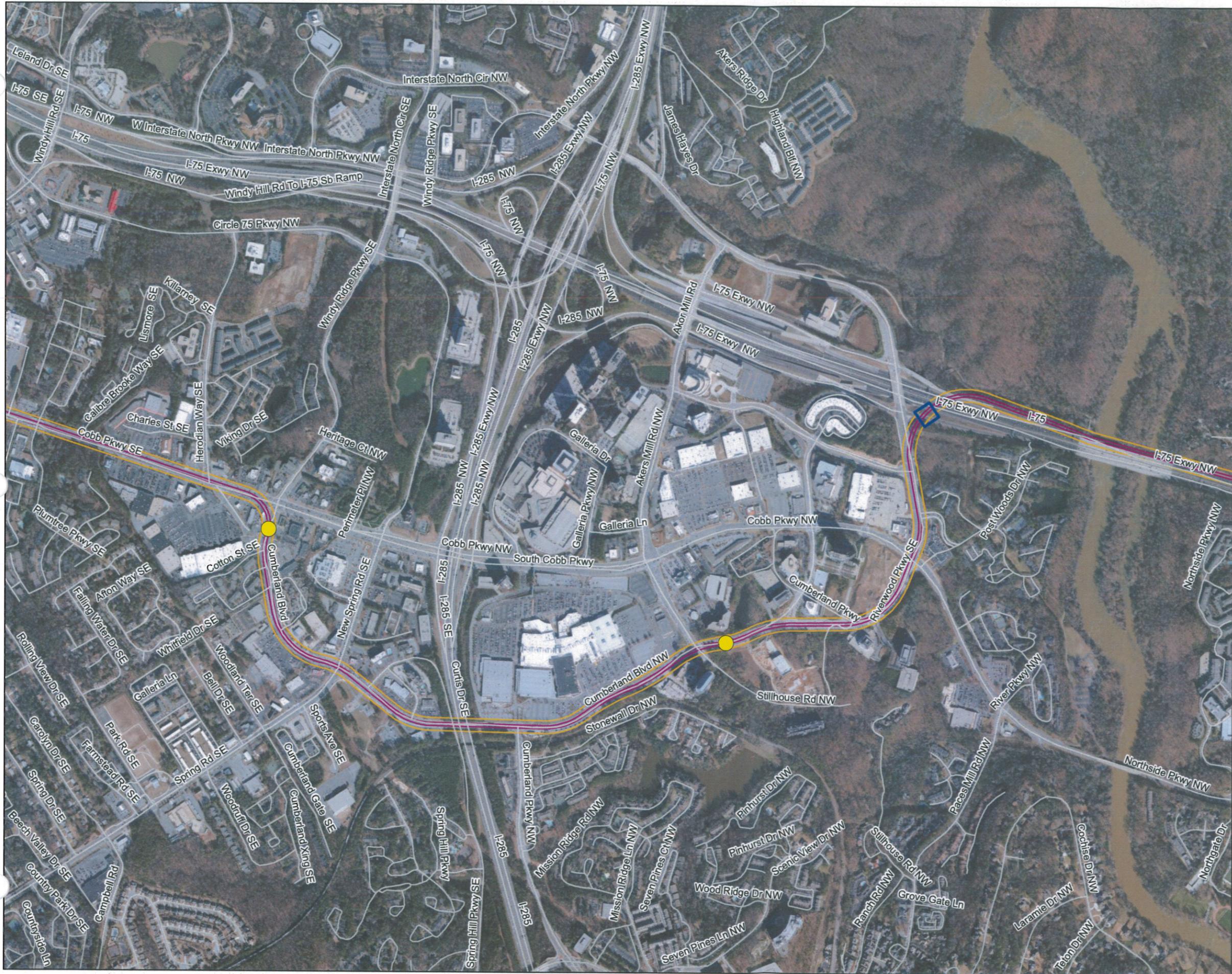


**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

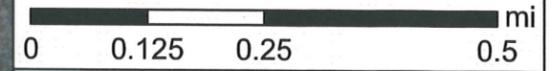
- Legend**
- Corridor Limits
 - Edge of Footprint
 - - - Underground Alignment
 - Streets
 - Potential Station Location (at-grade)
 - Potential Station Location (underground)
 - Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles





1 in = 1,000 feet

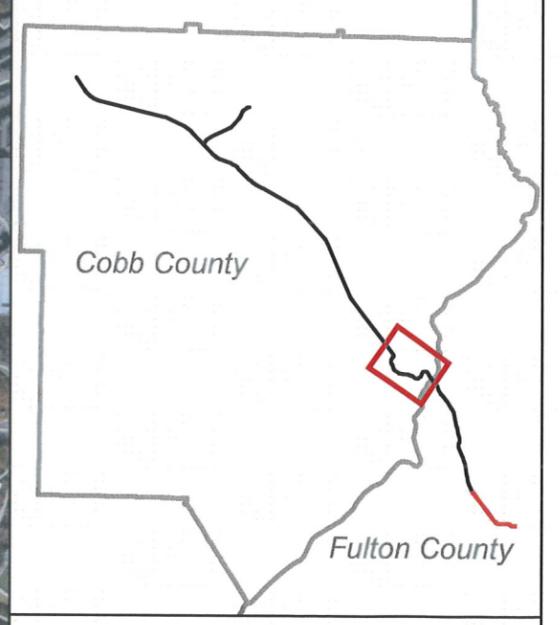


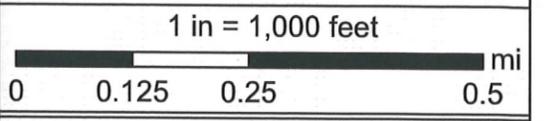
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

Legend

- Corridor Limits
- Edge of Footprint
- Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles

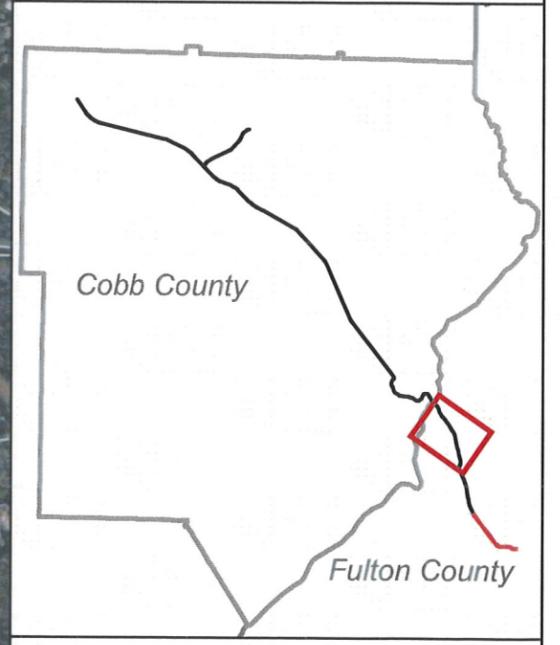


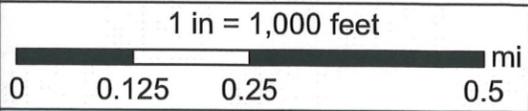


**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

- Legend**
- Corridor Limits
 - Edge of Footprint
 - - - Underground Alignment
 - Streets
 - Potential Station Location (at-grade)
 - Potential Station Location (underground)
 - Potential Aerial Structure Length
 - 0 - 400
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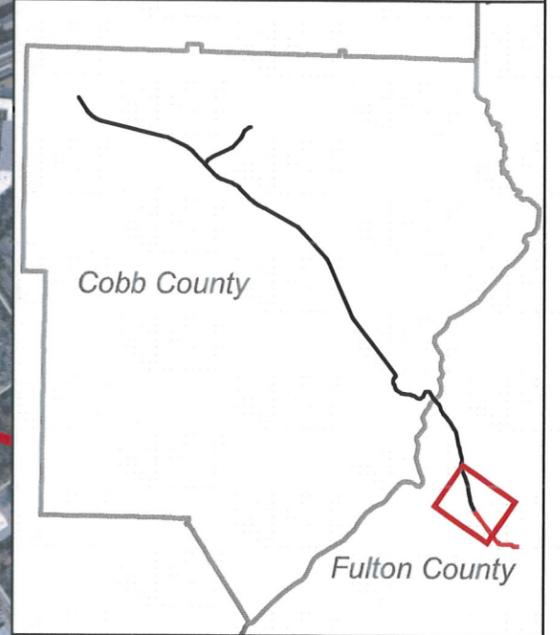


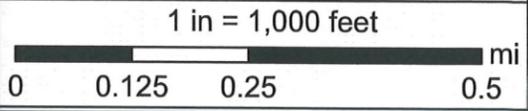
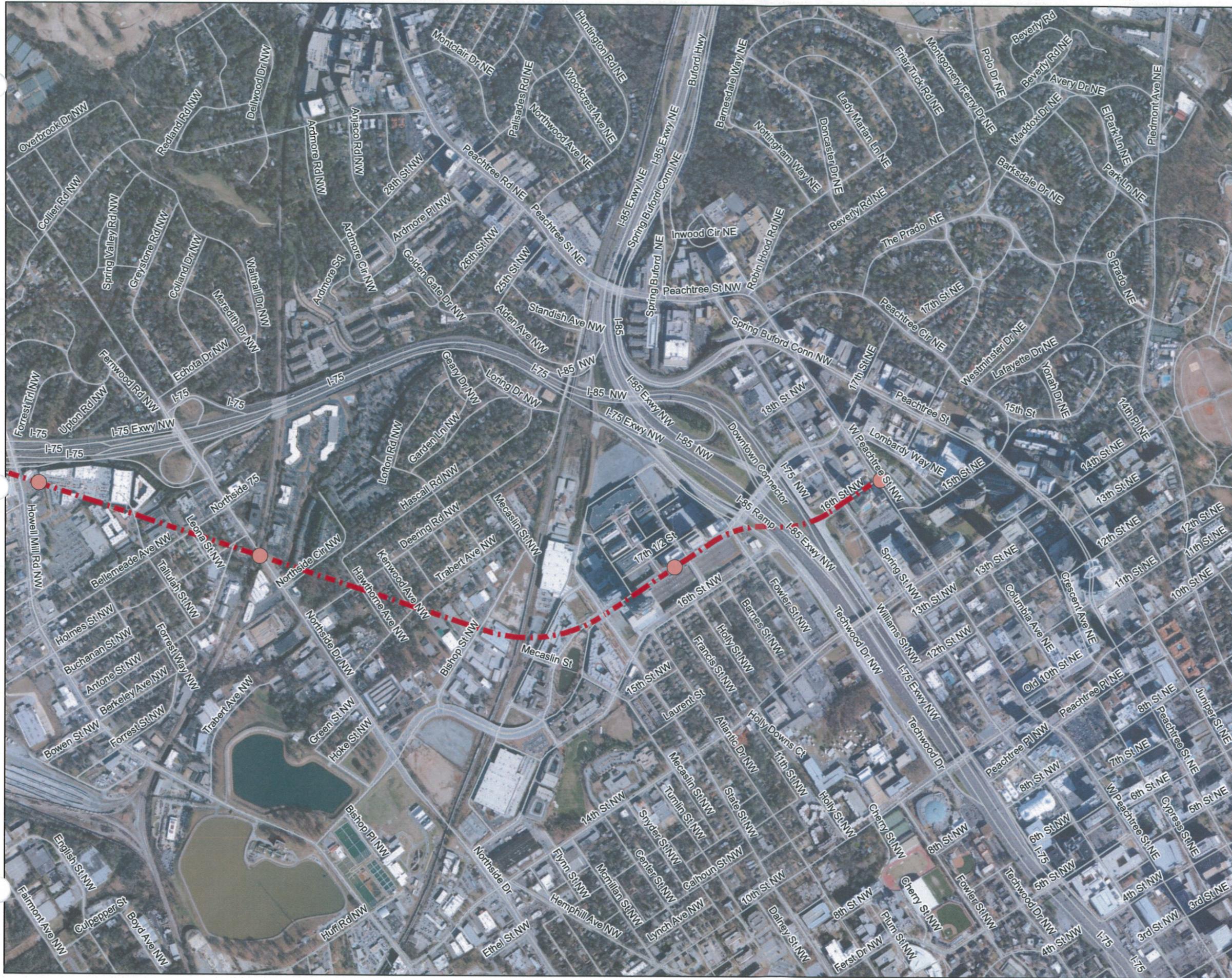
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

Legend

- Corridor Limits
- Edge of Footprint
- Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
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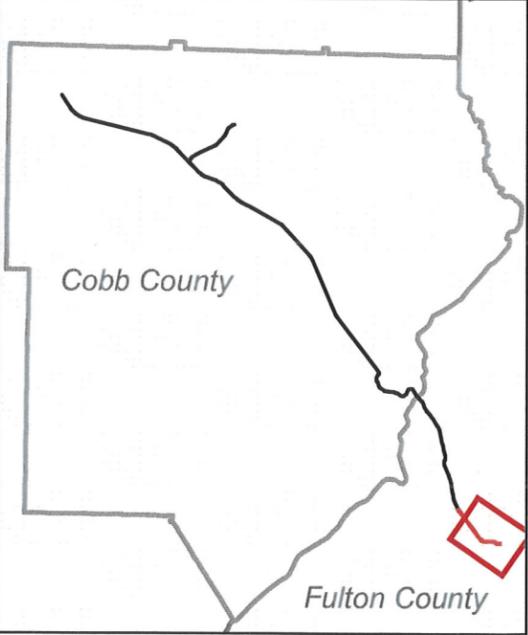


**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4a

Legend

- Corridor Limits
- Edge of Footprint
- Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles



Option 2
I-75 Access @ Northside Pkwy.
(Fulton County)

LTR Alt. 1aa
Acworth to Midtown via I-75

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 2aa) Connect Cobb
	Length (Mile):	27.68
	Number of Stations:	26
	Number of Revenue Vehicles:	33
10 GUIDEWAY & TRACK ELEMENTS		
10.01	Guideway: At-grade exclusive right-of-way	\$117,676,754
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$23,042,971
10.05	Guideway: Built-up fill	\$154,059,275
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$85,825,737
10.09	Track: Direct fixation	\$12,369,880
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$46,975,801
10.12	Track: Special (switches, turnouts)	\$110,000
10.13	Track: Vibration and noise dampening	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL		
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$37,076,644
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,744,754

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

		(LRT 2aa)
CAT No.	Description	Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$0
30.03	Heavy Maintenance Facility	\$33,411,774
30.04	Storage or Maintenance of Way Building	\$132,000
30.05	Yard and Yard Track	\$40,000
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,818,438
40.02	Site Utilities, Utility Relocation	\$32,592,005
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$6,154,713
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$3,077,357
40.05	Site structures including retaining walls, sound walls	\$2,533,817
40.06	Pedestrian / bike access and accommodation, landscaping	\$22,301,643
40.07	Automobile, bus, van accessways including roads, parking lots	\$11,214,200
40.08	Temporary Facilities and other indirect costs during construction	\$21,681,377

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 2aa) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$63,785,212
50.02	Traffic signals and crossing protection	\$4,389,153
50.03	Traction power supply: substations	\$23,220,055
50.04	Traction power distribution: catenary and third rail	\$53,993,622
50.05	Communications	\$26,297,412
50.06	Fare collection system and equipment	\$7,283,224
50.07	Central Control	\$13,987,985
Subtotal Construction Costs		\$1,459,299,133
Construction Subtotal		\$1,459,299,133
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$5,776,897
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$5,962,897
70	VEHICLES	
70.01	Light Rail	\$123,407,460
Subtotal Vehicles		\$123,407,460

Cobb County AA
 Connect Cobb Transit
 Capital Cost Estimate
 (2011 Dollars)

CAT No.	Description	(LRT 2aa) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$70,046,358
80.02	Final Design 7.67%	\$111,928,243
80.03	Project Management for Design and Construction 10.66%	\$155,561,288
80.04	Construction Administration & Management 6.41%	\$93,541,074
80.05	Insurance 7.08%	\$103,318,379
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$18,241,239
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$25,537,735
80.08	Other 0.84%	\$12,258,113
Subtotal Professional Services LS		\$590,432,429
90	UNALLOCATED CONTINGENCY 30.0%	\$653,730,576
	Art in Transit 1.0%	\$14,592,991
Project Total		\$2,847,425,486

Cobb County AA
Connect Cobb Transit
(LRT 2aa) Acworth to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01	Guideway: At-grade exclusive right-of-way							\$992	0%	
			Element Total		118,626	LF		\$117,676,754	\$0	\$117,676,754
					22	M				
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)							\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03	Guideway: At-grade in mixed traffic							\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04	Guideway: Aerial structure									
			bridge length		4,768	LF		\$4,833	0%	
			Element Total		1	M		\$23,042,971	\$0	\$23,042,971
10.05	Guideway: Built-up fill							\$1,443	0%	
			Element Total		106,763	LF		\$154,059,275	\$0	\$154,059,275
10.06	Guideway: Underground cut & cover							\$10,469	0%	
			Element Total		3,297	LF		\$34,618,910	\$0	\$34,618,910
10.07	Guideway: Underground tunnel							\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08	Guideway: Retained cut or fill							\$7,235	0%	
			Element Total		11,863	LF		\$85,825,737	\$0	\$85,825,737
10.09	Track: Direct fixation							\$291	0%	
			Element Total		42,508	TF		\$12,369,880	\$0	\$12,369,880
10.10	Track: Embedded							\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11	Track: Ballasted							\$198	0%	
			Element Total		237,252	TF		\$46,975,801	\$0	\$46,975,801
10.12	Track: Special (switches, turnouts)									
			#6 turnout		2,500					
			double crossover		2,500			\$22	0%	
			Element Total		5,000	TF		\$110,000	\$0	\$110,000
10.13	Track: Vibration and noise dampening							\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01	At-grade station, stop, shelter, mall, terminal, platform							\$1,685,302	0%	
			Element Total		22	EA		\$37,076,644	\$0	\$37,076,644
20.02	Aerial station, stop, shelter, mall, terminal, platform							\$6,074,194	0%	
			Element Total		0	EA		\$0	\$0	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform							\$68,628,630	0%	
			Element Total		4	EA		\$274,614,520	\$0	\$274,614,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.							\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(LRT 2aa) Acworth to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0		\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		2,500	spaces		\$50,550,000		\$0
20.07			Elevators, escalators					\$1,380,000	0%	
			Element Total		6	EA		\$8,280,000		\$0
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236		\$0
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0		\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		26	Stations		\$3,744,754		\$0
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		139,880	LF		\$1,818,438		\$0
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		139,880	LF		\$32,592,005		\$0
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		139,880	LF		\$6,154,713		\$0
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		139,880	LF		\$3,077,357		\$0
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		126,691	LF		\$2,533,817		\$0
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		118,626	LF		\$22,301,643		\$0
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		2,350	spaces		\$11,214,200		\$0
40.08			Temporary Facilities and other indirect costs during construction					\$155	0%	
			Element Total		139,880	LF		\$21,681,377		\$0
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total		279,760	TF		\$63,785,212		\$0
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		118,626	TF		\$4,389,153		\$0
50.03			Traction power supply: substations					\$83	0%	
			Element Total		279,760	TF		\$23,220,055		\$0
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total		279,760	TF		\$53,993,622		\$0
50.05			Communications					\$94	0%	
			Element Total		279,760	TF		\$26,297,412		\$0

Cobb County AA
 Connect Cobb Transit
 (LRT 2aa) Acworth to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
60.06			Fare collection system and equipment					\$280,124	0%	
			Element Total		26	Stations		\$7,283,224	\$0	\$7,283,224
60.07			Central Control					\$50	0%	
			Element Total		279,760	TF		\$13,987,985	\$0	\$13,987,985
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate					\$433,701	0%	
			Element Total		13.32	AC		\$5,776,897	\$0	\$5,776,897
60.02			Relocation of existing households and businesses					\$31	0%	
			Element Total		6,000	LF		\$186,000	\$0	\$186,000
60.03			Services					\$55	0%	
			Element Total		0	LF		\$0	\$0	\$0
60.04			Other Real Estate Costs					\$759	0%	
			Element Total		0	LF		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
Yard and Shop
(LRT 2aa)

TRANSIT MODE: Light Rail Transit (LRT)

	STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END								
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS										
30.01 Administration Building: Office, sales, storage, revenue counting										
			Element Total		8,000	LF		\$139	0%	
							\$1,112,000	\$0		\$1,112,000
30.02 Light Maintenance Facility										
			Element Total		0	Vehicles		\$909,722	0%	
							\$0	\$0		\$0
30.03 Heavy Maintenance Facility										
			Element Total		33	Vehicles		\$1,012,478	0%	
							\$33,411,774	\$0		\$33,411,774
30.04 Storage or Maintenance of Way Building										
			Element Total		4,000	LF		\$33	0%	
							\$132,000	\$0		\$132,000
30.05 Yard and Yard Track										
			Element Total		8,000	TF		\$5	0%	
							\$40,000	\$0		\$40,000

Cobb County AA
 Connect Cobb Transit
 VEHICLES
 (LRT 2aa)

TRANSIT MODE: Light Rail Transit (LRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Light Rail									
		Element Total		33	EA		\$3,739,620	10%	
							\$123,407,460	\$0	\$123,407,460

BRT Alt. 2bb
Acworth to Midtown via U.S. 41

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 2bb) Connect Cobb
	Length (Mile):	27.68
	Number of Stations:	26
	Number of Revenue Vehicles:	17
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$112,926,106
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$11,989,706
10.05	Guideway: Built-up fill	\$147,839,852
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$82,360,925
10.09	Track: Direct fixation	\$0
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$0
10.12	Track: Special (switches, turnouts)	\$0
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$37,076,644
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,744,754

Cobb County AA
 Connect Cobb Transit
 Capital Cost Estimate
 (2011 Dollars)

		(BRT 2bb)
CAT No.	Description	Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$15,465,274
30.03	Heavy Maintenance Facility	\$0
30.04	Storage or Maintenance of Way Building	\$0
30.05	Yard and Yard Track	\$0
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,726,450
40.02	Site Utilities, Utility Relocation	\$30,943,297
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$5,843,369
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$2,921,685
40.05	Site structures including retaining walls, sound walls	\$2,392,297
40.06	Pedestrian / bike access and accommodation, landscaping	\$21,401,318
40.07	Automobile, bus, van accessways including roads, parking lots	\$11,214,200
40.08	Temporary Facilities and other indirect costs during construction	\$20,584,597

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 2bb) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$0
50.02	Traffic signals and crossing protection	\$2,456,871
50.03	Traction power supply: substations	\$0
50.04	Traction power distribution: catenary and third rail	\$0
50.05	Communications	\$24,967,124
50.06	Fare collection system and equipment	\$7,283,224
50.07	Central Control	\$0
Subtotal Construction Costs		\$1,193,641,024
Construction Subtotal		\$1,193,641,024
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$5,776,897
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$5,962,897
70	VEHICLES	
70.01	Light Rail	\$63,573,540
Subtotal Vehicles		\$63,573,540

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 2bb) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$57,294,769
80.02	Final Design 7.67%	\$91,552,267
80.03	Project Management for Design and Construction 10.66%	\$127,242,133
80.04	Construction Administration & Management 6.41%	\$76,512,390
80.05	Insurance 7.08%	\$84,509,784
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$14,920,513
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$20,888,718
80.08	Other 0.84%	\$10,026,585
Subtotal Professional Services		\$482,947,158
90	UNALLOCATED CONTINGENCY 30.0%	\$523,837,386
	Art in Transit 1.0%	\$11,936,410
Project Total		\$2,281,898,415

Cobb County AA
Connect Cobb Transit
(BRT 2bb) Acworth to Mldtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01			Guideway: At-grade exclusive right-of-way					\$992	0%	
			Element Total		113,837	LF		\$112,926,106	\$0	\$112,926,106
					22	M				
10.02			Guideway: At-grade semi-exclusive (allows cross-traffic)					\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03			Guideway: At-grade In mixed traffic					\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04			Guideway: Aerial structure							
			bridge length		2,481	LF		\$4,833	0%	
			Element Total		0	M		\$11,989,706	\$0	\$11,989,706
10.05			Guideway: Built-up fill					\$1,443	0%	
			Element Total		102,453	LF		\$147,839,852	\$0	\$147,839,852
10.06			Guideway: Underground cut & cover					\$10,469	0%	
			Element Total		3,297	LF		\$34,518,910	\$0	\$34,518,910
10.07			Guideway: Underground tunnel					\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08			Guideway: Retained cut or fill					\$7,235	0%	
			Element Total		11,384	LF		\$82,360,925	\$0	\$82,360,925
10.09			Track: Direct fixation					\$291	0%	
			Element Total			TF		\$0	\$0	\$0
10.10			Track: Embedded					\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11			Track: Ballasted					\$198	0%	
			Element Total			TF		\$0	\$0	\$0
10.12			Track: Special (switches, turnouts)							
			#6 turnout double crossover					\$22	0%	
			Element Total		0	TF		\$0	\$0	\$0
10.13			Track: Vibration and noise dampening					\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01			At-grade station, stop, shelter, mall, terminal, platform					\$1,685,302	0%	
			Element Total		22	EA		\$37,076,644	\$0	\$37,076,644
20.02			Aerial station, stop, shelter, mall, terminal, platform					\$6,074,194	0%	
			Element Total			EA		\$0	\$0	\$0
20.03			Underground station, stop, shelter, mall, terminal, platform					\$68,628,630	0%	
			Element Total		4	EA		\$274,514,520	\$0	\$274,514,520
20.04			Other stations, landings, terminals: Intermodal, ferry, trolley, etc.					\$26,470,583	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(BRT 2bb) Acworth to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0		\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		2,500	spaces		\$60,550,000		\$60,550,000
20.07			Elevators, escalators					\$1,380,000	0%	
			Element Total		6	EA		\$8,280,000		\$8,280,000
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236		\$7,513,236
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0		\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		26	Stations		\$3,744,764		\$3,744,764
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		132,804	LF		\$1,726,450		\$1,726,450
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		132,804	LF		\$30,943,297		\$30,943,297
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		132,804	LF		\$5,843,369		\$5,843,369
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		132,804	LF		\$2,921,685		\$2,921,685
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		119,615	LF		\$2,392,297		\$2,392,297
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		113,837	LF		\$21,401,318		\$21,401,318
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		2,350	spaces		\$11,214,200		\$11,214,200
40.08			Temporary Facilities and other indirect costs during construction					\$155	0%	
			Element Total		132,804	LF		\$20,584,597		\$20,584,597
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total			TF		\$0		\$0
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		66,402	TF		\$2,456,871		\$2,456,871
50.03			Traction power supply: substations					\$83	0%	
			Element Total			TF		\$0		\$0
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total			TF		\$0		\$0
50.05			Communications					\$94	0%	
			Element Total		265,608	TF		\$24,967,124		\$24,967,124

Cobb County AA
Connect Cobb Transit
(BRT 2bb) Acworth to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END								
60.06			Fare collection system and equipment							
			Element Total		26	Stations		\$280,124	0%	
								\$7,283,224		\$0
60.07			Central Control							
			Element Total			TF		\$50	0%	
								\$0		\$0
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate							
			Element Total		13.32	AC		\$433,701	0%	
								\$5,776,897		\$0
60.02			Relocation of existing households and businesses							
			Element Total		6,000	LF		\$31	0%	
								\$186,000		\$0
60.03			Services							
			Element Total		0	LF		\$55	0%	
								\$0		\$0
60.04			Other Real Estate Costs							
			Element Total		0	LF		\$759	0%	
								\$0		\$0

Cobb County AA
Connect Cobb Transit
Yard and Shop
(BRT 2bb)

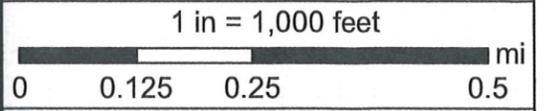
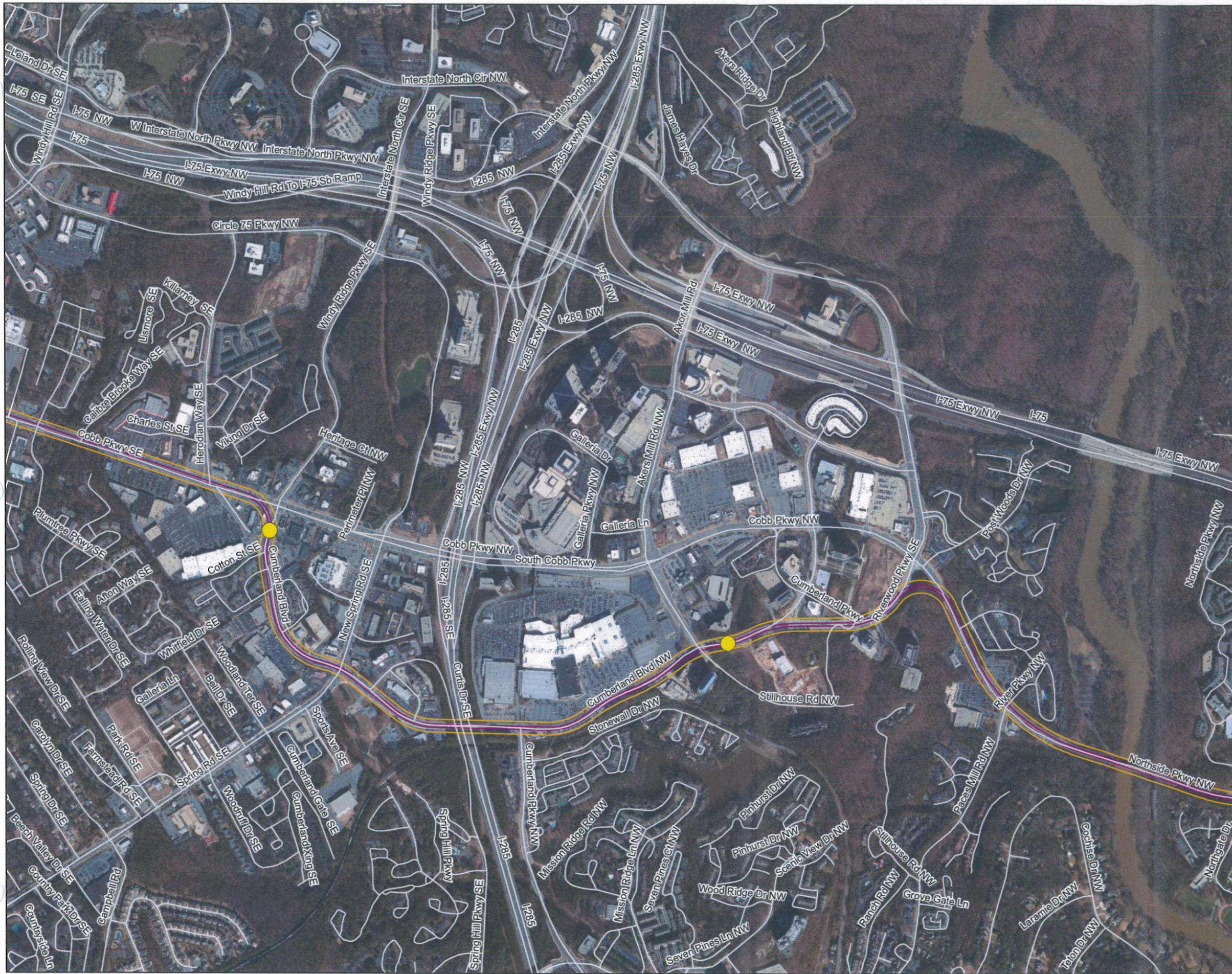
TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST		UNIT	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY				
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS								
30.01 Administration Building: Office, sales, storage, revenue counting								
		Element Total		8,000	LF	\$1,112,000	\$0	\$1,112,000
						\$139	0%	
30.02 Light Maintenance Facility								
		Element Total		17	Vehicles	\$15,465,274	\$0	\$15,465,274
						\$909,722	0%	
30.03 Heavy Maintenance Facility								
		Element Total		0	Vehicles	\$0	\$0	\$0
						\$1,012,478	0%	
30.04 Storage or Maintenance of Way Building								
		Element Total		0	LF	\$0	\$0	\$0
						\$33	0%	
30.05 Yard and Yard Track								
		Element Total			TF	\$0	\$0	\$0
						\$5	0%	

Cobb County AA
Connect Cobb Transit
VEHICLES
(BRT 2bb)

TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Bus Rapid									
		Element Total		17	EA		\$3,739,620	10%	
							\$63,573,540	\$0	\$63,573,540



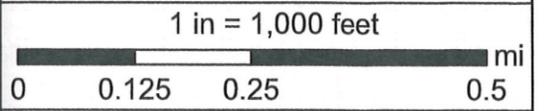
**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 2aa

Legend

- Corridor Limits
 - Edge of Footprint
 - Underground Alignment
 - Streets
 - Potential Station Location (at-grade)
 - Potential Station Location (underground)
- Potential Aerial Structure
Length (feet)
- 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles





**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 2aa

Legend

- Corridor Limits
 - Edge of Footprint
 - Underground Alignment
 - Streets
 - Potential Station Location (at-grade)
 - Potential Station Location (underground)
- Potential Aerial Structure
Length (feet)
- 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles



BRT Alt. 4aa
KSU to Midtown via U.S. 41

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 4aa) Connect Cobb
	Length (Mile):	24.07
	Number of Stations:	25
	Number of Revenue Vehicles:	30
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$108,840,653
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade in mixed traffic	\$0
10.04	Guideway: Aerial structure	\$22,711,234
10.05	Guideway: Built-up fill	\$142,491,286
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$79,381,262
10.09	Track: Direct fixation	\$12,329,932
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$43,448,486
10.12	Track: Special (switches, turnouts)	\$35,200
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$35,391,342
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,600,725

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

		<i>(LRT 4aa)</i>
CAT No.	Description	Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$0
30.03	Heavy Maintenance Facility	\$30,374,340
30.04	Storage or Maintenance of Way Building	\$132,000
30.05	Yard and Yard Track	\$40,000
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,701,750
40.02	Site Utilities, Utility Relocation	\$30,500,597
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$5,759,769
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$2,879,885
40.05	Site structures including retaining walls, sound walls	\$2,354,297
40.06	Pedestrian / bike access and accommodation, landscaping	\$20,627,059
40.07	Automobile, bus, van accessways including roads, parking lots	\$10,498,400
40.08	Temporary Facilities and other indirect costs during construction	\$20,290,097

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(LRT 4aa) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$59,692,156
50.02	Traffic signals and crossing protection	\$2,421,721
50.03	Traction power supply: substations	\$21,730,039
50.04	Traction power distribution: catenary and third rail	\$50,528,886
50.05	Communications	\$24,609,924
50.06	Fare collection system and equipment	\$7,003,100
50.07	Central Control	\$13,090,385
Subtotal Construction Costs		\$1,402,967,855
Construction Subtotal		\$1,402,967,855
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$8,032,143
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$8,218,143
70	VEHICLES	
70.01	Light Rail	\$112,188,600
Subtotal Vehicles		\$112,188,600

Cobb County AA
 Connect Cobb Transit
 Capital Cost Estimate
 (2011 Dollars)

CAT No.	Description	(LRT 4aa) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$67,342,457
80.02	Final Design 7.67%	\$107,607,635
80.03	Project Management for Design and Construction 10.66%	\$149,556,373
80.04	Construction Administration & Management 6.41%	\$89,930,240
80.05	Insurance 7.08%	\$99,330,124
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$17,537,098
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$24,551,937
80.08	Other 0.84%	\$11,784,930
Subtotal Professional Services		\$567,640,794
90	UNALLOCATED CONTINGENCY 30.0%	\$627,304,618
	Art in Transit 1.0%	\$14,029,679
Project Total		\$2,732,349,688

Cobb County AA
Connect Cobb Transit
(LRT 4aa) KSU to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01			Guideway: At-grade exclusive right-of-way					\$992	0%	
			Element Total		109,718	LF		\$108,840,653	\$0	\$108,840,653
					21	M				
10.02			Guideway: At-grade semi-exclusive (allows cross-traffic)					\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03			Guideway: At-grade in mixed traffic					\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04			Guideway: Aerial structure							
			Over Stream/CSX/Armour, Old Briarcliff Rd, Clifton Rd, CSX/Haygood, DeKalb Ind							
			bridge length		4,699	LF		\$4,833	0%	
			Element Total		1	M		\$22,711,234	\$0	\$22,711,234
10.05			Guideway: Built-up fill					\$1,443	0%	
			Element Total		98,747	LF		\$142,491,286	\$0	\$142,491,286
10.06			Guideway: Underground cut & cover							
			Suburban Plaza					\$10,469	0%	
			Element Total		3,297	LF		\$34,518,910	\$0	\$34,518,910
10.07			Guideway: Underground tunnel					\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08			Guideway: Retained cut or fill					\$7,235	0%	
			Element Total		10,972	LF		\$79,381,262	\$0	\$79,381,262
10.09			Track: Direct fixation					\$291	0%	
			Element Total		42,371	TF		\$12,329,932	\$0	\$12,329,932
10.10			Track: Embedded					\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11			Track: Ballasted					\$198	0%	
			Element Total		219,437	TF		\$43,448,486	\$0	\$43,448,486
10.12			Track: Special (switches, turnouts)							
			#6 turnout		800					
			double crossover		800			\$22	0%	
			Element Total		1,600	TF		\$35,200	\$0	\$35,200
10.13			Track: Vibration and noise dampening					\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01			At-grade station, stop, shelter, mall, terminal, platform					\$1,685,302	0%	
			Element Total		21	EA		\$35,391,342	\$0	\$35,391,342
20.02			Aerial station, stop, shelter, mall, terminal, platform					\$6,074,194	0%	
			Element Total			EA		\$0	\$0	\$0
20.03			Underground station, stop, shelter, mall, terminal, platform					\$68,628,630	0%	
			Element Total		4	EA		\$274,514,520	\$0	\$274,514,520
20.04			Other stations, landings, terminals: Intermodal, ferry, trolley, etc.					\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(LRT 4aa) KSU to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0		\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		2,500	spaces		\$60,650,000		\$60,650,000
20.07			Elevators, escalators					\$1,380,000	0%	
			Element Total		6	EA		\$8,280,000		\$8,280,000
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,613,236		\$7,613,236
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0		\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		25	Stations		\$3,600,725		\$3,600,725
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		130,904	LF		\$1,701,750		\$1,701,750
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		130,904	LF		\$30,500,697		\$30,500,697
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		130,904	LF		\$5,759,769		\$5,759,769
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		130,904	LF		\$2,879,885		\$2,879,885
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		117,716	LF		\$2,354,297		\$2,354,297
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		109,718	LF		\$20,627,059		\$20,627,059
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		2,200	spaces		\$10,498,400		\$10,498,400
40.08			Temporary Facilities and other indirect costs during construction					\$155	0%	
			Element Total		130,904	LF		\$20,290,097		\$20,290,097
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total		261,808	TF		\$59,692,166		\$59,692,166
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		65,452	TF		\$2,421,721		\$2,421,721
50.03			Traction power supply: substations					\$83	0%	
			Element Total		261,808	TF		\$21,730,039		\$21,730,039
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total		261,808	TF		\$50,528,886		\$50,528,886
50.05			Communications					\$94	0%	
			Element Total		261,808	TF		\$24,609,924		\$24,609,924

Cobb County AA
 Connect Cobb Transit
 (LRT 4aa) KSU to Midtown US 41, more stations

TRANSIT MODE: Light Rail Transit (LRT)

CAT NO.	STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTRY	TOTAL COST
	BEGIN	END								
60.06			Fare collection system and equipment							
			Element Total		25	Stations		\$280,124	0%	
								\$7,003,100	\$0	\$7,003,100
60.07			Central Control							
			Element Total		261,808	TF		\$50	0%	
								\$13,090,385	\$0	\$13,090,385
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate							
			Element Total		18.62	AC		\$433,701	0%	
								\$8,032,143	\$0	\$8,032,143
60.02			Relocation of existing households and businesses							
			Element Total		6,000	LF		\$31	0%	
								\$186,000	\$0	\$186,000
60.03			Services							
			Element Total		0	LF		\$55	0%	
								\$0	\$0	\$0
60.04			Other Real Estate Costs							
			Element Total		0	LF		\$759	0%	
								\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
VEHICLES
(LRT 4aa)

TRANSIT MODE: Light Rail Transit (LRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Light Rail									
		Element Total		30	EA		\$3,739,620	10%	
							\$112,188,600	\$0	\$112,188,600

BRT Alt. 4bb
KSU to Midtown via U.S. 41

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 4bb) Connect Cobb
	Length (Mile):	24.07
	Number of Stations:	25
	Number of Revenue Vehicles:	15
10	GUIDEWAY & TRACK ELEMENTS	
10.01	Guideway: At-grade exclusive right-of-way	\$107,252,064
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)	\$0
10.03	Guideway: At-grade In mixed traffic	\$0
10.04	Guideway: Aerial structure	\$11,651,396
10.05	Guideway: Built-up fill	\$123,291,305
10.06	Guideway: Underground cut & cover	\$34,518,910
10.07	Guideway: Underground tunnel	\$274,014,664
10.08	Guideway: Retained cut or fill	\$68,685,038
10.09	Track: Direct fixation	\$0
10.10	Track: Embedded	\$0
10.11	Track: Ballasted	\$0
10.12	Track: Special (switches, turnouts)	\$0
10.13	Track: Vibration and noise dampening	\$0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	
20.01	At-grade station, stop, shelter, mall, terminal, platform	\$35,391,342
20.02	Aerial station, stop, shelter, mall, terminal, platform	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	\$0
20.05	Joint development	\$0
20.06	Automobile parking multi-story structure	\$50,550,000
20.07	Elevators, escalators	\$8,280,000
20.08	Passenger Overpass	\$7,513,236
20.09	Underground Interconnecting Tunnel	\$0
20.10	Signage and Graphics	\$3,600,725

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

		(BRT 4bb)
CAT No.	Description	Connect Cobb
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	
30.01	Administration Building: Office, sales, storage, revenue counting	\$1,112,000
30.02	Light Maintenance Facility	\$13,645,830
30.03	Heavy Maintenance Facility	\$0
30.04	Storage or Maintenance of Way Building	\$0
30.05	Yard and Yard Track	\$0
40	SITWORK & SPECIAL CONDITIONS	
40.01	Demolition, Clearing, Earthwork	\$1,479,809
40.02	Site Utilities, Utility Relocation	\$26,522,728
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	\$5,008,584
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	\$2,504,292
40.05	Site structures including retaining walls, sound walls	\$2,012,849
40.06	Pedestrian / bike access and accommodation, landscaping	\$17,847,667
40.07	Automobile, bus, van accessways including roads, parking lots	\$10,498,400
40.08	Temporary Facilities and other indirect costs during construction	\$17,643,875

Cobb County AA
Connect Cobb Transit
Capital Cost Estimate
(2011 Dollars)

CAT No.	Description	(BRT 4bb) Connect Cobb
50	SYSTEMS	
50.01	Train control and signals	\$0
50.02	Traffic signals and crossing protection	\$2,105,882
50.03	Traction power supply: substations	\$0
50.04	Traction power distribution: catenary and third rail	\$0
50.05	Communications	\$21,400,313
50.06	Fare collection system and equipment	\$7,003,100
50.07	Central Control	\$0
Subtotal Construction Costs		\$1,128,048,529
Construction Subtotal		\$1,128,048,529
60	ROW, LAND, EXISTING IMPROVEMENTS	
60.01	Purchase or lease of real estate	\$8,032,143
60.02	Relocation of existing households and businesses	\$186,000
60.03	Services	\$0
60.04	Other Real Estate Costs	\$0
Subtotal Right-of-Way		\$8,218,143
70	VEHICLES	
70.01	Light Rail	\$56,094,300
Subtotal Vehicles		\$56,094,300

Cobb County AA
 Connect Cobb Transit
 Capital Cost Estimate
 (2011 Dollars)

CAT No.	Description	(BRT 4bb) Connect Cobb
WITHOUT CATEGORY 41		
80	PROFESSIONAL SERVICES	
80.01	Preliminary Engineering 4.80%	\$54,146,329
80.02	Final Design 7.67%	\$86,521,322
80.03	Project Management for Design and Construction 10.66%	\$120,249,973
80.04	Construction Administration & Management 6.41%	\$72,307,911
80.05	Insurance 7.08%	\$79,865,836
80.06	Legal; Permits; Review Fees by other agencies, cities, etc. 1.25%	\$14,100,607
80.07	Surveys, Testing, Investigation, Inspection 0.00%	\$0
80.08	Start Up 1.75%	\$19,740,849
80.08	Other 0.84%	\$9,475,608
Subtotal Professional Services		\$456,408,435
90	UNALLOCATED CONTINGENCY 30.0%	\$494,630,822
	Art in Transit 1.0%	\$11,280,485
Project Total		\$2,154,680,714

Cobb County AA
Connect Cobb Transit
(BRT 4bb) KSU to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
10 GUIDEWAY & TRACK ELEMENTS										
10.01	Guideway: At-grade exclusive right-of-way							\$992	0%	
			Element Total		108,117	LF		\$107,252,064	\$0	\$107,252,064
					20	M				
10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)							\$3,733	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.03	Guideway: At-grade in mixed traffic							\$1,577	0%	
			Element Total		0	LF		\$0	\$0	\$0
10.04	Guideway: Aerial structure									
			bridge length		2,411	LF		\$4,833	0%	
			Element Total		0	M		\$11,651,396	\$0	\$11,651,396
10.05	Guideway: Built-up fill							\$1,443	0%	
			Element Total		85,441	LF		\$123,291,305	\$0	\$123,291,305
10.06	Guideway: Underground cut & cover							\$10,469	0%	
			Element Total		3,297	LF		\$34,518,910	\$0	\$34,518,910
10.07	Guideway: Underground tunnel							\$20,776	0%	
			Element Total		13,189	LF		\$274,014,664	\$0	\$274,014,664
10.08	Guideway: Retained cut or fill							\$7,235	0%	
			Element Total		9,493	LF		\$68,685,038	\$0	\$68,685,038
10.09	Track: Direct fixation							\$291	0%	
			Element Total			TF		\$0	\$0	\$0
10.10	Track: Embedded							\$559	0%	
			Element Total			TF		\$0	\$0	\$0
10.11	Track: Ballasted							\$198	0%	
			Element Total			TF		\$0	\$0	\$0
10.12	Track: Special (switches, turnouts)									
			#6 turnout double crossover					\$22	0%	
			Element Total		0	TF		\$0	\$0	\$0
10.13	Track: Vibration and noise dampening							\$0	0%	
			Element Total		0	TF		\$0	\$0	\$0
20 STATIONS, STOPS, TERMINALS, INTERMODAL										
20.01	At-grade station, stop, shelter, mall, terminal, platform							\$1,685,302	0%	
			Element Total		21	EA		\$35,391,342	\$0	\$35,391,342
20.02	Aerial station, stop, shelter, mall, terminal, platform							\$6,074,194	0%	
			Element Total			EA		\$0	\$0	\$0
20.03	Underground station, stop, shelter, mall, terminal, platform							\$68,628,630	0%	
			Element Total		4	EA		\$274,514,520	\$0	\$274,514,520
20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.							\$26,470,563	0%	
			Element Total		0	EA		\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
(BRT 4bb) KSU to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING BEGIN	STATIONING END	DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
20.05			Joint development					\$43,006	0%	
			Element Total		0	EA		\$0		\$0
20.06			Automobile parking multi-story structure					\$20,220	0%	
			Element Total		2,500	spaces		\$50,550,000		\$0
20.07			Elevators, escalators					\$1,380,000	0%	
			Element Total		6	EA		\$8,280,000		\$0
20.08			Passenger Overpass					\$1,878,309	0%	
			Element Total		4	EA		\$7,513,236		\$0
20.09			Underground Interconnecting Tunnel					\$0	0%	
			Element Total		0	EA		\$0		\$0
20.10			Signage and Graphics					\$144,029	0%	
			Element Total		25	Stations		\$3,600,725		\$0
40 SITEWORK & SPECIAL CONDITIONS										
40.01			Demolition, Clearing, Earthwork					\$13	0%	
			Element Total		113,831	LF		\$1,479,809		\$0
40.02			Site Utilities, Utility Relocation					\$233	0%	
			Element Total		113,831	LF		\$26,522,728		\$0
40.03			Haz. mat'l, contam'd soil removal/mitigation, ground water treatments					\$44	0%	
			Element Total		113,831	LF		\$5,008,584		\$0
40.04			Environmental mitigation, e.g. wetlands, historic/archeologic, parks					\$22	0%	
			Element Total		113,831	LF		\$2,504,292		\$0
40.05			Site structures including retaining walls, sound walls					\$20	0%	
			Element Total		100,642	LF		\$2,012,849		\$0
40.06			Pedestrian / bike access and accommodation, landscaping					\$188	0%	
			Element Total		94,934	LF		\$17,847,667		\$0
40.07			Automobile, bus, van accessways including roads, parking lots					\$4,772	0%	
			Element Total		2,200	spaces		\$10,498,400		\$0
40.08			Temporary Facilities and other Indirect costs during construction					\$155	0%	
			Element Total		113,831	LF		\$17,643,875		\$0
50 SYSTEMS										
50.01			Train control and signals					\$228	0%	
			Element Total		0	TF		\$0		\$0
50.02			Traffic signals and at-grade crossing protection					\$37	0%	
			Element Total		56,916	TF		\$2,105,882		\$0
50.03			Traction power supply: substations					\$83	0%	
			Element Total		0	TF		\$0		\$0
50.04			Traction power distribution: catenary and third rail					\$193	0%	
			Element Total		0	TF		\$0		\$0
50.05			Communications					\$94	0%	
			Element Total		227,663	TF		\$21,400,313		\$0

Cobb County AA
Connect Cobb Transit
(BRT 4bb) KSU to Midtown US 41, fewer stations

TRANSIT MODE: Bus Rail Transit (BRT)

CAT NO.	STATIONING		DESCRIPTION	COST ID	QTY	UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
	BEGIN	END								
50.06			Fare collection system and equipment							
			Element Total		25	Stations		\$280,124	0%	
								\$7,003,100	\$0	\$7,003,100
50.07			Central Control							
			Element Total		0	TF		\$50	0%	
								\$0	\$0	\$0
60 ROW, LAND, EXISTING IMPROVEMENTS										
60.01			Purchase or lease of real estate							
			Element Total		18.52	AC		\$433,701	0%	
								\$8,032,143	\$0	\$8,032,143
60.02			Relocation of existing households and businesses							
			Element Total		6,000	LF		\$31	0%	
								\$186,000	\$0	\$186,000
60.03			Services							
			Element Total		0	LF		\$55	0%	
								\$0	\$0	\$0
60.04			Other Real Estate Costs							
			Element Total		0	LF		\$759	0%	
								\$0	\$0	\$0

Cobb County AA
Connect Cobb Transit
Yard and Shop
(BRT 4bb)

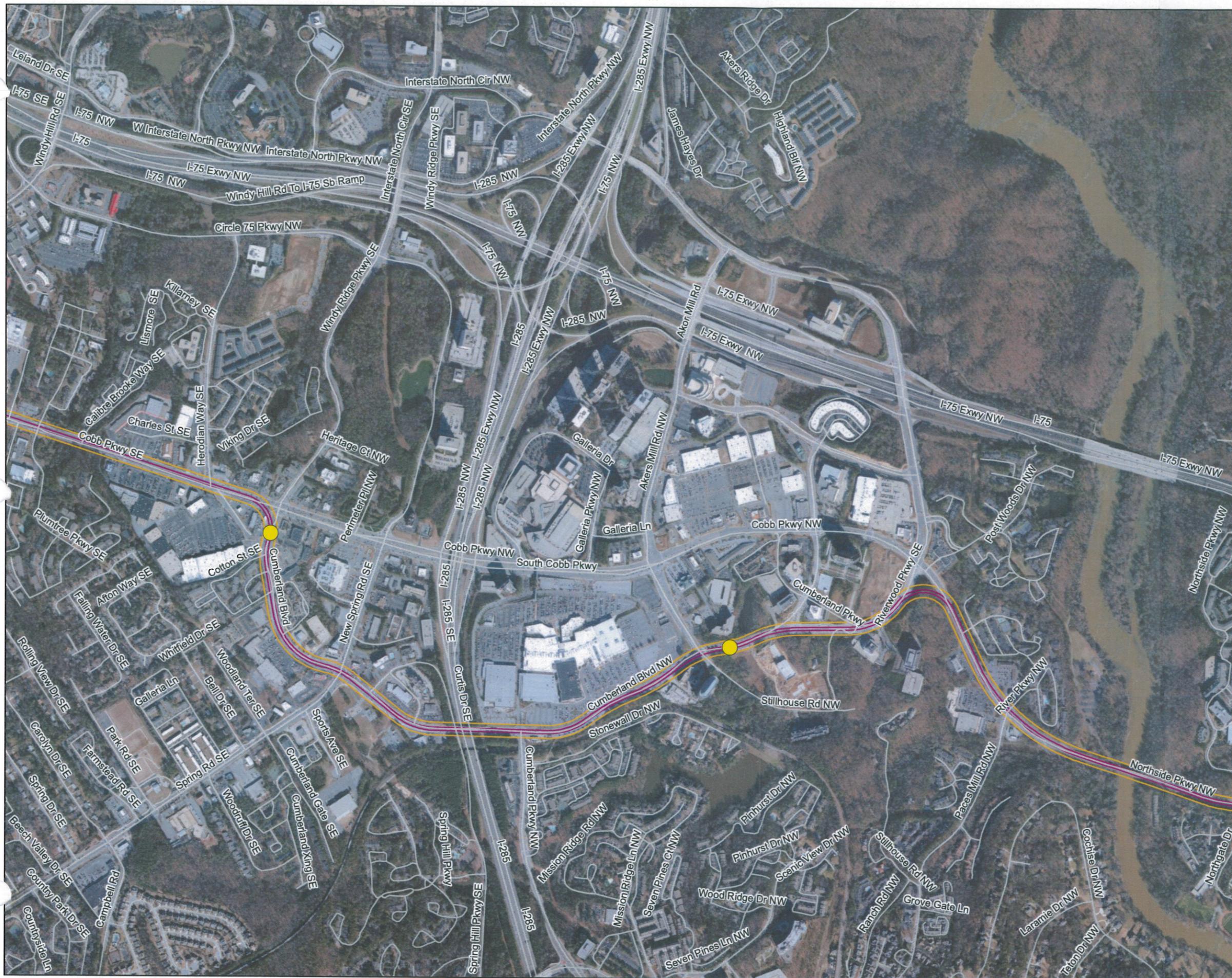
TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS									
30.01 Administration Building: Office, sales, storage, revenue counting									
							\$139	0%	
		Element Total		8,000	LF		\$1,112,000	\$0	\$1,112,000
30.02 Light Maintenance Facility									
							\$909,722	0%	
		Element Total		15	Vehicles		\$13,645,830	\$0	\$13,645,830
30.03 Heavy Maintenance Facility									
							\$1,012,478	0%	
		Element Total		0	Vehicles		\$0	\$0	\$0
30.04 Storage or Maintenance of Way Building									
							\$33	0%	
		Element Total		0	LF		\$0	\$0	\$0
30.05 Yard and Yard Track									
							\$5	0%	
		Element Total		0	TF		\$0	\$0	\$0

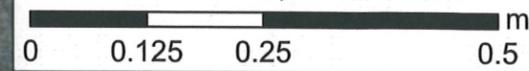
Cobb County AA
 Connect Cobb Transit
 VEHICLES
 (BRT 4bb)

TRANSIT MODE: Bus Rail Transit (BRT)

STATIONING		DESCRIPTION	COST		UNIT	UNIT COST	BASE COST	ALLCTD CONTGY	TOTAL COST
BEGIN	END		ID	QTY					
70 VEHICLES									
70.01 Bus Rapid									
			Element Total		15	EA	\$56,094,300	\$3,739,620 10%	\$0 \$56,094,300



1 in = 1,000 feet

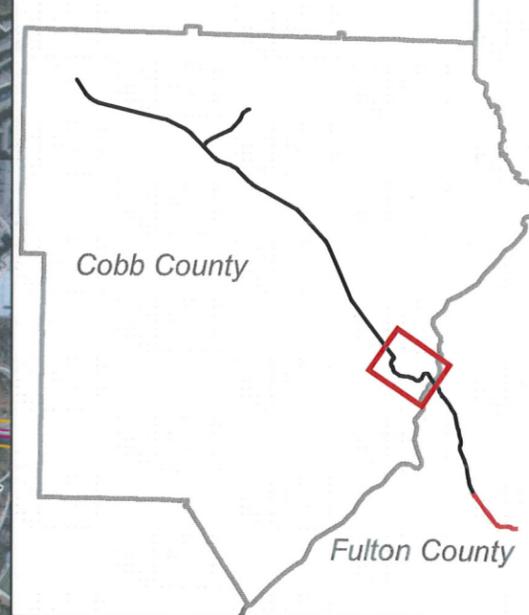


**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4aa

Legend

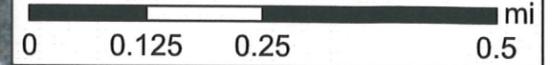
- Corridor Limits
- Edge of Footprint
- - - Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
- Underground Alignment Length: 2.5 miles





1 in = 1,000 feet



**COBB COUNTY
NORTHWEST
CORRIDOR**
ALIGNMENT 4aa

Legend

- Corridor Limits
- Edge of Footprint
- - - Underground Alignment
- Streets
- Potential Station Location (at-grade)
- Potential Station Location (underground)
- Potential Aerial Structure Length
 - 0 - 400
 - 401 - 1,000
 - 1,001 and over

- Transit Vehicle Footprint: 33 feet
- Alignment Footprint: 140 feet
- At-Grade Alignment Length: 24 miles
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