



# The Perfect Storm

Earl Mahfuz, Treasurer

April 16, 2008



# Overview

**The Storm**

**Defining Challenges**

**Where are we today**

**The Future**

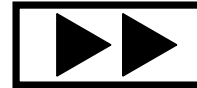


# Program

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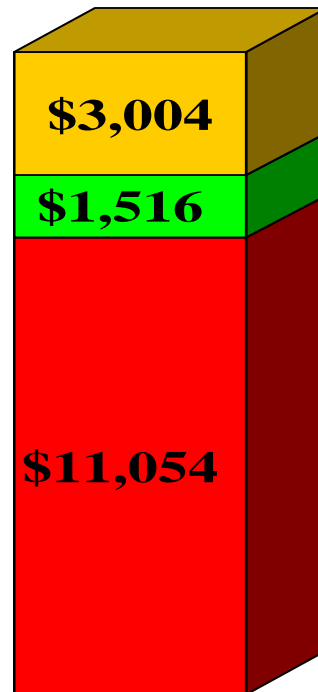
- Result: Comprehensive 6-year, \$15.5 billion statewide transportation program
- **Fast Forward:** Accelerates existing projects to do in 6 years what would take 18
- Will **relieve congestion** and **spur economic growth**

# Fast Forward



PROGRAM	2005	2006	2007	2008	2009	2010	TOTAL BY PROGRAM
<b>GDOT REGULAR CONSTRUCTION WORK PROGRAM</b>	\$2,015	\$1,965	\$1,840	\$1,695	\$1,618	\$1,922	\$11,054
<b>GO/GRB PROGRAM</b>	\$404	\$404	\$405	\$98	\$102	\$102	\$1,516
<b>GARVEE PROGRAM</b>	\$141	\$484	\$513	\$401	\$784	\$680	\$3,004
<b>TOTAL BY YEAR</b>	\$2,561	\$2,853	\$2,758	\$2,194	\$2,504	\$2,704	\$15,574

**TOTAL PROPOSED PROGRAM 2005-2010**  
**\$15.57 Billion**



**GARVEE PROGRAM**  
**GO/GRB PROGRAM**  
**GDOT REGULAR PROGRAM**

*Costs shown in millions*



## State Transportation Board Then and Now...

### April 2004

1. Harry Dixon
2. Billy Langdale
3. Ward Edwards
4. Brad Hubbert
5. Emory McClinton
6. Johnny Gresham
7. Garland Pinholster
8. Sam Wellborn
9. Bill Kuhlke
10. Mike Evans
11. David Doss
12. Jon Burns
13. Dana Lemon

### April 2008

1. Roy Herrington
2. Johnny Floyd
3. **Sam Wellborn** (Since 1992)
4. Robert Brown
5. **Emory McClinton** (Since 1993)
6. **Garland Pinholster** (Since 2004)
7. Rudy Bowen
8. Larry Walker
9. **Mike Evans** (Since 2003)
10. **Bill Kuhlke** (Since 2004)
11. **David Doss** (Since 2002)
12. Raybon Anderson
13. **Dana Lemon** (Since 2003)



## Funding Conclusion

- ▶ At any point in time, funding will unlikely ever be able to address all projects.
- ▶ Prioritization process is critical.
- ▶ Needs still exist to look for further funding increases and/or consideration for funding alternatives.



## Unidentified Issues: “Sleepers”

- **Not all projects were ready...**
  - **Misconception: Authorizations = Program Delivery**
- **“Unheralded” Cost Increases**
- **Inaccurate Estimates and No Contingencies**
- **GO Bond Debt service**



## Unidentified Issues: "Sleepers"

### **Misconception: Authorizations = Program Delivery**

- A lot of pressure to deliver from all levels
  - Program delivery top priority of Board
  - Reports to Governor on Fast Forward status showed authorizations, not expenses
- In some cases, projects authorized...
  - prior to being ready
  - little or no expense over time (As of Dec. 2007, only 21% of Fast Forward had been expensed)
- As a result, bond sales were delayed based on actual project pay-out

## 2006 FAST FORWARD GARVEE/CONGESTION CONSTRUCTION DELIVERABLES

TRAFFIC SIGNAL OPTIMIZATION PROJECTS IN METRO ATLANTA				STATUS
DEKALB/ FULTON	0007109	SR 13 @ 24 LOCS - FULL UPGRADE & REPAIR OF TRAFFIC SIGNALS	\$1,265,000	DELAYED TO FY 2007 to coordinate with a Local project
METRO	0006409	TRAFFIC SIGNAL EFFICIENCY OPTIMIZATION PROJECT - 2006	\$10,000,000	AUTHORIZED
Forsyth	0007320	S.R.9 / Atlanta Hwy from McFarland Rd. to S.R.20 / Old Buford.	\$280,060	AUTHORIZED
Forsyth	0007321	S.R.141 / Peachtree Pkwy from McGinnis Ferry Rd. to Collector Rd @ southbound S.R.400 ramp.	\$261,981	AUTHORIZED
Forsyth	0007322	S.R.20 / Buford Hwy from James Burgess to two (2) signalized intersections past the southbound S.R.400 ramp.	\$109,998	AUTHORIZED
Forsyth	0007323	S.R.306 / Keith Bridge Rd from S.R.400 northbound ramp to one (1) signalized intersection past S.R.306 / Browns Bridge Rd.	\$308,548	AUTHORIZED
Gwinnett	0007324	U.S. 23 / S.R.140 / Jimmy Carter Blvd from Best Friend Rd. to McDonough Dr.	\$905,665	AUTHORIZED
Gwinnett	0007325	S.R.141 / Peachtree Blvd from Atlantic Blvd. to Woodhill Dr.	\$629,592	AUTHORIZED
Gwinnett	0007326	Holcomb Bridge Rd. from Jimmy Carter Blvd. to Wetherburn Way.	\$129,287	AUTHORIZED
Gwinnett	0007327	Pleasant Hill Rd. from Steve Reynolds Blvd. to Venture Dr.	\$918,252	AUTHORIZED
Gwinnett	0007328	Lawrenceville Rd. / S.R.120 from Market Place to S.R.316 westbound ramp.	\$386,658	AUTHORIZED
Gwinnett	0007329	U.S.29 from Dickens Rd. to S.R.378.	\$446,427	AUTHORIZED
Gwinnett	0007330	U.S.23 / S,R, 140 / Jimmy Carter Blvd form Atlantic Blvd. to S.R.378.	\$1,070,487	AUTHORIZED
Gwinnett	0007331	West Park Place from Rockbridge Rd. (North) to U.S.78 westbound ramp.	\$218,938	AUTHORIZED
Gwinnett	0007332	Satellite Blvd. from Commerce Ave. to Tandy Key Lane .	\$175,964	AUTHORIZED
Gwinnett	0007333	S.R.378 / Beaver Ruin Rd. from Arc Way to Steve Reynolds Blvd.	\$189,046	AUTHORIZED
Fulton	0007334	S.R.141 Medlock Bridge Rd. from Abbott Bridge Rd. to Wilson Rd.	\$679,819	AUTHORIZED
Coweta	0007658	SR 14 @ I-85 ramps & @ Nimmons St.; SR 34 @ Egate shpng ctr, Shendoah shpg ctr, & White Oak Rd.	\$310,570	AUTHORIZED
Cherokee/ Coob	0007659	SR 5BU @ Juniper St & SR 92 @ fm Baker Rd to Wigley Rd	\$0	THIS PROJECT IS BEING DONE UNDER PI# 610740 & 620940
Cherokee	0007660	I-575 @ ramps at Town Lake and Holly Springs Rd	\$181,734	AUTHORIZED
Dekalb	0006404	SR 154/Memorial Dr fm Beech Dr to Rupert Rd	\$734,419	AUTHORIZED
<b>Status report to the Governor in September 2006</b>			<b>\$19,202,446</b>	



## Unidentified Issues: "Sleepers"

Fast Forward Project	Programmed	Authorized GARVEE AC	Under Contract	Expensed
TRAFFIC SIGNAL EFFICIENCY OPTIMIZATION PROJECT- 2005	\$ -	\$ 10,000,000.00	\$ 2,300,000.00	\$ 872,000.00
TRAFFIC SIGNAL EFFICIENCY OPTIMIZATION PROJECT- 2006	\$ -	\$ 10,000,000.00	\$ -	\$ 76,000.00
TRAFFIC SIGNAL EFFICIENCY OPTIMIZATION PROJECT- 2007	\$ -	\$ 10,000,000.00	\$ -	\$ -
TRAFFIC SIGNAL EFFICIENCY OPTIMIZATION PROJECT- 2008	\$ 10,000,000.00	\$ -	\$ -	\$ -
TRAFFIC SIGNAL EFFICIENCY OPTIMIZATION PROJECT- 2009	\$ 10,000,000.00	\$ -	\$ -	\$ -
TRAFFIC SIGNAL EFFICIENCY OPTIMIZATION PROJECT- 2010	\$ 10,000,000.00	\$ -	\$ -	\$ -



## Unidentified Issues: “Sleepers”

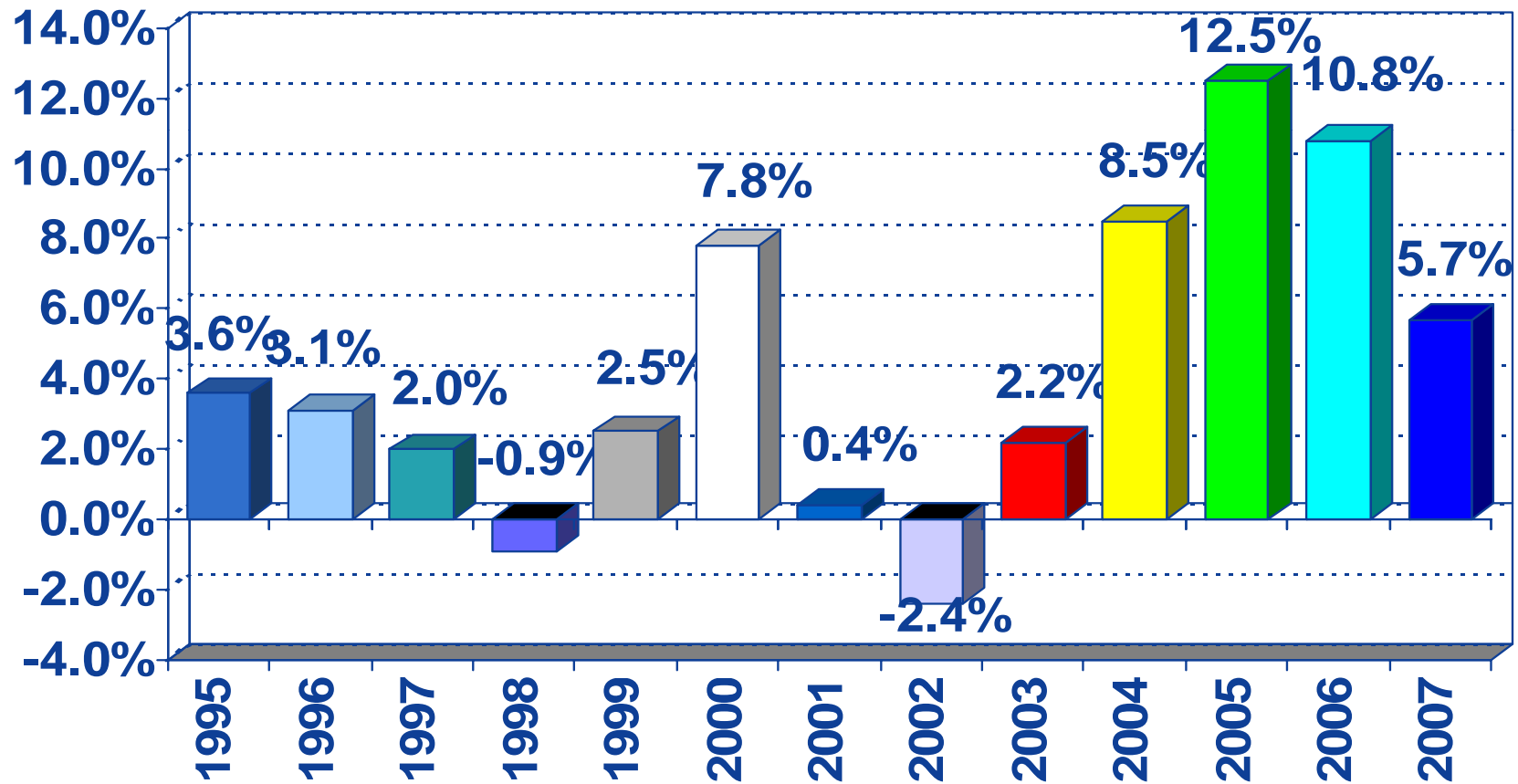
### “Unheralded” Inflation in Construction Costs

- Project Estimates were far below actual costs
  - Inflation in cost of construction materials
  - No contingencies built in; costs did not include utilities, inspection costs, or any buffer for cost changes and supplemental agreements
- Right of Way: average cost per parcel increased since 2004



## Unidentified Issues: "Sleepers"

# Inflation in Highway Construction Materials— Up 41 Percent Since 2004





## Unidentified Issues: "Sleepers" No contingencies for Projects

FY	Overrun Pot Programmed in STIP (Millions)	Net Modifications* (Millions)	Difference (Millions)
2005	\$220	\$542	\$322
2006	\$212	\$1,048	\$836
2007	\$120	\$1,037	\$917
2008 to date	\$55	\$138	\$83

\*Includes bid adjustments, utilities, ROW and PE Increases, engineering inspections and supplementals



## Unidentified Issues: "Sleepers"

### GO Bond Debt Service

- Department was not required to pay full share of debt payments for GO bond debt service from 1991-2004.
- Since 2005, the Department has been required to pay 100% of GO bond debt service payments on road and bridge projects.



## Unidentified Issues: "Sleepers"

### GO Bond Debt Service

<b>FY</b>	<b>2004 Fast Forward Plan for GO Debt Service</b>	<b>Actual Debt Service Paid with State Motor Fuel Tax Revenue</b>	<b>Difference</b>
<b>2005</b>	\$51,000,000	\$161,100,000	\$110,100,000
<b>2006</b>	\$51,000,000	\$192,385,000	\$141,385,000
<b>2007</b>	\$51,000,000	\$155,000,000	\$104,000,000
<b>2008</b>	\$51,000,000	\$174,036,558	\$123,036,558



## Bond Schedules vs. Actual Sales



- 2001 and 2003 Guaranteed Revenue Bonds (GRB) program
  - Projects were not expensing quickly enough
  - Substituting projects was necessary to maintain timely bond spend down for arbitrage
- Bond sales are driven by the cash flow model and the need for funds – expenses (not authorizations)

# EFFICIENCY



## Bond Management

**Notable decisions that have demonstrated a positive outcome on Bond Program Management:**

-  Reprogramming bond issues to avoid arbitrage.
-  Leverage the State bond program with the Federal AC program as a backstop.
  - *This allows the Department to reduce the interest and financing cost of bond issuance.*

# EFFICIENCY



## Bond Management

### \$ Bond Issue Timing

- *Sales are market driven – it does not make sense to sell in a negative yield environment.*
- *Pre-finance sale to accrue sizable amount of expenditures.*
- *Evaluate yield convergence to hedge against interest.*



## The STIP

- The STIP was developed to reflect the Fast Forward Program
- The STIP in FY 2005, 2006, 2007 and 2008 included GARVEE Bonds, GO Bonds, and Federal A/C
- With inflation, lack of contingencies, pressure to deliver and increasing debt, delivered record high construction programs for Georgia
- Despite these large lettings, still had to push projects out of the program due to increased costs



## FY 2006-2008 STIP Financial Plan

The \$7.2 billion highway program for FY 2006-2008 includes \$3.55 billion in federal-aid, \$3.45 billion in state funds and \$0.2 billion in local funds. The following table summarizes program funding for FY 2006-2008:

**FY 2006-2008 Highway Projects  
(\$ Millions)**

Fund Source	FY 2006	FY 2007	FY 2008	Total FY 2006-2008	Average Annual
Federal Aid	\$1,228	\$1,346	\$976	\$3,550	\$1,183
State Funds	\$1,303	\$1,315	\$830	\$3,448	\$1,149
Local Funds	\$86	\$68	\$49	\$203	\$68
<b>Total</b>	<b>\$2,617</b>	<b>\$2,729</b>	<b>\$1,855</b>	<b>\$7,201</b>	<b>\$2,400</b>
Bond Funds (included in State)	\$1,069	\$1,040	\$634	\$2,743	\$914



# STIP Financial Plan

## FY 2007-2009 STIP Financial Plan

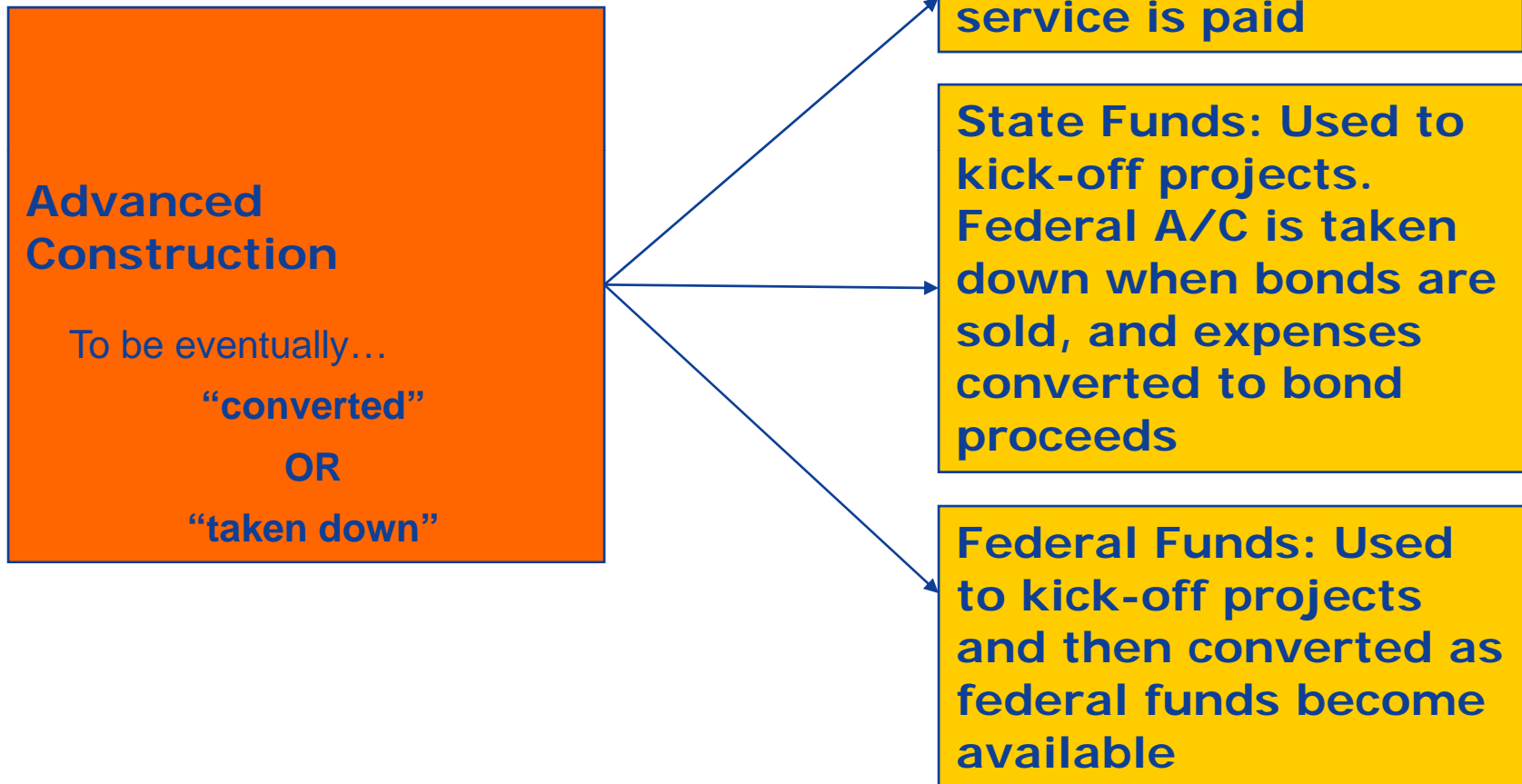
<b>Total Federal Funding Availability</b>	\$1,361	\$1,314	\$1,203	\$3,878
AC with State Funds	\$703	\$662	\$169	\$1,534
State and Bond funds	\$1,523	\$1,117	\$1,260	\$3,900
Local funds	\$170	\$110	\$38	\$317
<b>Grand Total</b>	<b>\$3,757</b>	<b>\$3,203</b>	<b>\$2,670</b>	<b>\$9,585</b>

## FY 2008-2011 STIP Financial Plan

<b>Total Federal Funding Availability</b>	\$1,593	\$1,450	\$1,392	\$1,386	\$5,821
AC with State funds	\$471	\$49	\$0	\$0	\$519
State and Bond funds	\$899	\$949	\$594	\$280	\$2,722
Local funds	\$142	\$111	\$64	\$25	\$342
<b>Grand Total</b>	<b>\$3,105</b>	<b>\$2,559</b>	<b>\$2,050</b>	<b>\$1,691</b>	<b>\$9,405</b>



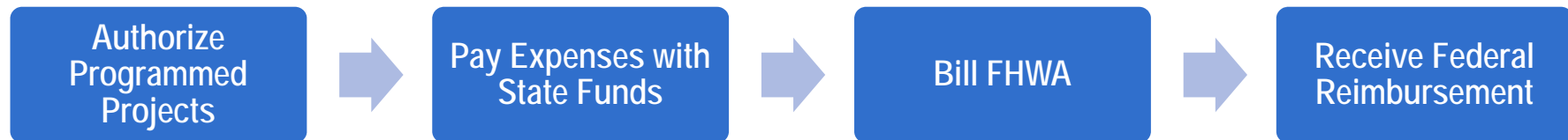
## How Advance Construction works:





# How Does Traditional vs AC Project Funding Work?

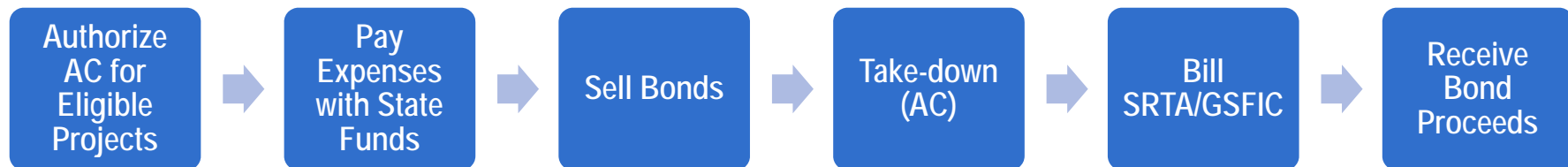
## Traditional Program Funding



## Advanced Construction for Regular Programmed Projects



## Advanced Construction for Bond Funded Projects





## Advanced Construction Benefits

- FHWA Innovative Finance Tool for state DOTs
  - “Project acceleration often helps State DOTs better manage their annual and multi-year capital programs by bringing individual or multiple projects on line sooner”
  - “Moving projects to construction sooner not only produces scheduling benefits to program managers, but can also generate real economic returns to highway users and other project beneficiaries”
- Hedges against inflation and construction cost increases
  - Pay out in today’s dollars versus year of expenditure



## GDOT Advanced Construction Program – as of 4/01/08

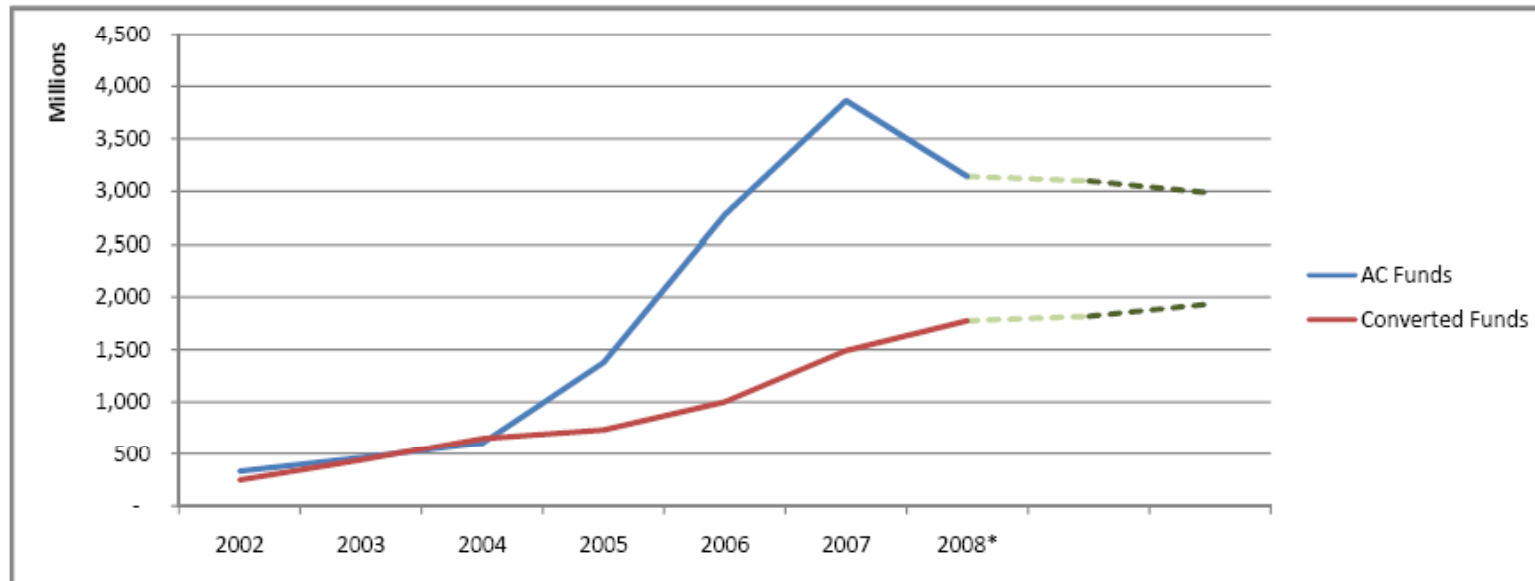
<b>Total value of Projects in A/C:</b>	<b>\$4,209,282,297</b>
To be converted to GARVEE	
Bond proceeds:	\$1,822,706,522
To be converted to	
State funds:	\$705,323,757
To be converted to	
Federal funds:	\$896,975,920
State Match – (not converted)	\$784,276,098

### Georgia Annual AC Balance and Conversions with GO Bond Take-Down Projection by Federal Fiscal Year

As of Sept 30	AC Balance	% Change	Annual Conversion	Cumulative Conversion
2002	332,945,072	12%	250,080,511	250,080,511
2003	462,674,211	28%	190,553,958	440,634,469
2004	603,660,591	23%	210,754,655	651,389,124
2005	1,379,957,527	56%	84,728,561	736,117,685
2006	2,775,333,990	50%	269,332,349	1,005,450,034
2007	3,864,025,905	28%	489,039,854	1,494,489,888
2008*	3,140,491,663	-23%	283,906,791	1,778,396,679

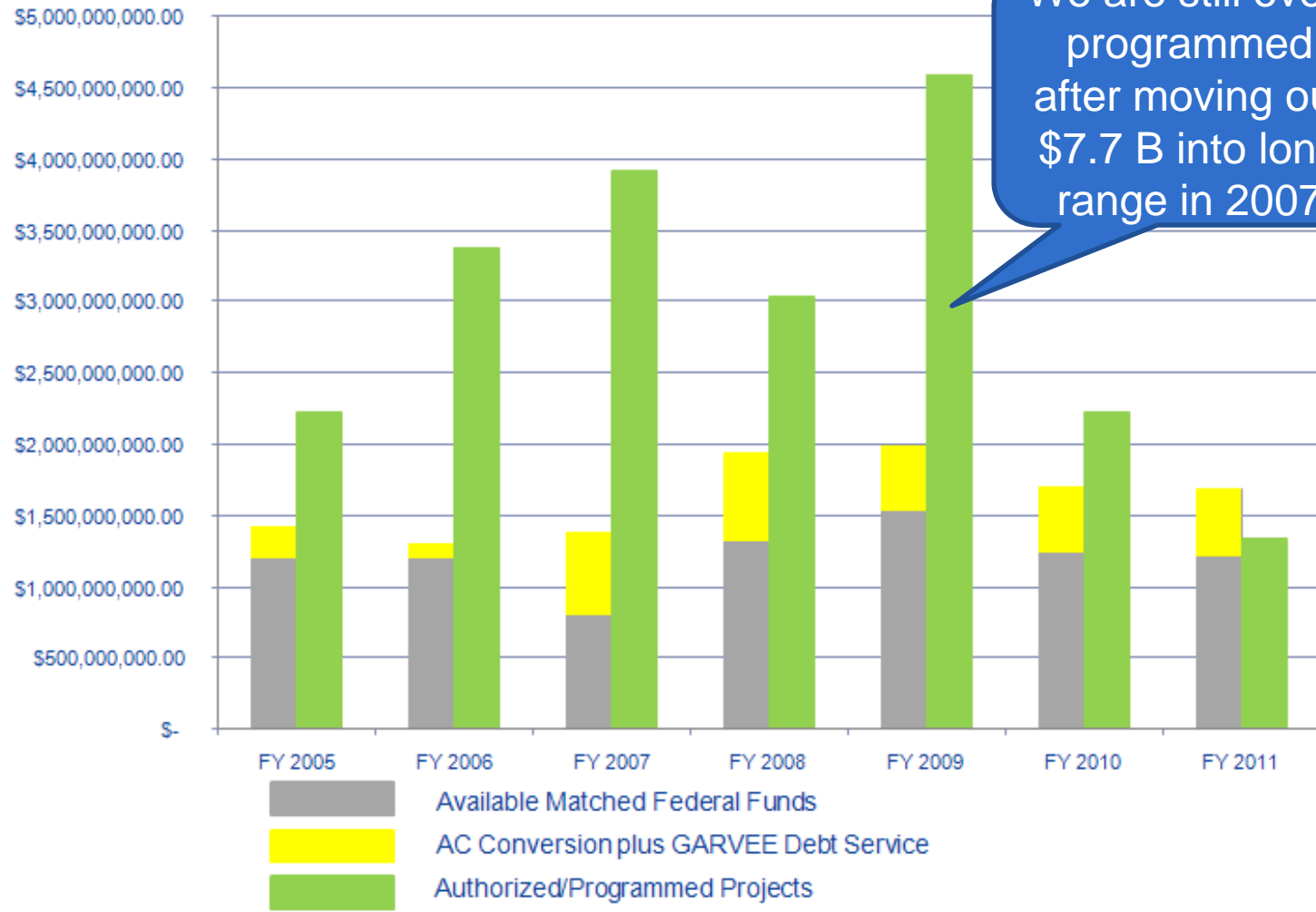
\* 2008 data as of March 31, 2008

- 70M GO Bond (€ Fed AC take-down \$42.4M)
- 230M GO Bond (€ Fed AC take-down \$116.5M)





# Available Funds VS Programmed Projects





## Where are we today?

- In FY 2007 Georgia faced a \$444.7 million road maintenance, safety and improvements shortfall!

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### **Projects hit pothole: CDOT shifting priority to maintenance**

"Because of rising costs and insufficient revenue, the Colorado DOT is pulling the plug on construction in Mesa County and throughout the state."

"CDOT's shift in priorities is the result of a number of impacts to the group's budget."

"Another major cost for CDOT is highway construction supplies such as cement, steel and asphalt. From 2002 to 2006, the cost of asphalt increased from \$37.99 a ton to \$59.61 a ton, pavement concrete increased \$24.81 a square yard to \$33.79 a square yard and structural steel increased from 78 cents a pound to \$2.62 a pound."



## What caused the storm?

- Poor project estimates
  - Project Estimates did not account for utilities, inflation (year of expenditure costs), and other contingencies
  - Cost overruns – modifications and amendments after authorizations
- Pressure to set record high lettings for 2006 and 2007 which resulted in artificially high program authorizations
- Paying full debt share (G.O. Debt Service)
- As a result, 2009 and 2010 programs will need to be adjusted to reflect anticipated funding and uses



## GDOT Funding – FY2009

**Available Funding: \$1,980,550,259**

**Less:**

**Contingencies <50% (161,310,000)**

**Project Overruns (150,000,000)**

**Debt Service (186,000,000)**

**A/C Conversion (250,000,000)**

**Balance for Projects: \$1,233,240,259**



## GDOT FY2009 Program

Pre Engineering	\$100,000,000
Right of Way	\$200,000,000
Construction	\$793,254,220
Contingencies (15%)	\$139,986,039
<b>Total:</b>	<b>\$1,233,240,259</b>



## Where are we today?

- Work with the State Financial Advisor to Create an Annual Debt Management Plan for Department
- Work with the Board, Governor, Legislature, and OPB to request:
  - 100% requirement for GO debt service be reduced in future years
  - Designate 4<sup>th</sup> percent of motor fuel tax for transportation purposes
- Authorize only projects that are in the STIP
- Prioritize projects



## Where are we today?

- Provide contingencies up front for construction projects to account for: unexpected inflation, low project estimates, utilities, construction engineering and inspection, and supplemental agreements
- Provide better project estimates:
  - Account for Inflation: until recently, GDOT projected future project costs using current dollars instead of costs in the year of expenditure
  - Budget for Utilities- not previously captured. To expedite project schedules GDOT has accepted the costs of utility relocation, which is approximately 4% of construction costs



## Where are we today?

- Continue our current practice of freeing up unused PE and ROW funding on active CST:
  - Previously, PE and ROW funding were not reconciled until project closed out, which detains release of excess funding for those phases
- Research projects (completed non-closed or inactive) projects
  - Compel FIRE Unit, which has focused on federal funding to date, to provide greater focus on state and bond amounts that have not been closed out to free up “artificially” obligated funds for other projects

**QUESTIONS?**

