Transportation Committee

Tuesday, January 10, 2006
1:15 PM - 3:15 PM
404 HOB

Allan G. Bense
Speaker

Ray Sansom
Chair

Road/Bridge Construction Cost Increases

January 2006

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Causes for Major Cost Increases

- Construction market saturation
  - "Hot" Market, both public and private sector
  - Additional work recovering from 8 hurricanes
  - Labor shortages
  - Material shortages
- Fuel cost increases

Causes for Major Cost Increases

- Materials price increases (earthwork, asphalt, concrete, steel)
- Trucking cost increases
- Project requirements:
  - Hours of operation
  - Night work
  - Delayed start
  - Asphalt warranties

Construction Price Increases

Pay Item Group	Unit	2003	2004	Change	2005	Change
Earthwork	CY	$4.96	$4.38	-11.7%	$7.24	+65.3%
Asphalt	TN	$55.93	$61.63	+14.3%	$75.81	+21.9%
Concrete (Structural)	CY	$550.56	$564.12	+2.5%	$749.87	+32.8%
Steel (Structural)	LB	$1.06	$1.48	+39.6%	$1.57	+6.1%
Steel (Reinforcing)	LB	$0.52	$0.75	+44.2%	$0.89	+18.7%

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Wide Spread Impacts

- Counties and other major states facing similar issues:
  - Florida Association of County Engineers and Superintendents confirmed similar results
  - Growth states also confirmed similar results, although those away from the hurricane impacts have not felt these impacts other than fuel prices

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Construction Contract Bids

- Amount bid compared to the estimated cost in the Work Program:
  - FY05 bid over estimate by 12%
  - FY06 bid over estimate by almost 13% from July to November
  - Varies by geographical areas, heaviest in Southern part of state and more recently in the Panhandle

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Work Program Development Cycle

- July 2005 Work Program Adopted for FY06-FY10
- July – October 2005 Project Cost Estimates Updated for Common Four Years (FY07-FY10)
- September 2005 - February 2006 Tentative Work Program updated FY07-FY10 and add FY11 (New Fifth Year)

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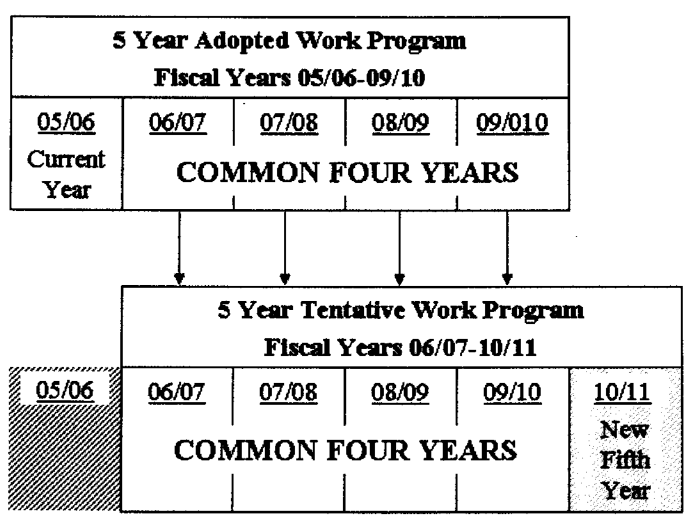
Work Program Development Cycle



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Cost Increases Impact on Work Program

- "Normal" Cost increases are planned for with "safety factors" built into the Work Program to help "protect" projects:
  - Construction Inflation factors
  - Project level contingencies
  - "Box" contingencies

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Impact of "Abnormal" Cost Increases on Work Program

- Section 339.135 requires the Work Program to be balanced to available revenues:
  - Abnormal cost increases result in some project deferrals, with a few beyond FY11 (New Fifth Year)
  - Partially offset by "new" funds from November Transportation REC update and SAFETEA-LU

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How Were Deferrals Selected?

- Federal/State law and policies provide the following funding priorities:
  1. Safety, Operations, and Routine Maintenance
  2. Long-Term Maintenance, Preservation (resurfacing and bridge repair/replacement)
  3. Capacity Improvements

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How Were Deferrals Selected?

- Projects within Priorities 1. and 2. were protected.
- Capacity projects were then protected to the extent funds were available:
  - DOT districts worked within priorities set by and in consultation with MPOs and Counties within available funds
  - Varies by geographical area due to larger cost increases in some districts

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Public Input

- Tentative Work Program is an interactive process:
  - Local public hearings
  - Discussions with local officials and legislators
  - Statewide public hearing
- DOT is using this input to refine the Tentative Work Program within available funds

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Improvement Actions

- Working to add industry capacity:
  - Advertise/search for additional contractors
  - Eliminate impediments to increased competition while ensuring quality products and services
  - Research options to increase labor pool and address materials shortages
- Summit to examine cost increases in February in Orlando
  - Work with industry and others to identify best options to improve the situation

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Improvement Actions

- Re-examining internal project management and cost estimating processes:
  - Identifying best practices and training on best practices underway
  - Adding a performance measure on DOT "dashboard" on cost estimating
  - Project scoping being better defined and managed
  - Bids over a tolerance (15%) level compared to the estimate have to be approved by Secretary

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Improvement Actions

- Construction inflation factors increased and more timely indexes being created
- Work Program "contingencies" increased from about 11% to about 15% overall
- Closer interaction with officials established prior to future actions on proposed project impacts

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Next Steps

- Tentative Work Program presented in draft in February and formally in early March to Governor and Legislature
- Ideas/proposals will be presented to the Governor and Legislature to better equip the DOT and the industry to respond to major price issues based on the Summit in February and other related information – some may be "out of the box" thinking

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Supporting Materials

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Contract Lettings

Fiscal Year	Number of Contracts	Avg Number of Bidders Per Contract	Contracts With No Bid	Contracts with One Bid	Contracts with Two Bids	Percent of Contracts w/0, 1, or 2 Bids
2002/03	243	4.3	0	7	27	14%
2003/04	238	3.9	0	20	43	27%
2004/05	240	3.5	4	11	51	28%
2005/06*	96	2.9	1	6	32	41%

* Data through November 2005 Letting

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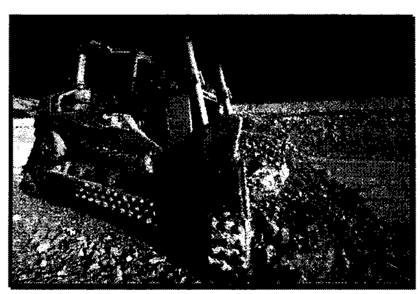
Earthwork Explanation

- Prices up over 65% in 2005:
  - Borrow Pit Availability
  - Transportation
  - Permits



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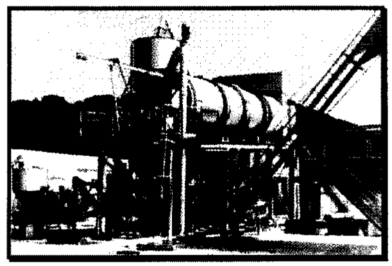
Asphalt Explanation

- Prices up 14% in 2004 and 22% in 2005:
  - Oil Prices
  - Materials and Aggregates Transportation Cost
  - Bitumen Prices



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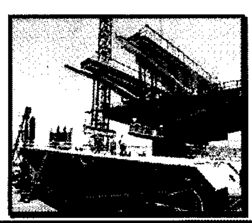
Structural Concrete Explanation

- Prices up 33% in 2005:
  - Cement Price (China demand)
  - Materials and Aggregates Transportation Costs
  - Additional Cost to Open Concrete Plant for Night Work



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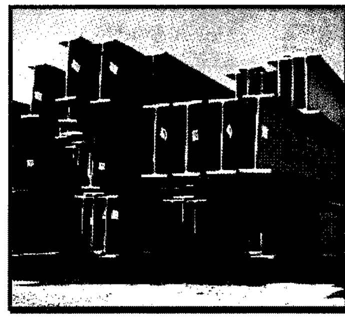
Structural Steel Explanation

- Prices up 40% in 2004 and 6% in 2005:
  - China Demand in 2004
  - Virgin Steel Prices



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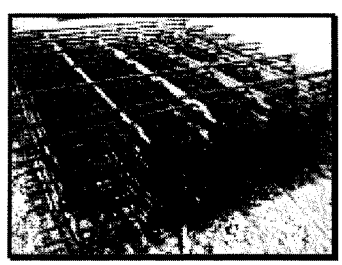
Reinforcing Steel Explanation

- Prices up 44% in 2004 and 19% in 2005:
  - Raw Material Prices (China demand in 2004)
  - Scrap metal prices



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Contract Bid Analysis – For 04/05
(Statewide Summary through June Letting)

District	Adopted	Low Bid	Over/(-)Under	% of Chg
D1	216.1	301.3	85.2	39.0%
D2	470.9	450.4	(20.5)	-4.0%
D3	383.2	406.4	23.2	6.0%
D4	186.3	209.5	23.2	12.0%
D5	333.6	324.2	(9.4)	-3.0%
D6	356.2	463.7	107.5	30.0%
D7	186.8	199.5	12.7	7.0%
TPK	445.8	535.6	89.8	20.0%
TOTALS	$2,578.9	$2,890.6	$311.7	12.0%

Note:

Includes all projects let by the department through June 2005
This report compares the "Apparent low bid dollar amount" to the "July Adopted Dollar Amount" 25

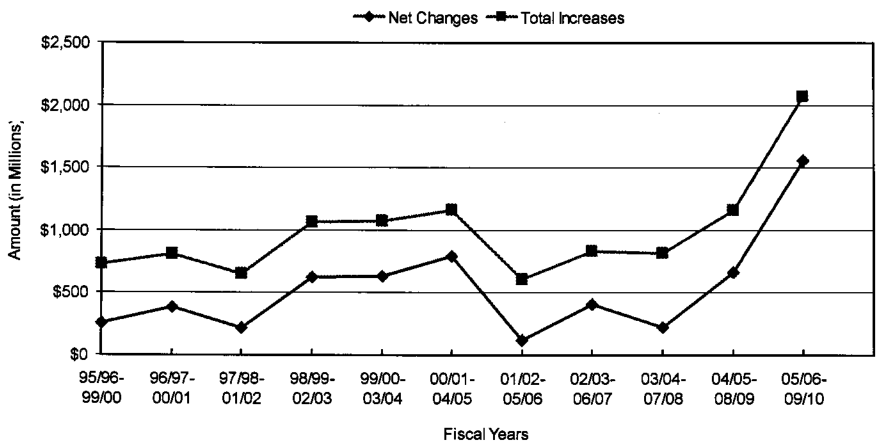
Contract Bid Analysis – For 05/06
(Statewide Summary through Nov. Letting)

District	Adopted	Low Bid	Over/(-)Under	% of Chg
D1	59.9	70.0	10.1	16.9%
D2	72.4	75.3	2.9	4.0%
D3	77.2	93.5	16.3	21.1%
D4	108.6	128.6	20.0	18.4%
D5	269.4	276.1	6.7	2.5%
D6	13.5	13.0	(0.5)	-3.7%
D7	102.3	118.5	16.2	15.8%
TPK	83.3	110.3	27.0	32.4%
TOTALS	$786.6	$885.3	$98.7	12.5%

Note:

Includes all projects let by the department through November 2005
This report compares the "Apparent low bid dollar amount" to the "July Adopted Dollar Amount" 26

History of Cost Estimate Changes in the Work Program Highways and Bridges



FY 95/96 – FY 08/09 is based on Adopted vs Tentative Work Program. FY 05/06-09/10 is based on 7/1/05 Adopted vs 12/16/05 Tentative.

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