



**Texas
Department
of Transportation**

"C.T.U.C."
What is it?

Jesse Cooper, RPLS

ROW DIVISION

“C.T.U.C.”

***Combined Transportation
& Utility Construction***

Jesse Cooper, RPLS

ROW DIVISION

TxDOT Research Projects

Project 0-4997-1

David Kopp, P.E., SAT

Effectiveness of the Combined Transportation and Utility Construction Strategy

Cost Effectiveness

Benefits to Public

Constraints

Decision making tool

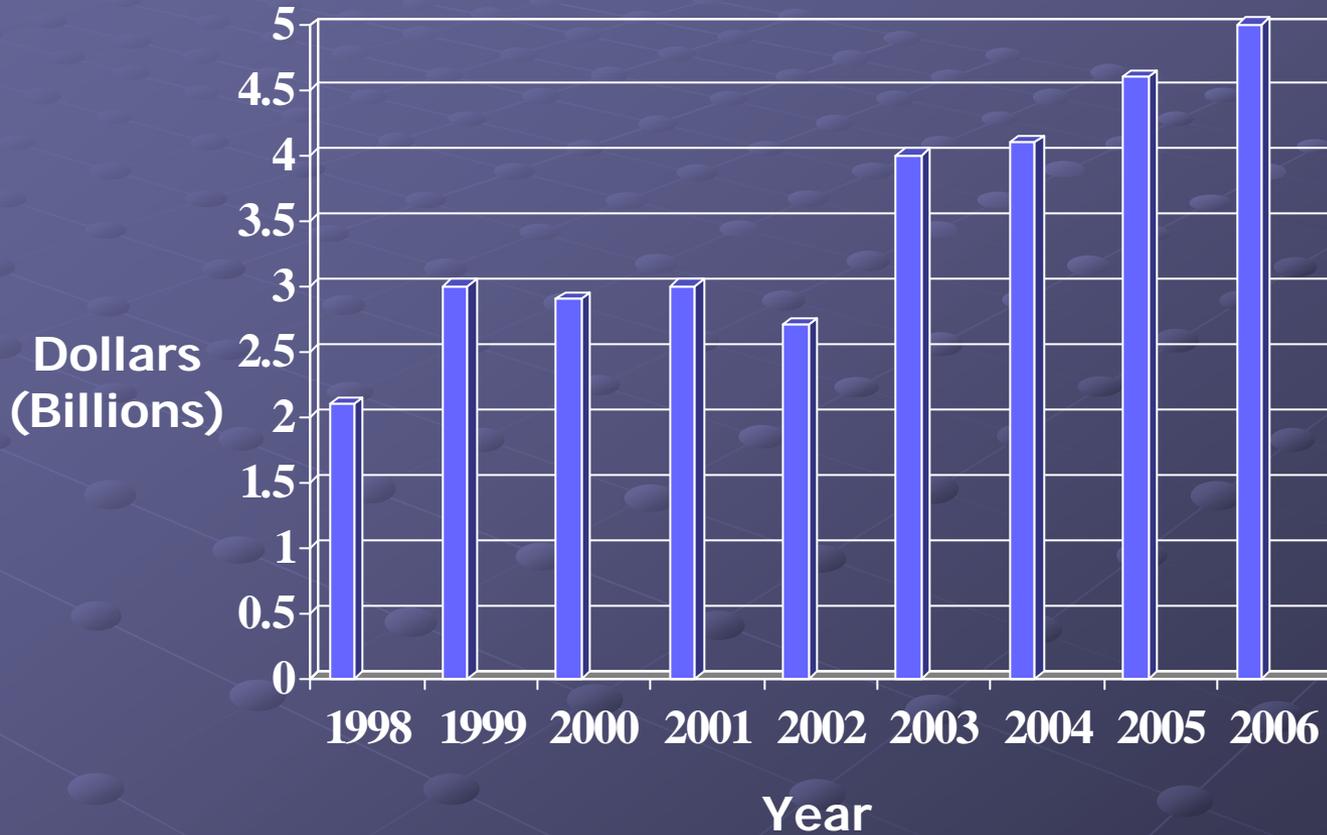
April 2007

"C.T.U.C."
Why Do We Need It?

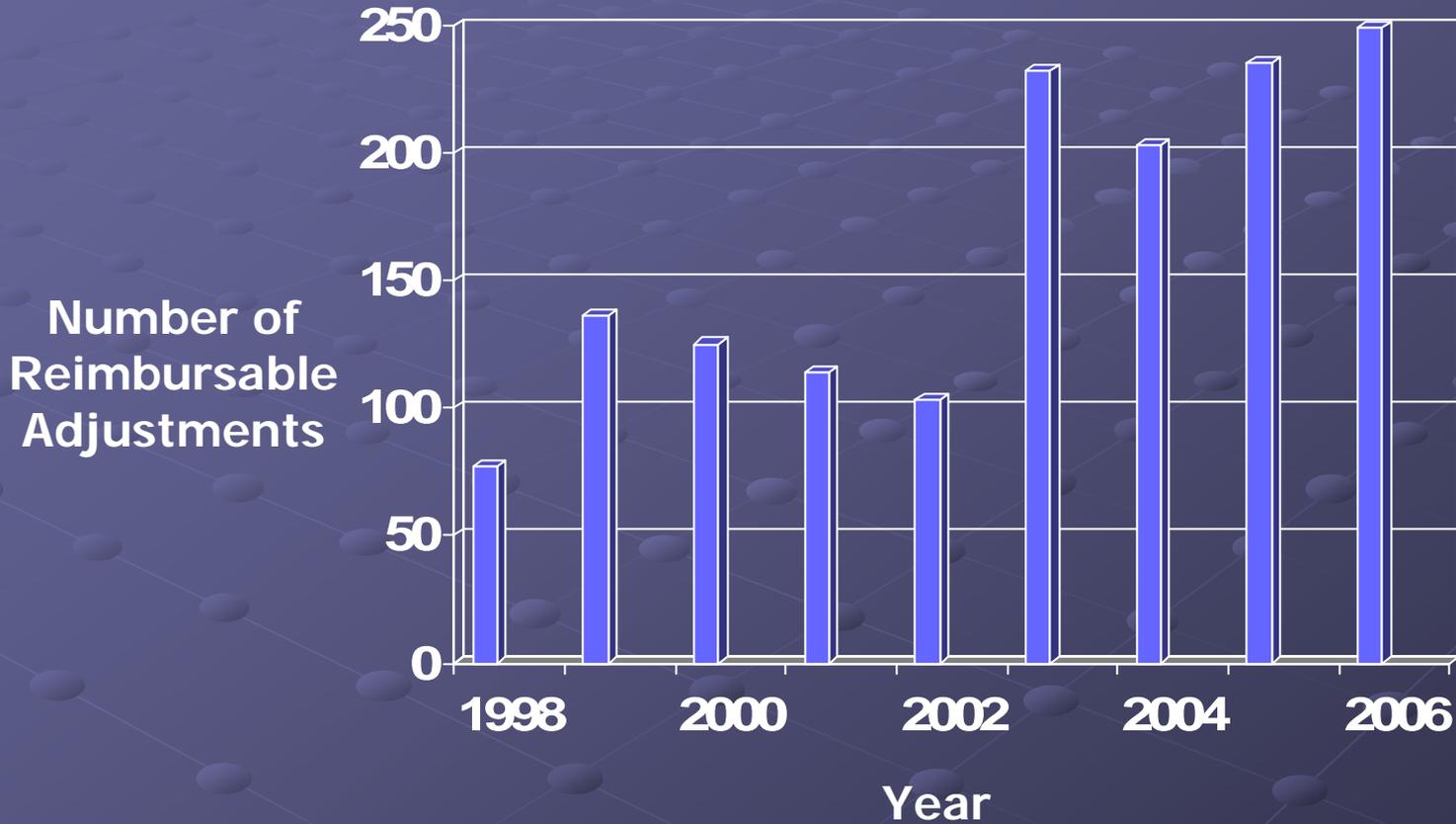
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TxDOT Construction Letting Volume



Number of Utility Adjustments /Year



Average Duration by Utility Type

Type of Adjustment	Sample Size (n)	Mean Duration	
		Days	Years
(1) High Pressure Gas	14	1674	4.58
(2) Water	26	1468	4.02
(3) Overhead Power	25	1215	3.33
(4) Underground Communications	22	1108	3.03

Durations

Utility Adjustment Duration:

- From *ROW Release*: 1160 days on avg.; 90th% approx. 2400 days
- From *Final Agreement*: 220 days on avg.; 90th% approx. 540 days

“WHAT IS THE PROBLEM?”

- 30 Days is plenty of time to relocate.
- Utilities have plenty of money for relocations.
- Utilities have plenty of manpower and resources to relocate.
- Utilities have a primary goal to meet our schedule.
- Landowners love having continuous construction

***One Solution??
"C.T.U.C."***

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"C.T.U.C."

● Benefits?

- Get In, Get Out, & Stay Out
- Less Effect on Landowners
- Puts the Contractor in Control of Schedule
- Less Claims/Delays?

"C.T.U.C."

- Which Types of Utility Adjustments should be included in the Transportation Project?
 - Municipal Utilities
 - Electrical / Power
 - Communications
 - Gas / Pipelines





"C.T.U.C."

- Which Utility Adjustments should be included in the Transportation Project?
 - Adjustments which require phasing with the Transportation Project.
 - Mutually Beneficial to TxDOT and the Utility.
 - Adjustments the Highway Contractor is qualified to perform.

"C.T.U.C."

- Limitations on Including Utilities in the Transportation Project.
 - The Utility's consent for inclusion.
 - Qualifications of the Highway Contractor
 - Obtaining the Utility's Agreement & AFA early to be included in the PS&E review.
 - Work to be performed outside TxDOT ROW.
 - Front Loading of Bids.
 - Liabilities assumed by TxDOT.

"C.T.U.C."

- Unique Items Related to "CTUC"
 - Requires coordination with Design, TP&P, and Construction Sections
 - Coordination of the Funding and Responsibilities of both TxDOT and the Utility
 - The Risk of Assuming any Liabilities of the Utility.

"C.T.U.C."

- All Utility work included in a Transportation Project is a function of ROW.
 - Transportation Code, Title 6, Sect 224.008, Utility Cost are to included as ROW Costs.
 - All Utility Adjustments will be included in the Transportation Project as authorized in the Utility Agreement.
 - All Utility Adjustments will be included in the Construction Estimate as a Sub Estimate.

TxDOT Research Projects

Conclusions

CTUC is under some circumstances the most beneficial approach

TxDOT and utility owners have different perspectives

To enjoy benefits, some utility adjustment processes may need to be changed

TxDOT Research Projects

Conclusions

Project Performance Criteria:

Improving traffic flow

Moving letting date earlier

Satisfying utilities with (subs) work

Reducing overall project duration

Improving coordination with utilities

Preserving TxDOT / Utility Relationship

"C.T.U.C."

It is still the preference of TxDOT and the FHWA for All Utilities to be clear prior to the Letting of a Transportation Project.

TxDOT Research Projects

Project 0-4998-1

Jeff Masik, P.E., HOU

A Unit Cost and Construction Specification Framework for Utility Construction

Common units of work

Common basis of estimates

Common method of tracking

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