



NORTH CAROLINA  
**Turnpike Authority**

STIP Project No. U-3321  
Federal Aid Project No. STP-1213(6)

# Garden Parkway Project Update

February 25, 2010



# Agenda

- **Project Update**
- **“Practical Design” Approach**
- **Revised Plan of Finance**
- **Conclusion**

# Project Update



# Where We are Today

## Preferred Alternative "9"



## **Current Schedule**

- **Final EIS – June 2010**
- **Investment Grade T&R/Final Plan of Finance – October 2010**
- **Record of Decision (ROD) – October 2010**
- **Financial Close – February 2011**
- **Award Contract – March 2011**
- **Project Opening – December 2014**

# The “Practical Design” Approach

# Public Hearing Comments

- **Concern about the change in the rural character of Gaston County**
- **Concern about phasing the project and “ending” the project at US 321**



# Where We Were in Early 2009

<b>Project Element</b>	<b>\$ Millions</b>
<b>Construction</b>	<b>\$ 1021</b>
<b>Right of Way</b>	<b>\$ 192</b>
<b>Utilities</b>	<b>\$ 21</b>
<b>Other Agency Costs</b>	<b>\$ 46</b>
<b>Total</b>	<b>\$ 1,280</b>

# Practical Design Approach

***“Practical Design” - development of a cost effective project within the context of the project environment that meets the transportation needs with a reasonable application of design and construction standards***

# Practical Design Approach

**Build only what is required to meet the transportation need into the “reasonable future”:**

- **Phased construction**
- **Don’t overbuild, reduce footprint**
- **Set project up for future expansion**

**Garden Parkway: *being innovative can we meet the I-485 to I-85 challenge? Can we reduce costs by \$350,000,000?***

# Practical Design Considerations

*Context Sensitivity is Critical!*



# Aesthetic Concepts

Garden Parkway Aesthetic Concepts not yet developed. Expected to be similar to Monroe but with more rural type appearance.

**REGIONAL ARCHITECTURE THEME**

# Practical Design Concepts

- **Allow each travel direction to have independent grades to blend with existing topography**



- **Match vertical alignment to rolling topography to reduce footprint & earthwork**

# Practical Design Concepts

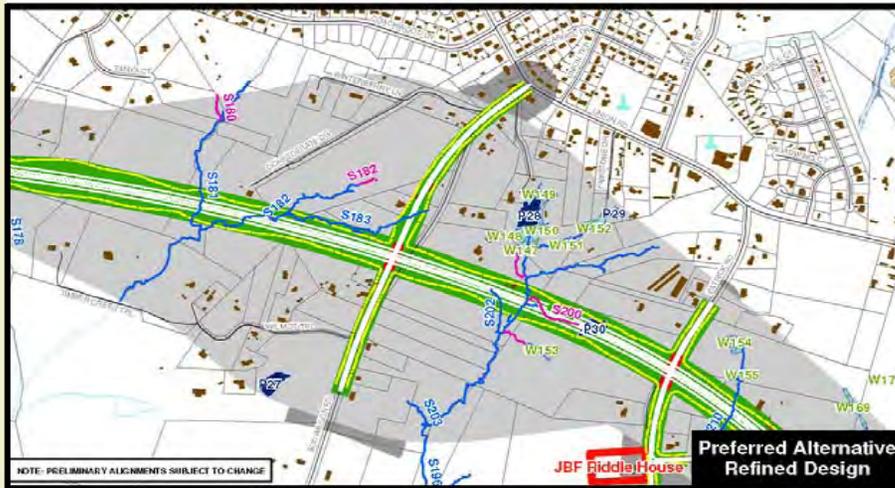
**Consider elimination of interchanges  
(with utilization of local network) at:**

- US 29-74**
- Linwood Road**
- Robinson Road**
- Bud Wilson Road**

# Bud Wilson Road Interchange



## Eliminate Interchange

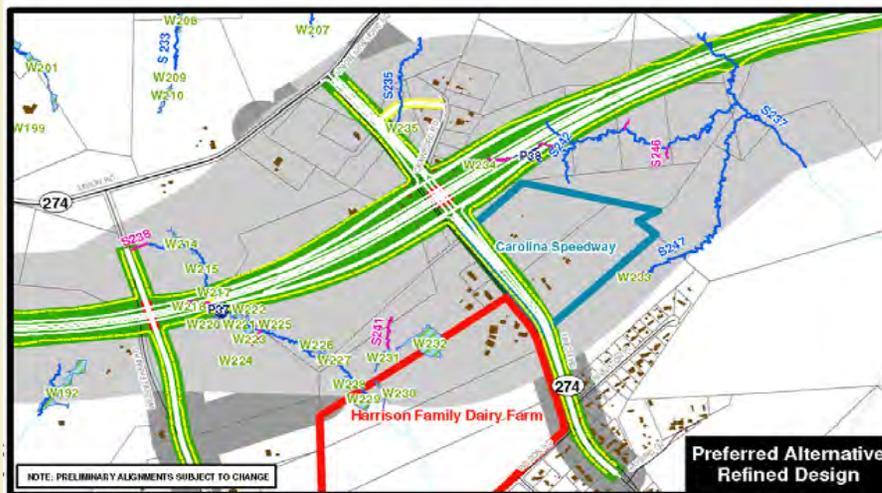
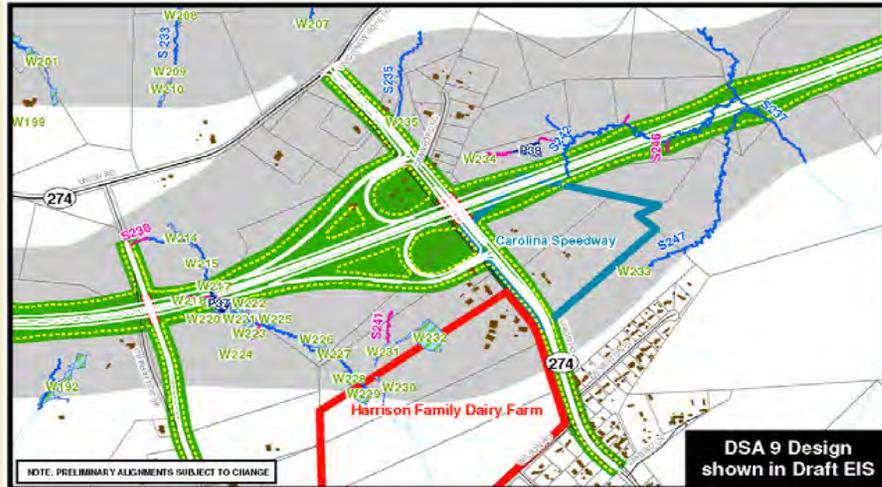


# Practical Design Concepts

**Consider reduction of movements and footprint of interchanges (with utilization of local network) at:**

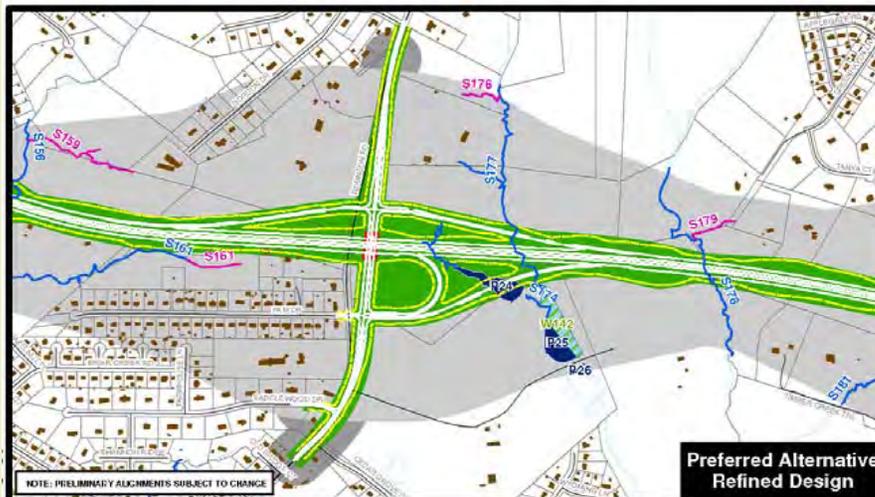
- Union Road**
- Robinson Road**
- Southpoint Road**

# Union Road Interchange



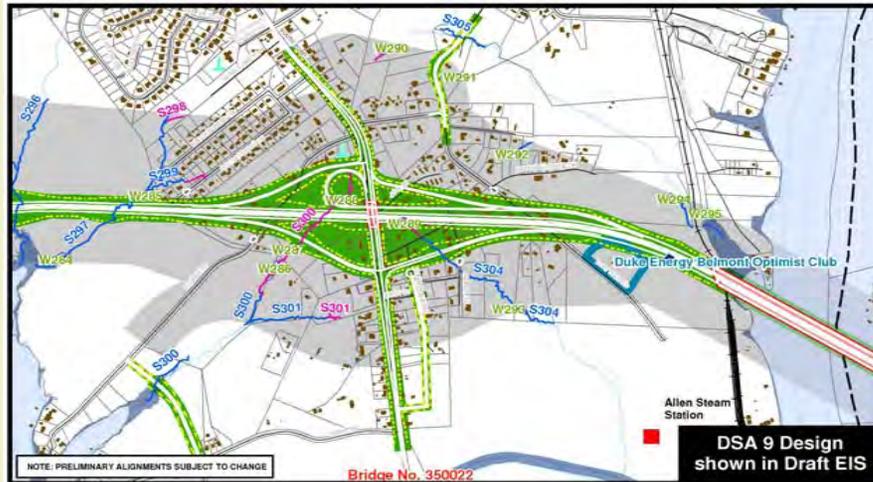
- **Configuration changed to Compressed Diamond**
- **Mainline alignment shifted north avoid pit area**

# Robinson Road Interchange



- **WB Ramps Shifted farther South**
- **Reconnection at Pam Drive**

# Southpoint Road Interchange

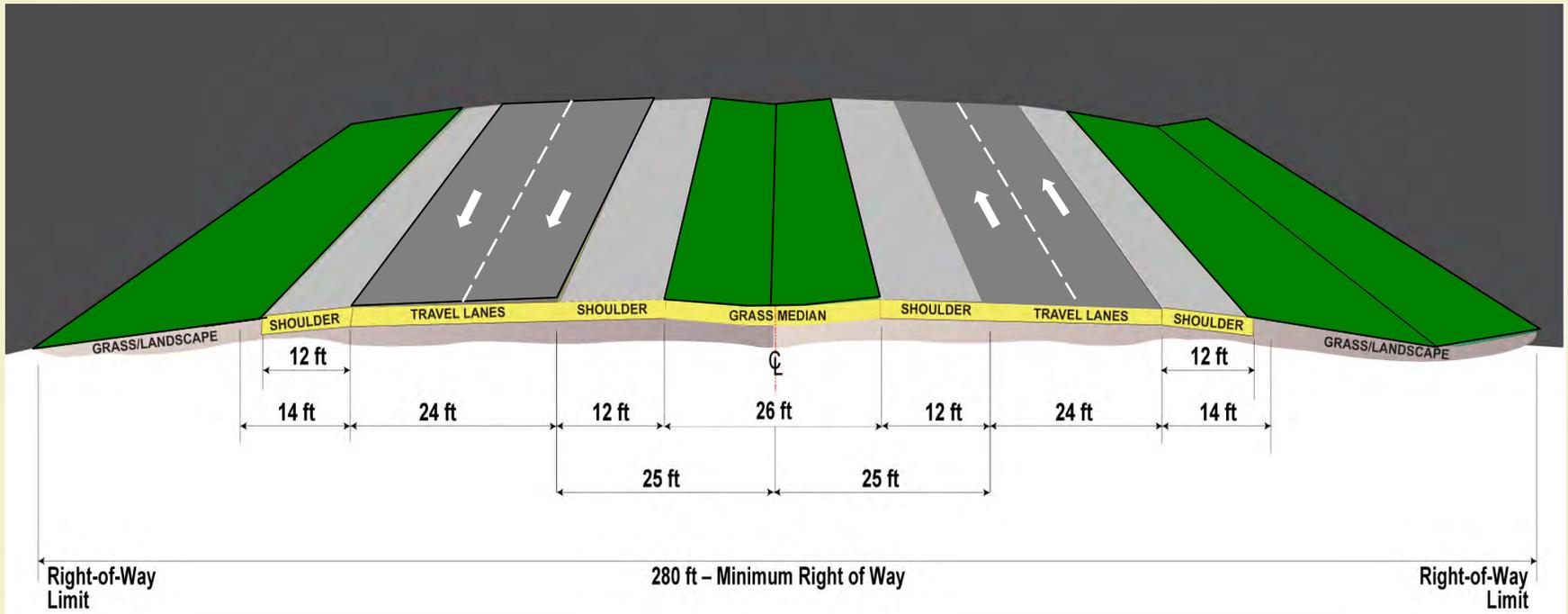


- **Loop in NW Quad eliminated**
- **Mainline alignment shifted north of Optimist Club fields**
- **New connection for Boat Club Rd.**

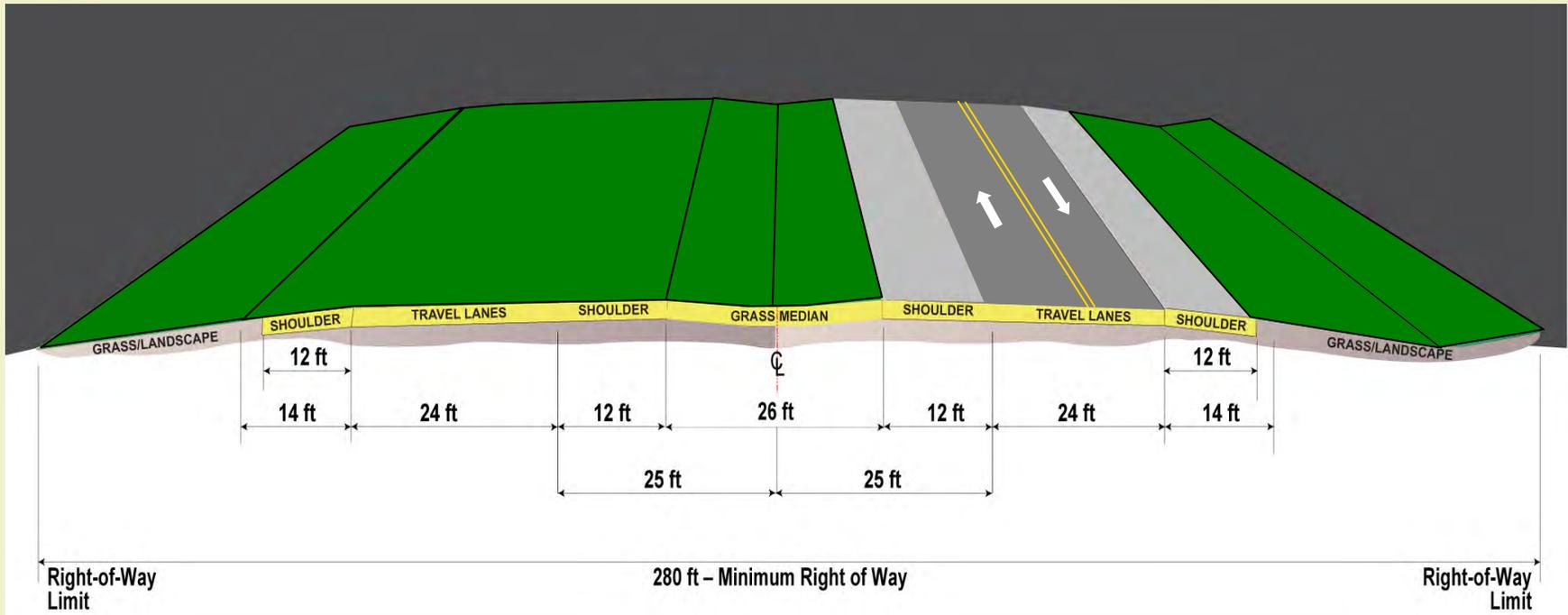
# **Practical Design Concepts**

**Initially construct two travel lanes west of US 321 (half of the future 6-lane facility)**

# Four-Lane Typical I-485 to US 321



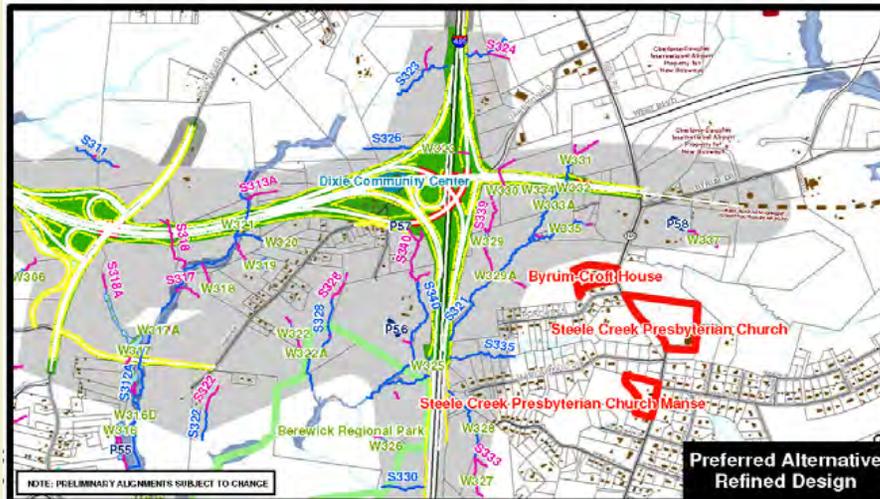
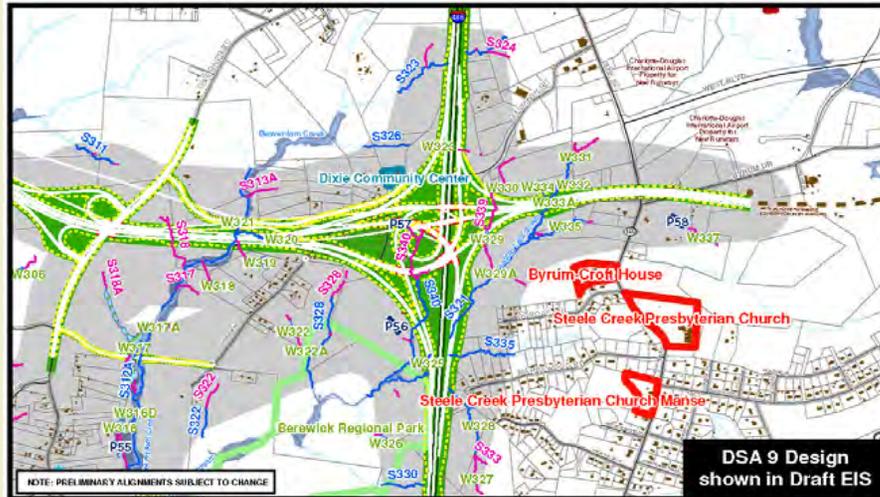
# Two-Lane Typical US 321 to I-85



# Practical Design Concepts

- **Consider trumpet interchange at I-85 to eliminate braided ramps and flyovers (phased for future expansion)**
- **Minimize footprint by:**
  - Reducing median width
  - Eliminating allowance for future loops
  - Decreasing access control on side roads
  - Balancing earthwork

# I-485 Interchange



- Interchange shifted north to maintain existing Garrison Road Bridge
- Dixie Community Center impacted, but Berewick Regional Park avoided

# **Contract Structure**

## ***One Design-Build Contract***

### **Provisions**

- **Need to go from I-85 to I-485**
- **“Highest Value Fixed Price” based on Financial Plan**
- **Proposers design within flexible envelope**
- **Pavement Bid Alternate**
- **“Use Any Design Standard”**

# Capital & Operations & Maintenance Costs

## General Assumptions

- **Capital costs escalated to mid-year of construction**
- **Based on NCTA estimates resulting from the Practical Design process**
- **All electronic tolling**
- **O&M costs similar to Triangle Expressway**

# The Savings

<b>Project Elements</b>	<b>\$ Millions</b>
<b>Earthwork Reductions</b>	<b>\$ 27,000,000</b>
<b>Narrower Bridges</b>	<b>\$ 14,000,000</b>
<b>Reduced Median Width</b>	<b>\$ 57,000,000</b>
<b>Reduced Shoulder Widths</b>	<b>\$ 12,000,000</b>
<b>Minimize Y-Line Improvements</b>	<b>\$ 12,000,000</b>
<b>Eliminate Bud Wilson Interchange</b>	<b>\$ 14,000,000</b>
<b>Two-lane option from 321 to 85</b>	<b>\$ 64,000,000</b>
<b>Reduce from 6 lanes to 4</b>	<b>\$ 152,000,000</b>
<b>Total</b>	<b>\$ 352,000,000</b>

# Current Capital Costs

<b>Project Element</b>	<b>\$ Millions</b>
<b>Construction</b>	<b>\$ 661.7</b>
<b>Right of Way</b>	<b>\$ 179.0</b>
<b>Utilities</b>	<b>\$ 21.2</b>
<b>Other Agency Costs</b>	<b>\$ 66.4</b>
<b>Total</b>	<b>\$ 928.3</b>

# **Revised Plan of Finance**

# Financing Assumptions

- **Preliminary Traffic & Revenue forecast agrees with investment grade forecast**
- **Project receives investment-grade BBB Rating**
- **TIFIA loan is approved**
- **NCDOT guarantees O&M, R&R, Capital Cost**
- **Bond Insurance on CABS**

# Today's Big Question

***Based on these assumptions,  
and the savings from the  
Practical Design approach, can  
we finance the project the entire  
way from I-485 to I-85?***

# The Answer:

**“Yes”**

**BUT...**

# Major Unknowns Remain

- **Will the recession affect revenue forecasts in the Investment Grade T&R Study?**
- **Will Interest rates remain flat and credit markets stable?**
- **Will the Federal Government extend the BAB program?**
- **Will the TIFIA loan be approved?**

# A look at Today's Plan of Finance\*

Sources of Funds	\$ Millions
Appropriations Bonds (GAP)	\$ 570.8
Toll Revenue Bonds	\$ 207.9
TIFIA Loan	\$ 385.9
Interest Earnings etc.	\$ 35.6
<b>Total Financing Sources</b>	<b>\$ 1,200.2</b>

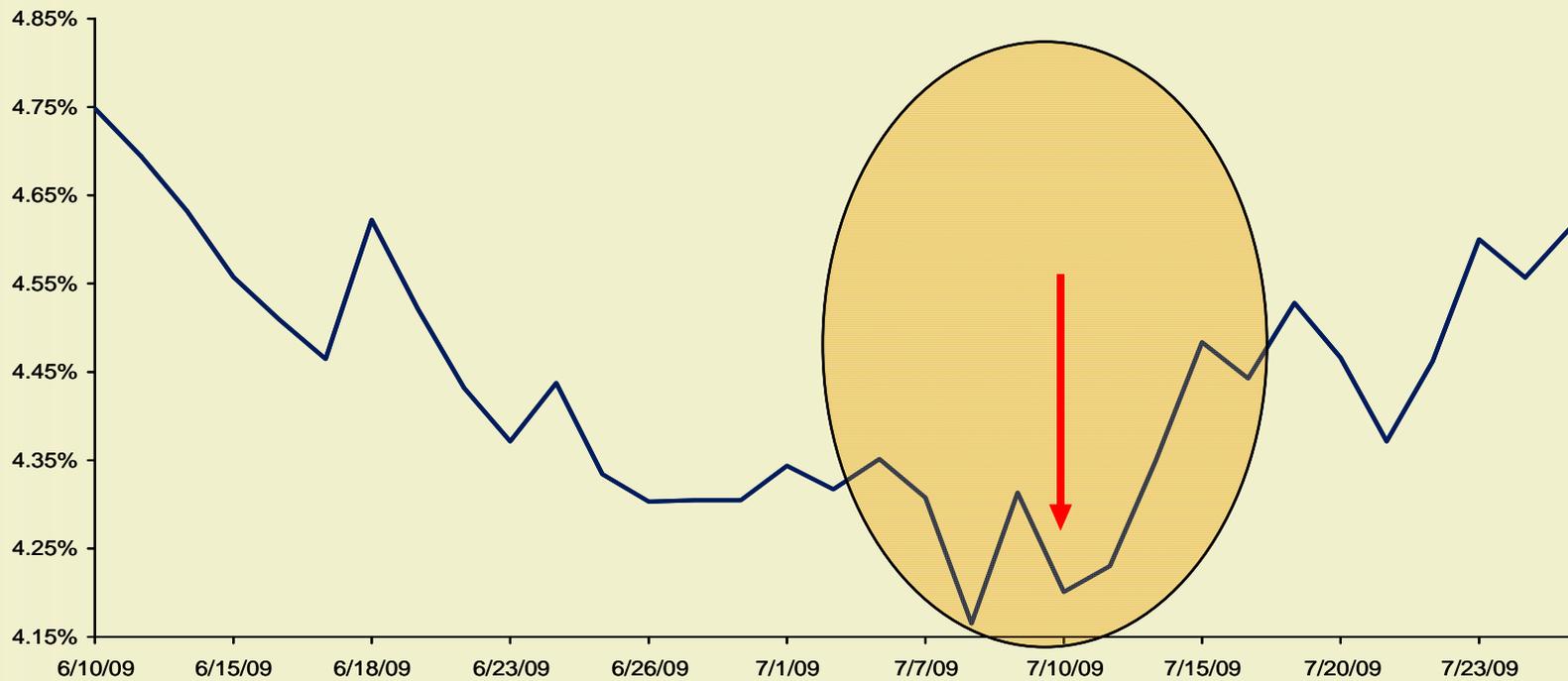
\* Best estimates with what we know today

# Projected Financing

<b>Uses of Funds</b>	<b>\$ Millions</b>
<b>Total Gross Construction Costs</b>	<b>\$ 928.2</b>
<b>Reserves &amp; Financing Costs</b>	<b>\$ 245.6</b>
<b>TIFIA Credit Charge</b>	<b>\$ 26.4</b>
<b>Total Financing Uses</b>	<b>\$ 1,200.2</b>

# Triangle Expressway Volatility

## 30-Year US Treasury Rate



# Triangle Expressway Financing

**When markets froze we pulled out all of the stops:**

- **Bifurcated the bond offering**
  - **Appropriation bonds received “AA” rating based on State’s credit rating**
  - **Insured toll revenue bonds to lift “BBB” to “AA” rating**
- **Paid \$ 10 m BAB program**
- **Utilized BAB Program**

# What We Know

- **Uncontrollable forces have significant impact:**
  - **Market conditions/interest rates**
  - **Government programs**
- **With any toll project, it is not known if project is financeable until:**
  - **Credit ratings are issued**
  - **Interest rates are established**
  - **TIFIA loan is closed**
  - **Bonds are priced**

# Conclusions

# Where We Stand

- **The Project is a Local Priority**
- **Gap funds are in place**
- **Encouraging results from the “Practical Design” process**
- **Project proceeding on schedule**
  - **Preliminary Engineering**
  - **Financial Planning**

# Today's Message

***Based on stated assumptions and market condition, the entire project is financially feasible.***

# Today's Message

## Significant events must occur:

- **Recessionary impacts on Traffic & Revenue are minor**
- **TIFIA loan approved**
- **BAB program extended**
- **Credit markets remain stable**
- **Interest rates remain low**

**Thank you...**

**Questions?**