DALLAS DISTRICT: CULTIVATING INNOVATION TO FULFILL TxDOT’S MISSION & VISION

Mo Bur, P.E., District Engineer
TxDOT Dallas District
<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TxDOT’s Mission &amp; Vision</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Dallas District Overview</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Organizational Structure + Changes</td>
<td>5-8</td>
</tr>
<tr>
<td>4</td>
<td>Major Projects Updates: IH 635 LBJ East + US 380 Feasibility Study</td>
<td>9-14</td>
</tr>
<tr>
<td>5</td>
<td>Innovative Contracting: A+B Bidding Method</td>
<td>15-19</td>
</tr>
<tr>
<td>6</td>
<td>Innovative Traffic + Safety Considerations: Lane Rentals</td>
<td>20-26</td>
</tr>
<tr>
<td>7</td>
<td>Innovative Staffing: Irving Interchange</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>Dallas District: 2018 Year in Review</td>
<td>28-32</td>
</tr>
<tr>
<td>9</td>
<td>Questions &amp; Answers</td>
<td>33</td>
</tr>
</tbody>
</table>
**Mission**

Through collaboration and leadership, we deliver a safe, reliable, and integrated transportation system that enables the movement of people and goods.

**Vision**

A forward-thinking leader delivering mobility, enabling economic opportunity, and enhancing quality of life for all Texans.
Organizational Structure

Mo Bur, P.E.
District Engineer
Dallas District

Ceason Clemens, P.E.
Deputy District Engineer
Dallas District

Lacey Rodgers, P.E.
Director
Transportation Planning & Development

Rhonda Schmid
Supervisor
Business Services

Duane Milligan, P.E.
Director
Construction

John Hudspeth, P.E.
Director
Operations

Area Offices

Juan Paredes, P.E.
Area Engineer
Ellis & Navarro Area Offices

- Survey
- ROW
- Utilities
- Project Delivery
- Adv. Project Development
- Adv. Transportation Planning

- Bridge Design
- Roadway Design

- Open Records
- Warehouse
- Architect
- Administrative Services

- Contract Administration
- Materials/Laboratory
- Alternative Delivery

- Maintenance Manager
- Contracted Maintenance
- Transportation Operations
Lacey Rodgers, P.E.
Director
Transportation Planning & Development

Ceason Clemens, P.E.
Deputy District Engineer
Dallas District

Mo Bur, P.E.
District Engineer
Dallas District

Lacey Rodgers, P.E.
Director
Transportation Planning & Development

Tim Wright
Supervisor
Survey

Lezlie Kirby
Supervisor
ROW

David Stauder, P.E.
Supervisor
Utilities

Ray Fisher, P.E.
Supervisor
Bridge Design

Duane Milligan, P.E.
Director
Construction

John Hudspeth, P.E.
Director
Operations

Area Offices
- Maintenance Manager
- Contracted Maintenance
- Transportation Operations
  - Collin County
  - Dallas County
  - Ellis & Navarro Counties
  - Kaufman & Rockwall Counties
  - Denton County

Dan Perge, P.E.
Supervisor
Adv. Project Development

Rhonda Schmid
Supervisor
Business Services

Lezlie Kirby
Supervisor
ROW

Travis Campbell, P.E.
Supervisor
Project Delivery

Tamelia Spillman
Supervisor
Adv. Transportation Planning

Tamelia Spillman
Supervisor
Adv. Transportation Planning

Dave Miller, P.E.
Supervisor
Advanced Transportation Planning

Susan Icke, P.E.
Supervisor
Roadway Design

Susan Icke, P.E.
Supervisor
Roadway Design

Tim Wright
Supervisor
Survey

Lezlie Kirby
Supervisor
ROW

Ray Fisher, P.E.
Supervisor
Bridge Design

Dan Perge, P.E.
Supervisor
Adv. Project Development

Lacey Rodgers, P.E.
Director
Transportation Planning & Development

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Utilities

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Supervisor
Project Delivery

Dan Perge, P.E.
Supervisor
Adv. Project Development
**Limits:** From US 75 to I-30

**Description:** Improve mobility, operations, and safety by reconstructing and widening 8 to 10 general purpose lanes, reconstructing the existing “grandfathered” tolled managed lanes, adding noise walls, and constructing continuous frontage roads

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Est. Design-Build Cost</td>
<td>$1,603,645,627</td>
</tr>
<tr>
<td>Approved Funding (FY 2019 UTP)</td>
<td>$1,603,645,627</td>
</tr>
</tbody>
</table>
Major Projects Updates: IH 635 LBJ East – Purpose and Need

1. Improve safety and mobility
   - Address existing design deficiencies

2. Relieve congestion
   - Increased capacity

3. Provide reliable travel time
   - Existing “grandfathered” managed lanes

4. Accommodate projected growth through the region
Major Projects Updates: IH 635 LBJ East – Proposed Project

EXISTING TYPICAL SECTION

PROPOSED DESIGN-BUILD TYPICAL SECTION

Note: Additional capacity shown in purple.
Major Projects Updates: IH 635 LBJ East – Procurement Timeline

*Subject to Change
STEP 1: Develop roadway options and alignments based on initial technical analysis to share with cities, county and public and gather their feedback

STEP 2: Review feedback, complete more technical analysis, make adjustments to and narrow the number of alignments

STEP 3: Respond to comments and share results with cities, county and public

STEP 4: Work on developing a consensus on a locally preferred alignment
Major Projects Updates: US 380 Feasibility Study – Feedback
Innovative Contracting: A+B Bidding Method

**DEFINITION**

A combination criteria for selecting the winning bid for a construction project

**CRITERIA**

A = Traditional Cost Bid  
B = Bid Days  
- Contract Duration (or substantial completion)  
- Milestone Duration  
- Combination

**CALCULATION**

Bid Value = $A + (B \times \text{Daily Road-Users Cost})$

**AWARD**

Bid awarded to the lowest bid value
## Innovative Contracting: A+B Bidding Method

### Example

<table>
<thead>
<tr>
<th>Bidder</th>
<th>Bid Amount (A)</th>
<th>Bid Days (B)</th>
<th>Daily RUC</th>
<th>Bid Value (A+B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$20,300,000</td>
<td>230</td>
<td>$50,000</td>
<td>$31,800,000</td>
</tr>
<tr>
<td>B</td>
<td>$20,450,000</td>
<td>220</td>
<td>$50,000</td>
<td>$31,450,000</td>
</tr>
<tr>
<td>C</td>
<td>$21,700,000</td>
<td>200</td>
<td>$50,000</td>
<td>$31,700,000</td>
</tr>
</tbody>
</table>
Innovative Contracting: A+B Bidding Method

Use of the A+B Bidding Method in Dallas

1. Mobility Projects
2. Added Capacity
3. High Traffic Volume Projects
4. Time-Sensitive Projects
### Dallas District Recent A+B Bidding Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Road User Cost</th>
<th>Bidder Est. Completion</th>
<th>Bidder 1 Completion</th>
<th>Bidder 2 Completion</th>
<th>Bidder Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH-35E Operation Improvements</td>
<td>$50,000/day</td>
<td>120 days earlier</td>
<td></td>
<td></td>
<td>did not submit the lowest bid</td>
</tr>
<tr>
<td>Convert 2 Lane Rural to 6 Lane Urban</td>
<td>$9,000/day</td>
<td></td>
<td>17 months</td>
<td>25 months</td>
<td></td>
</tr>
<tr>
<td>Add 3rd Lane on Freeway Segment</td>
<td>$20,000/day</td>
<td></td>
<td>17 months</td>
<td>21 months</td>
<td></td>
</tr>
</tbody>
</table>

**Lowest Stemmons Project**

- Road User Cost = $50,000/day
- Winning bidder estimated completion 120 days earlier than bidder 2
- Winning bidder did not submit the lowest bid

**FM 2514**

- Road User Cost = $9,000/day
- TxDOT anticipated 25 months
- Winning bidder estimated completion in 17 months

**SH 161**

- Road User Cost = $20,000/day
- TxDOT anticipated 21 months
- Winning bidder estimated completion in 17 months
### Summary of Dallas District A+B Projects

- For 6 out of 10 projects, the “A” (cost of bid items) was under the Engineer’s cost estimate.
- For 10 out of 10 projects, the “B” (construction duration) was under the Engineer’s duration estimate.
- Combined time savings of 1,172 days. Additional savings possible from incentive days.
- Cumulative RUC savings of $19.5 million.
- Average 1.6% cost saved and 19.4% of time saved over the Engineer’s estimate.

<table>
<thead>
<tr>
<th>Letting Year</th>
<th>County</th>
<th>Work Type</th>
<th>DRUC ($)</th>
<th># of Bids</th>
<th>Max Allowed Days</th>
<th>A (Bid Items $)</th>
<th>Time Estimate (Days)</th>
<th>B (Days × DRUC)</th>
<th>Total $ (A+B) A (Bid Items $)</th>
<th>% over/under (Bid items)</th>
<th>Time Estimate (Days)</th>
<th>% over/under (Time)</th>
<th>RUC Savings ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun 2018</td>
<td>Dallas</td>
<td>Widening to 8 lanes</td>
<td>$20,000</td>
<td>7</td>
<td>438</td>
<td>$19,494,321</td>
<td>438 Days</td>
<td>$8,760,000</td>
<td>$28,254,321</td>
<td>7%</td>
<td>349 Days</td>
<td>-20%</td>
<td>$1,780,000</td>
</tr>
<tr>
<td>Jun 2018</td>
<td>Collin</td>
<td>Widening 2 to 4 lane divided</td>
<td>$6,400</td>
<td>5</td>
<td>643</td>
<td>$19,368,362</td>
<td>643 Days</td>
<td>$4,115,200</td>
<td>$23,483,562</td>
<td>-1%</td>
<td>430 Days</td>
<td>-33%</td>
<td>$1,363,200</td>
</tr>
<tr>
<td>May 2018</td>
<td>Ellis</td>
<td>Widening 2 to 6 lane divided</td>
<td>$9,000</td>
<td>11</td>
<td>606</td>
<td>$29,868,910</td>
<td>606 Days</td>
<td>$5,454,000</td>
<td>$35,322,910</td>
<td>-5%</td>
<td>440 Days</td>
<td>-27%</td>
<td>$1,494,000</td>
</tr>
<tr>
<td>Apr 2018</td>
<td>Rockwall</td>
<td>Widening 2 to 6 lane divided</td>
<td>$7,500</td>
<td>10</td>
<td>472</td>
<td>$15,934,761</td>
<td>472 Days</td>
<td>$3,540,000</td>
<td>$19,474,761</td>
<td>11%</td>
<td>399 Days</td>
<td>-15%</td>
<td>$547,500</td>
</tr>
<tr>
<td>Mar 2018</td>
<td>Denton</td>
<td>Widening 2 to 6 lane divided</td>
<td>$7,500</td>
<td>9</td>
<td>476</td>
<td>$14,860,889</td>
<td>476 Days</td>
<td>$3,570,000</td>
<td>$18,430,889</td>
<td>1%</td>
<td>400 Days</td>
<td>-16%</td>
<td>$570,000</td>
</tr>
<tr>
<td>Jan 2018</td>
<td>Collin</td>
<td>New/Widening/Upgrade/Reco</td>
<td>$9,000</td>
<td>7</td>
<td>492</td>
<td>$21,937,679</td>
<td>492 Days</td>
<td>$4,428,000</td>
<td>$26,365,679</td>
<td>-3%</td>
<td>416 Days</td>
<td>-15%</td>
<td>$684,000</td>
</tr>
<tr>
<td>Jul 2017</td>
<td>Denton</td>
<td>New/Widening/Upgrade/Reco</td>
<td>$4,000</td>
<td>7</td>
<td>690</td>
<td>$36,799,470</td>
<td>690 Days</td>
<td>$2,760,000</td>
<td>$39,559,470</td>
<td>-5%</td>
<td>650 Days</td>
<td>-6%</td>
<td>$160,000</td>
</tr>
<tr>
<td>Jun 2017</td>
<td>Dallas</td>
<td>New/Widening/Upgrade/Reco</td>
<td>$50,000</td>
<td>5</td>
<td>760</td>
<td>$72,032,008</td>
<td>760 Days</td>
<td>$39,000,000</td>
<td>$111,032,008</td>
<td>9%</td>
<td>618 Days</td>
<td>-21%</td>
<td>$8,100,000</td>
</tr>
<tr>
<td>May 2017</td>
<td>Dallas</td>
<td>New/Widening/Upgrade/Reco</td>
<td>$20,000</td>
<td>11</td>
<td>702</td>
<td>$59,688,407</td>
<td>702 Days</td>
<td>$14,040,000</td>
<td>$73,726,407</td>
<td>-1%</td>
<td>468 Days</td>
<td>-33%</td>
<td>$4,680,000</td>
</tr>
<tr>
<td>Jan 2017</td>
<td>Ellis</td>
<td>New/Widening/Upgrade/Reco</td>
<td>$3,300</td>
<td>7</td>
<td>730</td>
<td>$71,229,336</td>
<td>730 Days</td>
<td>$2,409,000</td>
<td>$73,638,336</td>
<td>-13%</td>
<td>687 Days</td>
<td>-6%</td>
<td>$141,900</td>
</tr>
</tbody>
</table>

Total: $361,212,163 6,029 Days $88,076,200 $355,594,997 -1.6% 4,857 Days -19.4% $19,520,600
Innovative Traffic & Safety Considerations: Lane Rental Fees

Lane rental fees and liquidated damages for lane closures

Primarily used on our design-build projects

Time periods established in the contract for various volumes of traffic
- Time Period A = peak hour/highest volume of traffic
- Time Period B = not peak hour but heavier volumes than overnight hours
- Time Period C/D = lowest traffic volumes (typically overnight)
Innovative Traffic & Safety Considerations: Lane Rental Fees

Lane rental fee bank balance is established in the contract. Lane closure fees are deducted from the bank balance.

$$ values are assigned for each time period based on the number of lanes closed.

Lane closures beyond the bank balance are deducted from the monthly estimate.

Time Period A lane closures are not allowed but a dollar value is assigned in the event that an overnight lane closure is not picked up on time. These do not come out of the bank balance, but are deducted monthly from the estimate.
## Dallas Horseshoe Project

<table>
<thead>
<tr>
<th>Location of Lane Closure</th>
<th>Time of Closure</th>
<th>Number of Hours</th>
<th>Time Period Type</th>
<th>Cost Calculation</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full westbound I-30</td>
<td>From 11pm Friday to 8am Saturday</td>
<td>9</td>
<td>C</td>
<td>9 x $5,048</td>
<td>$45,432</td>
</tr>
<tr>
<td>Full northbound I-35E</td>
<td>From 10pm Friday to 6am Saturday</td>
<td>3</td>
<td>C</td>
<td>3 x $5,048</td>
<td>$25,239</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>D</td>
<td>5 x $2,019</td>
<td></td>
</tr>
</tbody>
</table>

Total Lane Rental Fees Deducted From the Bank Balance $70,671
Lane Rental Fee Charges Example: Dallas Horseshoe Project

- 2 spans of Bridge 10 girders set the same night
- Bridge 45 girders set that night
- Temporary shore towers and work platform set for Houston Street work
- Overhangs were removed for completed Jefferson Street bridge rail

Work Completed That Evening
Lane Rental Fee Charges Example: Dallas Horseshoe Project

Construction during the lane closures

Work completed during the lane closures

- 2 spans of Bridge
- 10 girders set the same night
- Bridge 45 girders set that night
Lane Rental Fee Charges Example: Dallas Horseshoe Project

Construction during the lane closures

Work completed during the lane closures

Temporary shore towers and work platform set during closure
Lane Rental Fee Charges Example: Dallas Horseshoe Project

Majority of lane closures were completed overnight; very few single lane closures during the day on the weekend

No full closures needed during the day on the weekend

Not a single lane closure was not picked up by Time Period A/ the peak hour

Lane Rental Fee Bank Balance = $2.4 million

All full lane closures were completed in overnight hours (majority on Friday and Saturday nights)

Work during closures was maximized and multiple activities and crews worked safely within the closures

Overall we believe we have had a minimal impact on the traveling public
Innovative Staffing: Irving Interchange Project

- **Project Manager**
  - Deputy Project Manager
  - Head Recordkeeper
  - Laboratory
  - Recordkeeper
  - Chief
  - Scheduler

- **Crew 1**
  - 2 Existing AO Inspectors
  - 4 Engineering Assistants

- **Crew 2**
  - 1 Existing AO Inspector
  - 4 Engineering Assistants

- **Crew 3**
  - 2 Existing AO Inspectors
  - 4 Engineering Assistants

- **Crew 4**
  - 1 Existing AO Inspector
  - 4 Engineering Assistants

*Images courtesy of www.freepik.com*
2018 Accomplishments

Dallas District by the Numbers

1. **6.4 bidders per project for FY 2018 lettings**
   - *FM 981 Bridge Replacement let in February 2018 and had 18 bidders!*

2. **37 projects accelerated into FY 2018**
   - *For a total dollar amount of roughly $181M!*

3. **6 A+B Projects Let in FY 2018**
   - *For a total time savings of 693 days!*

4. **144 projects currently under construction**
   - *As of November 2018 for a total contract amount of $2.1B (per Construction 10th report)*
2019 Goals

• Develop Ready To Let dates in order to put projects on the shelf

• Reduce plans quantity errors

• Initiate utilities much earlier in the design process

• Meet all 4 out of 4 safety goals
Awards

2017 AGC Texas Project Awards

- **Lancaster Truss Bridge**: Bridge rehabilitation project on Red Oak Road at Ten Mile Creek
- **Horseshoe Project**: Design and Construction project in Kaufman County
- **SH 34**: Design and Construction project in Kaufman County
Awards

**TxDOT 2018 Journey Toward Excellence**
- Gold Team Award
  - Horseshoe Project

**AASHTO Award**
- America’s Transportation Awards Competition
  - 35Express Project
2018 Short Course Award Winners

Gibb Gilchrist Award
- Ceason Clemens
  - Deputy District Engineer

Luther DeBerry Award
- Duane Milligan
  - District Director of Construction

Raymond E. Stotzer, Jr. Award
- Tim Powers
  - District Business Services Supervisor, Retired
Mo Bur, P.E.
District Engineer – TxDOT, Dallas District
Mo.Bur@txdot.gov
(214) 320-6110

Please feel free to contact us for more information.

Thank You!