

# *TOLL 49 SEGMENT 4 PROGRESS REPORT*



*MAY 2017  
PROGRESS REPORT NO. 11*

**RS&H**





### **Board of Directors**

Linda Thomas, Chairwoman  
Gary Halbrooks, Vice Chairman  
James Harris, Secretary  
Robert Messer, Treasurer  
Keith Honey  
Robert Murray  
Jason Ray  
Walta Cooke  
Mike Thomas  
Barham Fulmer  
Dave Spurrier  
Robert Moore  
Hudson Old  
Larry Morse  
John Cloutier  
Dan Droege

### **Administration**

Chris Miller, Executive Director  
Everett M. Owen, Project Director  
Colleen Colby, Chief of Staff/Communications Director  
Tom Fitzgerald, C.P.A., Accounting  
Fagan Consulting, Toll Operations  
Locke Lord LLP, Outside General Counsel

**General Engineering Consultant (GEC)**



**Construction Contractor**

The logo for webber, consisting of the word 'webber' in a white, lowercase, sans-serif font, centered within a solid orange rectangular background.

**webber**

## TABLE OF CONTENTS

1.1	Introduction.....	1
1.2	Project Description .....	1
1.3	Development Activities .....	3
1.3.1	Right-of-Way .....	3
1.3.2	Utilities.....	4
1.3.3	Archeological Survey.....	5
1.4	Progress Photos.....	6
1.4.1	Earthwork .....	6
1.4.2	Drainage Structures .....	6
1.4.3	Bridge & Wall Structures .....	7
1.4.4	Erosion Control.....	8
1.5	Progress Narrative .....	8
1.6	Financial Summary.....	10
1.6.1	Project Cash Flow Curve – Baseline.....	10
1.7	Construction Financial Status.....	11
1.7.1	Summary of Change Orders This Reporting Period.....	11
1.8	DBE Status.....	11
1.9	Comprehensive Environmental Protection Program .....	12

## LIST OF TABLES

Table 1: Right-Of-Way Parcel Status .....	3
Table 2: Utility Relocation Status .....	5
Table 3: Construction Progress.....	9
Table 4: Financial Status Summary.....	10

## LIST OF FIGURES

Figure 1: Project Location Map.....	2
Figure 2: Project Cash Flow Curve - Baseline .....	10
Figure 3: DBE Status .....	12
Figure 4: PROJECT AREA south of IH 20 .....	16
Figure 5: PROJECT AREA AT IH 20.....	17
Figure 6: PROJECT AREA BETWEEN IH 20 AND FM 849 .....	18
Figure 7: PROJECT AREA AT EXISTING FM 849 .....	19
Figure 8: PROJECT AREA North OF FM 849.....	20
Figure 9: PROJECT AREA DAVIS BRANCH TRIBUTARY .....	21
Figure 10: PROJECT AREA BETWEEN DAVIS BRANCH AND FM 16.....	22
Figure 11: PROJECT AREA AT FM 16.....	23
Figure 12: QUARRIES NORTH OF FM 16.....	24
Figure 13: PROJECT AREA NORTH OF THE FM 16 QUARRIES.....	25
Figure 14: PROJECT AREA BETWEEN FM 16 AND CR 341 .....	26
Figure 15: PROJECT AREA SOUTH OF CR 431 .....	27
Figure 16: PROJECT AREA AT CR 431 .....	28
Figure 17: PROJECT AREA NORTH OF CR 431 .....	29
Figure 18: PROJECT AREA AT CR 4118 .....	30
Figure 19: PROJECT AREA AT US 69.....	31

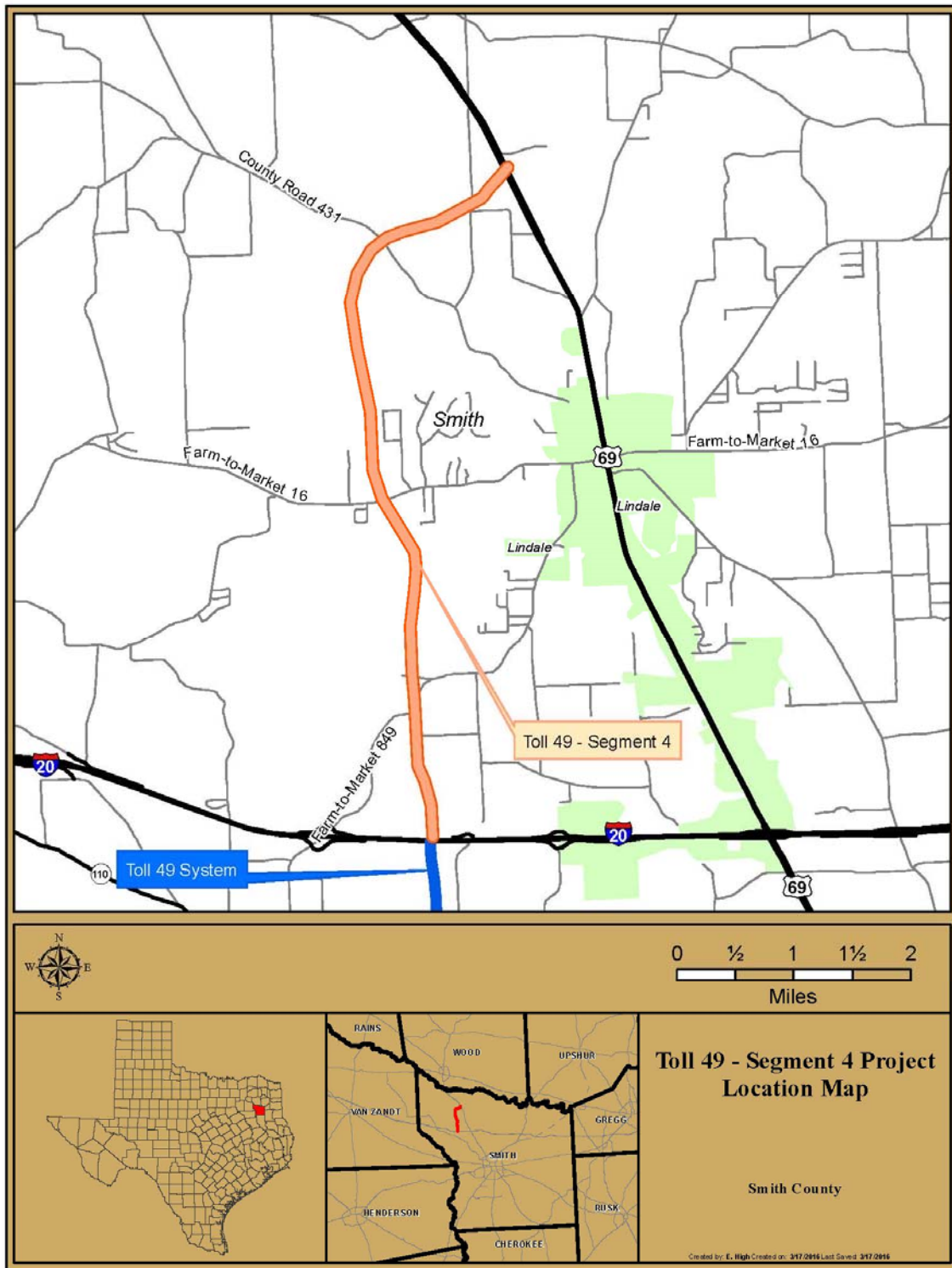
## 1.1 INTRODUCTION

This report documents and describes the development and construction of the Toll 49 Segment 4 Project during the period from April 1, 2017 through May 1, 2017. This Project is being developed and constructed by the North East Texas Regional Mobility Authority ("the Authority"). The Segment 4 Project is funded by Series 2016A Senior Lien bonds, and funds committed by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT).

## 1.2 PROJECT DESCRIPTION

The Segment 4 Project extends along new alignment from US 69 in the City of Lindale south to IH 20, north of the City of Tyler in Smith County, Texas. The Segment 4 Project connects with Toll 49 Segment 3B, extending Toll 49 by a length of approximately 6.6 miles. The Segment 4 Project consists of an interim two-lane access controlled tollway with grade separations at major cross streets, and toll collection facilities. The interim two-lane facility may be expanded to its ultimate four-lane configuration as traffic demand warrants and funding sources are identified in the future. The Segment 4 Project includes the construction of an at grade intersection at US 69, a diamond interchange including access ramps at FM 16, access ramps south of SH 110, and a three level interchange at IH 20. Continuous access/frontage roads will not be constructed as part of the Segment 4 Project.

FIGURE 1: Project Location Map



## 1.3 DEVELOPMENT ACTIVITIES

### 1.3.1 Right-of-Way

To date, the Authority has either acquired, or acquired access rights to, all forty-two project parcels. There is one remaining parcel for which a Possession and Use Agreement (PUA) has been executed and is anticipated to close at a later date.

**TABLE 1: RIGHT-OF-WAY PARCEL STATUS**

Parcel	Acreage	Estimated Acquisition	
		Date	Status
202	3.93	NTP	Closed
203	1.44	Acquired	Closed
204	0.73	NTP + 75 Days	Closed
205	0.52	NTP	PUA executed Parcel is accessible to Contractor
206	2.42	NTP	Closed
207	0.40	NTP	Closed
208	7.03	NTP + 75 Days	Closed
209	12.47	15-Jul-16	The Authority has taken possession Parcel is accessible to Contractor
210	0.84	15-Jul-16	Closed
213	39.13	NTP	The Authority has taken possession Parcel is accessible to Contractor
214	9.95	NTP	Closed
215	36.64	NTP	The Authority has taken possession Parcel is accessible to Contractor
216	28.31	NTP	The Authority has taken possession Parcel is accessible to Contractor
217	8.39	NTP	Closed
218	5.61	NTP	Closed
219	21.01	NTP	Closed
220	1.35	NTP	Closed
221	5.69	NTP + 30 Days	Closed
222	2.46	NTP + 30 Days	Closed
223	0.13	NTP + 30 Days	Closed
224	0.17	NTP + 30 Days	Closed
225	0.04	NTP + 30 Days	Closed
226	11.63	NTP + 30 Days	Closed
227	3.18	NTP + 60 Days	Closed
229	22.23	NTP + 60 Days	Closed
230	3.22	NTP + 60 Days	Closed
231	4.25	NTP + 60 Days	Closed



Parcel	Acreage	Estimated Acquisition	
		Date	Status
232	14.47	NTP + 60 Days	Closed
233	1.52	NTP + 60 Days	Closed
235	0.85	NTP + 60 Days	Closed
236	9.71	NTP + 60 Days	Closed
237	0.41	NTP + 60 Days	Closed
238	22.66	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor
239	1.04	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor
240	13.39	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor
241	0.36	NTP + 60 Days	Closed
242	11.04	NTP + 60 Days	Closed
243	9.16	NTP + 60 Days	Closed
244	19.14	NTP	Closed
245	5.81	NTP	Closed
246	0.10	NTP + 30 Days	Closed
247	0.07	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor

### 1.3.2 Utilities

The Authority has initiated the adjustment of all of the privately-owned utilities impacted by the Segment 4 Project. Relocation design and construction will be performed by the utility owners with 100% reimbursement from the Authority. The Authority has executed relocation agreements with ten of the eleven privately owned utilities impacted by the Segment 4 Project and has issued NTP for the relocation of nine of these facilities. The Authority anticipates executing a relocation agreement with the remaining utility by the end of May.

Due to coordination and construction timeframes, the relocations for some utilities are not anticipated to be complete within the contract's estimated completion dates. It is not anticipated that these relocations will impact the Project critical path.

**TABLE 2: UTILITY RELOCATION STATUS**

Utility Company	Estimated Relocation Completion Date	Status
AT&T (SBC)	NTP+120	Relocation is complete
CenterPoint Energy	NTP+120	Relocation is complete
City of Lindale	N/A	Webber to relocate as part of construction
Crystal Systems Water	N/A	Webber to relocate as part of construction
East Texas Electric Cooperative	1-Jan-17	Utility agreement executed 1-21-2016 Relocation NTP issued 6-24-2016
Enbridge	No conflict	No conflict identified, no relocation
Gulf South	NTP+90	Full utility agreement executed 12-11-2016 NTP anticipated May 2017
Lindale Rural WSC	N/A	Webber to relocate as part of construction
MHM Pipeline	Relocation will begin 2 weeks after clearing	Relocation is complete
Oncor Electric Delivery (Distribution)	NTP + 90 to 120 Days	Utility agreement executed 5-4-2016 Relocation NTP issued 6-24-2016 Relocation is ongoing
Oncor Electric Delivery (Transmission)	1-Nov-16	Utility agreement executed 3-24-2016 Relocation NTP issued 6-24-2016
Peoples Telephone Cooperative	NTP + 0 to 60 Days	Relocation is complete
SuddenLink	NTP + 150 Days	Relocation is complete
Wood County Electric	NTP + 110 Days	Relocation is complete
Zayo	NTP + 150 Days	Utility agreement anticipated in May

### 1.3.3 Archeological Survey

During archeological survey undertaken in support of a utility relocation on the project, archeologists encountered a single previously unrecorded archeological site within the project right of way. Following discovery of this site, the Authority enlisted the services of Hicks & Company to perform data recovery and mitigation at the site. Throughout the course of the archeological investigation, the Contractor has been allowed only limited access to the right-of-way near the archeological site. This limited access impeded earthwork activities, resulting in the demobilization of the earthwork contractor for a period of time during the months of December and January. The Contractor has recently gained expanded access to the right-of-way. In an effort to further expand access, the Contractor has nearly completed the clearing of a construction haul road near the archeological site, allowing the transport of materials and construction equipment along the Project ROW. The Contractor's most recent schedule reflects a delay of approximately four months to the completion of the project, and the Contractor has submitted a time impact analysis related to delays associated with the archeological studies. The NET RMA is reviewing the time impact documentation to identify potential measures to accelerate the completion of the project.

## 1.4 PROGRESS PHOTOS

### 1.4.1 Earthwork

Clearing and grubbing activities are complete at all areas necessary within the project limits with the exception of the archeological site, to which the Contractor has limited access. Embankment and excavation activities are ongoing from south of Stevenson Branch down to FM 16.



Excavation between Stevenson Branch and FM 16



Backfilling/embankment at the Stevenson Branch abutment

### 1.4.2 Drainage Structures

The Contractor has completed construction of drainage structures major cross culverts No. 5, 7-12 and 14-15 and has begun construction of No. 16. Construction of other various minor culverts, stormdrain, and concrete riprap across the project is ongoing.



Forms in preparation of Culvert No. 16 concrete



Culvert No. 16 construction south of FM 849



### 1.4.3 Bridge & Wall Structures

The Contractor continues bridge work including installation of drilled shafts, columns, caps, beams, metal decking, and abutments at numerous bridge locations across the project. The Contractor has also begun pouring concrete bridge deck. In addition, construction of all Mechanically Stabilized Earth (MSE) walls is complete and the construction of cast-in-place (CIP) walls is ongoing.



FM 849 bridge deck pour



FM 16 column construction



Deck panels at the IH 20 main lane  
overpass bridge



CR 4118 cap construction

#### 1.4.4 Erosion Control

The Contractor continues to place environmental controls such as silt fence, soil retention blankets, and rock filter dams as needed throughout the project to prevent erosion. Seeding continues north and south of FM 16 where backslopes are complete.



Rock filter dams south of Stevenson Branch  
near Culvert No. 7



Silt fence south of Stevenson Branch near  
Culvert No. 8

#### 1.4.5 Pavement

The Contractor began pavement activities including the placement of the prime coat and asphalt paving beginning at US 69 and working south to just north of CR 4118.



Fresh prime coat prior to asphalt paving  
just south of US 69



Hot mix asphalt paving from south of US 69 to  
just north of CR 4118



## 1.5 PROGRESS NARRATIVE

Clearing and grubbing activities are complete excluding the area affected by the archeological study. Excavation work is ongoing near FM 849 and north of FM 16 for the main lanes. Embankment activities are ongoing south of FM 16 and north of FM 16 to accommodate the proposed access ramps. Treated backfill is being placed at various abutments including those at the FM 849, Davis Branch, Davis Branch Tributary, and IH 20 main lane bridges. Topsoil, compost, and seeding continues on backslope areas north and south of FM 16. The Contractor continues placement of erosion control items including silt fence, rock filter dams, erosion control blankets, and temporary seed as needed to prevent erosion.

Drilled shaft work and construction of bridge columns is ongoing at FM 16 and complete at all other bridge locations on the project. Footing placement is complete. Cap construction is ongoing at the CR 431, IH 20 Northbound Ramp, FM 16, and the north side of the IH 20 Main Lane bridge and complete at all other bridge locations on the Project. The Contractor also completed the placement of bridge beams for the Davis Branch bridge in April. The Contractor has begun placing bridge deck panels at Davis Branch, Davis Branch Tributary, and on the southern side of the IH 20 main lane bridge. In addition, the Contractor placed the concrete bridge deck at the FM 849 bridge during the month of April.

All MSE wall construction is complete on the project. Work on cast-in-place (CIP) retaining walls is complete with the exception of Retaining Wall No. 4. Installation of major cross Culverts No. 5, 7-12 and 14-15 is complete. All the remaining stream mitigation credits were secured by the Authority, and the Contractor has resumed work on major cross culverts south of FM 849 beginning with Culvert No. 16 south of FM 849. Work will continue south as culverts are completed and excavation has already begun at the future location of Culvert No. 17.

The Contractor began pavement activities in the month of April, placing prime coat on all the completed flex base areas from US 69 south to just north of the CR 4118 overpass. The Contractor also completed hot mix asphalt paving within these limits. No further traffic signal, gantry, or lighting work was completed in the month of April.

Table 3 below reflects construction progress based on the Contractor's schedule of values and approved construction draws.

**TABLE 3: CONSTRUCTION PROGRESS**

Construction Activity	Percent Complete
Mobilization	90.00%
Traffic Control	49.85%
Earthwork	64.06%
Drainage	33.92%
Sub-base and Base Course	5.56%
Pavement	0%
Structures	48.39%
Pavement Markings and Signals	15.66%
Environmental	27.14%
Extra Work Items	31.01%
Change Orders	48.80%

## 1.6 FINANCIAL SUMMARY

Table 4 shows the overall financial status for the Toll 49 Segment 4 project through May 15, 2017. The original budget established for the Project and the expenditures to date are provided. An estimated cost remaining and an estimate at completion are also provided.

**TABLE 4: FINANCIAL STATUS SUMMARY**

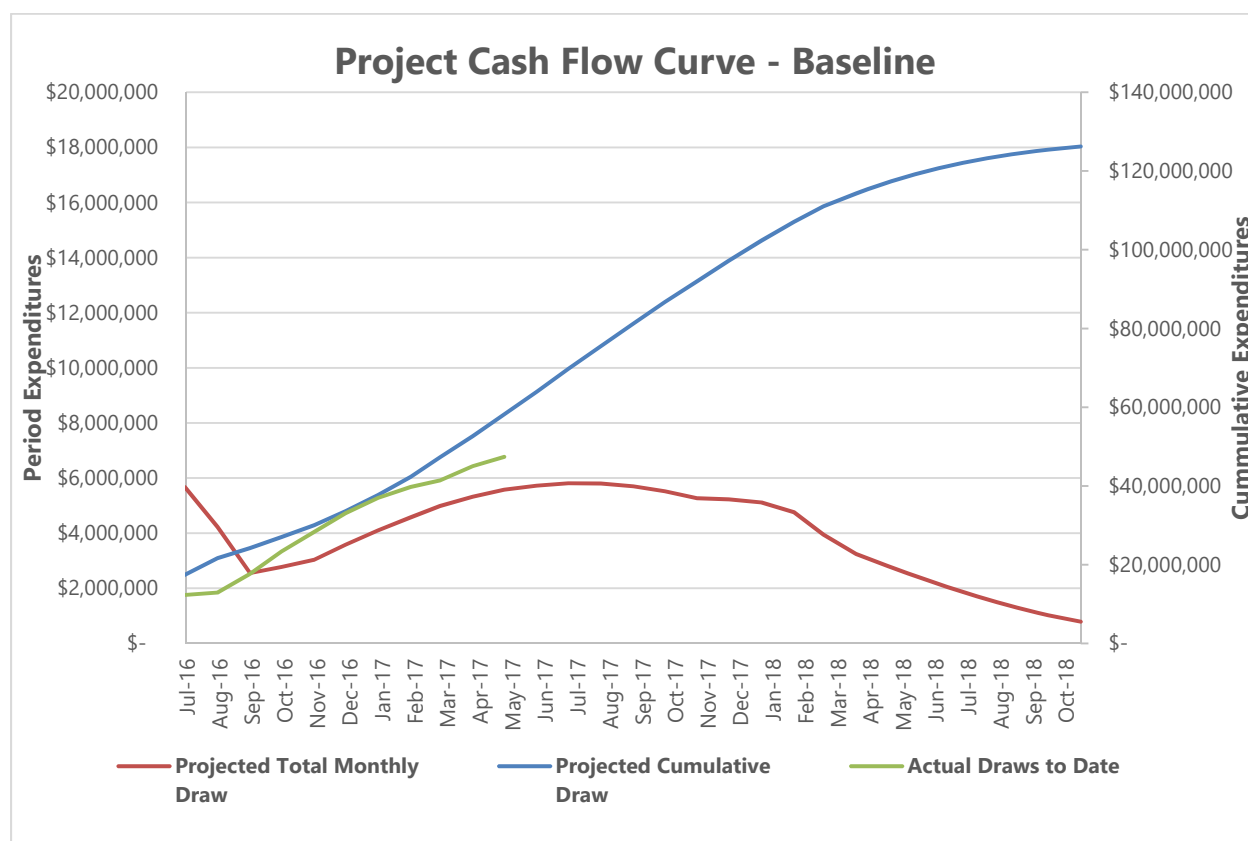
Project Description	Original Cost Estimate (\$)	Expenditures to Date (\$)	Estimated Remaining Cost (\$)	Estimate at Completion (\$)
Toll 49 Segment 4	\$126,220,000	\$47,381,333.41	\$78,838,666.59	\$126,220,000

*Note: These costs include Traffic & Revenue studies costs, ROW survey and mapping costs, Final Engineering costs, Utility Relocation costs, Oversight costs, Construction (including GEC costs), and contingencies.*

### 1.6.1 Project Cash Flow Curve – Baseline

Figure 2 summarizes the actual project costs to date through during this reporting period in comparison to the projected project costs.

**FIGURE 2: PROJECT CASH FLOW CURVE - BASELINE**



## 1.7 CONSTRUCTION FINANCIAL STATUS

The following summary provides the financial status of the Project.

Original Contractor Amount:	\$68,760,000
<i>Authorized Changes (Change Order and/or Amendments):</i>	
Change Order No. 1 <sup>1</sup>	\$0.00
Change Order No. 2	\$26,247.38
Change Order No. 3	\$17,257.93
Change Order No. 4	\$156,926.00
Change Order No. 5	\$100,000.00
	<hr/>
<b>Current Authorized Contract Amount:</b>	<b>\$69,060,431.31</b>
<b>Previous total of Contractor Payments:</b>	<b>\$27,422,577.01</b>
Amount Paid this Reporting Period:	\$2,286,482.19
	<hr/>
<b>Total Amount Paid To-Date:</b>	<b>\$29,729,059.20</b>
Retainage withheld:	\$0.00
	<hr/>
<b>Approved Amount for work completed (through Draw No. 9):</b>	<b>\$29,729,059.20</b>
<b>Amount remaining for work to be completed:</b>	<b>\$39,331,372.11</b>
<b>Total Percent of Budget Expended though May 15, 2017:</b>	<b>43.05%</b>

Footnotes:

1. Change Order number 1 did not result in a change in price

### 1.7.1 Summary of Change Orders This Reporting Period

Change Order No. 5 was executed during this reporting period, increasing the contract amount by \$100,000.00. The change order included various erosion control items.

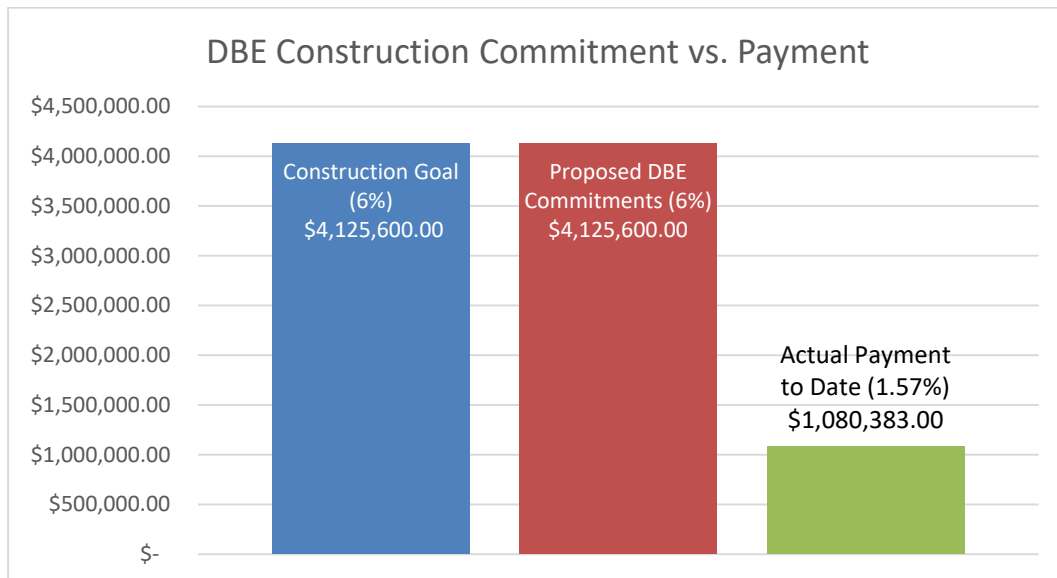
## 1.8 DBE STATUS

The Contractor is required to meet the Disadvantage Business Enterprise (DBE) goal of 6% for the Segment 4 Project. The Contractor has proposed costs associated with DBE development work in the amount of \$4,125,600.00 which equals 6.00% of the original contract value. This represents approved subcontracts with the following firms: Rambo Contracting INC (culverts, inlets, headwalls, and wing walls), Texas Environmental Management (stormwater pollution prevent plans and erosion control), MCL Contracting (rebar tying), Buyers Barricade (advanced warning signs), and South Texas Painting (painting) along with anticipated subcontracts with Odum Services LP (metal beam guard fence and guard rail) and A Brothers Milling.

To date, the Contractor has made payments in the amount of \$1,080,383.00 to DBE subcontractors, 1.57% of the original contract amount or 26.2% of their commitment amount.



FIGURE 3: DBE STATUS



## 1.9 COMPREHENSIVE ENVIRONMENTAL PROTECTION PROGRAM

In accordance with the terms of the Environmental Record of Decision (ROD) and contract requirements, the Contractor was required to develop and implement a Comprehensive Environmental Protection Program (CEPP) applicable throughout the duration of construction to establish the approach, requirements and procedures to be employed to protect the environment. The Contractor's CEPP includes the following component parts:

- » Areas of Special Environmental Interest - Describes steps taken to prevent impacts to at risk, rare species and their habitat as well as historical resources including:
  - Educating employees to recognize these impacts
  - Identifying the areas where construction related activities are not to take place based on the relevant migratory bird timing windows
  - Keeping water work to a minimum and cleaning any equipment which must enter the water both prior and after to mitigate the spread of Zebra Mussels
  - If endangered/rare species or historical/archaeological/paleontological resources are encountered, ceasing working in the area and notifying the engineer or applicable agency for direction on any mitigation action required
- » Environmental Protection Measures include the following:
  - Erosion and sediment control measures
  - Preparation for seasonal shutdown
  - Protection of wildlife and wildlife habitat
  - Proper practices for clearing vegetation
  - Appropriate handling and storage of soil

- Protection of wetlands, watercourses (streams), and riparian areas
- Air quality management
- Proper handling and storage of petroleum, oil, lubricant, and other chemicals
- Management of waste
- Constructing, operating, and reclaiming borrow excavations
- Operating concrete batch plants
- Well impacts and requirements
- Recycling program
- » Monitoring and Inspection efforts consist of:
  - Self-Regulatory inspection program
  - Construction Monitoring
  - Post construction monitoring
- » Energy Conservation measures including the following:
  - Reusing and recycling of construction materials
  - Maximizing the use of local materials to reduce hauling
  - Carpooling of workers to and from the jobsite
  - Regular maintenance of equipment to ensure proper working order
  - Reducing energy consumption by turning off equipment and vehicles when not in use
  - Minimizing stops and delays by efficient routing of trucks to and from the jobsite and utilizing off-peak travel times to maximize fuel efficiency
  - Minimizing the need for artificial light by scheduling construction during daytime hours to the extent practicable
  - Maintenance of traffic control plan that minimizes lengthy detours or delays for motorists.
- » The Environmental Protection Training Plan educates non-administrative employees to:
  - Recognize the overall importance of environmental issues
  - Recognize environmental impacts as they relate to construction
  - Know what actions to take to minimize impacts
- » The Communication Plan provides contact information for the Environmental Manager, Superintendent, Project Engineer and Project Manager

Per the CEPP, the contractor has conducted the following activities:

- » Submitted for and posted TCEQ Notice of Intent (NOI) for stormwater discharges. The NOI and large construction site notices are posted on the Contractor's Equal Employment Opportunity board in front of the field office to address accessibility concerns.
- » Implemented proper vegetation clearing practices including installing sediment and erosion control measures prior to beginning the clearing and grubbing work.
- » Minimized disturbance to aquatic resources during clearing and grubbing by installing silt fence between the construction site and watercourse to prevent sedimentation and equipment from

encroaching on protected areas and installing temporary crossings to allow construction equipment to cross various tributary streams.

- » Performed weekly inspections to ensure the measures are operating correctly.
- » Implemented the Environmental Protection Training Plan by providing staff access to the TxDOT Environmental Management System training website.
- » Continues to avoid impacts to streams south of FM 849 until mitigation is secured.

## *APPENDIX A: AERIAL PHOTOGRAPHS (MAY 2017)*



**FIGURE 4: PROJECT AREA SOUTH OF IH 20**

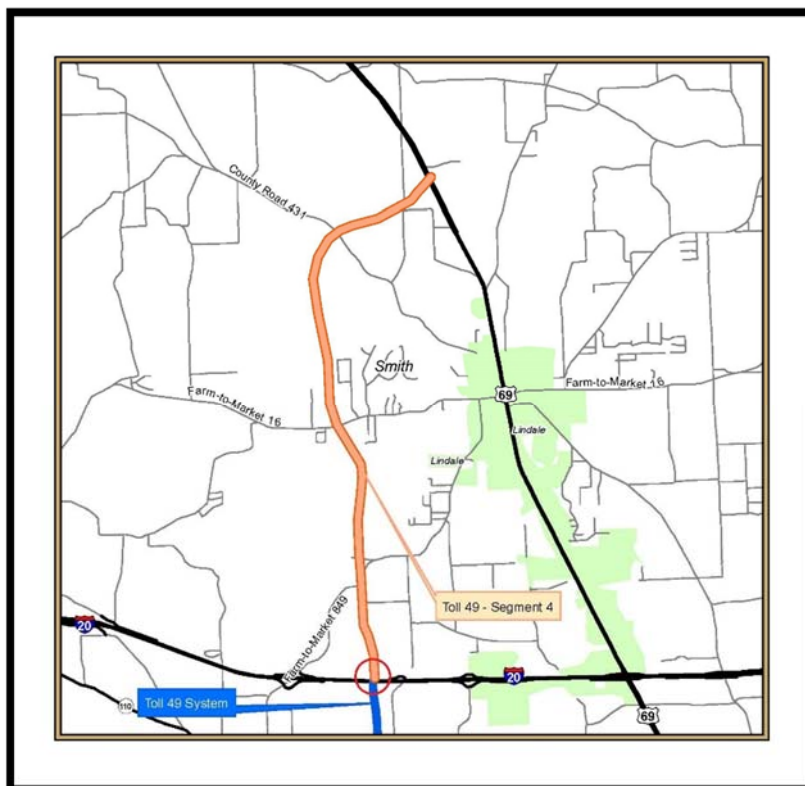
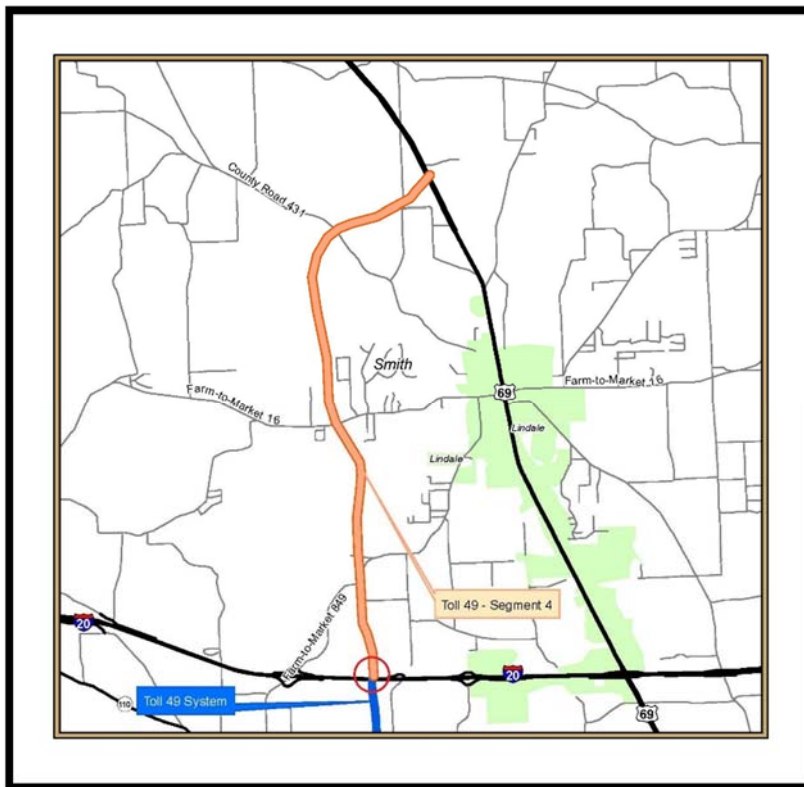






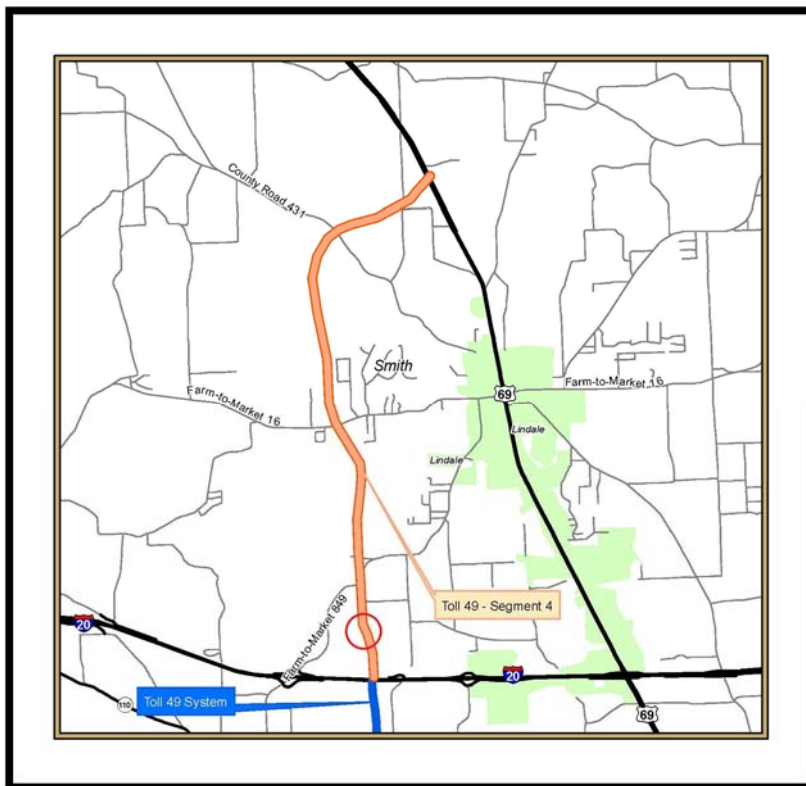
FIGURE 5: PROJECT AREA AT IH 20







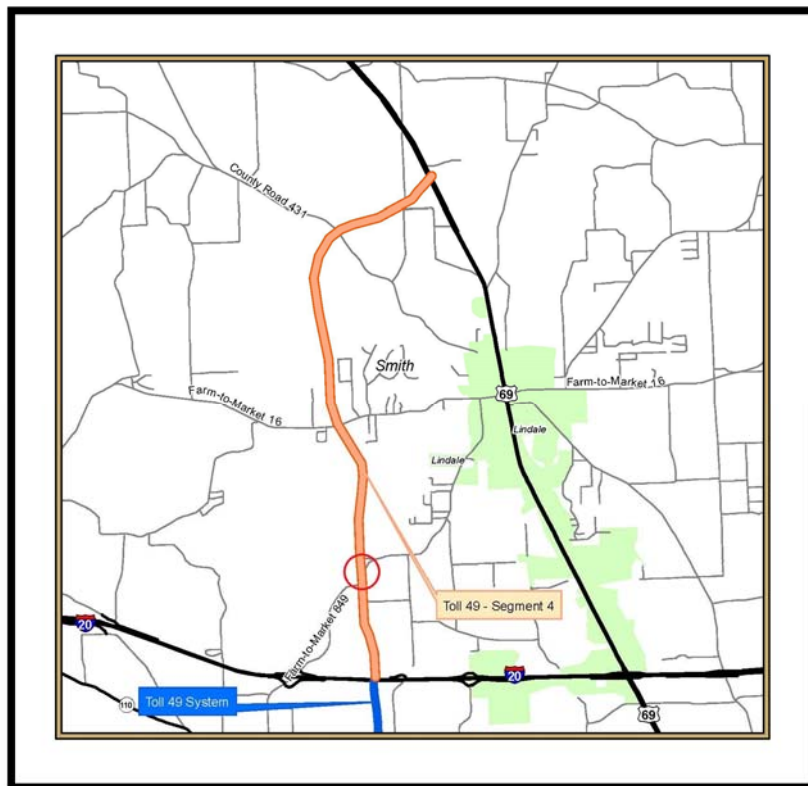
**FIGURE 6: PROJECT AREA BETWEEN IH 20 AND FM 849**







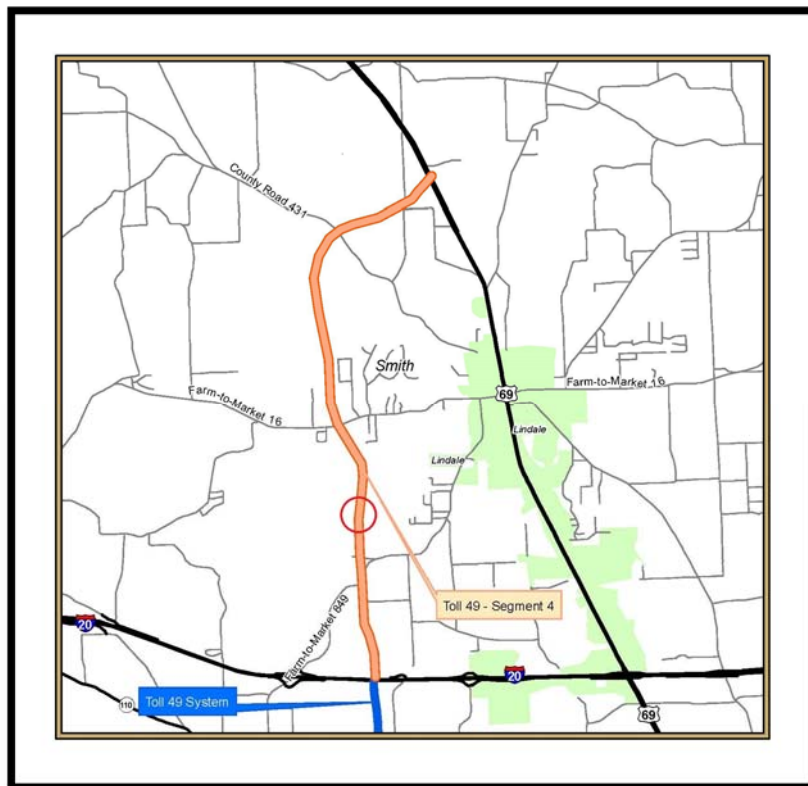
**FIGURE 7: PROJECT AREA AT EXISTING FM 849**







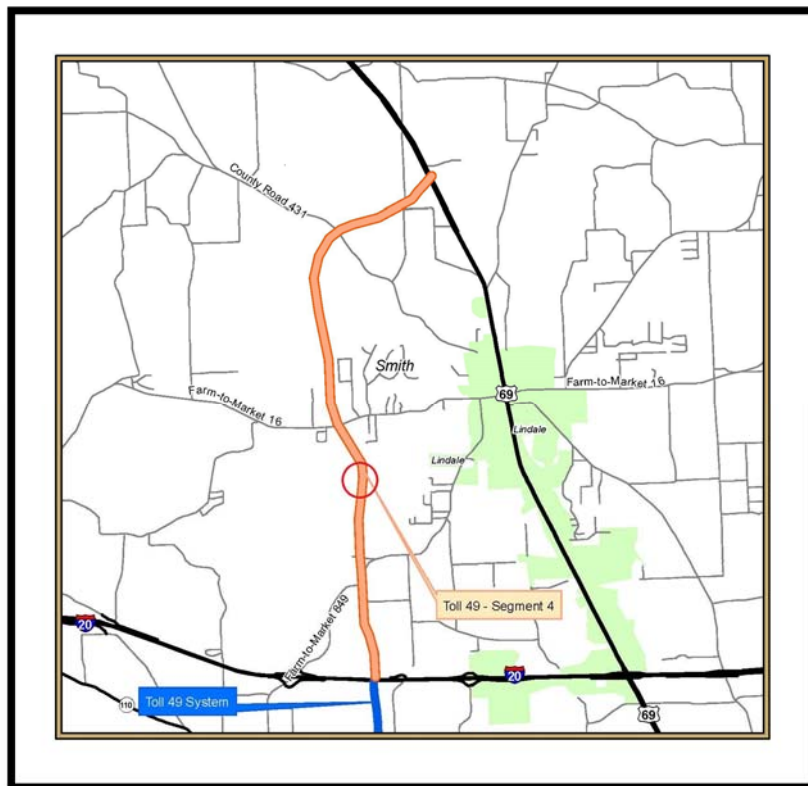
**FIGURE 8: PROJECT AREA NORTH OF FM 849**







**FIGURE 9: PROJECT AREA DAVIS BRANCH TRIBUTARY**







**FIGURE 10: PROJECT AREA BETWEEN DAVIS BRANCH AND FM 16**

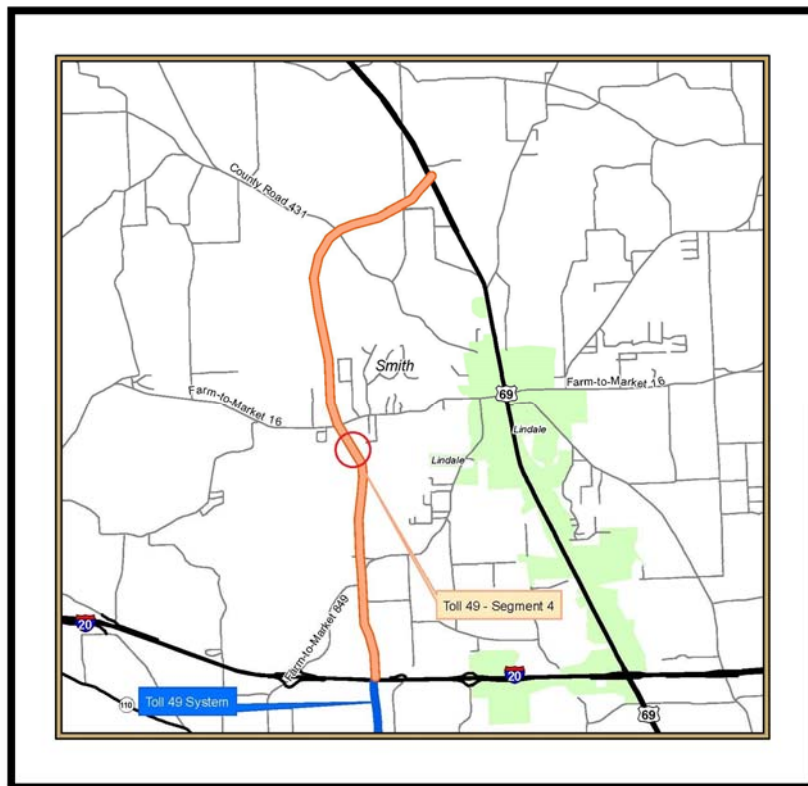






FIGURE 11: PROJECT AREA AT FM 16

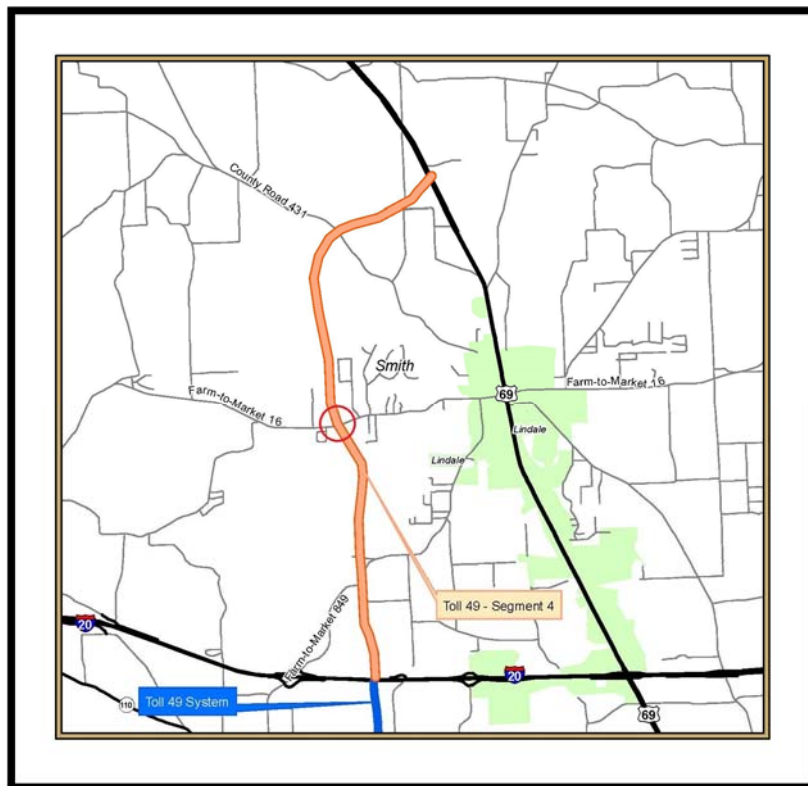
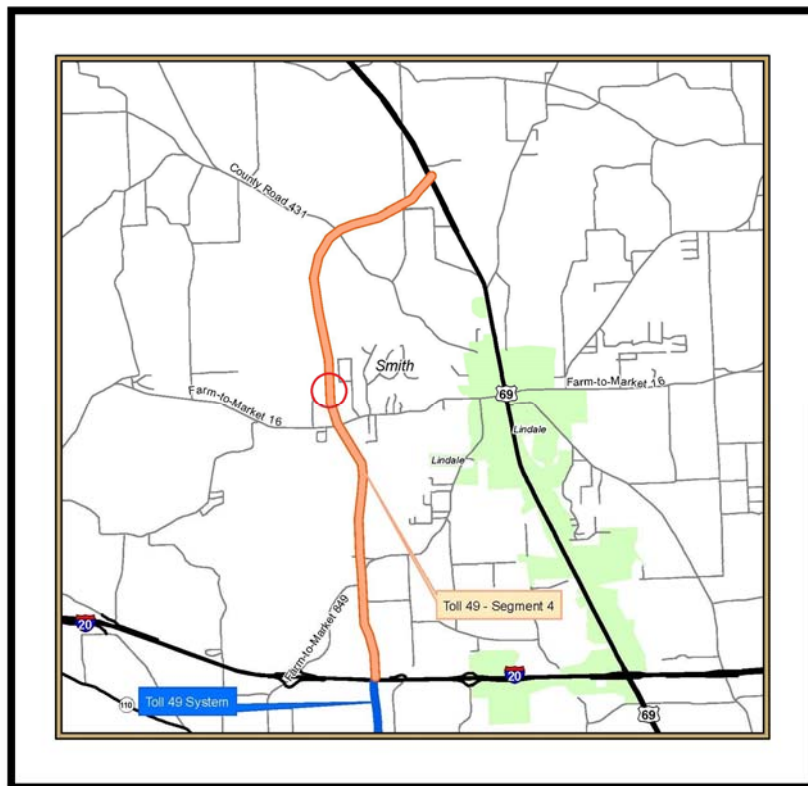






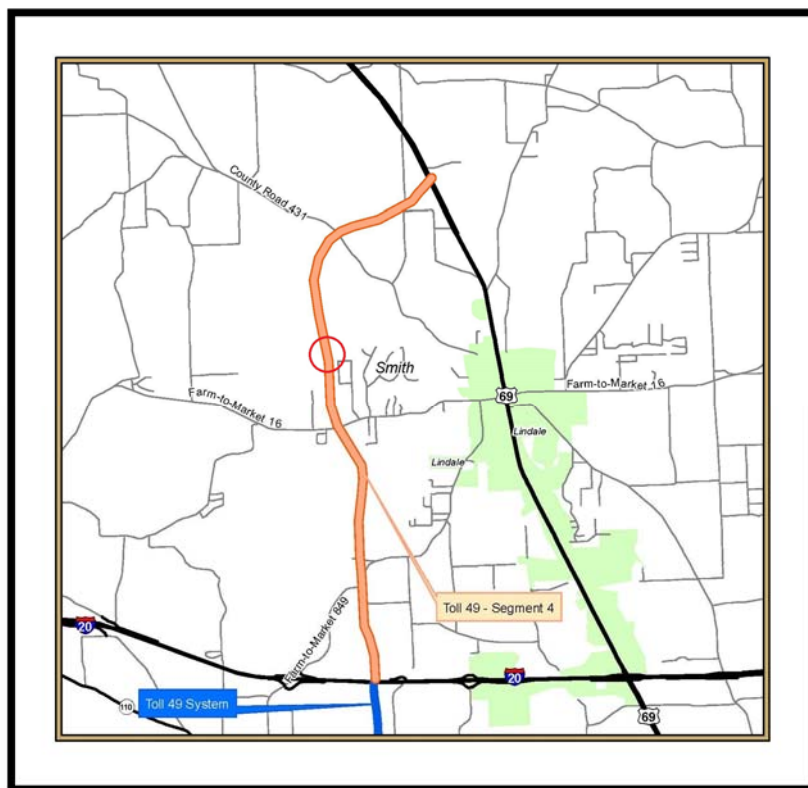
FIGURE 12: QUARRIES NORTH OF FM 16







**FIGURE 13: PROJECT AREA NORTH OF THE FM 16 QUARRIES**







**FIGURE 14: PROJECT AREA BETWEEN FM 16 AND CR 341**

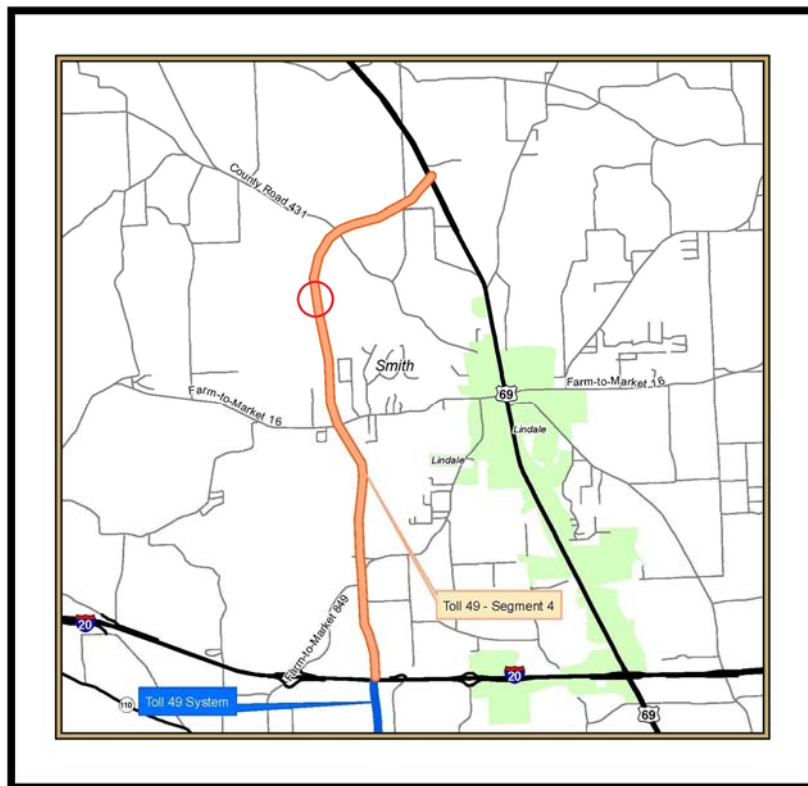






FIGURE 15: PROJECT AREA SOUTH OF CR 431

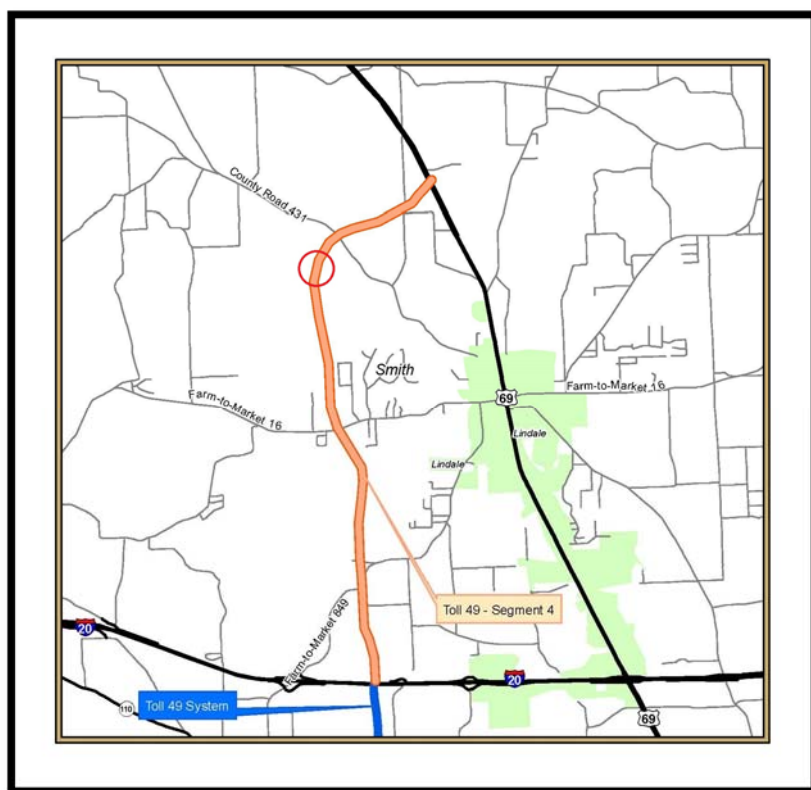
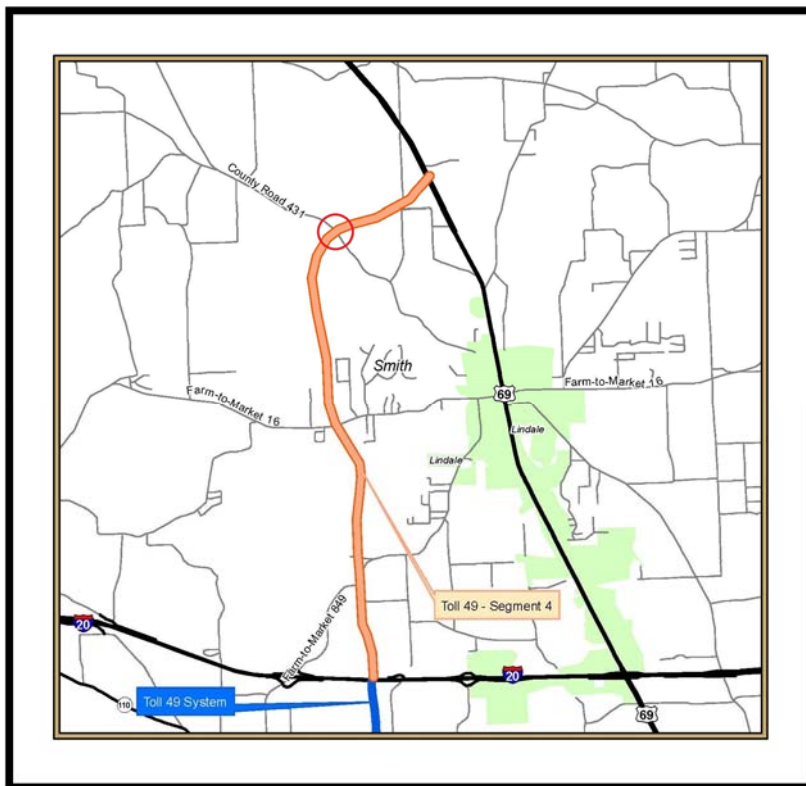






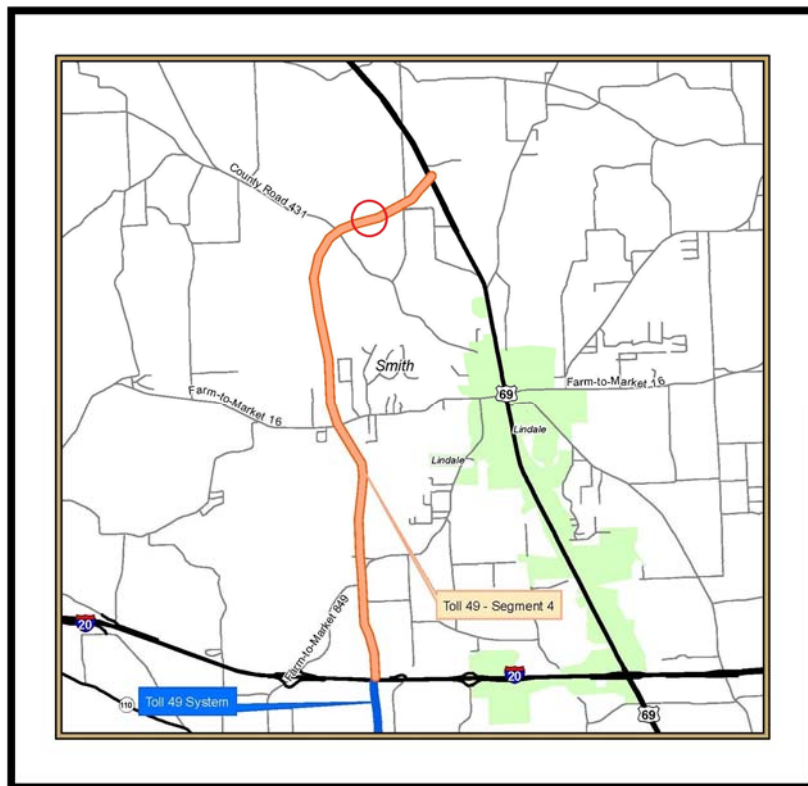
FIGURE 16: PROJECT AREA AT CR 431







**FIGURE 17: PROJECT AREA NORTH OF CR 431**







**FIGURE 18: PROJECT AREA AT CR 4118**

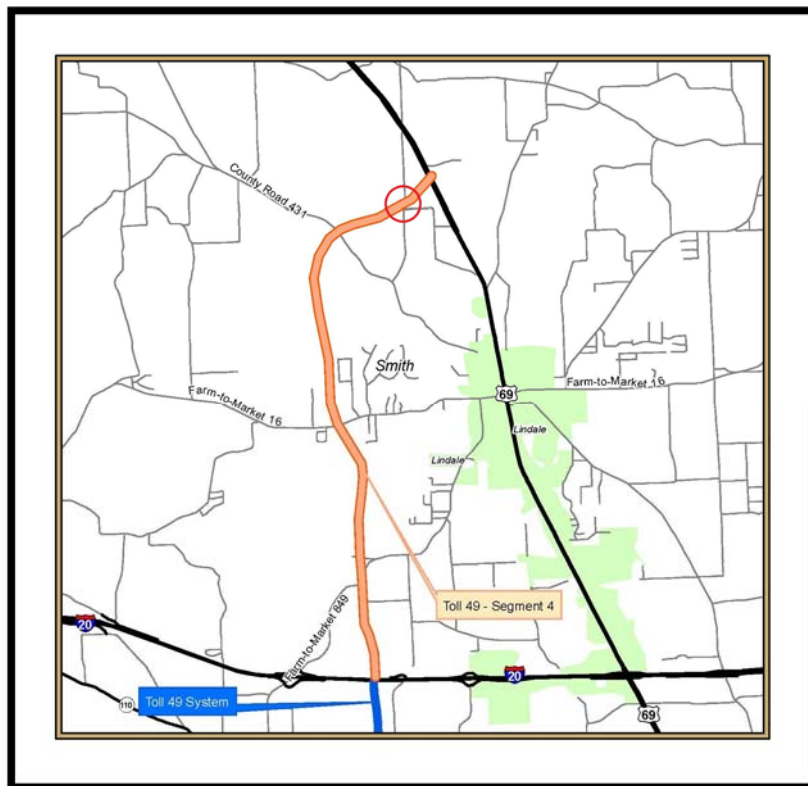






FIGURE 19: PROJECT AREA AT US 69

