

# *TOLL 49 SEGMENT 4 PROGRESS REPORT*



*FEBRUARY 2016  
PROGRESS REPORT NO. 8*

**RS&H**





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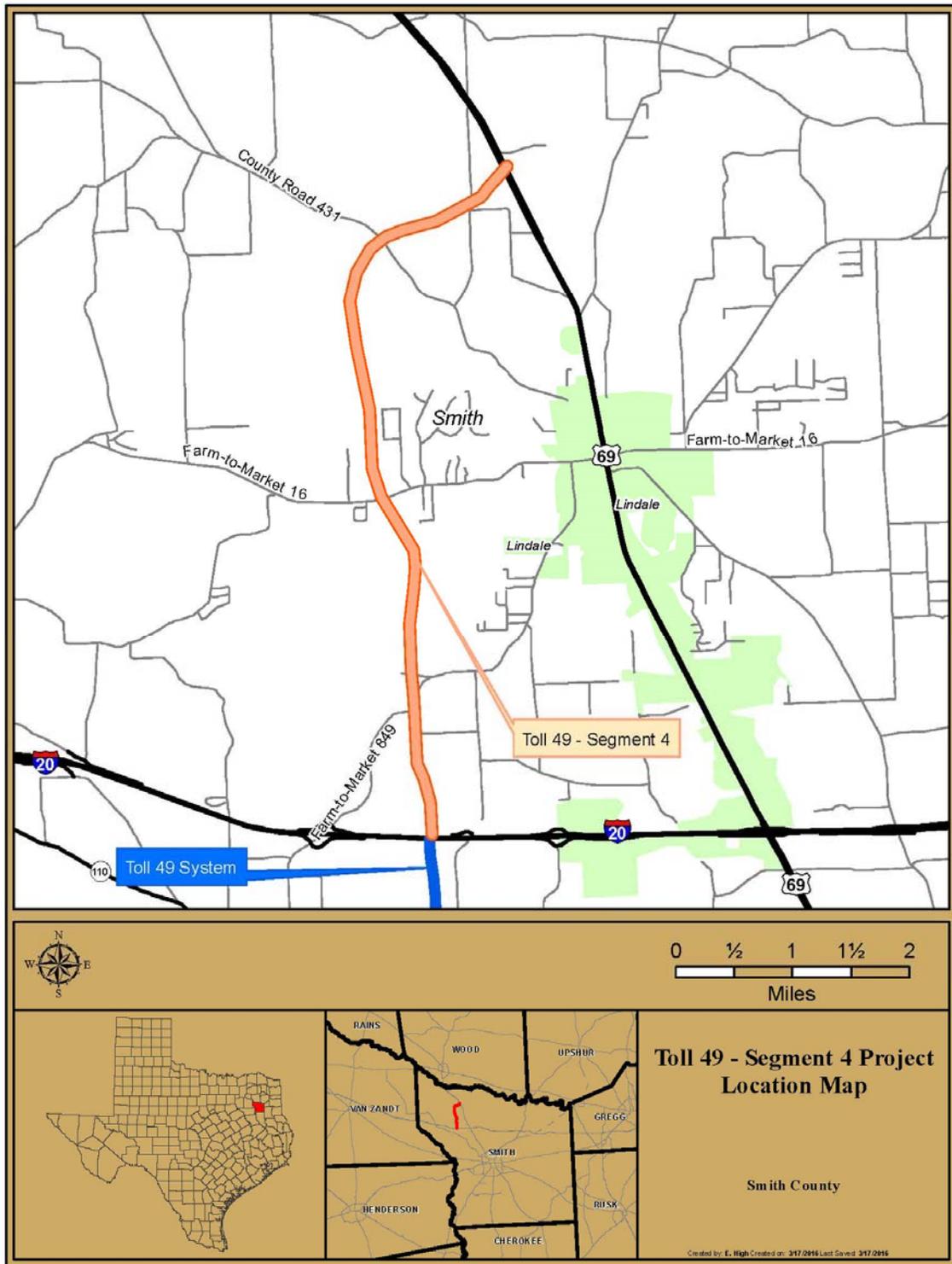
## 1.1 INTRODUCTION

This report documents and describes the development and construction of the Toll 49 Segment 4 Project during the period from January 1, 2017 through February 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.

**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<br>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<br>Parcel is accessible to Contractor |
| 210    | 0.84    | 15-Jul-16             | Closed   |
| 213    | 39.13   | NTP                   | The Authority has taken possession<br>Parcel is accessible to Contractor |
| 214    | 9.95    | NTP                   | Closed   |
| 215    | 36.64   | NTP                   | The Authority has taken possession<br>Parcel is accessible to Contractor |
| 216    | 28.31   | NTP                   | The Authority has taken possession<br>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         | PUA executed<br>Parcel is accessible to Contractor                       |
| 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   |
| 232    | 14.47   | NTP + 60 Days         | Closed   |

| Parcel | Acreage | Estimated Acquisition |  |
|--------|---------|-----------------------|--|
|        |         | Date                  | Status   |
| 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<br>Parcel is accessible to Contractor |
| 239    | 1.04    | NTP + 60 Days         | The Authority has taken possession<br>Parcel is accessible to Contractor |
| 240    | 13.39   | NTP + 60 Days         | The Authority has taken possession<br>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<br>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 February.

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<br>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<br>NTP anticipated March 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<br>Relocation NTP issued 6-24-2016<br>Relocation is ongoing |
| Oncor Electric Delivery (Transmission) | 1-Nov-16                                     | Utility agreement executed 3-24-2016<br>Relocation NTP issued 6-24-2016                         |
| Peoples Telephone Cooperative          | NTP + 0 to 60 Days                           | Relocation is complete  |
| SuddenLink                             | NTP + 150 Days                               | Utility agreement executed 12-12-2016<br>Relocation NTP issued 12-16-2016                       |
| Wood County Electric                   | NTP +110 Days                                | Relocation is complete  |
| Zayo                                   | NTP +150 Days                                | Utility agreement anticipated in February   |

### 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 month of December. The Contractor has recently gained expanded access to the right-of-way and the earthwork subcontractor remobilized in late January. The Contractor's most recent schedule reflects a delay of approximately two months to the completion of the project, and it is anticipated that a delay claim will be submitted. An analysis of the project schedule by the Authority suggests that the schedule can be maintained or accelerated to meet contractual milestones.

# 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 been granted expanded access. The earthwork subcontractor remobilized in late January and has resumed clearing and grubbing the the expanded access area. The Contractor completed the final grading of the backslopes from US 69 to just north of CR 4118 in January and is currently performing excavation near CR 4118 and backfilling at bridge abutments and culverts.



Embankment of IH 20 main lane bridge abutment



Grading of backslopes between US 69 and CR 4118

## 1.4.2 Drainage Structures

The Contractor has completed construction of drainage structures including minor culverts at the US 69 ramps and major cross culverts No. 5, 7-12 and 14-15. Construction of other various minor culverts, stormdrain, and stormwater lines across the project is ongoing.



Culvert No. 15 outfall just south of Davis Branch



Concrete riprap construction at Davis Branch Bridge abutment No. 4

### 1.4.3 Bridge & Wall Structures

The Contractor continues work at project bridges including installation of drilled shafts, columns, caps, and abutments at numerous bridge locations across the project. Installation of footings is now complete and the placement of girders has begun. In addition, construction of all Mechanically Stabilized Earth (MSE) walls is complete and the construction of cast-in-place (CIP) walls is ongoing.



Cap construction for IH 20 main lane overpass, northern side of IH 20



IH 20 main lane overpass bridge bents, southern side of IH 20



Girder placement for IH 20 main lane overpass, southern side of IH 20



IH 20 main lane overpass bridge bents, southern side of IH 20



MSE wall construction at Davis Branch Tributary bridge (Abutment No. 4)



MSE wall construction at FM 849 underpass (Abutment No. 4)

#### 1.4.4 Erosion Control

The Contractor continues to place environmental controls such as silt fence, soil retention blankets, and haybales as needed throughout the project to prevent erosion. Topsoil and compost has been placed on completed backslopes between US 69 and CR 4118.



Placement of topsoil on backslopes between US 69 and CR 4118

### 1.5 PROGRESS NARRATIVE

Clearing and grubbing activities are complete excluding the area affected by the archeological study. The clearing and grubbing subcontractor remobilized in late January and began working in the archeological study areas to which the Contractor has been granted expanded access. Other earthwork activities include excavation near CR 4118, backfilling at various bridge abutments locations, and the final grading of the backslopes from US 69 to CR 4118. In addition, the Contractor has placed topsoil and compost on the

completed backslopes and erosion control blankets and haybales as needed to prevent erosion. The backslopes will be seeded next month.

Drilled shaft work is ongoing at FM 16 and complete at all other bridge locations. Construction of columns is also complete at the Long Brake Tributary, Davis Branch, Davis Branch Tributary, Stevenson Branch, and FM 849 bridges and ongoing at other bridge locations. Footing placement is complete. Cap construction is complete at the Davis Branch, Davis Branch Tributary, and FM 849 bridges and is ongoing at the CR 431 and IH 20 main lanes bridges. The Contractor also began the placement of the IH 20 Main Lane bridge girders in the month of January.

All MSE wall construction is complete across the project. Work on cast-in-place (CIP) Retaining Wall No. 4 is ongoing and CIP Retaining Wall No. 5 is complete.

Installation of major cross Culverts No. 5, 7-12 and 14-15 is complete and installation of stormdrain and stormwater line is ongoing near FM 849 and FM 16. The construction of the remaining major cross culverts south of FM 849 will continue as stream mitigation is secured. Riprap was placed at various bridge abutments including those at the the Davis Branch, Davis Branch Tributary, IH 20 main lane, and IH 20 northbound ramp bridges.

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               | 40.62%           |
| Earthwork                     | 53.01%           |
| Drainage                      | 26.07%           |
| Sub-base and Base Course      | 5.56%            |
| Pavement                      | 0%               |
| Structures                    | 31.82%           |
| Pavement Markings and Signals | 10.81%           |
| Environmental                 | 12.59%           |
| Extra Work Items              | 21.72%           |
| Change Orders                 | 50.44%           |

## 1.6 FINANCIAL SUMMARY

Table 4 shows the overall financial status for the Toll 49 Segment 4 project through February 1, 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**

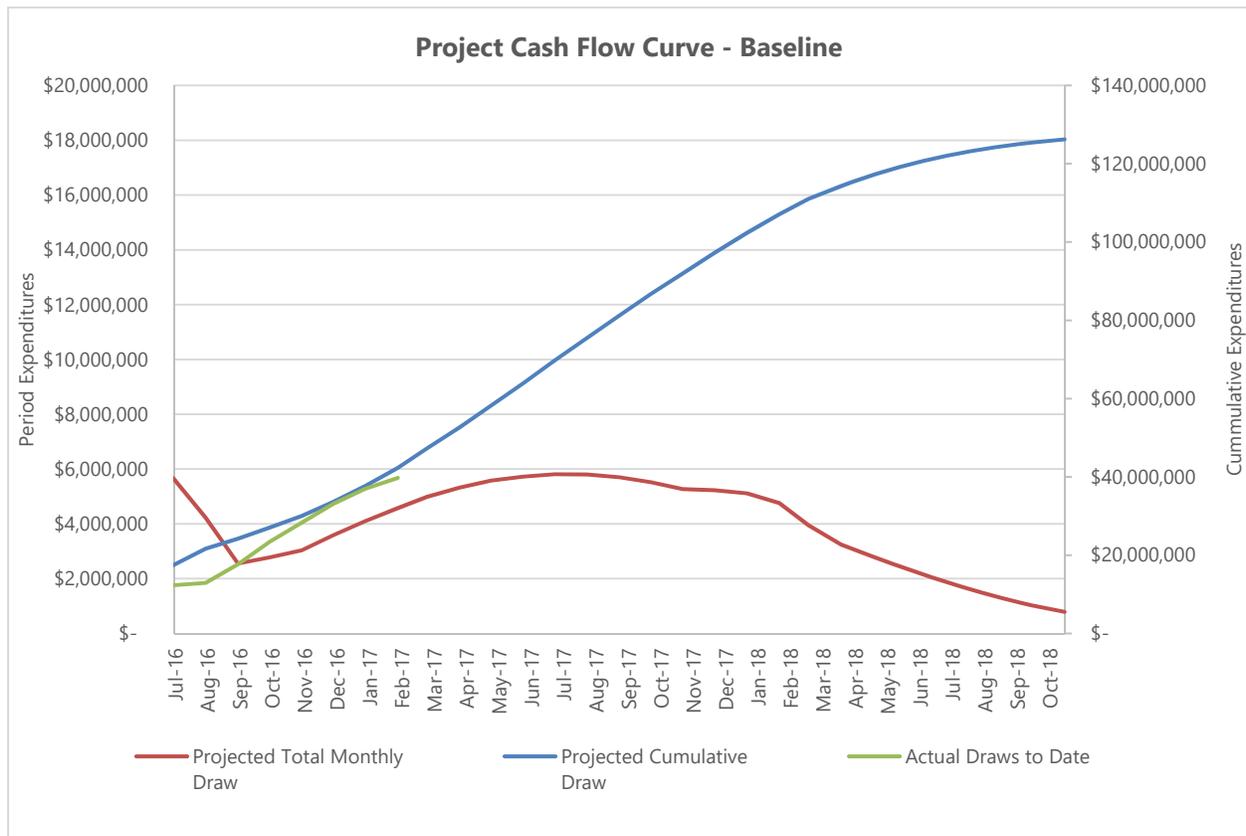
| Project Description | Original Cost Estimate (\$) | Expenditures to Date (\$) | Estimated Remaining Cost (\$) | Estimate at Completion (\$) |
|---------------------|-----------------------------|---------------------------|-------------------------------|-----------------------------|
| Toll 49 Segment 4   | \$126,220,000               | \$39,746,383.09           | \$86,473,616.91               | \$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 #1 <sup>1</sup>                                     | \$0.00                 |
| Change Order #2  | \$26,247.38            |
| Change Order #3  | \$17,257.93            |
|  | \$68,803,505.31        |
| <b>Current Authorized Contract Amount:</b>                       | <b>\$68,803,505.31</b> |
| <b>Previous total of Contractor Payments:</b>                    | <b>\$21,439,411.56</b> |
| Amount Paid this Reporting Period:                               | \$2,077,081.85         |
|  | \$23,516,493.41        |
| <b>Total Amount Paid To-Date:</b>                                | <b>\$23,516,493.41</b> |
| Retainage withheld:  | \$0.00                 |
|  | \$23,516,493.41        |
| <b>Approved Amount for work completed (through Draw #5):</b>     | <b>\$23,516,493.41</b> |
| <b>Amount remaining for work to be completed:</b>                | <b>\$45,287,011.90</b> |
| <b>Total Percent of Budget Expended though February 3, 2017:</b> | <b>34.18%</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

There were no change orders executed during this reporting period.

## 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 an anticipated subcontract with Odum Services LP (metal beam guard fence and guard rail).

To date, the Contractor has made payments in the amount of \$924,339.66 to DBE subcontractors, 1.34% of the original contract amount or 22.40% 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:
  - o Educating employees to recognize these impacts
  - o Identifying the areas where construction related activities are not to take place based on the relevant migratory bird timing windows
  - o 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
  - o 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:
  - o Erosion and sediment control measures
  - o Preparation for seasonal shutdown
  - o Protection of wildlife and wildlife habitat
  - o Proper practices for clearing vegetation
  - o Appropriate handling and storage of soil
  - o 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 (FEBRUARY 2017)*



FIGURE 4: PROJECT AREA AT IH 20

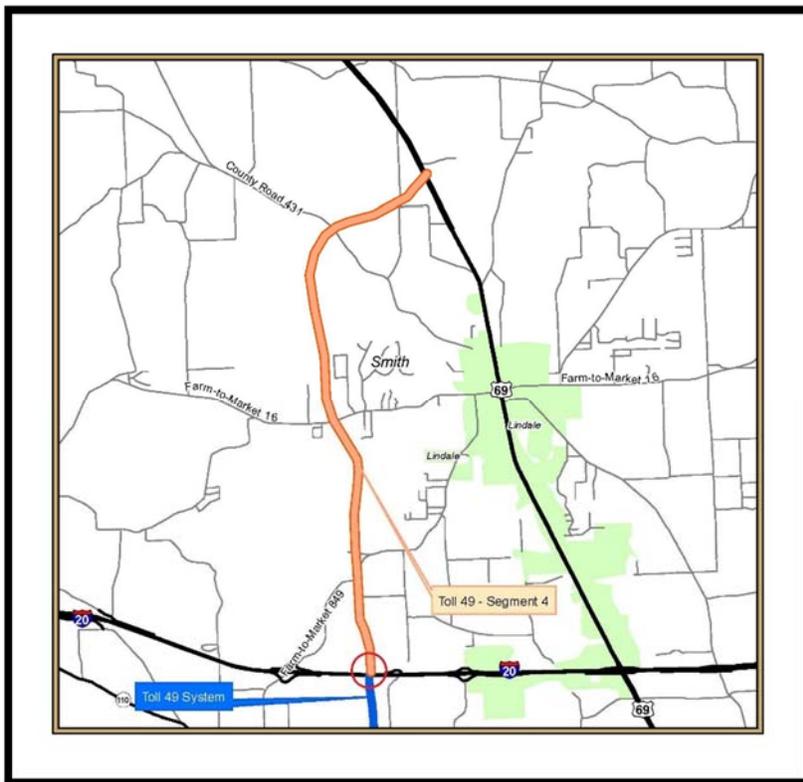




FIGURE 5: PROJECT AREA BETWEEN IH 20 AND FM 849

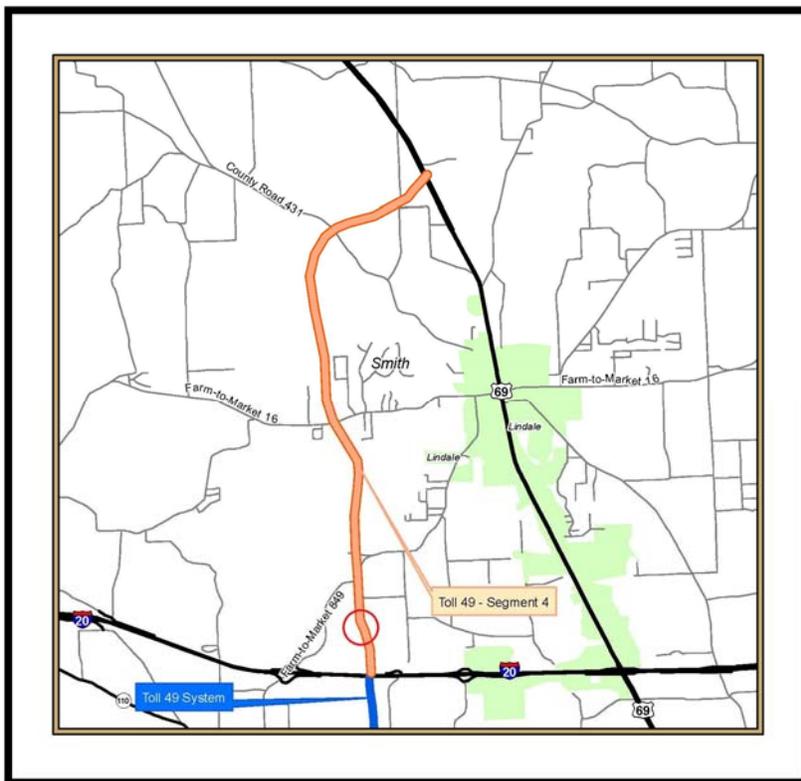




FIGURE 6: PROJECT AREA AT EXISTING FM 849

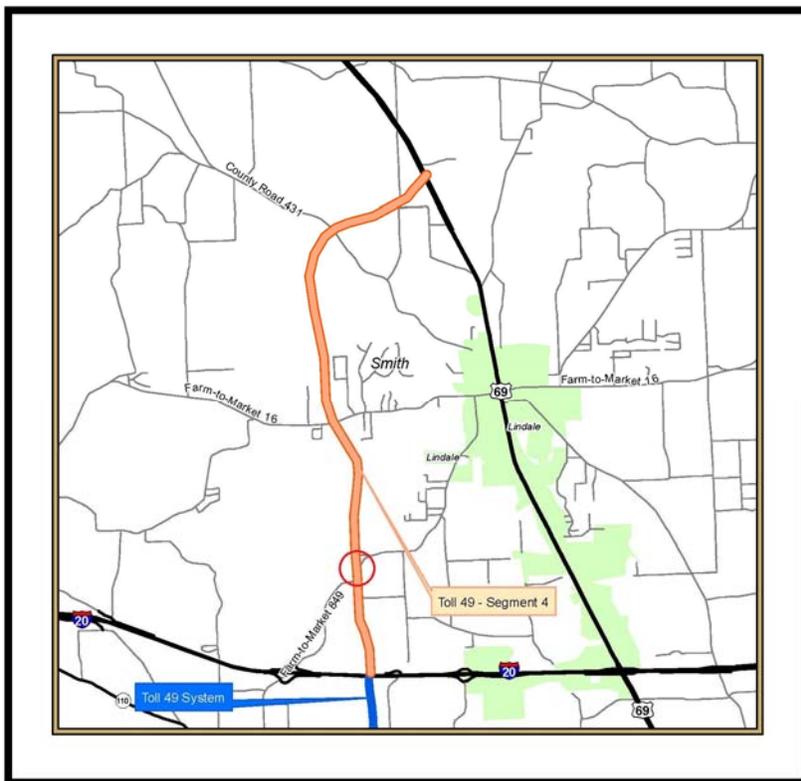
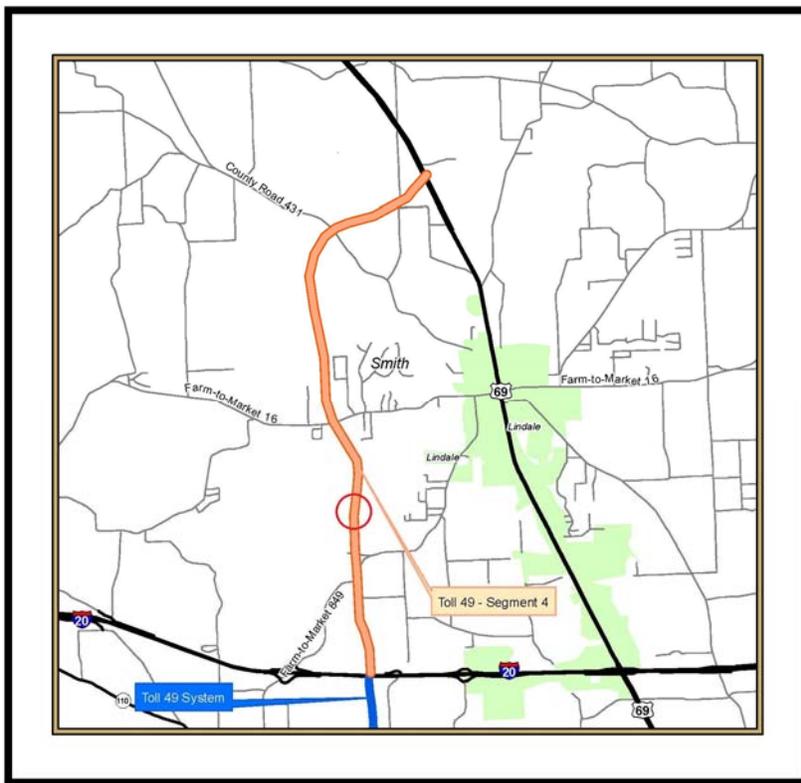




FIGURE 7: PROJECT AREA NORTH OF FM 849





**FIGURE 8: PROJECT AREA DAVIS BRANCH TRIBUTARY**

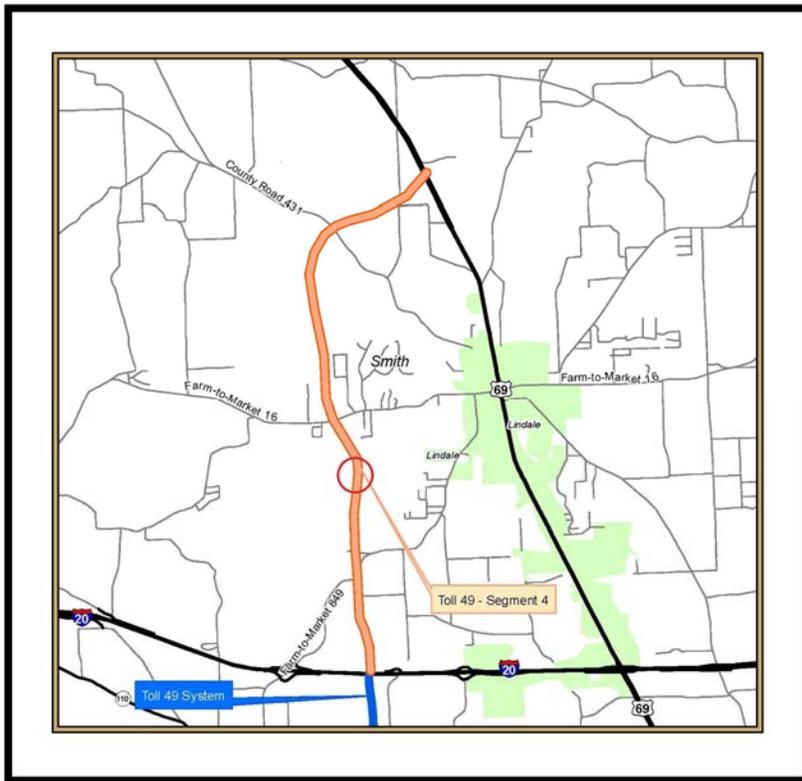




FIGURE 9: PROJECT AREA BETWEEN DAVIS BRANCH AND FM 16

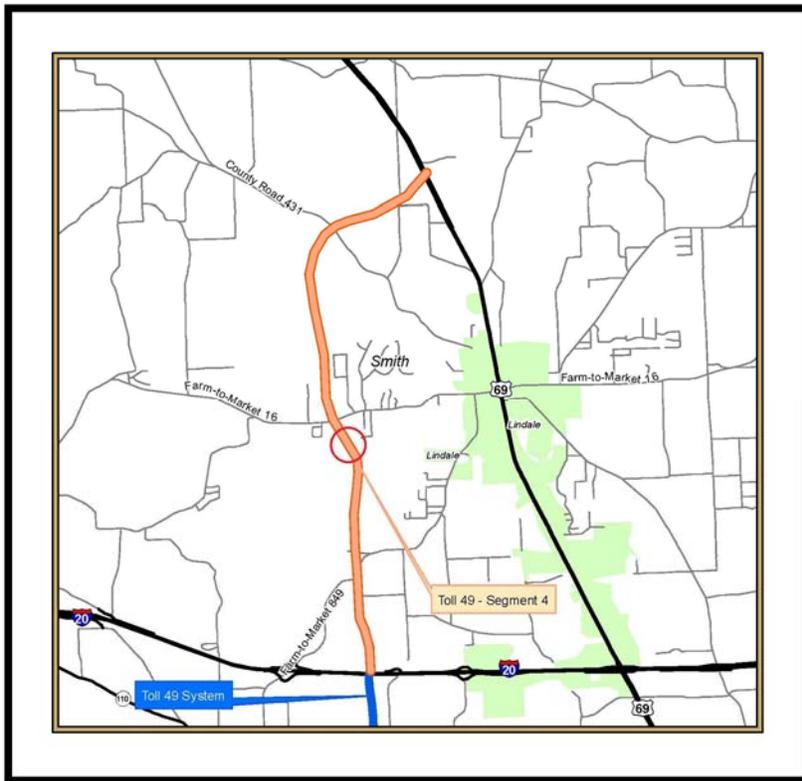




FIGURE 10: PROJECT AREA AT FM 16

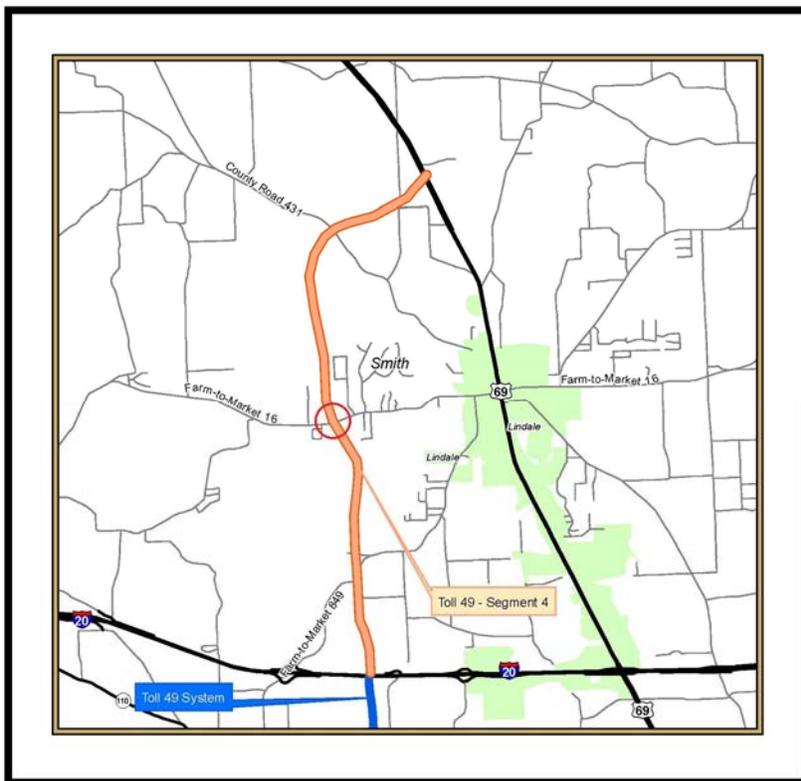




FIGURE 11: QUARRIES NORTH OF FM 16

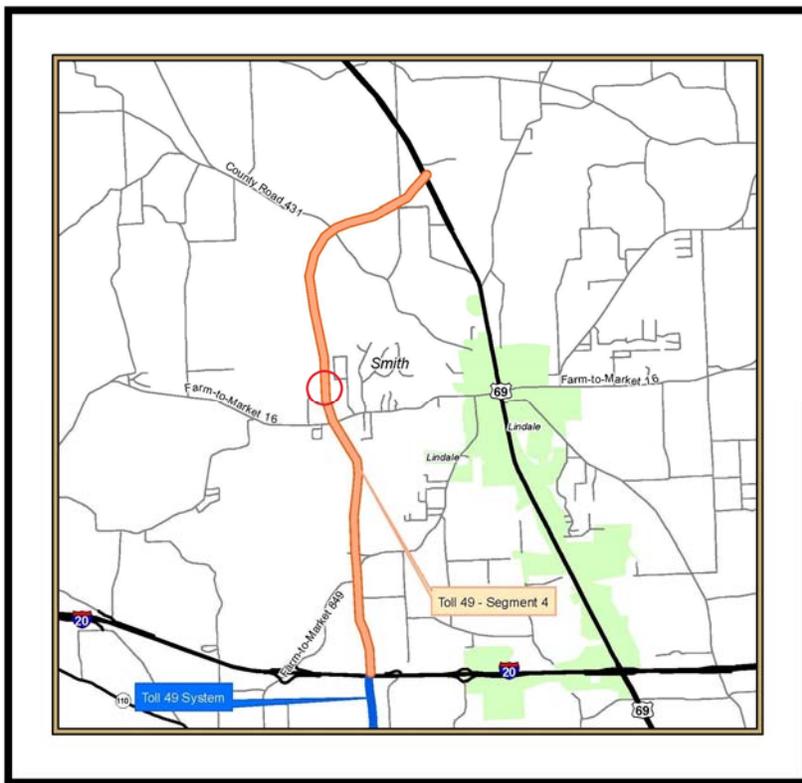




FIGURE 12: PROJECT AREA NORTH OF THE FM 16 QUARRIES

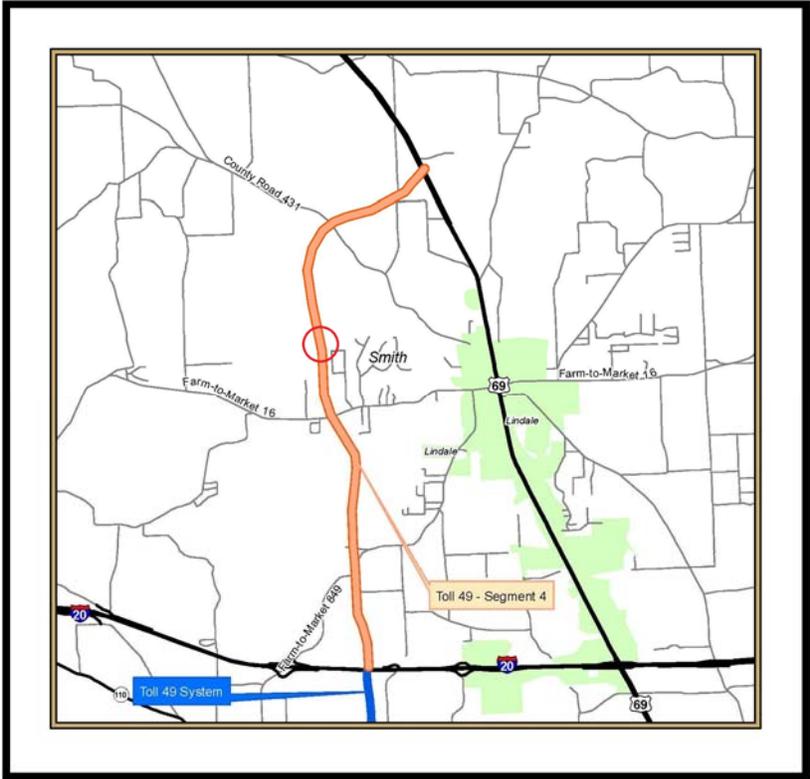




FIGURE 13: PROJECT AREA BETWEEN FM 16 AND CR 341





FIGURE 14: PROJECT AREA SOUTH OF CR 431

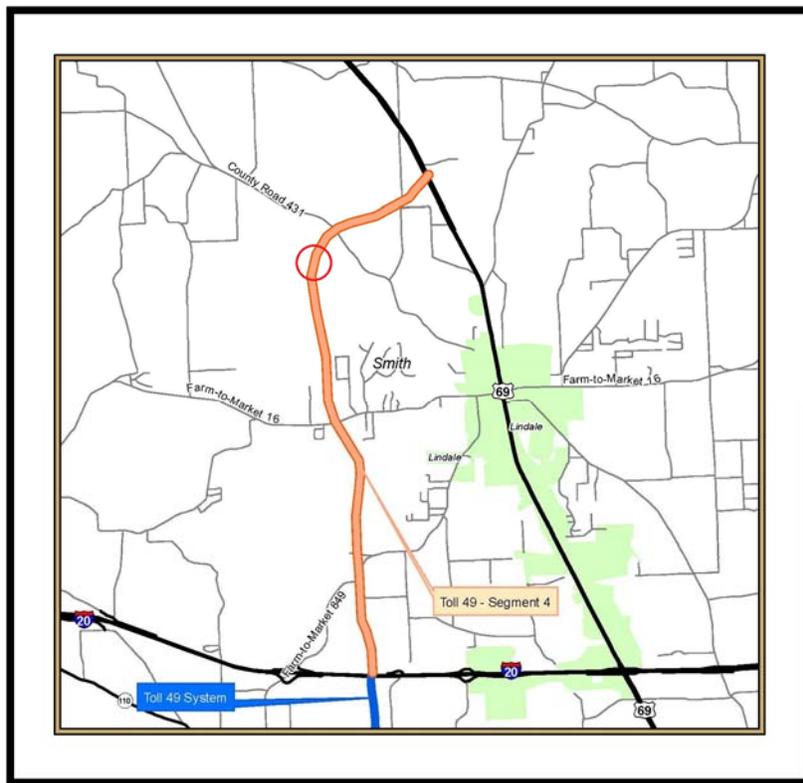




FIGURE 15: PROJECT AREA AT CR 431

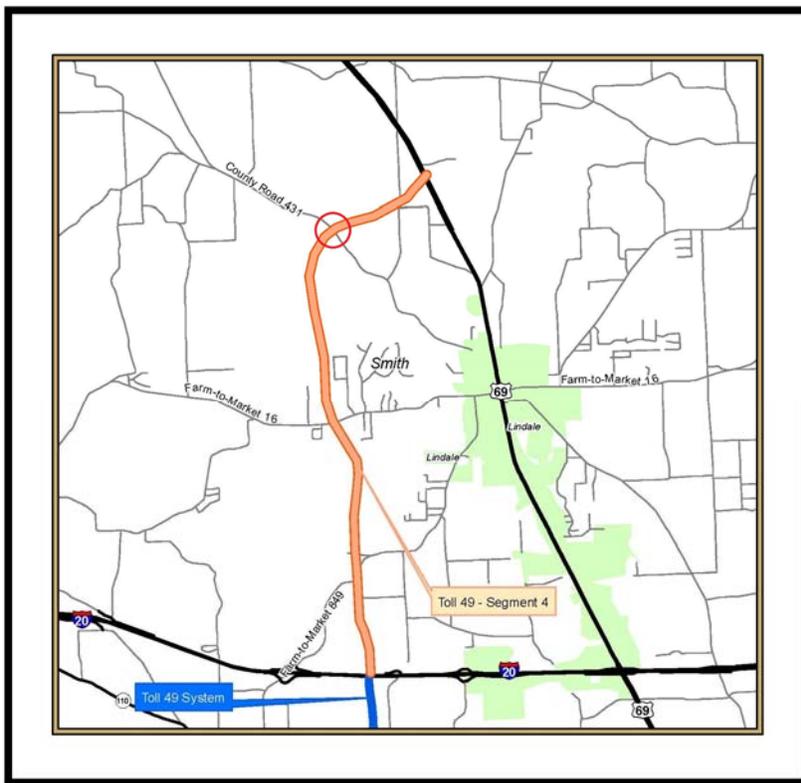




FIGURE 16: PROJECT AREA NORTH OF CR 431

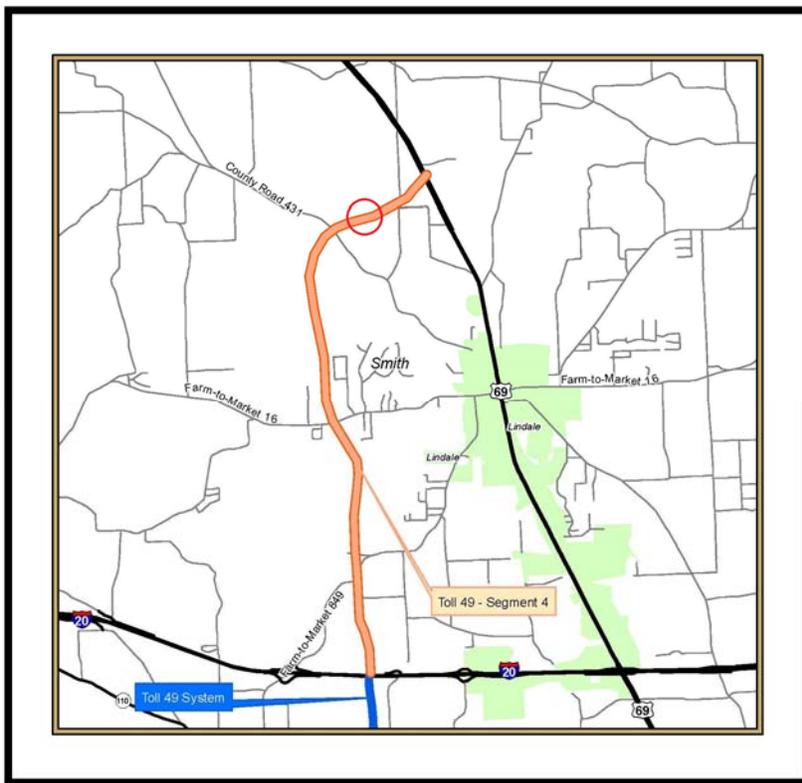




FIGURE 17: PROJECT AREA AT CR 4118

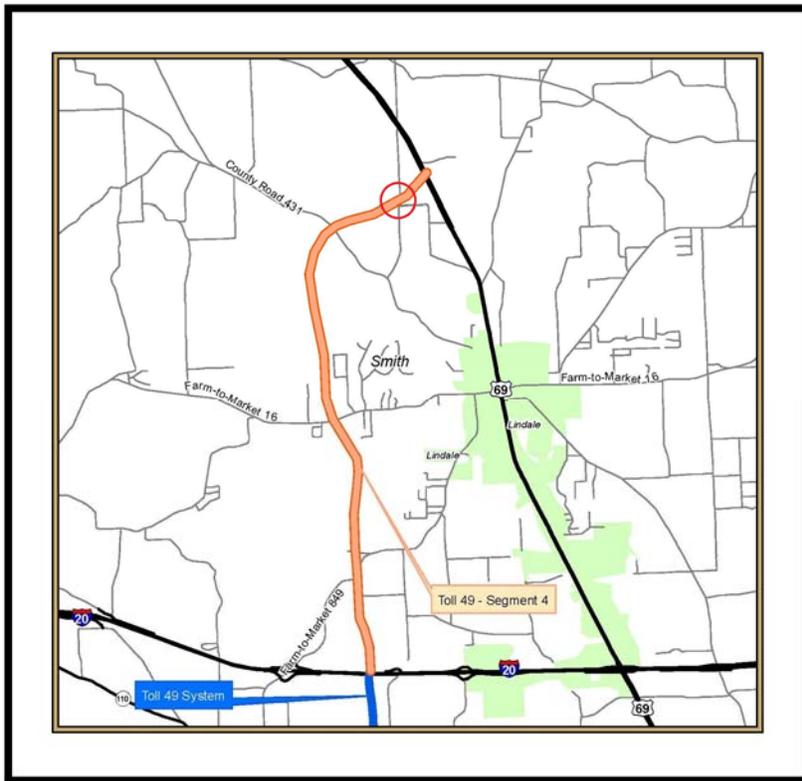




FIGURE 18: PROJECT AREA AT US 69

