



Mr. Joey Nunnally, PE  
County Engineer  
Baldwin County Highway Department  
PO Box 220  
Silverhill  
AL 36576

**Your Reference**  
CR-65 Extension from  
CR-28 to CR-32

**Our Reference**  
502100456-004

Mott MacDonald  
107 Saint Francis Street  
Suite 2900  
Mobile  
AL 36602  
United States of America

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mottmac.com

## **Revised: Engineering Proposal for CR-65 Extension from CR-28 to CR-32**

October 13, 2021

**For the attention of: Seth Peterson, PE Pre-Construction Manager**

Dear Seth,

Mott MacDonald Alabama, LLC (MM) is pleased to provide professional engineering services on the CR-65 Extension project, located in Baldwin County. Under our existing engineering services agreement, we propose to provide the following services.

### **Professional survey services**

Perform full topographic survey of the proposed project alignment, extending 50-ft left and right of the centerline for the full project length, approximately 1-mile. Field survey will include locating any utilities, drainage features, and other topographic features that would affect design such as structures, large diameter trees, and fence lines. Cross sections will be established no greater than 100-ft in tangents, and 50-ft in horizontal curves. Using the property information provided by the Baldwin County Highway Department (BCHD), we propose to find and/or establish property pins and locations throughout the project limits. Given that the project alignment is through active farmland and located along a County Section line, we anticipate that property pins may be lost or not found; however, we will traverse property lines to establish intersecting locations along the Section line and/or project alignment.

A project Field Map, using Baldwin County standards, will be developed for the project alignment. This will be submitted to the BCHD in draft form for comment, and final form following any necessary revisions.

**Survey Fees: \$35,612.00**

### **Professional Engineering / Roadway Plans Preparation**

Provide professional engineering design services to develop roadway plans for bidding and construction. Design phase services will include study of site hydrology, development of horizontal and vertical alignments, establishment of cross sections and proposed drainage features, and the development of ADEM Stormwater permits and associated documentation. The design will be presented using ALDOT

standard Plans Preparation Manual as well as ALDOT Guide for Developing Construction Plans. The plans will be presented in stages for BHCD review and comment. We propose submitting plans at the 30, 60, and 90% design phases. Each plan submittal will include a review meeting with BCHD staff to remark on design intent and presentation. Following review of the 90% plan submittal, Final plans will be presented along with bidding documents and a final engineer's cost estimate.

The design phase effort includes investigation services by Geotechnical Engineering & Testing, Inc. for the soils explorations and geotechnical engineering studies for the project. Additionally, Bay Environmental, LLC will provide wetland and endangered species screening, wetland delineations, permitting and mitigation support for the project.

**Engineering Fees (revised): \$139,191.00**

**Total Fees (revised): \$174,803.00**

### **Project Timeline**

30% Design submittal January 28, 2022

60% Design submittal May 27, 2022

### **Project assumptions**

Project will be to construct a new two-lane facility from CR-28 to CR-32 in Baldwin County, AL.

Baldwin County will research ROW along the project and provide a ROW packet with property information for use in identifying property locations and project alignment to support the Field Map.

Baldwin County will create the necessary project ROW map(s), tract plats, and deeds using data developed by MM.

Baldwin County will manage all necessary ROW negotiations and acquisitions. ROW acquisition will begin in July 2022.

County staff will support MM and their subconsultants in accessing properties during the investigative and design phase.

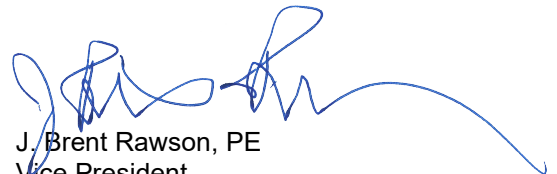
Fees include costs for subconsultant services and expenses and were establishing using the Alabama Department of Transportation Manday Fees Estimate template, revised for Baldwin County funded projects. MM Manday Estimate is attached.

Thank you for the opportunity to provide these services to the Baldwin County Highway Department. Should you have any questions, or require any additional information, please do not hesitate to call.

Sincerely,



Katie Parker, PE  
Senior Vice President  
kathryn.parker@mottmac.com



J. Brent Rawson, PE  
Vice President  
james.rawson@mottmac.com

<div> <div>Project No.</div> <div>County</div> <div>Description</div> <div>Scope of Work</div> <div>Project Length</div> <div>Consultant</div> </div>	CR-65 from CR-28 to CR-32	
	Baldwin	
	Grade, Drain, Base and Pave	
	Survey, ROW Field Map, Geotechnical, Environmental, Permitting, and Roadway Plans	
	1.00 Miles	
	Mott MacDonald	
GRAND TOTAL OF FEE PROPOSAL		
Corridor Study		\$0
Field Surveys		\$35,612
Preliminary Roadway Plans		\$0
Preliminary Bridge Plans		\$0
Right-of-Way Map, Tract Sketches and Deeds		\$0
Roadway Plans		\$139,191
Bridge Plans		
GRAND TOTAL FEE		\$174,803

Combined overhead rate (%) >>>>>>>>>>	162.36
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## LABOR RATES

Classification	Daily Rate
Project Manager	\$733.92
Engineer	\$469.36
Environmental	\$0.00
Engineering Technician/CADD	\$372.00
Environmental Technician	\$0.00
Clerical	\$163.60
PLS	\$358.96
Survey Crew (2-man Crew)	\$545.36

**\*\*Certification of Out-of-Pocket Expenses:**

If Out-of-Pocket Expenses are included in this proposal, we hereby certify that these costs are not included in the Combined Overhead Rate and are typically invoiced to all clients as a direct job cost.

Keith Parker

Signed

10-13-2021

Date \_\_\_\_\_

Senior Vice President

Position/Title

<b>Project No.</b> CR-65 from CR-28 to CR-32 <b>County</b> Baldwin <b>Description</b> Grade, Drain, Base and Pave Survey, ROW Field Map, Geotechnical, Environmental, Permitting, and <b>Scope of Work</b> Roadway Plans <b>Project Length</b> 1.00 Miles  <b>Consultant</b> Mott MacDonald				
<b>FIELD SURVEY</b>	PLS	Crew	Tech/CADD	Clerical
<b>Based on a</b> 2 <b>Man Crew</b>				
<b>Task A: Mobilization and Basic Control Survey</b>				
A-1 Mobilize/Demobilize	1.00	3.00		
A-2 Contact Property Owners				
A-3 Perform Basic Control Survey	1.00	1.50		
A-4 Conduct On-site Inspection		2.25		
<b>Task A Totals</b>	<b>2.00</b>	<b>6.75</b>		
<b>Task B: Project Alignment and Profile</b>				
B-1 Run Closure of Basic Control Survey/Prepare Closure Diagram				
B-2 Establish Centerline/Obtain Ground Profile				
B-3 Obtain Topographic Data		3.50	1.50	
<b>Task B Totals</b>		<b>3.50</b>	<b>1.50</b>	
<b>Task C: Supplemental Control Surveys and Data Gathering</b>				
C-1 Traverse Cross-Roads and Railroads				
C-2 Stream Topography & Cross Sections/Complete HYD-100 & 101 Forms				

FIELD SURVEY				
	PLS	Crew	Tech/CADD	Clerical
C-3 Define Drainage Areas/Prepare Schematic Drainage Map				
C-4 Obtain Cross-Sections at 20 Meter Intervals and Ground Break Points				
<b>Task C Totals</b>				
<b>Task D: Utility Surveys, Drainage Sections and Compilation of Data</b>				
D-1 Identify/Locate Utilities	0.10	0.25		
D-2 Obtain Hydrological Location Survey		0.50		
D-3 Tie All Available Section Corners & All Available Front Corners of Affected Properties to Project Centerline	4.50	2.00		
D-4 Obtain Copies of Latest Deeds	0.50			
D-5 Set & Reference Pls, PCs, POTs, POCs, & other critical points				
D-6 Reduce Survey Field Notes	0.25			
D-7 Submit Work for Review/Sealed Mylar Plot of Accepted Field Map	1.00			
<b>Task D Totals</b>	<b>6.35</b>	<b>2.75</b>		
<b>TOTALS</b>	<b>8.35</b>	<b>13.00</b>	<b>1.50</b>	

<b>Project No.</b>	CR-65 from CR-28 to CR-32		
<b>County</b>	Baldwin		
<b>Description</b>	Grade, Drain, Base and Pave		
<b>Scope of Work</b>	Survey, ROW Field Map, Geotechnical, Environmental, Permitting, and Roadway Plans		
<b>Project Length</b>	1.00 Miles		
<b>Consultant</b>	Mott MacDonald		
<b>Fee Proposal (Field Survey)</b>			
<b>PERSONNEL COST</b>			
	Man-days	x	Daily Rate
Project Manager (10% of PLS)	0.84	\$	733.92
PLS	8.35	\$	358.96
Survey Crew (see man-day sheet)	13.00	\$	545.36
Engineering Technician/CADD	1.50	\$	372.00
Clerical	0.00	\$	163.60
	<b>Total Direct Labor</b>	\$	11,261.49
Combined Overhead (%)	162.36	\$	18,284.16
Out-of-Pocket Expenses**		\$	4,370.22
	<b>Sub-Total</b>	\$	<b>33,915.87</b>
Profit(5%)		\$	1,695.79
	<b>Sub-Total</b>	\$	<b>35,611.66</b>
<b>SUB-CONSULTANTS (attach man-day &amp; fee FROM each sub-consultant; show total fee for each here)</b>			
		\$	-
		\$	-
		\$	-
Subconsultant Administration Expense (5%)		\$	-
	<b>Sub-Total</b>	\$	<b>35,611.66</b>
	<b>TOTAL FEE</b>	\$	<b>35,611.66</b>

<b>Project No.</b>	CR-65 from CR-28 to CR-32
<b>County</b>	Baldwin
<b>Description</b>	Grade, Drain, Base and Pave
<b>Scope of Work</b>	Survey, ROW Field Map, Geotechnical, Environmental, Permitting, and Roadway Plans
<b>Project Length</b>	1.00 Miles
<b>Consultant</b>	Mott MacDonald
<b>Out-of-pocket Expenses (Field Survey)</b>	

TRAVEL COST					
Mileage Cost	Trips	Miles/Trip	\$/Mile	Total	
Mileage Crew	3	488	\$0.560	\$	819.84
Mileage PLS	1	488	\$0.560	\$	273.28
Mileage Crew (Onsite and incidental)	3	80	\$0.560	\$	134.40
Mileage PLS (Onsite and incidental)	1	20	\$0.560	\$	11.20
<b>Total Mileage Cost</b>				<b>\$</b>	<b>1,238.72</b>
Subsistence Cost	Days	# People	\$/Day	Total	
Travel allowance (6 hour trips)	0	0	\$12.75	\$	-
Travel allowance (12 hour trips)	0	0	\$34.00	\$	-
Travel allowance (overnight)***	9	2	\$85.00	\$	1,530.00
Per Diem Full Day	1	1	\$61.00	\$	61.00
Per Diem Travel Day	6	2	\$41.25	\$	495.00
<b>Total Subsistence Cost</b>				<b>\$</b>	<b>2,086.00</b>
<b>Total Travel Cost</b>				<b>\$</b>	<b>3,324.72</b>
PRINTING / REPRODUCTION COST					
Type of printing/reproduction	# of Sets	Sheets/Set	Total Sheets	Cost/Sheet	Total
Field Map	1	4	4	\$ 1.25	\$ 5.00
	0	0	0	\$ -	\$ -
	0	0	0	\$ -	\$ -
<b>Total Printing/Reproduction Cost</b>					<b>\$ 5.00</b>

Communication Cost (telephone, fax, etc.)	Total
	\$ -

Postage Cost (overnight, stamps, etc.)	Total
	\$ -

Other (provide description on next line)	Total
	\$ -

<b>Total Out-of-pocket Expenses</b>	<b>\$ 3,329.72</b>
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Comments:
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\*\*\*You must have ALDOT approval for ANY overnight trips of less than 100 miles.

<b>Project Number</b> CR-65 from CR-28 to CR-32 <b>County</b> Baldwin <b>Description</b> Grade, Drain, Base and Pave Survey, ROW Field Map, Geotechnical, Environmental, Permitting, <b>Scope of work</b> and Roadway Plans <b>Length</b> 1.00 miles <b>Consultant</b> Mott MacDonald					
ROADWAY PLANS SHEET TITLE	NO OF SHEETS	ESTIMATED MAN-DAYS			
		ENGINEER		TECHNICIAN	
		SHEET	TOTAL	SHEET	TOTAL
TITLE SHEET	1.00			0.20	0.20
INDEX SHEET	1.00			0.20	0.20
PROJECT NOTE SHEET	1.00	0.25	0.25	0.20	0.20
PLANS LEGEND	1.00			0.20	0.20
<b>TYPICAL SECTIONS</b>					
Main Roadway	1.00	1.00	1.00	2.00	2.00
Cross Roads					
Detour & Misc.	1.00	0.50	0.50	1.00	1.00
Ramps					
<b>SUMMARY SHEET</b>					
Main Summary	2.00	0.50	1.00	1.00	2.00
<b>SUMMARY BOX SHEETS</b>					
Roadway Pipe	0.50	0.50	0.25	2.00	1.00
Culvert Extension, New Culvert					
Bridge Culvert Extension, New Bridge Culvert					
Guardrail					
Slope Paving (Under Bridges)					
Side Drain Pipe					
Signing	0.25			1.00	0.25
Base & Pavement					
Bridge					
Striping & Pavement Markings	0.25			1.00	0.25
Curb & Gutter					
Bridge End Slabs					
Roadway Lighting					
Sidewalk					
Slope Paving (Ditches)					
Ditch Summary	0.25	1.00	0.25	1.00	0.25
Concrete Safety Barrier					
Retaining Wall					
Misc. Boxes	0.50	0.10	0.05	1.00	0.50
Erosion Control	0.25	0.20	0.05	1.00	0.25



ROADWAY PLANS SHEET TITLE	NO OF SHEETS	ESTIMATED MAN-DAYS			
		ENGINEER		TECHNICIAN	
		SHEET	TOTAL	SHEET	TOTAL
PLAN & PROFILE					
Main Roadway	8.00	1.00	8.00	2.50	20.00
Crossroads					
Detours					
Retaining Walls					
PAVING LAYOUT					
Main Roadway (includes striping)	8.00	0.25	2.00	1.00	8.00
Crossroads					
Intersections					
INTERCHANGES					
Geometrics					
Ramps Profiles					
Site Grading					
Cross Sections					
Signing					
TRAFFIC CONTROL					
Sequence of Construction	0.50	0.50	0.25	0.50	0.25
Summary & notes	0.50	0.50	0.25	0.50	0.25
Typical Section Sketches					
Signing Layout					
Special Drawings	2.00	0.10	0.20	0.20	0.40
Detour Plan	2.00	0.25	0.50	0.50	1.00
SIGNING					
Sign Layout	2.00	0.10	0.20	0.25	0.50
Sign X-Section					
Sign Panel Details					
Soils Data Sheets (provided by ALDOT)					
SIGNALIZATION					
Signal Layout (1 per site)					
Traffic Analysis					
Traffic Counts (1 per site)					
Signal Warrant Analysis (1 per site)					
Soils Data Sheets (provided by ALDOT)					
Special Details					
UTILITY SHEETS					
Utility Locations	8.00			0.25	2.00
DRAINAGE SECTIONS					
Pipe & Culvert X-Sect./Hydraulic Computations	1.00	5.00	5.00	2.00	2.00
Hydraulic Data Sheet					

ROADWAY PLANS SHEET TITLE	NO OF SHEETS	ESTIMATED MAN-DAYS			
		ENGINEER		TECHNICIAN	
		SHEET	TOTAL	SHEET	TOTAL
SOIL SHEETS					
Soil Boring Logs					
Soil Profile					
LIGHTING					
Plan Layout					
Special Details					
EROSION CONTROL					
(Shown on Clearing & Grubbing)	8.00	0.15	1.20	0.25	2.00
ROADWAY CROSS SECTIONS					
Main Roadway	27.00	0.10	2.70	0.30	8.10
Crossroads					
Earthwork Balancing	1.00	2.00	2.00	0.50	0.50
REVIEW COMMENTS					
30% Review			1.00		
Plan-in-Hand Inspection			1.00		
PS&E Inspection			1.00		
Stormwater Permits			2.50		1.50
Cost Estimates			1.00		2.00
Design Hearing					
SUB-TOTAL	78.00		32.15		56.80
10% Supervision			3.22		
TOTALS	78.00		32.15		56.80

<b>Project No.</b>	CR-65 from CR-28 to CR-32		
<b>County</b>	Grade, Drain, Base and Pave		
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<b>Scope of Work</b>	Survey, ROW Field Map, Geotechnical, Environmental, Permitting, and Roadway Plans		
<b>Project Length</b>	1.00 Miles		
<b>Consultant</b>	Mott MacDonald		
<b>Fee Proposal (Roadway Plans)</b>			
<b>PERSONNEL COST</b>			
	Man-days	x Daily Rate	
Project Manager (10% of Eng.)	3.22	\$ 733.92	\$ 2,363.22
Engineer	32.15	\$ 469.36	\$ 15,089.92
Engineering Technician/CADD	56.80	\$ 372.00	\$ 21,129.60
Clerical	3.50	\$ 163.60	\$ 572.60
	<b>Total Direct Labor</b>		\$ 39,155.34
Combined Overhead (%)	162.36		\$ 63,572.61
Out-of-Pocket Expenses**			\$ 409.84
	<b>Sub-Total</b>		<b>\$ 103,137.79</b>
Profit (5%)			\$ 5,156.89
	<b>Sub-Total</b>		<b>\$ 108,294.68</b>
<b>SUB-CONSULTANTS (attach man-day &amp; fee FROM each sub-consultant; show total fee for each here)</b>			
Geotechnical Engineering and Testing			\$ 24,324.98
Bay Environmental			\$ 5,100.00
			\$ -
Subconsultant Administration Expense (5%)			\$ 1,471.25
	<b>Sub-Total</b>		<b>\$ 139,190.91</b>
	<b>TOTAL FEE</b>	<b>\$</b>	<b>139,190.91</b>

\*\*See Grand Total Fee sheet

<b>Project No.</b>	CR-65 from CR-28 to CR-32			
<b>County</b>	Grade, Drain, Base and Pave			
<b>Description</b>	Grade, Drain, Base and Pave			
<b>Scope of Work</b>	Survey, ROW Field Map, Geotechnical, Environmental, Permitting, and Roadway Plans			
<b>Project Length</b>	1.00 Miles			
<b>Consultant</b>	Mott MacDonald			
<b>Out-of-pocket Expenses (Roadway Plans)</b>				
<b>TRAVEL COST</b>				
<b>Mileage Cost</b>	<b>Trips</b>	<b>Miles/Trip</b>	<b>\$/Mile</b>	<b>Total</b>
Plan reviews	3	48	\$0.560	\$ 80.64
Site Reviews	5	100	\$0.560	\$ 280.00
	0	0	\$0.560	\$ -
	0	0	\$0.560	\$ -
<b>Total Mileage Cost</b>				<b>\$ 360.64</b>
<b>Subsistence Cost</b>	<b>Days</b>	<b># People</b>	<b>\$/Day</b>	<b>Total</b>
Travel allowance (6 hour trips)	0	0	\$12.75	\$ -
Travel allowance (12 hour trips)	0	0	\$34.00	\$ -
Travel allowance (overnight)**	0	0	\$85.00	\$ -
				\$ -
				\$ -
<b>Total Subsistence Cost</b>				<b>\$ -</b>
<b>Total Travel Cost</b>				<b>\$ 360.64</b>
<b>PRINTING / REPRODUCTION COST</b>				
<b>Type of printing/reproduction</b>	<b># of Sets</b>	<b>Sheets/Set</b>	<b>Total Sheets</b>	<b>Cost/Sheet</b>
Half Size Plan submittals	4	60	240	\$ 0.12
Full Size Plan submittal	1	60	60	\$ 0.34
	0	0	0	\$ -
<b>Total Printing/Reproduction Cost</b>				<b>\$ 49.20</b>
<b>Communication Cost (telephone, fax, etc.)</b>				<b>Total</b>
				<b>\$ -</b>
<b>Postage Cost (overnight, stamps, etc.)</b>				<b>Total</b>
				<b>\$ -</b>
<b>Other (provide description on next line)</b>				<b>Total</b>
				<b>\$ -</b>
<b>Total Out-of-pocket Expenses</b>				<b>\$ 409.84</b>
<b>Comments:</b>				

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