

North Carolina Department of Transportation

Preliminary Estimate

PRELIMINARY

County: **HALIFAX**

TIP No. BR-0021 67021.1.1

Route BRIDGE No. 51 on NC 48 (Gaston Rd/Roanoke Rapids Rd) over Roanoke River

From -L- STA 10+00 to 51+00

CONSTR. COST
\$26,700,000.00

Prepared By: Vaughn & Melton

Priced By: D. Shuller 11/3/2021 (updated 11/9/21 with UC costs)/ Philip Culpepper (9/06/2022, Unit Price Update) Sherry Sockwell (Structure Update 9/06/2022)

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
0000400000-N		801	Construction Surveying	1	LS	\$ 50,000.00	\$ 50,000.00
0001000000-E		200	Clearing & Grubbing	1.4	Acres	\$ 50,000.00	\$ 70,000.00
0008000000-N		200	Supplemental Clearing and Grubbing	1.0	Acres	\$ 10,000.00	\$ 10,000.00
			Reinforced Bridge Approach Fill	1.0	LS	\$ 45,000.00	\$ 45,000.00
0022000000-E		225	Unclassified Excavation	5,800	CY	\$ 20.00	\$ 116,000.00
1011000000-N		500	Fine Grading	9,380	SY	\$ 3.00	\$ 28,140.00
0156000000-E		250	Removal of Existing Asphalt Pavement	3,330	SY	\$ 13.00	\$ 43,290.00
			Subgrade Stabilization	6,220	SY	\$ 13.00	\$ 80,860.00
0106000000-E		230	Borrow Excavation	4,750	CY	\$ 24.00	\$ 114,000.00
			Drainage	0.78	Miles	\$ 160,000.00	\$ 124,800.00
1491000000-E		610	Asphalt Conc Base Course, Type B25.0C	2,320	Tons	\$ 90.00	\$ 208,800.00
1523000000-E		610	Asphalt Conc Surface Course, Type S9.5C	2,310	Tons	\$ 90.00	\$ 207,900.00
1503000000-E		610	Asphalt Conc. Intermediate Course, Type I19.0C	2,080	Tons	\$ 90.00	\$ 187,200.00
1575000000-E		620	Asphalt Binder for Plant Mix	345	Tons	\$ 680.00	\$ 234,600.00
2549000000-E		846	2'6" Curb and Gutter	2,460	LF	\$ 30.00	\$ 73,800.00
2605000000-N		848	Curb Ramps	4	EA	\$ 2,600.00	\$ 10,400.00
2591000000-E		848	Concrete Sidewalk	620	SY	\$ 54.00	\$ 33,480.00
			Concrete Islands	110	SY	\$ 100.00	\$ 11,000.00
3030000000-E		862	Steel Beam Guardrail	2,150.0	LF	\$ 28.00	\$ 60,200.00
3150000000-N		862	Additional Guardrail Posts	5	EA	\$ 50.00	\$ 250.00
3215000000-N		SP	Guardrail Anchor Units, Type III	4	EA	\$ 2,250.00	\$ 9,000.00
3287000000-N		SP	Guardrail End Units, Type GREU TL-3	4	EA	\$ 3,800.00	\$ 15,200.00
3288000000-N		SP	Guardrail End Units, Type GREU TL-2	1	EA	\$ 34,700.00	\$ 34,700.00
3195000000-N		862	Guardrail End Unit, Type AT-1	1	EA	\$ 1,050.00	\$ 1,050.00
3360000000-E		863	Guardrail Removal	2,040.00	LF	\$ 1.65	\$ 3,366.00
3572000000-E		867	Chain Link Fence Reset	650.00	LF	\$ 28.00	\$ 18,200.00
			Pavement Markings	0.78	MI	\$ 50,000.00	\$ 39,000.00
			Traffic Control	0.78	Miles	\$ 180,000.00	\$ 140,400.00
			Erosion Control	8.30	Acres	\$ 46,000.00	\$ 381,800.00
			STRUCTURAL ITEMS				
			43' x 1500' Bridge (64,500 SF) (Per Structure	64,500	SF	\$ 212.00	\$ 13,674,000.00
			Bridge Approach Slabs (1290 SF) (Per Structure	1,290	SF	\$ 35.00	\$ 45,150.00
			Temp Access/Barge (Per Structure	22,500	SF	\$ 86.00	\$ 1,935,000.00
			Removal of Existing Bridge 36' x 915' (32,940 SF)	32,940	SF	\$ 30.00	\$ 988,200.00
			Proposed Retaining Wall 23' x 25' (575 SF)	575.0	SF	\$ 130.00	\$ 74,750.00
			Utility Construction				
			Water & Sewer (Per Utilities U	1	LS	\$ 1,468,609.00	\$ 1,468,609.00
			Misc. & Mob. (10% Strs&Util)	1	LS	\$ 1,818,600.00	\$ 1,818,600.00
			Misc. & Mob. (35% Roadway)	1.00	LS	\$ 824,255.00	\$ 824,255.00

Lgth 0.119

Contract Cost	\$ 23,181,000.00
E. & C. 15%	\$3,519,000.00
Construction Cost	\$26,700,000.00

Note: Utility Construction By Others and Right of Way costs are not included.

UTILITY ESTIMATE WORKSHEET

TIP No: Br-0021
 WBS Element No: 67021.1.1
 State Project No:
 Fed. Project No:
 County: Halifax
 Description: Replace Bridge 410051 on NC 48 over Roanoke River

Field Inspection - Evidence of Utilities

Gas: No Electric: Yes Telephone: Yes CATV: Yes
 Water: Yes Sewer: Yes Drainage: Yes Other: Yes Force Main and Fiber

Anticipated Relocation

Gas: No Electric: Yes Telephone: Yes CATV: Yes
 Water: Yes Sewer: Yes Drainage: Yes Other: Yes

Summary: Single Alternate					
Requesting Party: Kristy Alford,PE					
Estimate Date: November 9, 2021					
Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$577,500.00	Power Poles:		Relocation Total	\$734,324.00
Power Items:		Power Items:		Construction Total	\$1,468,609.00
Telephone Poles:	\$9,824.00	Telephone Poles:		Alternate Total	\$2,202,933.00
Telephone Items		Telephone Items			
Gas Line:		Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:	\$1,170,000.00		
Water Items:		Water Items:	\$35,841.00		
Sewer Line:		Sewer Line:	\$250,000.00		
Sewer Items:		Sewer Items:	\$12,768.00		
Misc.Items:	\$147,000.00	Misc.Items:			

Detail: Single Alternate				
Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Duke Energy/Dominion Distribution Pole		21	\$27,500.00	\$577,500.00
		Total:	21	\$577,500.00
Telephone Poles				
Type	Location	Number	Cost / Pole	Total Cost
Three Cable Telephone Pole		2	\$4,912.00	\$9,824.00
		Total:	2	\$9,824.00
Water Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
12" Water Line Per Linear Foot		2000	\$75.00	\$150,000.00
6" Water Line Per Linear Foot		2000	\$60.00	\$120,000.00
24" Water Line Per Linear Foot		2000	\$450.00	\$900,000.00
		Total:		\$1,170,000.00
Water Items				
Item	Location	Number	Unit Cost	Total Cost
Water Meter Relocation		2	\$972.00	\$1,944.00
Valves		13	\$1,069.00	\$13,897.00
Fire Hydrant New		4	\$5,000.00	\$20,000.00
		Total:		\$35,841.00
Sewer Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
8" Sewer Line Per Linear Foot		2500	\$100.00	\$250,000.00
		Total:		\$250,000.00
Sewer Items				
Item	Location	Number	Unit Cost	Total Cost
Manhole		3	\$4,256.00	\$12,768.00
		Total:		\$12,768.00
Miscellaneous Items and Adjustments				
Item	Location	Number	Unit Cost	Total Cost
Contingency		1	\$147,000.00	\$147,000.00
		Total:		\$147,000.00
			Alternate Total	\$2,202,933.00



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 701 Corporate Center Drive, Suite 919.854.6259 fax
 Raleigh, North Carolina 27607

REQUEST FOR R/W COST ESTIMATE/ RELOCATION EIS

COST ESTIMATE REQUEST RELOCATION EIS REPORT
 NEW REQUEST UPDATE REQUEST REVISION REQUEST
 Update to Estimate _____ Revision to Estimate _____
 Revision No.: _____

DATE RECEIVED: _____ DATE ASSIGNED: 11/11/2021 # OF ALTERNATES REQUESTED: 1 Alternative
 DATE DUE: 11/17/2021

TIP NUMBER: BR-0021 DESCRIPTION: Replace Bridge (410051) on NC-48 over Roanoke River

WBS ELEMENT: COUNTY: Halifax/Northham; DIVISION: APPRAISAL OFFICE:
 REQUESTOR: DEPT.:

TYPE OF PLANS PROVIDED:
 COMMENTS:

Cost Estimators: AECOM ROW Tool COMPLETED: # OF ALTERNATES COMPLETED: 1 Alternative
 Joe Martin
 Rylee West/ QA

	Alternative 1	
TYPE OF ACCESS:	None: X	Partial:
	Limited:	Full:
ESTIMATED NO. OF PARCELS	10	
RESIDENTIAL RELOCATEES:	0	\$ -
BUSINESS RELOCATEES:	0	\$ -
GRAVES:	0	\$ -
CHURCH/ NON-PROFIT:	0	\$ -
MISC.:	1	\$ -
SIGNS:	1	\$ 5,000.00
TOTAL ESTIMATED R/W COST:	\$	474,400.00

NOTES:
 All Right-Of-Way Costs are approximate and do not reflect appraised values. The data contained herein are based on Right-Of-Way shapefiles provided by other Consultants and calculated costs based on NCDOT readily available GIS parcel data, criteria and estimation principles. These data have not been independently verified for accuracy or completeness. Any parcel damage override figures are based on data provided by NCDOT.

RIGHT OF WAY IMPACT CHECKLIST
(RED FLAG SHEET)



Firm Name: AECOM
 TIP/SPOT ID: BR-0021
 Project Description: Replace Bridge (410051) on NC-48 over Roanoke River
 County: Halifax/Northampton
 Date: 11/11/2021

Right of Way Impact Description or County PID #:	AECOM ID Number	Comments
Reloc (rural) - Fast Food Restaurant (ave)		
Reloc (rural) - Fast Food Restaurant (small)		
Reloc (urban) - Fast Food Restaurant (ave)		
Reloc (urban) - Fast Food Restaurant (small)		
Reloc (rural) - Sit-Down Restaurant (ave)		
Reloc (rural) - Sit-Down Restaurant (small)		
Reloc (urban) - Sit-Down Restaurant (ave)		
Reloc (urban) - Sit-Down Restaurant (small)		
Reloc (rural) - Gas Station only (ave)		
Reloc (rural) - Gas Station only (small)		
Reloc (urban) - Gas Station only (ave)		
Reloc (urban) - Gas Station only (small)		
Reloc (rural) - Convenience Store/Gas Station (ave)		
Reloc (rural) - Convenience Store/Gas Station (small)		
Reloc (urban) - Convenience Store/Gas Station (ave)		
Reloc (urban) - Convenience Store/Gas Station (small)		
Reloc (rural) - Truck Stop (large with separate islands/canopies)		
Reloc (urban) - Truck Stop (large with separate islands/canopies)		
Reloc (rural) - Truck Stop (with joint canopy)		
Reloc (urban) - Truck Stop (with joint canopy)		
Reloc (rural) - Drug Store (large)		
Reloc (rural) - Drug Store (average)		
Reloc (urban) - Drug Store (large)		
Reloc (urban) - Drug Store (average)		
Reloc (rural) - Strip Shopping Centers (average)		
Reloc (rural) - Strip Shopping Centers (large)		
Reloc (urban) - Strip Shopping Centers (average)		
Reloc (urban) - Strip Shopping Centers (large)		
Reloc - Auto Repair Shop		
Reloc - Car Wash		
Reloc - Cellphone Tower		
Reloc - Animal Hospital/Dentist		
Reloc - Plant Nursery		
Reloc - Church		
Reloc - Hotel		
Reloc - New/Used Car Dealership (\$200 / car)		
Reloc - Used Car Lot (\$200 / car)		
Reloc - Storage Unit (\$1k / unit)		
Reloc - Gravesite (\$10k/each)		
Other (Describe in Comments)	1,2 & 10	No property owner name on impact sheet.
Other (Describe in Comments)	9	Impact area comes close but does not hit building, hits sign, \$5000 added
Other (Describe in Comments)	5	Right of way appears to hit pump station, owned by the Town of Weldon
Other (Describe in Comments)		
Other (Describe in Comments)		
Other (Describe in Comments)		
Other (Describe in Comments)		

Submitted By: AECOM

Date: 11/11/2021

BR-0021 - Alternative 1
 Replace Bridge (410051) on NC-48 over Roanoke River
 Right of Way Cost Estimate-Express Designs

Date: 11/17/2021
 Originator: AECOM

						Total Cost:	\$	474,400.00	
MAP PARCEL ID	OWNNAME	TOTAL ACRES	ACRES IN PROPOSED ROW	REMAINING ACRES	TAX ASSESSOR'S VALUE OF TOTAL PROPERTY	ESTIMATED ROW COST OF WHOLE PROPERTY	TOTAL ESTIMATED COST OF ROW	TYPE OF TAKING	
1		487.05	0.02	487.03	\$0.00	\$37,500.00	\$ 37,500.00	Partial	
2		381.41	0.81	380.59	\$0.00	\$37,500.00	\$ 37,500.00	Partial	
3	ROANOKE RAPIDS SANITARY DISTRICT,	14.39	1.20	13.19	\$1.00	\$37,500.00	\$ 37,500.00	Partial	
4	KAPSTONE KRAFT PAPER CORPORATION	2.72	0.45	2.27	\$89.00	\$37,700.00	\$ 37,500.00	Partial	
5	TOWN OF WELDON,	0.06	0.05	0.02	\$2.00	\$68,800.00	\$ 68,800.00	Total	
6	KAPSTONE KRAFT PAPER CORPORATION	0.12	0.11	0.01	\$4.00	\$68,800.00	\$ 68,800.00	Total	
7	KAPSTONE KRAFT PAPER CORPORATION	0.35	0.12	0.23	\$800.00	\$39,000.00	\$ 38,000.00	Partial	
8	KAPSTONE KRAFT PAPER CORPORATION	3.88	0.26	3.61	\$21.00	\$37,500.00	\$ 37,500.00	Partial	
9	KAPSTONE KRAFT PAPER CORPORATION	12.21	1.03	11.18	\$449.00	\$69,600.00	\$ 73,800.00	Partial	
10		5.92	1.58	4.33	\$0.00	\$37,500.00	\$ 37,500.00	Partial	

BR-0021 Express Designs Replace Bridge (410051) on NC-48 over Roanoke River

November 2021

Legend

- Control of Access**
- None
- Right of Way Impacts**
- Control of Access, New or Existing Roadway**
- Easement, Existing
- None, Existing
- Impacted Parcels
- NC Route
- Local Roads
- Fire Stations
- EMS
- Historic Place (State and National Register)
- Underground Storage Tank
- Railroad
- Natural Heritage Program Natural Areas
- County Boundary
- Historic Property Boundary
- Parcels
- Streams
- Municipal Boundary

***Note: Conceptual designs subject to change without notice. For Feasibility Study purposes only.**

