

GRAHAM

Greater Rural Access and Highways to Accelerate Mobility



BICYCLE & PEDESTRIAN



CLIMBING LANES



UPGRADES



ITS COMPONENTS



SAFETY

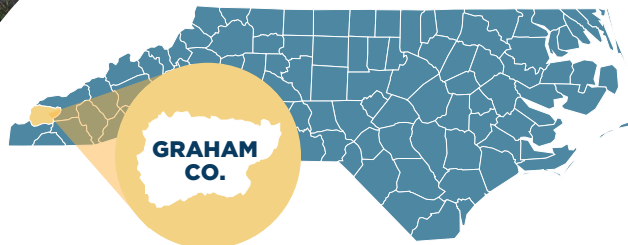
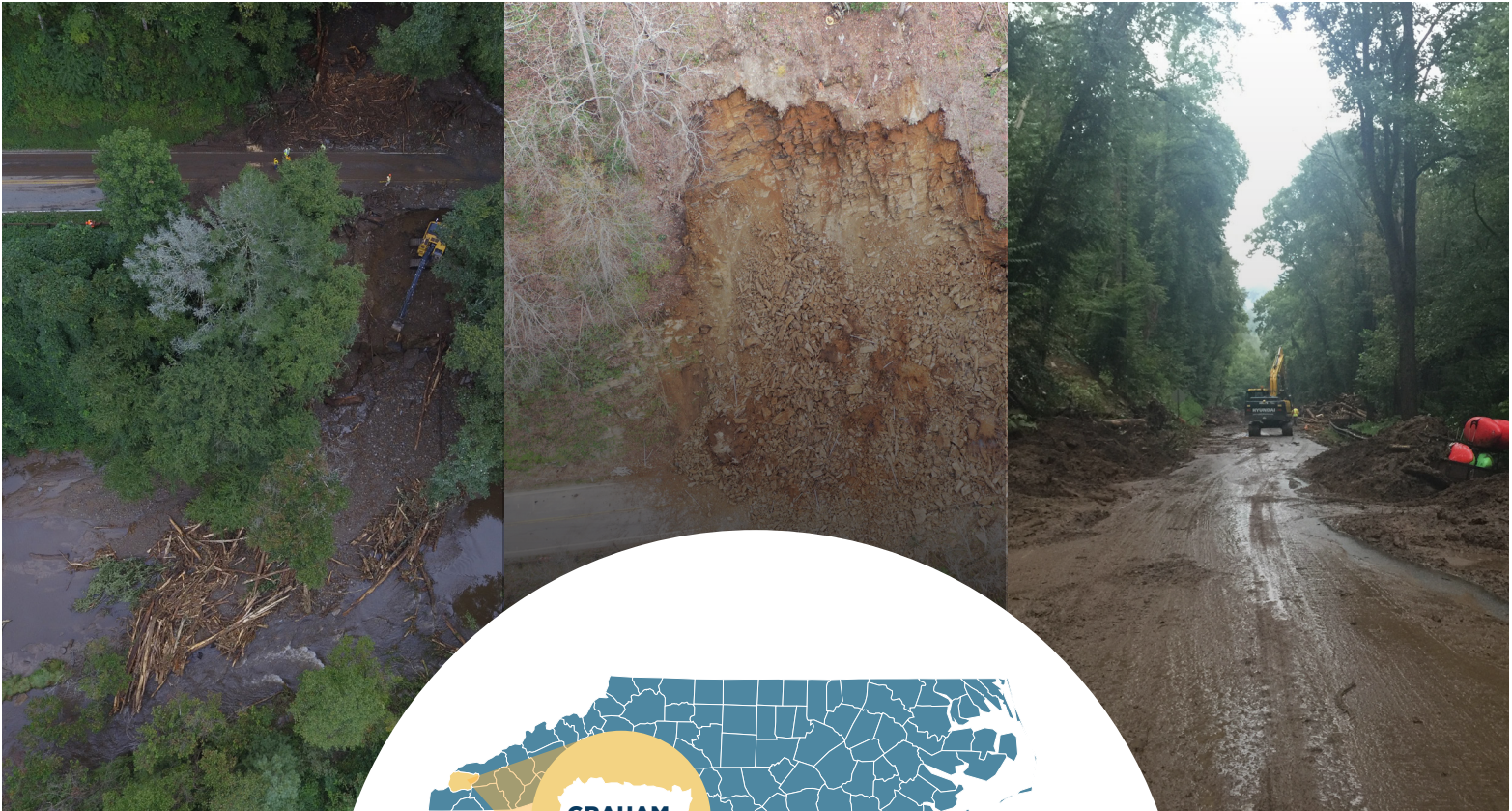


STATE OF GOOD REPAIR



WILDLIFE CROSSING

Project Budget



**MPDG FFY 2023 and 2024
GRANT APPLICATION
AUGUST 2023**



Project Budget

The Project's cost is \$324,622,000 (2022\$) and based on the final engineering design. As described in more detail below, NCDOT and its project partners are requesting \$45,000,000 (2022\$) in Rural grant program funds. They will combine this with existing and future committed Appalachian Regional Commission (ARC) funds in the value of \$279,622,000 to build the Project. The balance of this narrative outlines the details of the Project's budget and funding plan.

Previously Incurred Costs

The Project has been in the planning phase for decades. Led by NCDOT, the collective efforts of the Project team have now advanced the Project through final design. An estimate of total incurred costs for this multi-decade effort are difficult to provide. However, the Project will incur expenses associated with the construction of Corridor K sections A-0009CA through A-0009CC by the time of award and obligation of this round of Rural grant funding. Rural grant funding is not being requested for those previous sections of Corridor K.

Future Project Eligible Costs

NCDOT has identified the Project as A-0009C in the STIP. To increase the opportunity for regional and local contractors to bid on the Project, A-0009C has been divided into three sections, A-0009CA, A-0009CB, and A-0009CC. Given market conditions, the low bids for sections A-0009CA and A-0009CB came in substantially higher than expected. Based on the bids for these sections, NCDOT reevaluated the costs for section A-0009CC and decided to further split it

into sections A-0009CC and A-0009CD to reduce each contract's cost, and thereby increase the number of firms that could bid on the Project. This also allowed NCDOT to make progress on a portion of A-0009C until further funding is secured. Construction is now underway for sections A-0009CA through A-0009CC. Rural grant funding is requested to complete section A-0009CD and to add ITS components to the Project.

The full cost of A-0009CD with ITS components is \$324,622,000 (2022\$), and is an eligible project cost based on the final engineering design. Table 1 on the following page summarizes non-federal, MPDG (Rural), and Other Federal costs applied to the major construction activities. The requested Rural program funding represents approximately 14 percent of the total project cost.

The Project is estimated to cost **\$324,622,000** (2022\$), and this grant application requests **\$45,000,000** (2022\$) in Rural grant funding to implement its improvements. The Federal Highway Administration (FHWA) and the Appalachian Regional Commission (ARC) have authorized **\$279,622,000** (2022\$) of Federal funding from the ADHS Program for NCDOT to apply towards the Project. This ADHS funding includes funds that the Bipartisan Infrastructure Law appropriated from the General Fund for Highway Infrastructure Programs (HIP) through fiscal year (FY) 2023. GRAHAM's budget includes \$1,032,724 in ADHS funding from future year funding authorizations; a letter from ARC documenting available future year funding is included in the **Funding Commitment Documentation** section of the application.



Table 1: Sources and Uses of Funds for the GRAHAM Project (2022\$)

	Section A-0009CA Construction	Section A-0009CB Construction	Section A-0009CC Construction	Section A-0009CD Construction	ITS	Total Funding
Funding Source	Funding Source					
Rural Funds	\$0	\$0	\$0	\$44,433,000 (14%)	\$567,000 (<1%)	\$45,000,000 (14%)
Other Federal Funds (ADHS)	\$57,000,000 (18%)	\$139,690,000 (43%)	\$80,865,000 (25%)	\$2,067,000 (<1%)	\$0	\$279,622,000 (86%)
Non-Federal Funds	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$57,000,000	\$139,690,000	\$80,865,000	\$46,500,000	\$567,000	\$324,622,000

To implement the proposed ITS improvements, GRAHAM is requesting \$567,000 (2022\$) of Rural grant funding. Table 2 shows the cost breakdown for each ITS component, including the count and unit cost.

Table 2: Uses of Funds for the GRAHAM Project ITS Components (2022\$)

ITS Component	Count	Unit Cost	Total Cost
Signal Coordination -Equipment	2	\$6,000	\$12,000
Signal Coordination - Retiming	5	\$8,000	\$40,000
CCTV	1	\$25,000	\$25,000
Dynamic Trailblazer	6	\$15,000	\$90,000
Dynamic Message Sign	2	\$200,000	\$400,000
Total:		\$57,000,000	\$139,690,000
			\$567,000

*The above costs are also not inclusive of any additional right of way or roadway items that may be required, such as guardrail.



Other Federal Funds Requested from Other Grant Programs

The Project team also intends to request funding through the FY 2023 Nationally Significant Federal Lands and Tribal Projects (NSFLTP) grant program.

Sufficient Contingency in the Budget

A-0009CA, A-0009CB, and A-0009CC have been let, and construction is being funded through ADHS. The construction costs for these components reflect the low bid contract amounts and an additional 20 percent for contingencies. To complete the construction of section A-0009CD, this proposal is requesting **\$44,433,000** (2022\$) of Rural grant funding. The construction cost for section A-0009CD includes the estimated construction cost with an additional 20 percent contingency. The 20 percent contingencies are conservative to reflect uncertainties such as rising inflation and the unique construction challenges associated with the region, including the terrain and remoteness.

Project Costs Across Census Tracts

Table 3: Total Project Cost Separated by Census Tract

Census Tract(s)	Project Costs per Census Tract
9201	\$127,395,000
9202	\$189,573,000
9203 (HDC, APP)	\$7,239,000
9603.01 (APP)	\$215,000
9301.02	\$200,000
Total Project Cost:	\$324,622,000

State and County FIPS = 37075

APP: Area of Persistent Poverty

HDC: Historically Disadvantaged Community

Note: A portion of A-0009C passes through Eastern Band of Cherokee Indian territory and certain routes are included in the National Tribal Transportation Facility Inventory (NTTFI)



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