

**FINANCIAL/MANAGEMENT  
PLAN**

**FOR US 401 Widening &  
Improvement**

**FRANKLIN COUNTY  
STIP PROJECT R-2814**

**ROLESVILLE BYPASS TO SOUTH  
OF LOUISBURG**

**PARTS C AND D**



**September 2009**

**LETTER OF CERTIFICATION**

Franklin County, North Carolina, has developed an Initial Financial Plan for the US 401 Widening & Improvement Project, R-2814 Parts C & D in response to the requirements of Section 106, Title 23, and the Financial Plan guidance issued by the Federal Highway Administration (FHWA). The plan provides estimates of financial cost and identifies supplemental funding sources to fully fund the project. Franklin County has identified the US 401 Improvement Project as the highest transportation priority for the county. The Capital Area Metropolitan Planning Organization (CAMPO) and the Kerr/Tar RPO, of which this portion of Franklin County is a part, currently list R-2814 sections C and D, as its number 1 priority.

The cost data in this Financial Plan provides a realistic estimate of project costs based on engineer's estimates presented in current year (2009) dollars. The Financial Plan provides a basis upon which to schedule and fund the project. The Financial Plan will be updated each year as additional factors are known. Funding sources the county anticipates utilizing will rely solely on TIGER discretionary grant funding. Based on current engineers' estimates Franklin County is requesting a \$66 million TIGER discretionary grant, which is estimated to fully fund the Parts C & D sections of Project R-2814. This Financial Plan will be updated once the TIGER grant award is known.

The Project Financial Plan complies with applicable regulations governing TIGER discretionary grants. This report will be filed with the NC Division of the Federal Highway Administration for review and approval prior to submittal of a request for federal authorization of funds.

To the best of my knowledge, the Financial Plan as enclosed, fairly and accurately presents the financial position, cash flows and financial controls of the county. The financial forecasts in the Financial Plan are based on historical trends, current economic experience and engineering judgment of the expected project conditions and as indicated in the preliminary implementation plan. The Financial Plan supporting assumptions are considered appropriate given the nature of the economy.

Franklin County, North Carolina  
Commission Chairman

*Robert Lee Swanson*

## **EXECUTIVE SUMMARY**

Franklin County has identified the US 401 Widening & Improvement Project (hereinafter referred to as the "Project") as the highest transportation priority for the county and the north central region of the state. The project (Parts C & D) will reconstruct US 401 from the northern terminal of the Rolesville Bypass (Part B) to just south of Louisburg (beginning of part E, previously constructed), for a length of approximately 11.3 miles. The proposed project will construct a new four lane median divided facility along the existing corridor. The new facility will replace a deteriorating two lane roadway with substandard lanes, shoulders, vertical alignment and other serious safety issues.

This project is critical to the county and the region. Current and anticipated traffic volumes, current crash rates, structural deficiencies, sub-standard alignments and other serious concerns regarding the serviceability of the corridor are producing negative effects on local commerce and the ability of resident to safely commute to jobs in Raleigh and the Research Triangle. If US 401 is not widened from the Neuse River to Louisburg, commuting safety, mobility of freight and economic vitality of the region will become an increasingly grave concern. The NCDOT has scheduled the letting of construction contracts for the Parts A & B of R-2814 for the fall of 2009 utilizing regular federal-aid apportionments. The granting of \$66 million in TIGER funding to Franklin County will open the entire area for improved economic growth. This four-lane project will also provide improved access to the Franklin County Airport (reliever airport for RDU) and the Triangle North Franklin County Hub site for business growth, both being located just off the R-2814 TIP project.

Table 1 of this Financial Plan presents costs outlined by schedule and phase of work for Parts C and D of the TIP R-2814 project. The estimated cost of the Design-Build contracts is \$66 million for design, right of way acquisition, utility relocations, and construction. \$11.5 million in planning, preliminary engineering, wetland mitigation (for the entire project) and the construction (of Part E only) has already been expended on the Project. In addition, \$3.1 million has been expended for right of way acquisition for Parts A and B which is anticipated to be awarded to construction contract this fall (fall of 2009). The estimated construction cost for Parts A and B is approximately \$49.5 million. As can be seen from this application, substantial funds have already been expended to improve portions of this important mobility corridor.

Franklin County is requesting a \$66 million TIGER grant award. Any lower TIGER award will necessarily delay the Project (Parts C and D) in that the county does not have funding resources available, nor does it anticipate obtaining any resources to cover the project cost. A lower award (or no award) will result in an increased cost to taxpayers (\$107.5 million assuming an inflation rate of 6%) and other cost attributable to delaying the project. Based on current NCDOT TIP funding (obligated funding) this portion of the R-2814 project is post year, which means that it will be another 8 to 10 years or longer (2020 time frame) before the motorist of this corridor could reasonably expect any construction activity. Because of the current economic depression the nation is currently experiencing and the states' transportation needs far exceeding its funding sources, it is highly unlikely that regular STIP state and federal-aid funds will be available for this project in the foreseeable future. Thus, any delaying of this project has corresponding direct and indirect losses to Franklin County's economy and job creation efforts. However, recent project letting data reveals that the NCDOT is currently receiving bids that are on average 12% lower than the engineers' estimates. Therefore, if this contract for Parts C and D

US 401 R-2814 (Sections C & D)

can be awarded within this trend, a further savings of at least \$7.9 million could be applied to anticipated future cost of the projects. Therefore, acting now could provide additional savings for the currently envisioned project improvements.

Highway safety, congestion mitigation, air quality, beautification, and innovative access management system improvements will be available to benefit road users during the 8 - 10 years that the TIGER Grant will advance the completion of the project.

## **PROJECT BACKGROUND**

The R-2814 Project Parts C and D reconstructs US 401 for a length of approximately eleven miles in Franklin County, North Carolina. The resulting facility will be a four-lane, median divided facility with replacement of a deteriorating structure over the Cedar Creek. Funding available to the NCDOT will be utilized to construct Parts A and B of the project. Part E in Louisburg was completed some time ago. Receipt of the TIGER Discretionary Grant funding by Franklin County could save the NCDOT an estimated \$154.7 million in future cost (2020), which may allow the NCDOT to maintain schedules of other funded projects and develop schedules for unfunded programmed projects in the STIP. This would result in potential savings for one or more other STIP projects.

## **OVERVIEW OF PROJECT MANAGEMENT STATUS**

Franklin County, with assistance from the NCDOT anticipates advertising this project immediately upon notification of the TIGER discretionary grant award. The advertisement will be for a single Design-Build contract (sections C and D) to be let in the summer of 2010, with full scale construction beginning in the late fall of 2010. Under the Design-Build concept certain phases of the project schedule would be compressed (design, right-of-way acquisition and construction) in order to expedite the completion of the project as much as one year ahead of a normal design, let, build project schedule. Financial incentives could also be offered to compress the completion of the project even greater. This unique and innovative process has been used very successfully in North Carolina and is the chosen process for this application.

The NCDOT has already performed planning and environmental studies, as well as preliminary engineering, for all parts of the project. Part E was designed and constructed some time ago. However, due to funding limitations, only Parts A and B have advanced to final design and right of way acquisition stage and will go to let this fall and next spring. Utilizing the design/build strategy, Parts C and D can be advanced to completion by a team of private engineers and highway contractors in approximately the same construction time frame as Parts A and B.

Franklin County anticipates hiring an engineering management firm, with specific experience in the NCDOT Design-Build process and with detailed knowledge and a strong working relationship with the NCDOT to oversee the design, construction and inspection of the project. This engineering firm will have a major role and be responsible for the management of the entire design/build process. This oversight of design, construction and inspection will assure that schedules are met, design standards are followed and the materials and construction methods are to state/federal standards. This oversight could also free NCDOT staff from some of those duties and will assist the county in quality control and meeting tight schedules and assure appropriate disbursement of funds as critical milestones of the project is met. This management concept will ensure that this project (Part C and D) can be let and completed in as expeditious a manner as possible.

The typical design/build contract assigns many preconstruction activities to the design/build team. Typically, the design/build team would be responsible for all levels of preliminary design, final design plans, right-of-way acquisition, utility relocation, and permitting. In general, this approach is successful in expediting a project. However, it requires additional time prior to beginning construction in order to complete the necessary documentation, review and coordination activities. Project R-2814, Parts C and D, can meet the schedule requirements of the

TIGER grant, since the NCDOT has pursued and/or completed these activities as described below:

**NEPA:** An Environmental Assessment (October 11, 2001) and Finding of No Significant Impact (October 13, 2006) have been completed (Refer to Appendix IX & X). Thus, to move into the actual permitting process with the environmental agencies will only require notification of the pending project, re-evaluation of only the section C-D portion of the project and resolution of any previously undetected minor environmental issues.

**Stakeholder Involvement:** The NCDOT has actively kept the stakeholders involved during the decision-making process. The Kerr-Tar RPO, COG and CAMPO organizations support the project have the project listed as their #1 priority for all the region. This was an important endorsement from the regional stakeholders, since CAMPO includes other counties in the Capital Area region, such as, Wake County and surrounding portions of Granville, Franklin, Johnston and Harnett Counties ([http://www.campos-nc.us/MTIP/2011-2017\\_MTIP/Agenda-TCC-2009-09-03-Att-06B-2011-2017\\_MTIP\\_Project\\_Priority\\_List\\_2009-09-02a.pdf](http://www.campos-nc.us/MTIP/2011-2017_MTIP/Agenda-TCC-2009-09-03-Att-06B-2011-2017_MTIP_Project_Priority_List_2009-09-02a.pdf)). It should also be pointed out that a long list of political leaders (local and state) representing this region have submitted letters of support or resolutions of support, along with numerous business, industry and personal letters of support. (Refer to Appendix I).

**Transportation Plans:** The Project is included in the approved State Transportation Improvement Program and the relevant Comprehensive Transportation Plans of CAMPO and Kerr-Tar RPO. It should be noted that the Franklin County Comprehensive Transportation Plan is currently in the process of being updated, but addresses/supports the long range needs of this area.

**Legislative Approvals:** NCDOT has legislative approval to use Design-Build under N.C. General Statute 136-28.11. Through the required review and approval of the design plans to insure all state and federal design criteria are met and right of way acquisition follows the required federal-aid procedures this authority would be applicable to the county. Since the use of the Design-Build method for projects over \$50 million requires a report to the Joint Legislative Transportation Oversight Committee, initial contact with this committee has occurred and assurances given that this project will be approved for inclusion in the NCDOT Design-Build process.

**Permits:** The USACE 404 permit and NCDWQ 401 Certification have been acquired for Parts A and B of this project. These permit applications (for sections C and D) will be prepared and submitted to the agencies immediately following the selection of a design/build team.

**Design and Right-of-Way:** The NCDOT has previously prepared functional roadway plans for Parts C and D already. Immediately following selection of the design/build team these plans will be used in the preparation of right-of-way plans. Appraisals and negotiates to acquire all right-of-way necessary for the project will begin upon notification of approval of the plans. Any utility relocation necessary to construct the project will be scheduled concurrent with the right of way acquisition. The final construction plans and specification will be prepared by the Design-Build Teams concurrent with the right of way acquisition including coordination with the contractors awarded the Part A and B sections of the overall project to insure minimum disruption to traffic using the roadway during the overall construction cycle. Upon acceptance of the right of way certification by FHWA, construction activities will begin.

**Utilities:** Utility coordination will be underway on the project upon the selection of the design/build team in order to allow the owners adequate time to schedule and fund, if necessary, relocation and/or upgrades based on the existing preliminary plans. These adjustments will be detailed in the utility conflict plans (part of right of way plans). These adjustments will begin upon authorization of the right of way phase.

#### **IMPLEMENTATION PLAN**

Given the award of the TIGER Grant funding is not scheduled until October or November 2009 and that is the only funding source available to Franklin County to implement Parts C and D of this project, no FY 09 plan is applicable. \$11.4 million in planning, preliminary engineering, wetland mitigation and construction of Part E has already been expended on the project. The estimated cost of the Design-Build contract (section C and D) is \$66 million for design, right of way acquisition, utility relocations, and construction. The implementation plan for the award and completion of the Design Build contracts are shown below.

A design/build project let/construction process is proposed for this project in order to compress the normal design, let, construction process.

**Table 1: Design – Build Contract Cost by Schedule and Phase of Work**

NC State Fiscal Year	Design	R/W & Utilities	Roadway Construction	Bridge Construction	Total Design-Build Contracts
2010	\$3,950,000	-	-	-	\$3,950,000
2011	\$2,050,000	\$7,900,000	\$18,100,000	(in roadway)	\$28,050,000
2012	\$1,400,000	\$0	\$27,450,000	(in roadway)	\$28,850,000
2013	\$150,000	\$0	\$5,000,000	-	\$5,150,000
<b>Total</b>	<b>\$7,550,000</b>	<b>\$7,900,000</b>	<b>\$50,550,000</b>	<b>(in roadway)</b>	<b>\$66,000,000</b>

**PROJECT SCHEDULE**

The anticipated schedule for the Project is reflected below. With Design-Build type projects, the contractor is given more latitude in planning, assessing manpower needs and scheduling work activities within a given project schedule. Therefore, given the compressed schedule, the contractor will be expected to complete work activities within the allotted schedules. To further compress work schedules, pay incentives may be offered to meet or exceed the completion schedule. Both project sections (C and D) will be under one design-build contract so that the contractor will have better control over the entire project length in order to minimize job site conflicts, better plan for ALL work activities and is made more accountable for project schedules.

Activity	R- 2814 Part C & D
Legal agreement with NCDOT	October 1, 2009
Notification of TIGER Award	October 1, 2009
Advertise Project	November1, 2009
Accept Design/Build Proposals	March1, 2010
Evaluate Technical Proposals	April 2010
Request Authorization of Funds	April 15, 2010
Open Price Proposals	May 1, 2010
Award Contract	June 2010
Start Right of Way Acquisition	June 15 2010
Start Construction	November 1, 2010
Construction Substantially Complete	November 1, 2012

The contract will contain significant performance-based incentives to advance the construction completion date.

### **FINANCIAL PLAN METHODOLOGY**

This report is the Initial Financial Plan for the Project. The purpose of the Financial Plan is to provide a comprehensive document reflecting the cost (requirement) and revenue structure (capability) of the project and provide reasonable assurance there will be sufficient financial resources available to implement and complete the project as planned.

This Initial Financial Plan contains information as required under Title 23, Section 106(h):

- 1) Cost Estimate - in which the total cost and cost-to-complete for major project elements are presented in year of expenditure dollars
- 2) Implementation Plan - in which the project schedule is presented and the cost-to-complete is presented in annual increments in year of expenditure dollars
- 3) Financing and Revenues - presented by funding source as annual amounts available for project obligations
- 4) Cash Flow - an annualized presentation of cash income and outgo to illustrate how periodic bills will be paid
- 5) Risk Identification and Mitigation Factors

The Initial Financial Plan will be updated annually and submitted to NC Division of Federal Highways Administration for review & approval after Federal Fiscal year end. Each update will reflect any changes in scope, schedule, cost or available funding.

### **FHWA REVIEW AND ACCEPTANCE**

Prior to construction authorization, the Initial Financial Plan will be submitted to the FHWA Division Administrator (DA) for review and acceptance. Acceptance will be based upon an independent review conducted by the FHWA Division Office with the assistance of the major project team. The independent review will evaluate such items as; the reasonableness of the cost projections, the viability of the identified funding sources, and the likelihood that the funding commitments will provide sufficient resources to complete the project as planned. Updates will be submitted annually and will highlight significant deviations from the Initial Financial Plan and the subsequent annual updates, as well as the mitigating actions taken to adjust for deviations.

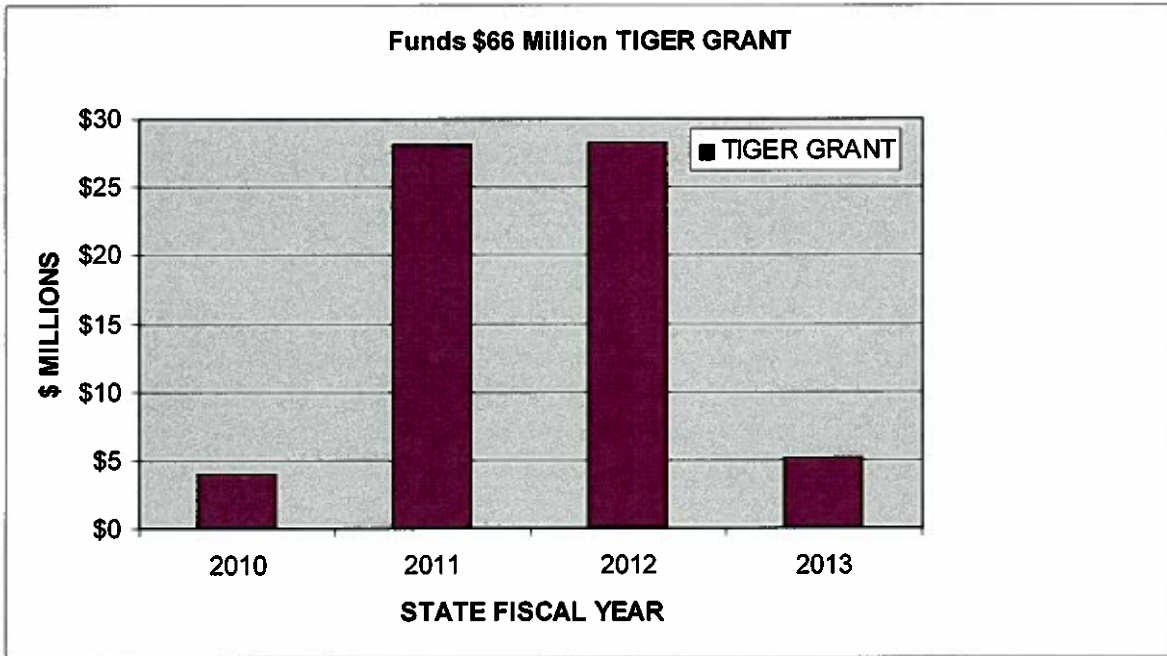
**PROJECT FINANCING AND REVENUES**

Table 2 below presents anticipated sources and uses of funds for the Project. The estimated cost of the Design-Build contract is \$65.4 million for design, right of way acquisition, utility relocations, and construction. \$4.6 million in planning, preliminary engineering and wetland mitigation has already been expended on the Project. The TIGER Grant Award requested represents 100% of the estimated project cost.

<b>TABLE 2: GRANT REQUEST - SOURCES &amp; USES OF PROJECT FUNDS</b>				
	<b>Requested \$66M Award</b>	<b>%</b>	<b>Alternatives</b>	
			<b>\$0 Award</b>	<b>%</b>
<b>Sources</b>	FY 2010-2013		FY 2020 & After	
State	0	0%	21,400,000	20%
Private/Rail	0	0%	0	
Federal	0	0%	85,600,000	80%
GARVEE	0	0%	0	
TIGER Award	66,000,000	100%	0	0%
<b>Total</b>	<b>66,000,000</b>	<b>100%</b>	<b>107,000,000</b>	<b>100%</b>
<b>Uses</b>				
Roadway	50,000,000	76%	81,320,000	76%
Bridge	-	-	0	0%
Right of Way	7,900,000	12%	12,840,000	12%
Planning	Funded	0%	0	%
Design	7,000,000	12%	12,840,000	12%
Bond Interest	0	0%	0	0%
<b>Total</b>	<b>65,450,000</b>	<b>100%</b>	<b>107,000,000</b>	<b>100%</b>

The alternate shown in Table 2 represents the likely time that STIP funding (federal + state match) that R-2814 Parts C and D could be implemented given the equity formula and anticipated federal and state funding levels. R-2814 Parts C and D are in the current STIP, however, they are shown as “unfunded” (i. e. funding only available in post years after 2017).

Table 2 above also presents the forecasted revenue stream for design, right of way and construction of the Design-Build project (\$65.45 million total) based on a total requested award of \$66 million TIGER grant funds. This table does not include prior expenditures of \$4.6 million for planning.



**Table 3: TIGER GRANT REQUEST \$66M - SOURCE OF DESIGN BUILD CONTRACTS**

<b>\$/Federal Fiscal</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>TOTAL</b>
<b>TIGER GRANT</b>	<b>3,950,000</b>	<b>28,050,000</b>	<b>28,850,000</b>	<b>5,150,000</b>	<b>66,000,000</b>
<b>TOTAL</b>					

**DESIGN-BUILD CONTRACT METHOD OF COMPENSATION AND FUNDING**

The County will enter into a contract with the NCDOT for project cost reimbursement for administrative, design-build contract cost of the successful Design-Build Firm. In accordance with Design-Build policy and procedures, the Design-Build Firms provide a Schedule of Values with their Bid Price Proposal documents. The total of the Schedule of Values will be the lump sum contract amount.

The terms and conditions of the contracts will be for a fixed price and a fixed time. The Design-Build Firm’s submitted bids (time and cost) is to be a lump sum bid for completing the scope of work detailed in the Request for Proposals for R-2814 Parts C and D.

The Project estimates for design, right of way and construction (\$65.45 million) will be expended by award of a Design-Build contract in order to expedite the completion of the project. Construction will be turnkey (grading, drainage and paving) for the eleven plus miles from the Rolesville Bypass to SR 1700 just south of Louisburg.

The Design-Build Firm will be responsible for invoicing based on FAR policy and procedure. Invoicing will be based on the completion or percent completion of major, well-defined tasks as defined in the Schedule of Values. Final payment will be made upon final acceptance by the County and NCDOT. NCDOT will subsequently accept the finished roadway for maintenance. Tracking Disadvantaged Business Enterprise participation will be required under normal procedures. The Design-Build Firm must submit the Schedule of Values to the County (or its representative) for approval. No invoices will be accepted for payment prior to approval of the Schedule of Values.

Upon receipt of the invoice, the County's Project Manager will make judgment on whether or not work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

#### **CASH FLOW OF DESIGN-BUILD CONTRACTS**

Total Design, Right of Way and Construction costs of approximately \$66 million will be expensed in 2010 to 2013. Right of way and utility relocation costs of \$7.9 million represent 12% of the total cost and will be expensed in 2010 and 2011. Design cost \$7.55 million represent 12% of the total cost and will be expensed in 2010 to 2013. Roadway construction and bridge costs of \$50 million represent 76% of the total cost and will be expensed in 2010 to 2013 (See Table 3).

#### **PROJECTS ESTIMATING SYSTEM**

The county utilized the NCDOT long range estimating system that identifies cost trends based on a large inventory of projects previously awarded. This system provides cost estimates for projects that are moving toward design. Cost estimates for this project were based on long range estimates as well as quantities from project segments that are further along in the design process. Contingencies are built into each project cost estimate. In addition, contingencies for inflation and construction cost overruns are provided programmatically as a standard business practice to account for unforeseen requirements of projects programmed in the NCDOT Transportation Improvement Program (STIP) as a whole.

#### **COST MONITORING**

The project manager will monitor cost in accordance with policies established to provide a formal process to review cost estimates during the project development process. Value engineering techniques will be utilized to insure that costs are constrained within the estimates.

### **MITIGATION OF FINANCIAL RISK**

The Project will be the first major highway project for Franklin County in that the NCDOT assumed responsibility for all the county roads back in the 1930's. However, recently the North Carolina Legislature gave county governments the authority to fund and design state transportation projects. Thus, it will be imperative to minimize any and all areas of financial risk to insure that the project can be completed with only the TIGER grant funding. Thus, the project management experience of the firm selected to manage the project for the county will be of the utmost importance. Only firms with direct experience in design-build construction and financial management of federal-aid highway projects will be considered.

The county has selected the Design-Build method of project delivery for the project because it offers the following benefits:

- Cost savings and improved risk management
- Time savings
- Single point of responsibility
- Opportunity for innovation
- Better quality control
- Reduced administrative burden for the Department

In terms of project performance, design-build type projects, compared with traditional design and low-bid contracting, is faster, superior in product quality, and generates less claims and litigation.

To reduce risk to the design build firm, thereby saving cost, the county has factored in 15% of the total contract costs for contract engineering and inspections services and contingencies.

### **FINANCIAL CONTROLS**

In North Carolina the Local Government Commission has responsibility to insure that all units of local government exercise prudent fiscal policies and budget controls. Franklin County has experience with federally funded grants such as Economic Development Administration and CDBG. The project special provision of the contract specification will contain the standard clause used by NCDOT to stop construction with 30 days notice without claim should funds not be available to continue.

### **Disadvantaged Business**

Utilization of Disadvantaged Business Enterprises, Women Businesses, and Minority Businesses are encouraged in two ways in Design-Build projects. Traditional contract goals are typically established for Design-Build projects in accordance with standard county goal setting procedures. In addition, the total Technical Score may be affected by a Team's use or non-use of DBE/MB/WB firms as part of their non- construction related services. The RFP shall state the county's goals for DBE/MB/WB utilization for each project.