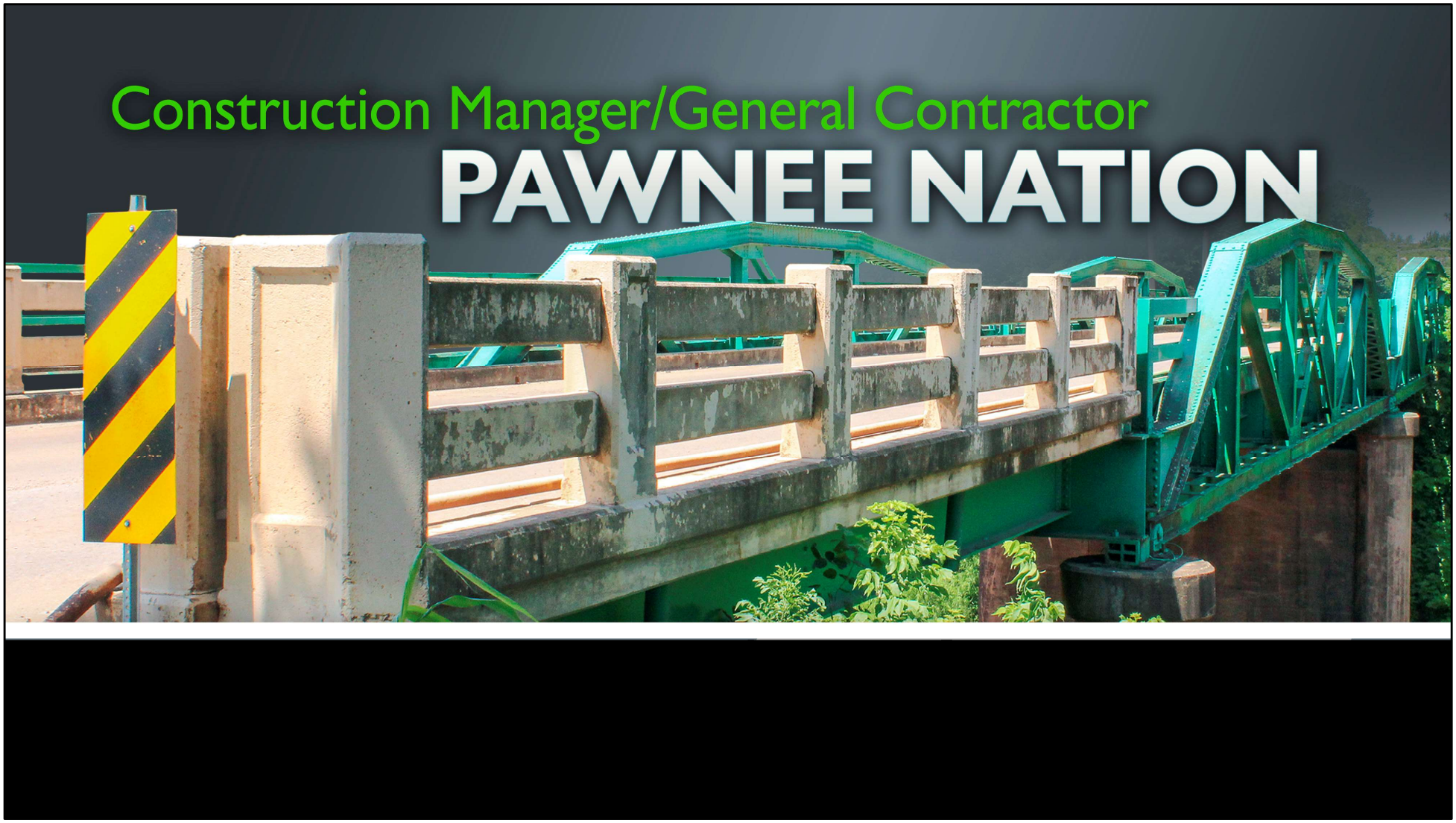

Construction Manager/General Contractor
PAWNEE NATION

What is
Construction Manager /General Contractor (CM/GC) delivery?

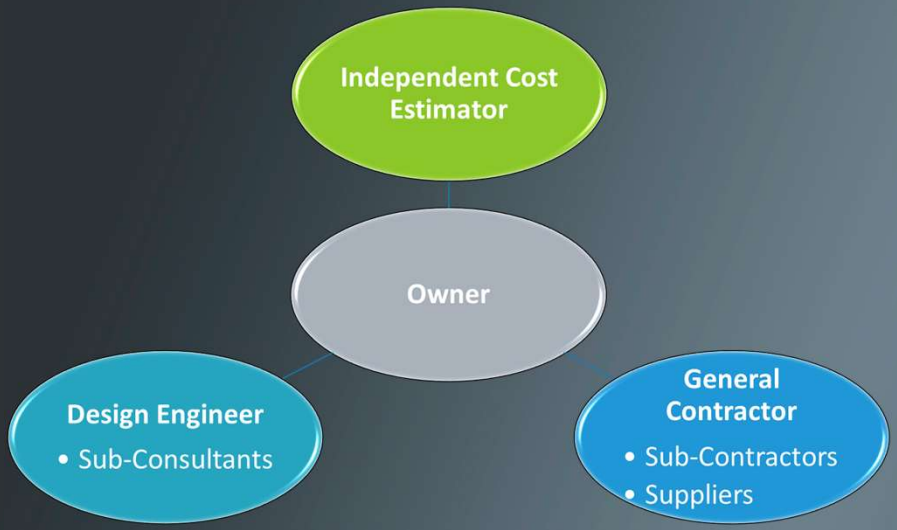
CMAR

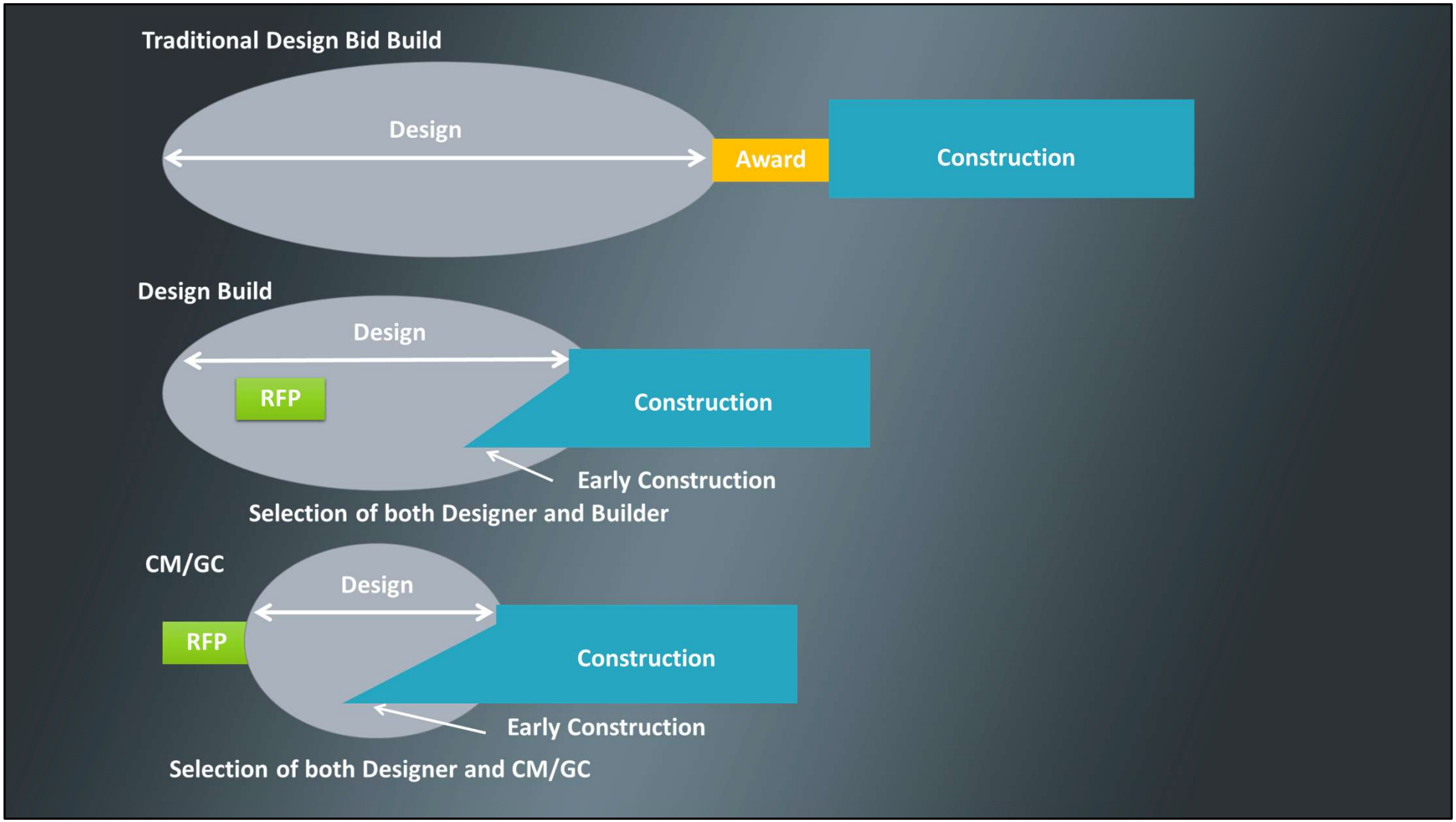
CM@Risk

CMc

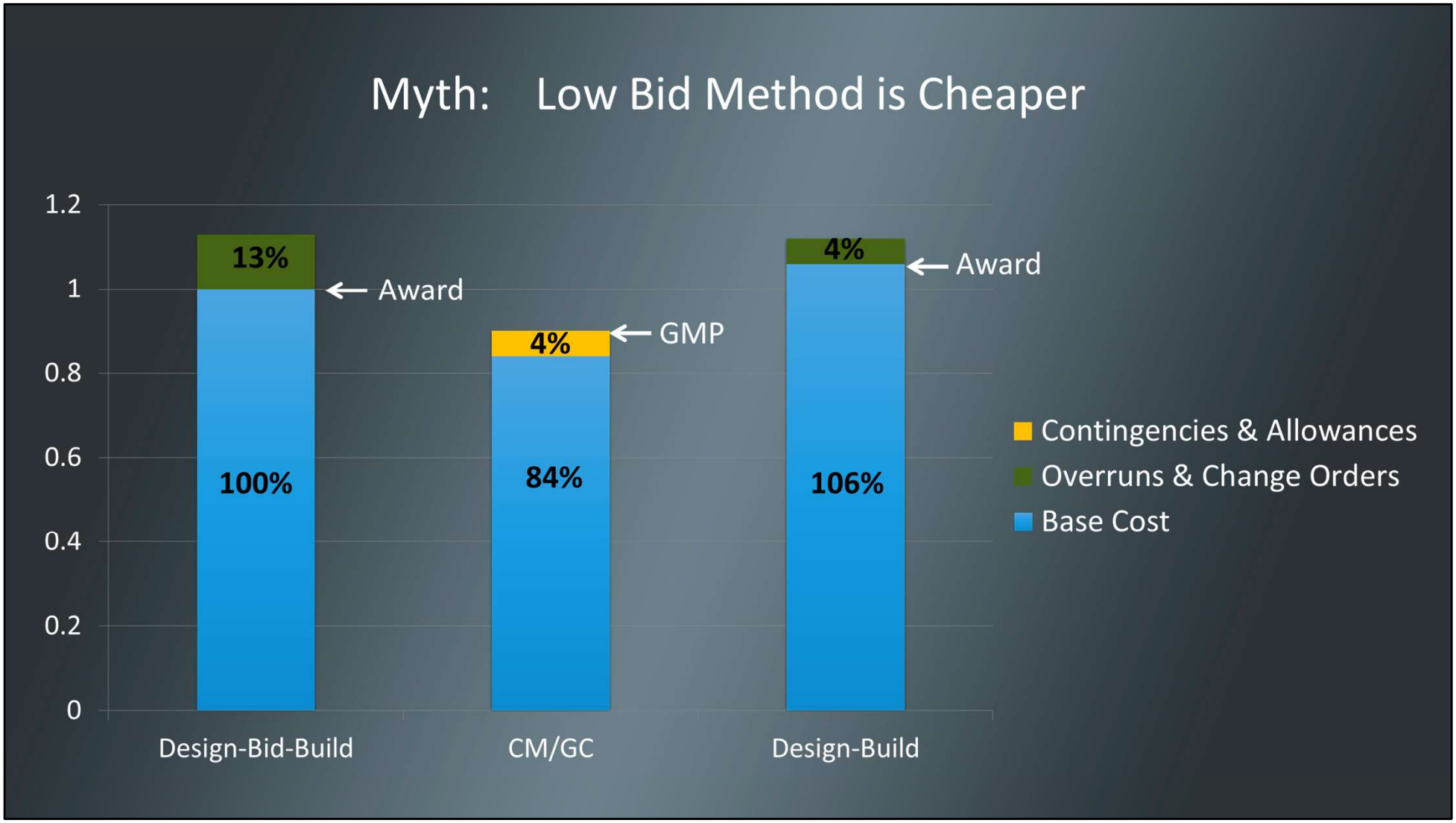
Integrated Approach

Owner, Designer & CM work collaboratively develop the project scope, optimize the design, improve quality, and manage costs to deliver projects **early and under budget**.



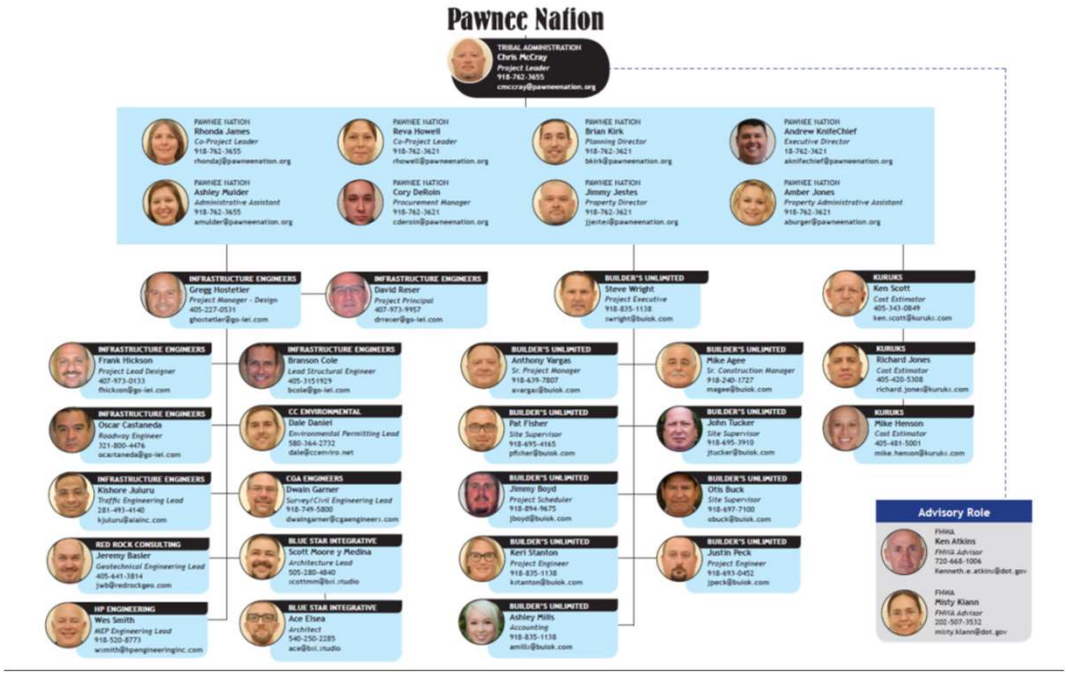

Traditional Design Bid Build
Design
Award
Construction
Design Build
Design
RFP
Construction
Early Construction
Selection of both Designer and Builder
CM/GC
Design
RFP
Construction
Early Construction
Selection of both Designer and CM/GC

Myth: Low Bid Method is Cheaper



Pawnee Nation CM/GC Planning Process

- **Scope, Schedule and Budget**
  - **CM/GC Training - April 3-4, 2018**
  - **Weekly Meetings**
  - **Engaged Executive Director, TERO, Finance, Procurement & others**
  - **Identified projects & funding sources**
  - **RFP/Q's Notice – June 15, 2018**
  - **Kickoff Meeting – August 13-14, 2018**
  - **1st Guaranteed Maximum Price (GMP) Contract – September 7, 2018**
  - **1st Notice to Proceed (NTP) – September 10, 2018**
  - **Variety of funding sources, including grant funding**



Weekly Meetings, with Executive Director, TERO Department, Finance Department, Procurement Department, and each department that had a project within the suite of projects. Developed our projects, schedule and budget. Then the we developed the RFP/Q's
4 1/2 months from the initial training & concept to contract execution

At our initial Kickoff meeting with selected CM/GC TEAM it was reiterated for the need to work with TERO and to use local businesses as stated in the RFP/Q's. After our initial Kickoff meeting the CM/GC setup a job fair. The CM/GC worked with TERO to start the applicant list and skills after which the TERO department took over. If a potential TERO worker came onto the jobsite looking for work, they were guided to the TERO office so they could keep track. As the CM/GC needed workers they would contact the TERO department and they would initial the call to get someone on site. TERO workers are paid a prevailing wage rate.

Guaranteed Maximum Price (GMP)

Item	Construction Category	ICDBG Campground ph 2 campsites totals	Adj Mat'l Est	Adj Labor Est	Equipment Est	Sub Est	Est Const Cost
	Project Subtotals						
	General Conditions		0.00	3,690.00	750.00	0.00	4,440.00
	Exisiting Conditions		0.00	0.00	0.00	0.00	0.00
	Concrete		120.00	0.00	0.00	0.00	120.00
	Masonry		0.00	0.00	0.00	0.00	0.00
	Metals		0.00	0.00	0.00	0.00	0.00
	Wood, Plastics & Composites		0.00	0.00	0.00	0.00	0.00
	Thermal & Moisture Protection		0.00	0.00	0.00	0.00	0.00
	Doors/Frames/Window s		0.00	0.00	0.00	0.00	0.00
	Finishes		0.00	0.00	0.00	0.00	0.00
	Specialties		0.00	0.00	0.00	0.00	0.00
	Equipment		0.00	0.00	0.00	0.00	0.00
	Furnishings		0.00	0.00	0.00	0.00	0.00
	Special Construction		0.00	0.00	0.00	0.00	0.00
	Plumbing		0.00	0.00	0.00	6,500.00	6,500.00
	HVAC		0.00	0.00	0.00	0.00	0.00
	Electrical		0.00	0.00	0.00	14,590.00	14,590.00
	Earthw ork		0.00	0.00	0.00	0.00	0.00
	Site Improvements		0.00	0.00	0.00	0.00	0.00
	Utilities		0.00	0.00	0.00	0.00	0.00
	Subtotal		120.00	3,690.00	750.00	21,090.00	25,650.00
	Labor Burden @ 26%						959.40
	Subtotal						959.40
	TOTAL PROJECT ESTIMATE						26,609.40
	Contingency						2,913.00
	CM Fee (5.41%)						1,439.57
	Insurance (.0092%)						258.05
	Bonds (1.85%)						523.68
	TERO Fee (3%)						864.92
				Total Mini GMP			32,608.62

A GMP is developed for each project and/or for mulitple phases of a project (i.e. demo, light package, sidewalk, etc.) When a GMP was developed the TERO department would review the TERO Compliance paperwork that includes the name of the subcontractor and list of personnel. The TERO department would work with the CM/GC in placing a TERO worker with the sub.

Owner - Pawnee Nation; Designer – Consor engineering; CM?GC – Builders Unlimited, Inc.; Independent Cost Estimator (ICE) - Kurkuks

Pawnee Nation Safety and Enhancement Projects

- 7 – FHWA funded projects
- 4 – Tribal funded projects
- 1 – ICDBG funded project
- 1- Disney grant project

1st Street Safety Project, Morris Rd. Project, Morris Rd. to Hwy 64/18 Project, Green Bridge Project, Fog Seal Project, Lights on Catlett Rd. Project, Directional Signage Project, ICDBG Campgrounds and Fit Trail Project, Building 1 Roof Project, Building 1 Demo Project, Trading Post Roof Project, RoamChief Porch Addition Project, Meet Me at the Park Project

1st Street Safety Improvements

- **Objectives**
  - Roadway reconstruction
  - School bus safety
  - Add sidewalks
  - Improve drainage
  - Improve safety and efficiency at US-64 connection

1st Street Safety Improvements

- **Schedule**
  - Completion Date November 2019
- **Budget**
  - Construction Budget $1.8 million
  - Target Budget $1.26 million
  - Projected Actual Cost $1.5 million (16.6% under budget)
- **Innovation**
  - Minimized lane widths
  - Elimination of a portion of curb and gutter
  - Low cost retaining wall
  - Forta –Fiber pavement design $300,000 in savings
  - Savings funded additional underground utility work
  - Savings funded brick stamped crosswalk enhancments
  - Rapid Flashing Beacon (RFB) for pedestrian access across highway

Forta Fiber is a kevlar type fiber that is incorporated into the asphalt. It as strength and therefore reduces the thickness and 50% longer lasting pavement. We consulted with Roger Surhdal with FHWA

Fog Seal Project

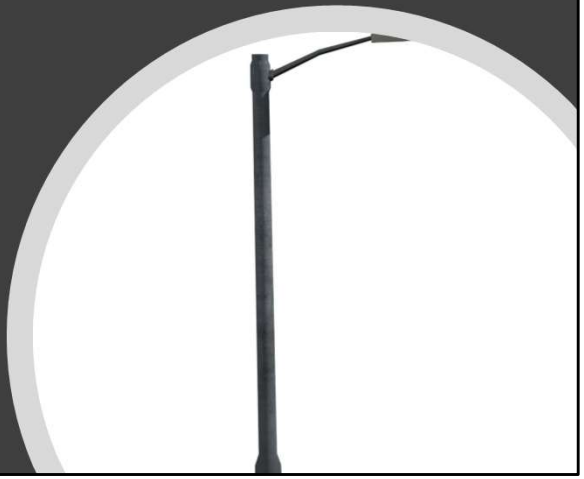
- **Objectives**
  - Roadway maintenance
- **Schedule**
  - Completion Date September 2019
- **Budget**
  - Construction Budget $ 50,000
  - Target Budget $ 35,000
  - Projected Actual Cost $ 47,321 (0.53% under budget)
- **Innovation**
  - Work done simultaneously with other projects, $5,500 savings

Morris Rd. Project

- **Objectives**
  - Improve Pedestrian safety
  - Add sidewalks
  - Add 6 LED lights
  - Road maintenance

Morris Rd. Project

- **Schedule**
  - Completion Date January 2019
- **Budget**
  - Construction Budget $737,500
  - Target Budget $516,250
  - Projected Actual Cost $600,000 (18.6% under budget)
- **Innovation**
  - Used existing terrain to eliminate the need for curb and gutter, $150,000 in savings
  - LED lights



Morris Rd. to Hwy 64/18 Project

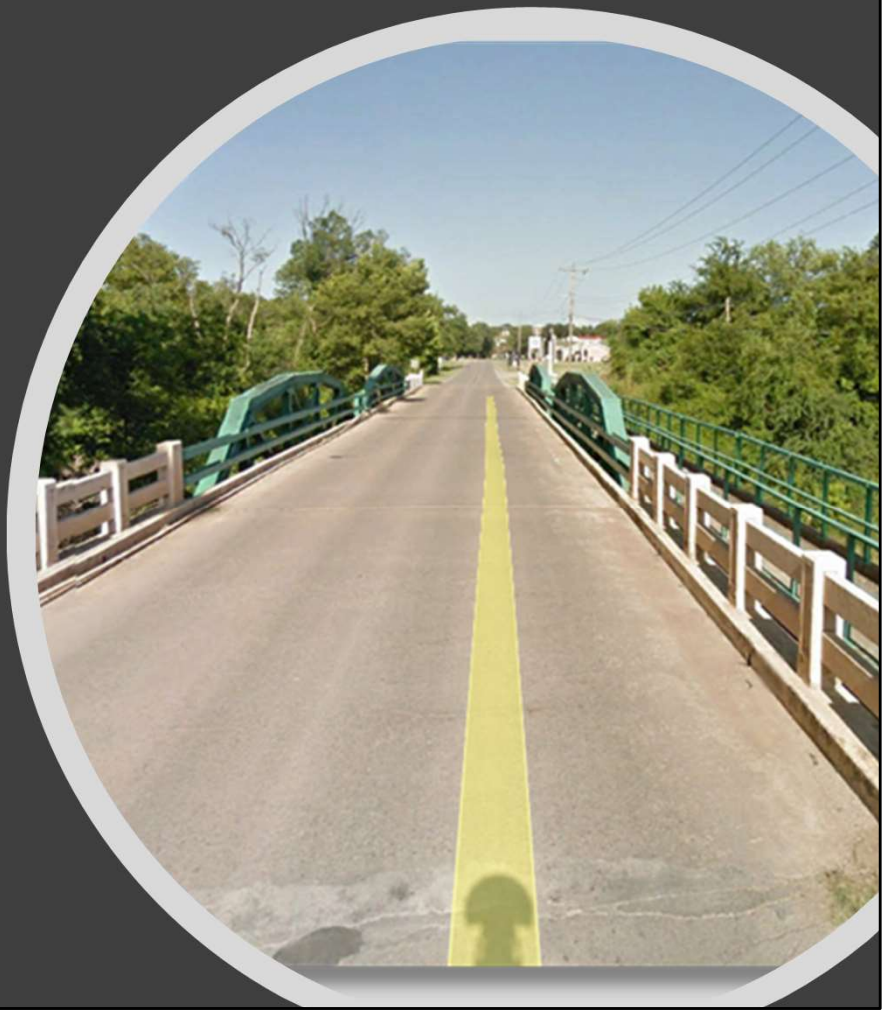
- **Objectives**
  - Use savings from other projects
  - Entrance signage
  - Roadway maintenance
  - Other enhancements

Morris Rd. to Hwy 64/18 Project

- **Schedule**
  - Completion Date November 2019
- **Budget**
  - Construction Budget $400,000
  - Target Budget $280,000
  - Projected Actual Cost $57,800 (85.5% under budget)
- **Innovation**
  - Funded through project savings
  - Fog seal instead of overlay
  - Work done simultaneously with other projects, $6,500 savings

Green Bridge Project

- **Objectives**
  - Replace or rehabilitation Fracture Critical Bridge
- **Schedule**
  - Projected Completion Date May 2020
- **Budget**
  - Construction Budget $ 1.3 million
  - Target Budget $910,000
  - Projected Actual Cost $ unknown
- **Innovation**
  - Waiting on FHWA Bridge funds



Lights on Catlett Rd. Project

- **Objectives**
  - Quality of life improvement
  - Pedestrian safety
- **Schedule**
  - Completion Date October 2019
- **Budget**
  - Construction Budget $ 40,000
  - Target Budget $ 28,000
  - Projected Actual Cost $ 90,000 (125% over budget)
- **Innovation**
  - Work done simultaneously with other projects, $12,000 savings
  - Funded 6 additional lights and wiring upgrade for future expansion through project savings
  - LED lights

Directional Signage Project

- **Objectives**
  - Attractive and Functional signage
  - Assist visitors to their destination
- **Schedule**
  - Completion Date September 2019
- **Budget**
  - Construction Budget $ 10,000
  - Target Budget $ 7,000
  - Projected Actual Cost $ 23,000 (130% over budget)
- **Innovation**
  - Work done simultaneously with other projects, $1,000 savings
  - Funded additional sign through project savings

Building 1 Roof & Demo Project

- **Objectives**
  - Remove and Replace roof
  - Demolition a 348 sq.ft. non-original additional
- **Schedule**
  - Completion Date September 2018
- **Budget**
  - Construction Budget $ 25,000
  - Target Budget $17,500
  - Projected Actual Cost $ 21,500 (14% under budget)
- **Innovation**
  - Work done simultaneously with other projects, $1,000 savings
  - Funded through insurance and tribal funds

Trading Post Roof & RoamChief Porch Project

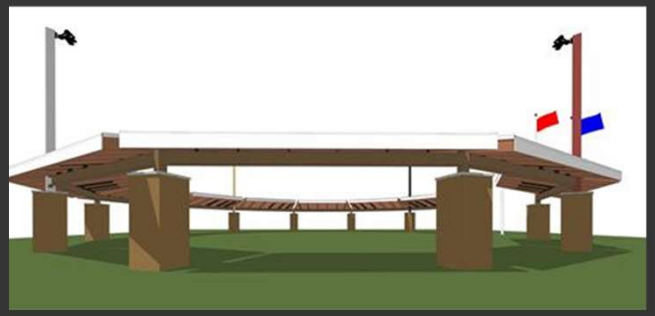
- **Objectives**
  - Removing and replacing roof
  - Larger porch for cultural funeral preparation
- **Schedule**
  - Projected Completion Date September 2018
- **Budget**
  - Construction Budget $ 13,500
  - Target Budget $9,450
  - Projected Actual Cost $12,100 (10.3% under budget to date)
- **Innovation**
  - Work done simultaneously with other projects, $1,000 savings
  - Funded through insurance and tribal funds

Meet Me at the Park Project

- **Objectives**
  - Expansion of existing Pirau Park
  - Full-court Basketball area
  - Horseshoe area
  - Installation of Frost-free water hydrants
  - Renovation of existing bathroom
- **Schedule**
  - Completion Date October 2018
- **Budget**
  - Construction Budget $30,000
  - Target Budget $30,000
  - Projected Actual Cost $30,000 (grant objective to spend all funds)
- **Innovation**
  - Had a Volunteer day with over 20 participants
  - Used free wood chip mulch
  - Used rehabilitated equipment for bathroom
  - Some Park equipment purchased by tribal programs
  - 1st time grant awarded to Native American tribe

ICDBG Campgrounds & Fit Trail Project

- **Objectives**
  - Update existing Dance Arbor
  - Update Electrical and water utilities
  - New ADA bathroom
  - Nature fit trail with solar lighting
  - Pedestrian bridge



ICDBG Campgrounds & Fit Trail Project

- **Schedule**
  - Projected Completion Date February 2019
- **Budget**
  - Construction Budget $800,000
  - Target Budget $800,000
  - Projected Actual Cost $800,000 (grant objective to spend all funds)
- **Innovation**
  - Underground electric
  - Metal building with rock veneer for bathroom, $75,000 savings
  - Single post design for Dance Arbor
  - First time combination Vertical and Horizontal CM/GC projects
  - 2nd to use “Fast Cast Bridge” system
  - 1st to use “Fast Cast Bridge” system for a Pedestrian Bridge
  - Solar powered lights for Fit Trail

TERO Statistics

- To Date…..
  - Over 12 different TERO workers have been employed throughout ALL the projects
  - 3 TERO workers continuously working
  - Over 850 Hours worked
  - 75% of the workers on ALL the projects have been Native American
  - 5 out of 8 of the CM/GC sub-contractors have been Native American owned companies
  - 95% of employees of the CM/GC on the projects are Native American
  - The CM/GC and Independent Cost Estimator (ICE) companies are both 100% Native American Owned companies
  - The Design company was recently acquired in a merger which negated being a Native American owned company; 2 of their 5 subs are Native American owned companies.
  - Using local businesses for materials (rock, concrete, wood, etc.)
  - TERO sending people to Construction training (i.e. Flagger, OSHA, etc.)

Contact Information:

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Kenneth.E.Atkins@dot.gov (720) 668 - 1006

www.fhwa.dot.gov/resourcecenter