



WHITE PAPER

I-94 Advanced Bridges Contracting and Procurement Strategies

NO. MDOT – WP 1

May 4, 2015

MDOT JN: 122114

Control Section: 82024

Preliminary
Draft
(subject to change)

Background:

As part of the I-94 Modernization Project contracting and procurement strategies have been outlined in this white paper for identifying delivery concepts that will enhance achievement of I-94 Modernization Project goals and objectives. Implementation will begin with the early construction packages focused on the I-94 Advanced Bridges.

One of the primary goals for the I-94 Modernization Project is to “maximize opportunities for local businesses” in the delivery of this mega project. For consulting engineering businesses, the focus will be on expanding the capacity of the industry through enhancing existing firms and growing small and market entry engineering businesses. The procurement strategies for the I-94 Advanced Bridges is structured to maximize the number of contracting opportunities for existing prequalified firms and create a mentoring environment to grow and equip existing and emerging small engineering and construction businesses.

MDOT Goals and Objectives:

1. Maximize the number of contracting opportunities for prequalified consultants to compete for consultant services on the Advanced Bridges.
2. Maximize the opportunity for prequalified consultants and non-prequalified small business consultants to participate in the Advanced Bridges projects.
3. Increase the number of MDOT prequalified small business engineering consultants through the delivery of the Advanced Bridges.
4. Increase the technical capacity of small business firms through project delivery experience in a mentored environment.
5. Enhance the business acumen of small business CEOs through a rigorous mentoring program that focuses on the key elements of consulting engineering including project delivery, strategic planning, sales/marketing, business/operations and human resources.

Recommended Procurement Model for Design Services:

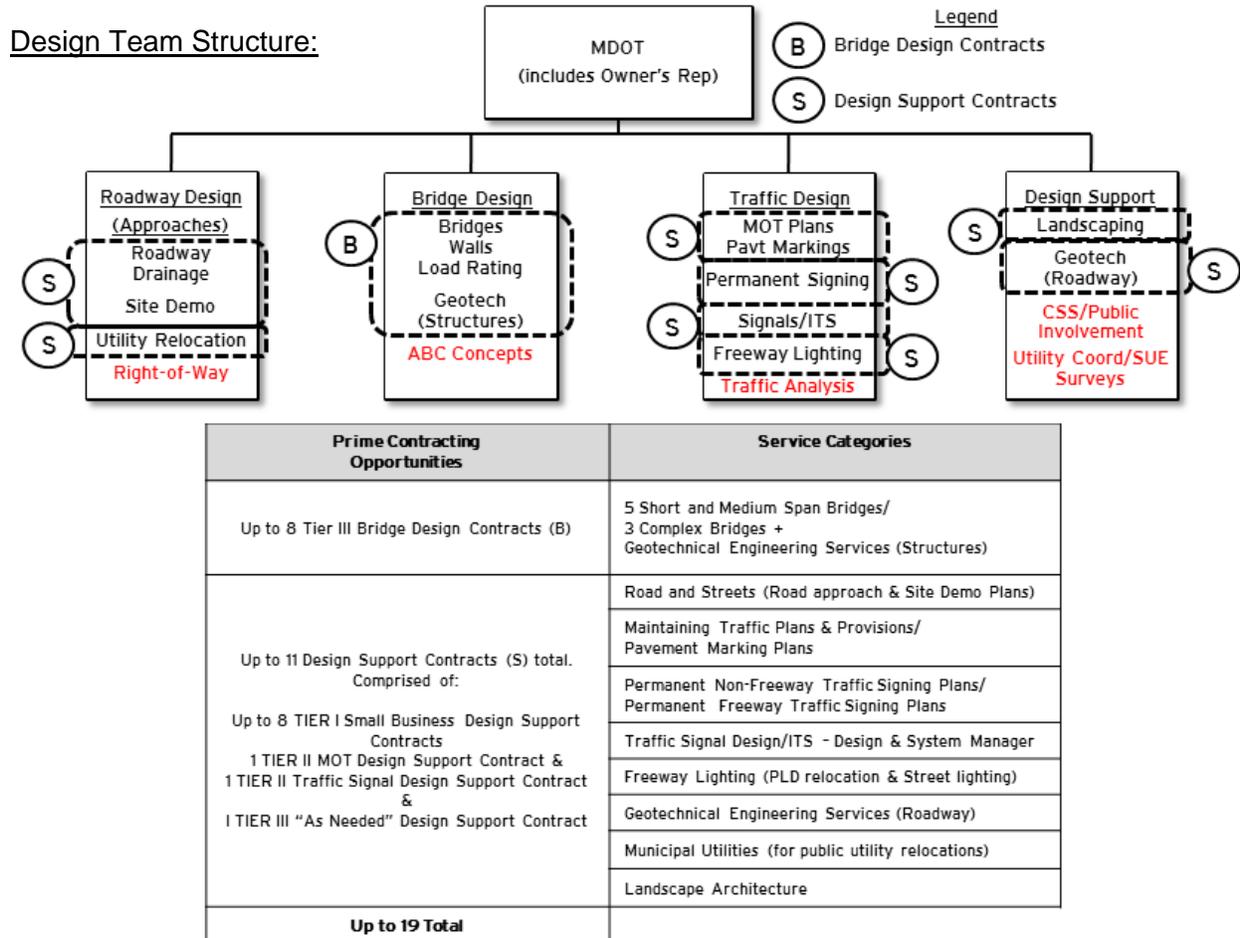
The design services for the Advanced Bridges are proposed to be solicited through six separate RFPs. The first two RFPs provide up to 8 bridge design consultant prime contracts for prequalified design consultant teams to complete the final design of the Advanced Bridges. The bridge design RFPs (Tier III) will require each bridge team prime consultant to work with MDOT and their Owner’s Rep along with MDOT’s design support consultants to include prequalified consultants and non-prequalified small business partners to complete the project design. The RFPs will be written to clearly identify the team structure and engineer of record for each component of the design. The prime bridge designers will be the engineer of record for the bridges including the profile for the structure and foundation design. Two RFPs will be required to split up the 3 complex bridges and the 5 short and medium span bridges. The up to 8 bridge design consultant prime contracts will include design coordination hours for the bridge design

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teams to work with MDOT and their Owner’s Rep along with MDOT’s design support consultants to coordinate design efforts in a collaborative project office environment.

The remaining four RFPs (1 Tier III, 2 Tier IIs and 1 Tier I) provide up to 8 small business design support consultant prime contracts (Tier I) for non-prequalified small business consultants to partner with MDOT and their bridge design consultant team members and up to 3 design support consultant prime contracts (Tier II - MOT, Tier II – Traffic Signals and Tier III “As Needed”) for prequalified consultants. The Tier III “As Needed” contract will address design support services not covered by the Tier I/II design support contracts. The up to 11 total design support consultant contracts may include development of site demolition plans, roadway approach & drainage plans, traffic signal plans, traffic signing & pavement marking plans, municipal utilities (relocation plans), freeway & street lighting plans, ITS plans, maintenance of traffic plans, roadway geotechnical investigations and landscaping plans. Each design support consultant prime contract will focus on providing consistent design services across the I-94 Advanced Bridges to minimize contract coordination, increase efficiency, and provide meaningful work for prequalified consultants and non-prequalified small business consultants. The design support consultants will be the engineer of record for the final plan package elements they have design ownership. See design team structure below for details.



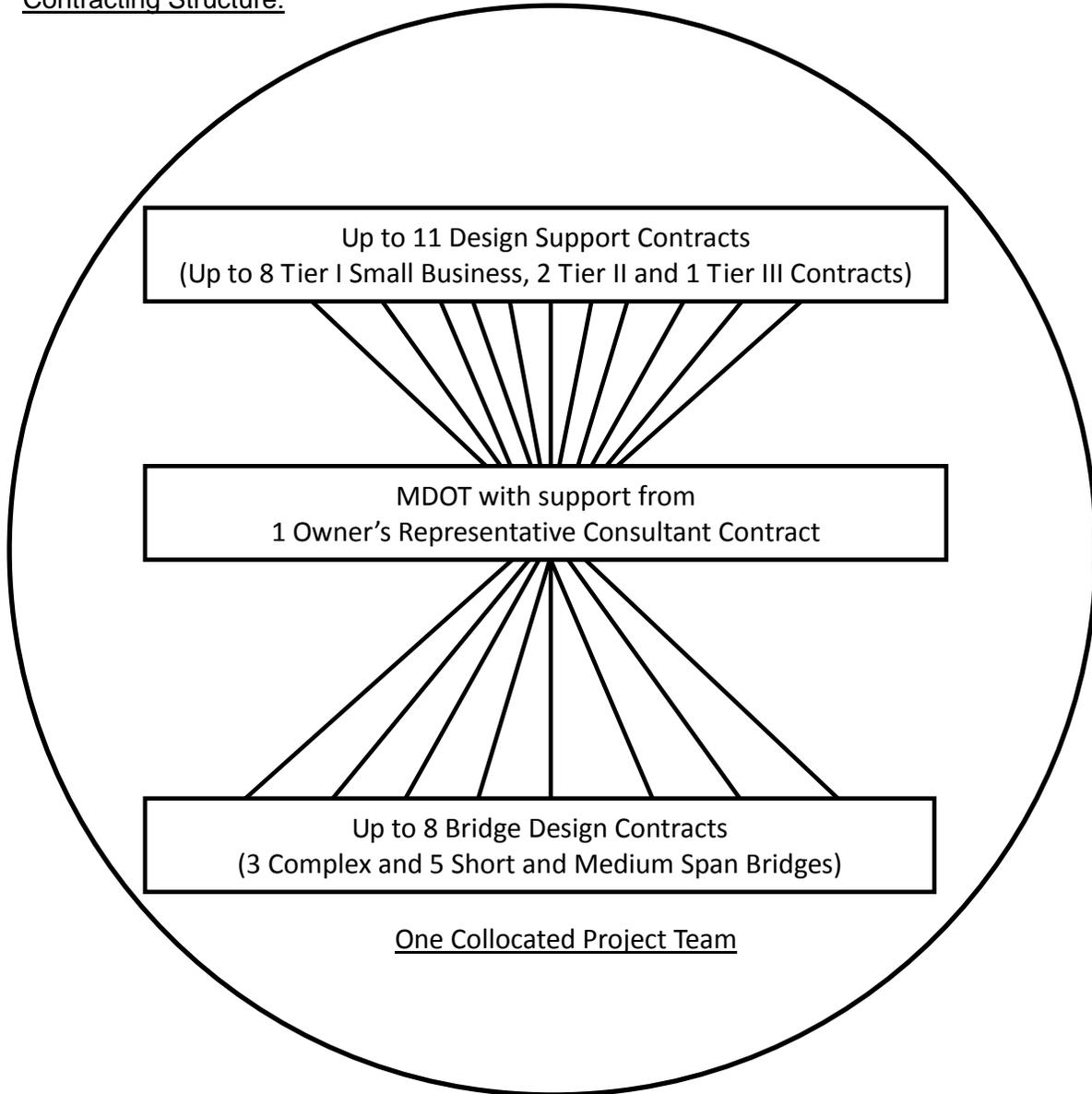
Note: MDOT/Owner’s Rep responsibilities include small business mentoring & training, project office mobilization, utility coordination/investigation, public involvement, accelerated bridge construction (ABC), project controls, corridor wide aesthetics, traffic analysis, safety studies, design surveys and Right-of-Way acquisition.

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To foster team collaboration, continuous communications, improved productivity, as well as, minimize contract coordination risk, train and mentor emerging small businesses and provide easy access for stakeholders, a project office will be utilized to co-locate MDOT, the Owner's Rep, and final designers. See the contracting structure below for details.

Contracting Structure:



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Design Services Goals for Small Business Engagement:

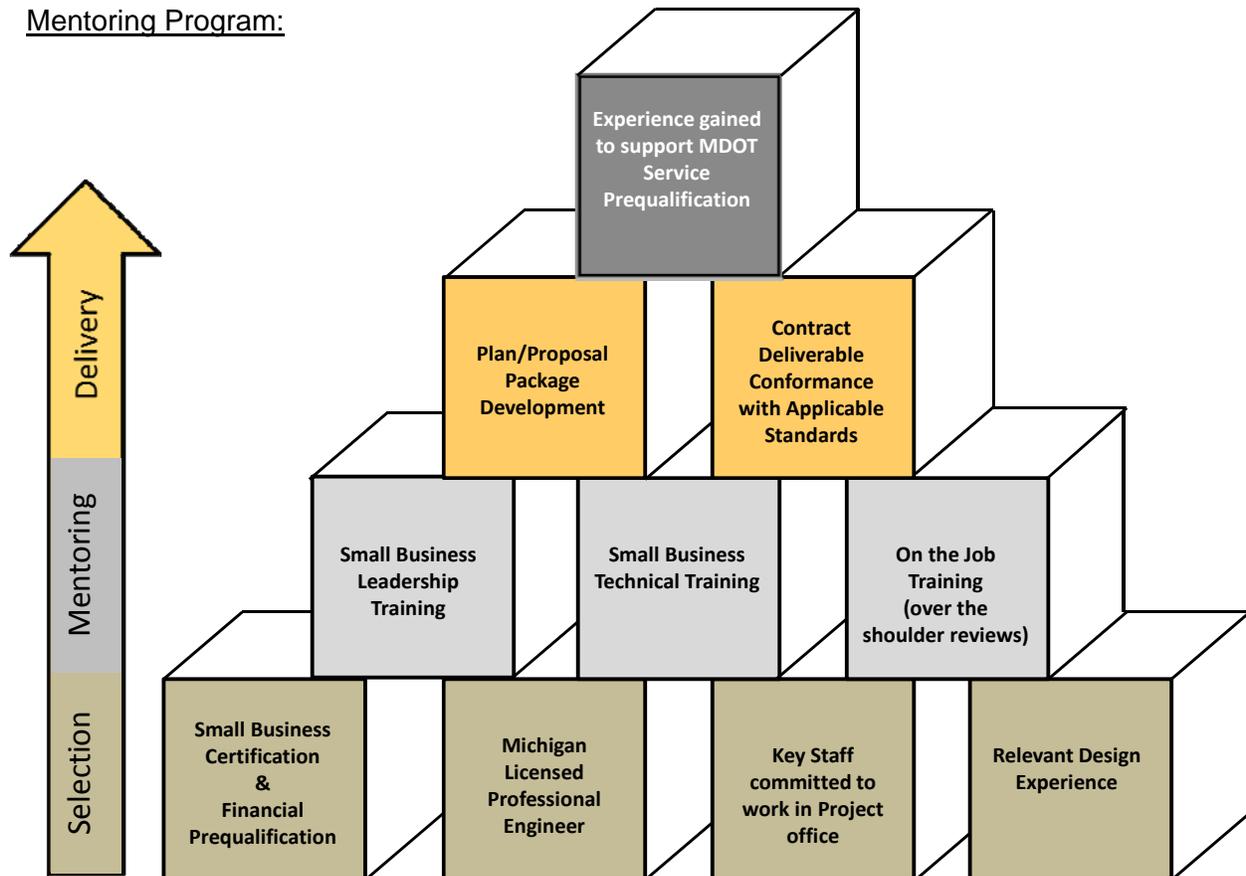
1. The aspirational goal for the I-94 Advanced Bridges is to have small businesses complete more than 20% of the design services.
2. MDOT's Owner's Rep will create a mentoring program for each small business. The mentoring program will consist of:
 - a. Technical Training/Mentoring (Technical Staff)
 - i. A personalized training and professional development plan will be developed for each small business employee. The plan will identify on the job training objectives, as well as, joint MDOT/ACEC training opportunities and other external technical training programs. The small business CEO or other designee will be encouraged to participate in the development and tracking of this professional development plan.
 - ii. One-on-one project specific technical training sessions.
 - iii. Regular Over-the-shoulder reviews to verify compliance with project requirements, monitor progress, and use of industry best practices.
 - iv. Group training on design best practices including MDOT's P/PMS Task network, ProjectWise, Microstation V8i, plan production, interdisciplinary coordination, document control, CPM scheduling, QA/QC & constructability, special provisions, quantity take-offs, engineers cost estimates and design assistance during construction.
 - b. Small Business Leadership Training (CEO and Senior Leaders)
 - i. Leadership development training will provide opportunities for participants to build upon their personal leadership abilities as well as the leadership abilities of their employees.
 - ii. Marketing & sales training will focus on sharing proven business development, marketing and sales techniques that will equip small business leaders with tools to identify contracting opportunities early, develop teaming strategies and develop plans to pursue and win engineering contracts.
 - iii. Operational training will focus on sharing tools and practices with senior practitioners to assist them in tracking project performance and leading project teams in the delivery of successful projects.
 - iv. Coaching on business & financial management will focus on accounting/financial controls, contracting, business budgeting, cash management, financing and strategic planning to define the road map for business growth and sustainability over a 3 to 5 year horizon.
 - v. Sharing of human resource management best practices that will include procedures and processes that comply with State/Federal requirements, recruiting & retaining talent, professional codes and employees expectations.
3. Non-prequalified firms and their lead designers who must be Michigan licensed professional engineers will gain the required experience to apply toward prequalification in specific categories with the successful completion of their contracts.
 - a. MDOT's Owner's Rep will meet with the MDOT Prequalification Team and define a road map and expectations for applying project experience toward prequalification of categories through this program.

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- 4. Prequalified firms will be eligible to apply their experience toward prequalification for additional and new categories.
 - a. MDOT’s Owner’s Rep will meet with the MDOT Prequalification Team and define a road map and expectations for applying project experience toward prequalification of new categories through this program. See mentoring program exhibit below.

Mentoring Program:



Developing a Collaborative Design Environment to Maximize Effectiveness:

Use of a project office will optimize the training & mentoring opportunities for the non-prequalified small businesses engaged in this program. With the proposed project office to support the I-94 Advanced Bridges design program, it is recommended that the bridge design RFPs stipulate a minimum of one key staff for each prime consultant spend 60% of their time while working on the project in the project office. The Owner’s Rep will provide full-time staff in the project office, together with MDOT staff as needed to oversee project coordination, small business training and prequalification programs and other critical services. For the non-prequalified small businesses it is recommended up to 100% of a key staff participants’ time be spent in the project office while working on the project to establish a partnering atmosphere. This environment will provide non-prequalified small businesses a collaborative work environment with experienced professionals to accelerate their learning curve and streamline contract coordination minimizing the need for rework or schedule delays.

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Anticipated Design Procurement Schedule:

Industry Forums – February 4th, 2015 and March 5th, 2015

Advanced Bridge Design RFPs (Bridge & Design Support) issued – May 2015

Advanced Bridge Design proposal responses (Bridge & Design Support) due – June 2015

Advanced Bridge Design selection (Bridge & Design Support) – June 2015*

Advanced Bridge Design scope Verification Meeting (PPMS 3100) – June/July 2015**

Advanced Bridge Design contracts executed – August 2015***

Open Project Office – August 2015

Notes:

*MDOT notification of the selected Bridge Design consultant teams will include additional direction on the services to be provided by the Design Support consultants.

**All Advanced Bridge Design consultant team members (Bridge & Design Support) will participate in the I-94 Advanced Bridges scope verification meeting and a design partnership workshop to develop an I-94 Project Partnering Agreement signed by all project participants.

***Advanced Bridge Design contracts may include up to 8 Bridge Design consultant prime contracts and up to 11 Design Support consultant prime contracts.