



Michigan Department of Transportation

**SCOPE OF SERVICE
FOR
SPECIALTY SERVICES
Induction Lighting Installation and Demonstration
Best Value Selection**

Revised 5/4/2011 (Removed milestone/deliverable task bid sheet)

CONTROL SECTION: 82022

JOB NUMBER: N/A

PROJECT LOCATION:

This project is located along I-94 between Merriman Road and Middlebelt Road including the entrance and exit ramps at both the Merriman and Middlebelt interchanges, in the city of Romulus, Wayne County, Michigan.

PROJECT DESCRIPTION:

As described in more detail below, the Michigan Department of Transportation (MDOT) will accept proposals to remove and salvage the existing High Pressure Sodium (HPS) luminaries and replace with new induction luminaries on the existing lighting poles for the purpose of demonstrating energy efficiency measures associated with induction lighting systems.

Those submitting proposals must demonstrate:

- (i) experience and capacity to install lighting retrofits;
- (ii) the ability to address testing considerations;
- (iii) the ability to develop a maintenance of traffic plan.

Each proposal must be in the format and include all the elements addressed under “Work Specifications” of this RFP.

The grant amount is not to exceed \$200,000.

ANTICIPATED SERVICE START DATE: June 1, 2011

ANTICIPATED SERVICE COMPLETION DATE: September 30, 2011

PRIMARY PREQUALIFICATION CLASSIFICATION(S): N/A

SECONDARY PREQUALIFICATION CLASSIFICATION(S): N/A

DBE REQUIREMENT: N/A

MDOT PROJECT MANAGER:

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GENERAL INFORMATION

The Michigan Department of Transportation (MDOT) is committed to exploring ways of reducing our overall energy costs to the greatest extent possible. Through issuance of this Request for Proposals (RFP) MDOT is seeking proposals to retrofit existing lighting poles with new induction luminaires. The goals of this project are to:

- Reduce the overall energy costs and increase energy efficiency for the purpose of powering the freeway lighting system.
- Reduce the impacts of energy production and use on the environment
- Provide a public demonstration of induction lighting technology.

Issuing Office

This Request for Proposal (RFP) is issued by the MDOT. Oversight and project management will be performed by the project manager. ARRA reporting for this project will be coordinated by the project manager through the Office of Operations Administrative Services, Facility Administration and Operations.

Terminology

Project Engineer

The Department's authorized representative for the Induction Lighting Project who will direct the vendor.

Objective of the Proposal

To secure a qualified vendor that can procure, install, and test the induction lighting luminaires. The selected vendor must be experienced in all areas needed to accomplish this work. The state is seeking the installation of a commercially available proven technology as described herein.

Incurring Costs

MDOT is not liable for any cost incurred by the vendor prior to issuance of a contract, including costs for preparation of the proposal.

Prime Vendor Responsibilities

The selected vendor will be required to assume responsibility for all services required in this proposal. Primary responsibilities include, but are not limited to, the procurement, installation and testing of the induction lighting luminaires identified above and according to the specifications outlined herein.

If any part of the work is subcontracted, the vendor must provide a complete description of the work to be subcontracted and descriptive information about the subcontractor's organization and capabilities to perform the work. The vendor is responsible for adherence of the subcontractor(s) to all provisions of the contract.

Qualifications

The proposing vendor must have experienced personnel and/or past performance of work similar in nature. The vendor must demonstrate, at a minimum, the ability to maintain sufficient staff resources to operate and maintain the services required of this project. A list of all key staff and their roles shall be provided, as well as key staff for any subcontractor(s) being used by the vendor.

The vendor must maintain liability insurance coverage for protection of the vendor and MDOT and its state partners, against loss or damage to any and all equipment and from claims for damage to public or private property and any and all claims for injuries to persons which may arise out of or result from the installation, removal, use, operation, and/or malfunction of the equipment or lighting. Documentation of the required insurance coverage and limits of liability for the facility, systems, and services shall be provided to MDOT as described in Section II of this RFP.

The vendor must procure and install the equipment of this project to meet all federal, state, and manufacturer requirements.

Non-Performance Penalty

Failure to comply with the contract document shall be grounds for breach of contract and will result in contract termination upon 30 days of written notice.

SELECTION CRITERIA

A team of MDOT staff and representatives will be used to evaluate responses to the RFP based upon the following factors as presented in the vendor's proposal. All proposals will receive an initial screening to ensure that the eligibility criteria are met. Oral interviews may be requested during the selection process. These are listed in order of importance and a scoring factor has been provided for each category, with a total of 100 points possible.

Project Cost (25 pts.)

- Total project cost to procure, install, and test the induction luminaires, which includes the costs of salvaging the existing HPS luminaires and providing the necessary maintenance of traffic needed to perform the retrofits.

Past Performance/Experience in Providing Freeway Lighting Service (25 pts.)

- Records of past performance including such things as quality of work, ability to meet deadlines/schedules, and ability to develop and deliver a quality product.
- List a minimum of three (3) references including names, addresses, phone numbers, and email addresses.
- Capability and qualification of key individuals including previous work on similar projects, technical expertise, education and training.
- Describe roles for key personnel and sub-vendors
- Provide information on what applications the induction luminaires have been used in the past and whether they have been installed on a large scale basis.

Understanding of the Project Needs (25 pts.)

- Describe understanding of the project needs, innovation and/or product to be proposed.
- Ability to demonstrate a viable plan for the procurement, installation, and testing of the induction lighting retrofits. This must also include a maintenance of traffic concept. A final plan for maintenance of traffic

will be submitted to and approved by the Project Manager once the contract is approved and prior to the start of work.

- Provide a schedule outlining the proposed work plan and milestone dates.
- Provide a quality assurance plan

Location (20 pts.)

- Vendors, manufacturers, and contractors with a business presence in Michigan will receive the maximum points. Fewer points will be awarded to vendors, manufacturers, and contractors with a business presence in the United States, followed by those located outside of the United States.
- The vendor is required to provide the location of where the luminaire components are produced and assembled, as well as where the design work will be performed, and the location of the contractor that will install the system.

Demonstration, Education, and Information Plan (5 pts.)

- Plan/design for on-site display that identifies the ARRA funding and the Department of Energy grant for this project. This may be a roadside sign that meets MMUTCD guidelines and is approved by the Project Engineer.

MDOT'S RESERVED RIGHTS

MDOT will award the contract to the most responsive vendor subject to final agreement on the scope of service and contract provisions.

MDOT may conduct an evaluation to ensure that the successful vendor has adequate facilities and staff to provide the proposed service. MDOT may also perform a compliance review regarding safety, installation, operations, and testing capabilities.

MDOT will also have final approval of the plans and specifications.

WORK SPECIFICATIONS

This work shall consist of furnishing the labor and equipment necessary to install new induction luminaries, remove and salvage the existing HPS luminaries and deliver these salvaged units to the MDOT Auburn Hills garage. There are (99) 250 watt lights at the Merriman Road interchange, (48) 250 watt lights at the Middlebelt Road interchange, and (68) 400 watt luminaires on 34 standards between the interchanges.

General Information:

- a) The vendor will submit a Project Schedule including starting and ending dates as well as major milestones such as equipment delivery, installation, completion, testing, etc.
- b) Any damage to the existing lighting, barrier wall, or roadway will be the responsibility of the contractor.

- c) To the extent possible, new and salvaged luminaires will be protected from the public in an effort to minimize the potential for vandalism.
- d) Work will be done with minimal disruption to the freeway lighting system and operations/use of the car pool lot. Construction and staging plans will require the approval of MDOT.
- e) Any necessary permits will be the responsibility of the contractor. Any and all work (including the placing of signage) performed within the Wayne County road right-of-way will require the Contractor to obtain a construction permit from the Wayne County Department of Public Services, Engineering Division – Permit Office.
- f) Induction luminaires to be used on the median barrier wall or on foundations in earth shall not exceed 400 watts of power and shall be capable of operating at either 240 or 480 volts. The induction shall have a color temperature of 5500K (+/- 500K) and shall be designed to operate at a temperature range of -40 to 40 degrees Celsius.
- g) The fixture shall be cast aluminum or Glass Filled Polycarbonate with UV and Impact Stabilizers built into the resin, silver in color, and shall be UL listed for wet locations. The fixture shall have a mounting arm of die cast aluminum that mounts directly to the pole.
- h) Photometric data shall be per IESNA-LM-79-80 and formatted per IESNA LM-63-02. Photometrics shall be tested and verified by third party independent lab. The photometric test lab should be recognized by the DOE as qualified to conduct photometric testing per LM-79-08. A cutoff light distribution and 1.96 scotopic multiplier shall be used to meet lighting criteria specified in the Lighting Criteria below.

Lighting Criteria:

The following lighting design criteria shall apply to all lighting applications:

Uniformity- The uniformity (Average/min foot candles) should not be greater than 4:1.

Average-Foot candles The average foot candles shall be not less than 1.0 foot candle.

1. **Luminaire, Ramp-** lighting design requirements for this application

Ramp Lighting For one lane on/off ramps

Spacing- Light poles are 180 feet apart

Mounting Height- The luminaire is 30 feet above the surface of the roadway.

	Width of ramp-	One lane, 16 feet wide
2.	<u>Luminaire, Barrier-</u>	lighting design requirements for this
application		
	Median Barrier lighting	Lights are located on top of the median barrier and illuminate both directions of the traveled freeway
	Spacing-	Light poles are 280 feet apart
	Mounting Height-	The luminaire is 45 feet above the surface of the roadway.
	Width of road-	3-12 foot lanes each direction or 36 feet one direction

Submittals/Acceptance:

- a) Identify which installation your calculations pertain too (Ramp, Median, or both). If doing more than one type of installation, provide a separate calculation for each.
- b) Proceed with calculations using the common lighting criteria from the General Information and the proper mounting height and spacing depending on the installation either Ramp or Median lighting.
- c) Use an approved lighting program to complete your calculations. MDOT prefers Visual.
- d) The submitted calculations shall clearly identify the fixture being submitted, the IES photometric file associated with the fixture, the mounting height, spacing and offset of the luminaire. The lumens and wattage the luminaire needs to operate at to meet the lighting requirements and the uniformity and average foot candles.
- e) All of the above information should be included on a single 11x17 inch paper along with isofootcandle plots showing the .25, .5, and 1 foot candle locations. This submittal shall be signed and sealed by a Licensed Professional Engineer along with written notification that this luminaire meets the design criteria specified above for either Ramp or Median lighting applications.
- f) If the fixture meets or exceeds the requirements as outlined in the Lighting Criteria above, the fixture will be considered a potential candidate for use on the MDOT freeway lighting system.
- g) If the luminaire is accepted and installed, light meter readings will be taken at the site to support the submitted photo-metric data. These readings will be completed by an independent agency and all costs associated with these tests/readings will be included in the contract price and will not be paid for separately. If it is shown that the lighting is below acceptable limits, the

lighting will be replaced with luminaires that will meet the criteria at the contractor's expense.

Maintenance of Traffic:

The Contractor shall submit a Maintenance of Traffic plan to the Project Engineer for review and approval two weeks prior to starting work.

Traffic shall be maintained by the Contractor in accordance with Sections 103.05, 103.06, and 812 of the Michigan Department of Transportation's 2003 Standard Specifications for Highway Construction.

The Contractor will notify the Project Engineer a minimum of five business days prior to the implementation of any lane closures.

The Contractor will coordinate this work with other contractors performing work within or adjacent to the Construction Influence Area (CIA) to avoid conflicts in the maintaining of traffic, construction signing, and to provide for the orderly progress of contract work.

MDOT maintenance crews and/or contract maintenance agencies may perform maintenance work within or adjacent to the CIA. The Maintenance Division of MDOT and/or the contract agency will coordinate their operations with the Project Engineer to minimize the interference to the Contractor. No additional payment will be made to the Contractor for the joint use of the traffic control devices.

The hours described in the following traffic restrictions may be modified or changed by the Project Engineer due to holiday's, special events, or traffic volumes.

No lane closures or work shall be performed during the Easter Holiday Weekend, Mother's Day, Father's Day, Memorial Day, Fourth of July, Labor Day, or other holiday periods as defined by the Project Engineer.

Storage of equipment or materials within the I-94 right-of-way when the Contractor is not actively working shall not be permitted during non-working hours.

All temporary traffic control signs shall be removed or laid down, with feet off, when the lane closure or restrictions are removed. Do not store temporary signs on shoulders or sidewalks.

Access for emergency vehicles shall be maintained at all times without exception.

The Contractor shall maintain traffic in accordance with the Traffic Typical and the notes contained therein, except as noted below. The anticipated MDOT Traffic Typical to be utilized include, but are not limited to, the following: M0020, M0080, M0880, M0950, M0960, and M0970.

A shoulder closure on I-94 and the collector distributor lanes may be utilized at any time while actively working.

A single lane closure on I-94 and the collector distributor may be used between the hours of 9:00 am to 2:00 pm Monday through Friday and on weekends while actively working.

Only one ramp may be closed at a time, and ramp closures will only be allowed on the weekends while actively working.

If the luminaire does not extend over the ramp lane, a shoulder closure may be utilized. A minimum 12 foot ramp lane width must be provided. A ramp shoulder closure may be utilized between the hours of 9:00 am to 2:00 pm Monday through Friday and on weekends while actively working.

PROPOSAL REQUIREMENTS

The following items must be included in the proposal:

Scope of Work

Description of Service

- a) Detailed description of the induction luminaires to be provided. Address all areas cited in the Work Specifications section of this RFP.
- b) Plan of action for the procurement, installation, and testing of the induction luminaires. This must also include a plan for maintenance of traffic. Address all areas cited in the Work Specifications section of this RFP.
- c) Describe the installation schedule and methods to be used to make sure all necessary installations are performed in a timely, quality, and efficient manner with minimal disruption to the motoring public.

Qualifications

Experience with Freeway Lighting

- a) Description of vendor's prior experience with procurement, and installation of freeway lighting luminaires. Provide samples of prior installation locations and reports.
- b) Identify persons in the organization that are authorized to install the luminaires in accordance with this contract.
- c) Identify who will perform the installations and testing, including prior experience and qualifications.
- d) Provide names and qualifications of staff assigned to this work. Include resumes for each of the staff identified, and note the day to day activities that each staff will perform.
- e) Indicate where the vendor's office of primary contact will be located and staffed for this project.

Insurance

- a) Commercial General Liability with the following minimum coverage: \$2,000,000 General Aggregate Limit other than Products/Completed Operations \$2,000,000 Products/Completed Operations Aggregate Limit; \$1,000,000 Personal & Advertising Injury Limit \$1,000,000 Each Occurrence Limit. The Vendor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents as ADDITIONAL INSURED on the Commercial General Liability certificate. The Vendor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.
- b) If a motor vehicle is used to provide services or products under this Contract, the Vendor must have vehicle liability insurance on any auto including owned, hired and non-owned vehicles used in Vendor's business for bodily injury and property damage as required by law. The Vendor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents as ADDITIONAL INSURED on the vehicle liability certificate. The Vendor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.
- c) Workers' compensation coverage must be provided in accordance with applicable laws governing the employees and employers work activities in the state of the Vendor's domicile. If the applicable coverage is provided by a self-insurer, proof must be provided of approved self-insured authority by the jurisdiction of domicile. For employees working outside of the state of qualification, Vendor must provide appropriate certificates of insurance proving mandated coverage levels for the jurisdictions where the employees' activities occur. Any certificates of insurance received must also provide a list of states where the coverage is applicable. The Vendor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company. This provision shall not be applicable where prohibited or limited by the laws of the jurisdiction in which the work is to be performed.
- d) Employers liability insurance

Other

- a) Overall System/Vendor performance may be conducted by MDOT to evaluate the feasibility and benefit of induction lighting.
- b) Additional information to be considered pertinent but not specifically requested in the RFP.

CONSULTANT PAYMENT:

Compensation for this project shall be on a **lump sum** basis. One lump sum payment will be made once the deliverable is received and approved by the MDOT Project Manager. The MDOT Project Manager may authorize partial payment if the project is delayed due to circumstances beyond the consultant's control.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing; payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services. Refer to your contract for your specific contract terms.

GENERAL ORGANIZATION INFORMATION

REQUIRED RESPONDENT INFORMATION

Please provide the following required respondent information. Failure to respond to each requirement may disqualify the respondent from further participation in this RFP.

RESPONDENT NAME AND ADDRESS: Provide name, address, principle place of business, telephone number of legal entity with whom the contract is to be written, and the web page address.

Name and Title:		
Address:		
City, State, Zip:		
Phone: ()		Facsimile: ()
Web Page:		

LOCATION ADDRESS

Address:	
City, State, Zip:	

ORGANIZATION AND YEAR:

Please provide the legal status and business structure (corporation, partnership, sole proprietorship, etc.) of the respondent and the year the entity was established.

Status:		Year:
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RFP CONTACT:

Please provide the following information of the respondent's RFP contact:

Name and Title:		
Address:		
City, State, Zip:		
Phone: ()		Facsimile: ()
Web Page:		

COST DERIVATION SHEET

All entries on this page must be handwritten in ink or computer generated.

This page provides for costs by payment category.

Priced Proposal Cost Derivations ([Guidelines](#)) will be required after selection.

Classification	Person Hours	Hourly Rate	Labor Cost
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TOTAL ESTIMATED LABOR: \$ _____

OVERHEAD: \$ _____
 (Total Labor Cost x _____ %)

Facilities Capital Cost of Money: \$ _____

ESTIMATED SUBCONSULTANTS: \$ _____

ESTIMATED DIRECT EXPENSES: \$ _____
 (Listed by item at estimated actual cost)

FIXED FEE: \$ _____
 (Total Estimated Labor + Overhead) x 00%

TOTAL BID PRICE: \$ _____

(This bid price should be the same amount as the total bid price on page 1 of 2 of this document.)

Consultant Name:	
Consultants Authorized Legal Signer:	
Consultant Address:	
Date:	

Note: MDOT reserves the right to reject any or all bids.