| Contrac Numbe | | H-18-274P | | | | | BID OPENING LOCATION: ARDOT Equipment and | | IAIL TO RDOT E | quipme | nt and | ArDO | /ER TO: T Equipment | |
|------------------|-----------------------------------|--|--------------|-------------|-----------------------|--|--|-----------------|---|-----------|-------------|---|-------------------------------|-----------|
| Bid Op | ening Date: | April 10, 20 |)18 | _Time: _] | 11:00 a.m. | Procurement Division 11302 West Baseline Road) a.m. Little Rock, AR 72209 | | oad P | Procurement Divisior P.O. Box 2261 Little Rock, AR 7220 | | | Procurement Divisio 11302 West Baselin Little Rock, AR 7220 | | ine Road |
| delivery | locations until | ing the commodities the above-noted bio propriate, or bids w | d opening | date and ti | ime, and then pub | licly opened at | the above-noted | bid opening | | | | | | |
| | pliance with this e each item. | Bid Invitation and se | ubject to al | I the Cond | itions thereof, the u | undersigned of | ers and agrees to | furnish any a | and all iter | ns upon | which prio | ces are | quoted, at the p | orice set |
| Comp | any Name: | | | | | Na | ame (Type or Pr | rint): | | | | | | |
| Addre | ss: | | | | | Tit | le: | | | | | | | |
| | | | | | | Pł | ione: | | | _Fax:_ | | | | |
| City: | | | State: | | Zip: | E- | mail Address: | | | | | | | |
| Federa | al Tax ID or So | cial Security No.:_ | | | | Sig | gnature: nature must be le signed bids will be | egible, origina | al (not ph | otocopied | l) and in i | nk. | | |
| | | | | Descri | ntion | | | Quant | tity II | nit l | Jnit Pric | ē | Amount | |

All or None bids <u>only</u> will be considered.

FOB: ARDOT - Arkansas Highway Police - Various Weigh Stations Statewide

Contact for Technical Information: Clyde Crookham (501-569-2683) Contacts for Bidding Information: Danny Keene (501-569-2674) or Chicita Pate (501-569-2675)

All bidders should complete and return the Eligible Bidder Certification (Attachment A), Disclosure Form (see Page 2 of Standard Bid Conditions – Item 18) and Restriction of Boycott of Israel Certification issued with this bid. A current copy of the DFA Illegal Immigrant Contractor Disclosure Certification (see Page 2 of Standard Bid Conditions - Item 17) should also be submitted with bid. These forms are kept on file and remain current for one year from date of submission. Forms do not need to be submitted again, during that time, unless there is a status change.

The Department is not obligated to purchase any specific quantity or make purchases at any specific time during the contract period. It is estimated that approximately eight (8) Message Signs will be purchased after initial award of contract with additional purchases during the contract period. Installation of initial order shall be completed on or before June 1, 2018.

The Bid Invitation, Bid Form and Specifications are parts of the contract and by this reference are incorporated herein as fully and effectively as if set forth in detail herein.

It shall be understood that by submission of bid that bidder agrees to the conditions herein specified and, if bid is found acceptable by the Department either in whole or in part, shall consider this bid a contract agreement bound under these conditions. The parties hereto agree that this contract in all things shall be governed by the Laws of the State of Arkansas. Should there be a conflict between conditions printed on Standard Bid Conditions and other conditions stated with Bid Information and Specifications, the latter shall prevail.

Bid Bond in the amount of \$1,000.00 required of all bidders at time of bid opening or bid will be rejected. Personal and company checks are not acceptable as Bid Bonds. See Condition 4 on page 1 of Standard Bid Conditions. Performance Bond in the amount of \$5,000.00 will be required of successful bidder prior to providing goods/services. Personal and company checks are not acceptable as Performance Bonds. See Condition 4 on page 1 of Standard Bid Conditions.

Bids and Specifications are available on-line by going to the ARDOT Web Site – <u>www.ardot.gov</u> and clicking on "Commodities and Services Bids/Contracts Information". Tabulations will also be available at this site after award of bid/contract. If you have any questions, call this office at 501-569-2667.

TOTAL BID

ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARKANSAS ARDOT - EQUIPMENT & PROCUREMENT DIVISION

| Contra | act No. H-18-274P BIDDER: | | |
|--------|---|------------|----------|
| ITEM | NO. DESCRIPTION | UNIT PRICE | |
| 1. | LED Blank Out Weigh Station Message Sign (complete Sign with subsidiaries but excluding labor for installation | n) \$ | Ea. |
| 2. | Installation (labor) for LED Blank Out Weigh Station Message Sigr | n \$ | Ea. |
| 3. | Warranty (minimum of three years) | \$ | Per Unit |

LUMP SUM _____

(Total for 1 complete unit consisting of 1 Message Sign, installation and warranty.)

Items must be priced individually but bid will be awarded by the Lump Sum.

ARKANSAS STATE HIGHWAY COMMISSION

ARDOT - STANDARD BID CONDITIONS

- 1. **GENERAL:** Any special terms and conditions included in the invitation for bid override these standard terms and conditions. The standard terms and conditions and any special terms and conditions become part of any contract entered into if any or all parts of the bid are accepted by the Arkansas Department of Transportation (ARDOT).
- 2. ACCEPTANCE AND REJECTION: ARDOT reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.
- 3. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.
- BID BONDS AND PERFORMANCE BONDS: If required, a Bid Bond in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. Personal and company checks are not acceptable as Bid Bonds. Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by ARDOT or fails to honor their bid. When a bidder claims and can show clear and convincing evidence that a material mistake was made in the bid and was not the bid intended, the bidder may be permitted to withdraw their bid prior to award without forfeiture of bid bond. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a Performance Bond in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. Personal and company checks are not acceptable as Performance Bonds. In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company that is authorized to do business in the State of Arkansas and that is listed on the current United States Department of the Treasury Listing of Approved Sureties. Surety bonds must be executed by a resident or non-resident agent who is licensed by the Arkansas State Insurance Commissioner to represent the surety company executing the bond, and the resident or non-resident agent shall file with the bond the power of attorney of the agent to act on behalf of the bonding company. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). These bonds shall not only serve to guarantee the completion of the work, but also to guarantee the excellence of both workmanship and material until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions fulfilled. In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U.S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.
- 5. TAXES: The ARDOT is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the ARDOT as an addition thereto, and should be added to the billing to the ARDOT. The ARDOT is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the ARDOT.
- 6. "ALL OR NONE" BIDS: Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.
- 7. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.
- 8. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.
- 9. BRAND NAME REFERENCES: All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.
- 10. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.

- 11. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of ARDOT request, and free demonstrations within 30 days, unless ARDOT extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by ARDOT. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.
- 12. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.
- 13. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the ARDOT, as soon as possible, of the reason for any delay and the expected delivery date. The ARDOT has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
- 14. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by ARDOT after delivery. Default in promised delivery or failure to meet specifications authorizes the ARDOT to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.
- 15. ETHICS: "It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business." (Arkansas Code, Annotated, Section 19-11-708).
- 16. NOTICE OF NONDISCRIMINATION: The Arkansas State Highway Commission, through ARDOT, complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, ARDOT does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in the ARDOT's programs and activities, as well as the ARDOT's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the ARDOT's nondiscrimination policies may be directed to Joanna P. McFadden Section Head EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501)569-2298, (Voice/TTY 711), or the following email address: joanna.mcfadden@ahtd.ar.gov. Free language assistance for Limited English Proficient individuals is available upon request. This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.
- 17. **PROHIBITION OF EMPLOYMENT OF ILLEGAL IMMIGRANTS:** Pursuant to Arkansas Code Annotated 19-11-105, all bidders must certify prior to award of a contract that they <u>do not</u> employ or contract with any illegal immigrant(s) in its contract with the state. Bidders shall certify online at <u>https://www.ark.org/dfa/immigrant/index.php</u>.
- 18. **DISCLOSURE:** Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that order, **shall** be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy **shall** be subject to all legal remedies available to the agency.

ATTACHMENT A

ELIGIBLE BIDDER CERTIFICATION

The Bidder represents and warrants for itself, its employees and its subcontractors and certifies they:

- 1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- 2. Have not within a three-year period preceding thus Bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- 3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph two (2) of this Certification:
- 4. Have not within a one-year period preceding this application/Bid had one or more public transactions (Federal, State, or local) terminated for cause or default; and

The Bidder represents, warrants and acknowledges the understanding that restrictions placed on the employment of labor or on the scale of pay for the work on a contract will be the requirements of the Fair Labor Standards Act (Federal Wage-Hour Law) of 1938, 28 USC §201 et seq., and other applicable labor laws.

The person executing this Certification further represents, warrants and affirms the truthfulness and accuracy of the contents of the statements submitted on or with this Certification and understands that the provisions of 31 USC §3801 et seq. are applicable thereto.

BIDDER NAME

BY:______Signature

TITLE:_____

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

| UBCONTRACTOR: S | UBCONTRACT | OR NAME: | | | | | |
|---|------------|----------|--|---------------|-------------|---|---------------------|
| | | | IS THIS FOR: | | | | |
| AXPAYER ID NAME: | | | □ Goods? □ | Services? | □ Both? | | |
| DUR LAST NAME: | | | FIRST NAME: | | | M.I.: | |
| DDRESS: | | | | | | | |
| ITY: | | | STATE: | | ZIP CODE: | COUNTY: | |
| dicate below if: you, your ommission Member, or St | • | vee: | er, sister, parent, or child of you o | r your spou | | ormer: member of the General Assembly, Constitutional Of What is the person(s) name and how are they related | to you? |
| Position Held | Current | Former | (senator, representative, name of board/ commission, data entry, etc.) | From MM/YY | To MM/YY | (i.e., Jane Q. Public, spouse, John Q. Public, Jr., child Person's Name(s) | , etc.) Relation |
| General Assembly | | | | | , | | |
| Constitutional Officer | | | | | | | |
| State Board or Commission Member | | | | | | | |
| State Employee | | | | | | | |
| □ None of the abo | ve appli | es | | | | | |
| | | | FOR | AN EN | ITITY (BUS | INESS)* | |

Indicate below If any of the following persons, current or former, hold any position of control or hold any ownership interest of 10% or greater in the entity: member of the General Assembly, Constitutional Officer, State Board or Commission Member, State Employee, or the spouse, brother, sister, parent, or child of a member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee. Position of control means the power to direct the purchasing policies or influence the management of the entity.

| Position Held | Mark | <(✓) | Name of Position of Job Held | For Hov | v Long? | g? What is the person(s) name and what is his/her % of ownership interest an what is his/her position of control? | | |
|------------------------|---------|--------|--|------------------|---------|---|------------------------|--|
| r osition ricit | Current | Former | (senator, representative, name of board/ commission, data entry, etc.) | Person's Name(s) | | Ownership Interest (%) | Position of Control | |
| General Assembly | | | | | | | | |
| Constitutional Officer | | | | | | | | |
| State Board or | | | | | | | | |
| Commission Member | | | | | | | | |
| State Employee | | | | | | | | |

Over a borner of the above applies

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

- 1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.
- 2. I will include the following language as a part of any agreement with a subcontractor:

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.

3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

| Signature | | Title | | Date |
|-------------------------------------|----------------|--------------------------|----------------------|--------------------------|
| Vendor Contact Pe | erson | Title | | Phone No |
| Agency Use Only Agency Number | Agency Name | Agency Contact Person | Contact Phone No. | Contract or Grant No. |

RESTRICTION OF BOYCOTT OF ISRAEL CERTIFICATION

Pursuant to Arkansas Code Annotated § 25-1-503, a public entity **shall not** enter into a contract valued at \$1,000 or greater with a company unless the contract includes a written certification that the person or company is not currently engaged in, and agrees for the duration of the contract not to engage in, a boycott of Israel.

By signing below, the Contractor agrees and certifies that they do not boycott Israel and will not boycott Israel during the remaining aggregate term of the contract.

If a company does boycott Israel, see Arkansas Code Annotated § 25-1-503.

| Bid Number/Contract Number | |
|-----------------------------------|--|
| Description of product or service | |
| Contractor name | |

| Contractor Signature: | Date: |
|--|-------|
| Signature must be hand written, in ink | |

1. General Notes

a. Model:

The units furnished under this specification shall be the latest improved model in current production, as offered to commercial trade, built for the US market, and shall be of quality workmanship and material. Machines manufactured for foreign markets will not be accepted. All equipment offered under this specification shall be new. Used, reconditioned, shopworn, demonstrator, prototype or discontinued models are not acceptable.

b. Delivery, Installation and Operation:

It is the responsibility of the successful bidder to guarantee delivery of the Overhead LED Blank Out Weigh Station Message Sign as specified before the date of 06/01/18 to the designated location(s) determined by the Highway Police Division. The Arkansas Department of Transportation will not accept incomplete or late deliveries.

It is the responsibility of the successful bidder to guarantee installation of all LED Blank Out Weigh Station Message Signs and all associated parts and components within 8 weeks of the delivery date.

It is the responsibility of the successful bidder to guarantee full functionality and operation of all LED Blank Out Weigh Station Message Sign and all associated parts and components within 8 weeks of the delivery date.

c. Manufacturer Requirements:

The manufacturer shall have a minimum of 5 years of experience with the design, development, manufacturing, installation, testing, operation and maintenance of LED Blank Out Weigh Station Message Sign for the transportation market. The manufacturer shall regularly and currently produce LED Blank Out Weigh Station Message Signs. Experiences with manufacturing other types of electronic sign products will not satisfy the requirements of this LED Blank Out Weigh Station Message Sign specification.

d. Customer Service:

The LED Blank Out Weigh Station Message Sign manufacturer must have a customer service department that provides technical support and services for the manufacturer's LED Blank Out Weigh Station Message Sign systems. The manufacturer's customer service department shall be available via telephone, e-mail, and fax during business hours Monday-Friday. Third party call centers do not meet this requirement. The manufacturer must also offer bench level repair services for failed components and stocking of most parts for replacement. The manufacturer must maintain an online record of service requests and the actions taken to address and resolve the service

issues. The manufacturer must include a description of its available customer support services in the pre-build technical submittal.

e. Product Testing:

It is the contractor responsibility to test the LED Blank Out Weigh Station Message Sign with the existing control console system and ensure correct functionality and operation of the message board. Failure to meet this requirement will result in rejection of the product. The Arkansas Department of Transportation will not accept, pay or reimburse for any rejected product and/or shipment charges.

2. Description

This item consists of furnishing and installing "LED Blank Out Weigh Station Message Sign" of the type and size called for in this bid specification at the locations provided by the department and shall conform to the following specifications. The message sign shall be in accordance with the <u>Manual on Uniform Traffic Control Devices (MUTCD)</u> and <u>Federal Standard Highway Sign</u> <u>Handbook</u>.

The message sign shall use overlapping double-stroke 8" characters on 96" x 54" black composite plate and shall display the following messages when power is applied to the numbered sign terminal:

- 1) "GO" in green LEDs
- 2) "STOP" in red LEDs
- 3) "Pull Over" and Arrow in white LEDs
- 4) "BRING PAPERS" in white LEDs
- 5) "COME INSIDE" in white LED

The LEDs shall be used to illuminate the image and directly mounted to a flat black powder coated aluminum plate, covered with a polycarbonate protective lens, and housed in a hinged 8" deep cabinet with 7" visors. The display of the sign message shall be configured so that no latent image is visible under any lighting condition. The message sign shall use progressive dimming to be regulated by photo sensors incorporated into the face plate. The message sign shall use opto-coupler isolated inputs to turn on messages and remotely activate remote dimming and flashing if required.

3. Materials

a. LEDs

The LEDs colors shall be as specified above in the description section of this Special Provision for each message. The LEDs shall have less than 25% luminous intensity degradation over 100,000 hours (11 years) when operated at a non-pulsed 20ma level

and over 50,000 hours (5.5 years) for white LEDs. The LEDs shall meet or exceed the following luminous intensity;

| Color | Dominant Wavelength | Min. Lum. Int. @20ma | Max. Lum. Int. @20ma | Viewing angle |
|-------|------------------------|-------------------------|-------------------------|---------------|
| White | x=0.31, y=0.31 | 4900 mcd | 8600 mcd | 30 degrees |
| Green | 520 nm | 4600 mcd | 9200 mcd | 30 degrees |
| Red | 626 nm | 4180 mcd | 8200 mcd | 30 degrees |

b. Electronics

The LED Circuitry shall consist of two main sub-circuits: the sign power control system and the LED power bus System.

The power control circuitry shall be supplied with 115 VAC. The incoming power and control leads shall be connected to a fanning block located on the frame of the cabinet. A loomed cable shall connect the fanning strip to the door mounted sign power control board. The power supply/control, all LEDs, and sensors are integrated on the sign face, and shall have the capability of being removed as a single unit for easy replacement. Protection components shall be built into the power control circuitry to guard the system against power surges and short circuits. The power supply shall maintain output voltage regulations of 15VDC over the input voltage 115VAC. The circuit shall have opto-coupler isolated inputs to provide control for LED functions such as dimming or flashing as required. Progressive dimming shall be regulated by an integrated photodiode sensor, which shall be installed in the sign face. The PWM output shall be used to regulate the brightness of the sign and adjusted proportionally to the changes in the ambient light conditions over time.

The LED power bus circuit shall be current limited and short circuit protected. If any one of the output channels is overloaded, clearing the fault shall return the unit to normal function with no damage to any components. The bus circuit shall have individual circuit strips that have a maximum of 12 LEDs per strip, with no more than 6 LEDs in series and every other LED on an alternate circuit. These individual circuit strips shall have the capability of being replaced without special tools or a soldering iron in the field and without removing the sign face. All components shall be integrated onto the sign face, and shall be designed to allow the sign face and all electronics to be replaced in one piece by removing not more than 10 screws.

All sub circuits shall be designed to allow the replacement of any bad circuit or supply/control by qualified technician without the use of soldering iron. The circuit boards shall be conformal coated to protect the individual devices and connections against moisture and corrosion.

c. Cabinet/Housing

The LED Blank Out Weigh Station Message Sign housing shall be constructed to have a neat, professional appearance. The cabinet shall be 99" x 57" and 8" deep (to allow enough room for components) with 7" visors. The final enclosure, side panels, visors and associated hardware shall be fabricated from aluminum or stainless steel. The main housing and doorframe shall be formed from 0.125" extruded aluminum with welded corners. The exterior aluminum enclosure, panels and visors shall have a black powder coated finish as well as the interior faceplates. The cabinet doors shall be mounted on the bottom side with a single continuous stainless steel hinge, equipped with a latching brace to hold the door open at 90 degrees for service and maintenance, and ¼ turn stainless steel link locks for closures. All components shall be easily and readily accessible by a single person for inspection and maintenance. All exterior openings, doorframe, slide in panels and polycarbonate lens shall have gasket or be sealed against water, dust and shall be designed to provide weatherproof protection for all interior components. The complete sign face and all electronics shall have the option of being replaced as a single component by removing the extruded doorframe channel endplate. To provide better image, a textured polycarbonate lens shall be used to protect the sign and image. Working/Shop drawings showing the sign housing and brackets shall be included in the technical submittals. All parts shall be made of corrosion resistant materials, such as plastic, stainless steel or aluminum. Painted steel is not acceptable. No self-tapping screws shall be used.

d. Power

The LED Blank Out Weigh Station Message Sign shall be designed such as the input power and control to accept 120 VAC and shall have the rates for a maximum power consumption per message and the power per 100 LEDs as follow:

| Message | Color | 100 LEDs Power consumption | Max Power Consumption |
|---------------------|-------|----------------------------|--------------------------|
| GO | Green | 8 Watt | 100 W |
| STOP | Red | 4 Watt | 50 W |
| PULL OVER and ARROW | White | 8 Watt | 150 W |
| BRING PAPERS | White | 8 Watt | 150 W |
| COME INSIDE | White | 8 Watt | 150 W |

The existing system has a power cable that includes neutral, ground and 5 hot wires to provide 110V to the Message sign. The contractor shall use the existing power cable and system to connect to the circuitry of the sign and to the right terminals to activate the appropriate message when triggered by the existing IRD System/console system unit.

The contractor shall be required to supply, install and replace power cable with a new one if damaged. The message sign shall have all the required relays and protections equipment to activate the messages and protect all components against any surges.

4. Manufacturer's Warranty

The complete assembly and its components shall be warranted by the supplier for all materials and parts for a period of not less than **three (3) years** from the date that the assembly is placed into service. Any failure parts or components shall include replacement at no additional cost (including materials and shipping). The contractor shall provide a written manufacturer's guarantee to the Highway Police Division of ARDOT.

5. Construction methods

LED Blank Out Weigh Station Message Sign shall be bottom mounted to the existing I-beam structures and bolts (two, I-beam structure for each sign). The supplier shall match the existing infrastructure. External retrofit bracket can be used to accomplish mounting the sign from the bottom (at no additional cost to the Department). The contractor shall allow enough room for the power cable to go from the I-beam structure to the sign with no damage or exposure to the wire. The contractor shall be accountable for replacing the existing wires in case of any incidentals to the wire.

The contractor shall choose one of the two options for the sign structure:

Option 1: Use the existing I-beam structure and foundation to mount the new LED Blank Out Weigh Station Message Sign. The two I-beam structures are approximately 91" high and approximately 45"-50" apart.

Option 2: Remove the existing structure and foundation to install a new structure, foundation, conduit and conductor to match the existing size, height and angle with full compliance to the MUTCD, Standard Specification for Highway Construction and LRFD specifications for Structural Support for Highway Signs, Luminaires, and Traffic Signals. The new structure shall be breakaway type. This option will require PE stamps on submittals. Also, if option 2 is selected by the contractor, the contractor will be allowed to use a sign that mounts from the back as long as all the specifications in this Special Provision are met (such as easy access to the component for maintenance and service. Same Height, functionality,...etc.). It shall be the contractor's responsibility to locate all utilities prior to start any work for this Option 2.

All work, materials, incidentals, labor, parts, components and other requirement shall be subsidiary to the LED Blank Out Weigh Station Message Sign and this special provision.

The contractor shall be responsible for removing the existing message sign before installing the new LED Blank Out Weigh Station Message Sign. The contractor shall deliver, at no additional cost, the existing (old) message sign or signs and any other associated equipment and salvage items to a designated location determined by the Highway Police Division.

LED Blank Out Weigh Station Message Sign will be measured by the unit. Work completed, accepted and measured as provided above, will be paid for at the contract unit price bid for LED Blank Out Weigh Station Message Sign. This price shall be the full compensation for furnishing and installing all materials, fittings, brackets, clamps, equipment, components, labor and incidentals necessary to complete the work for an operational system as required by this bid specification.