



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

General Information

Contact

Default Values

Discount

Document Information

Procurement Folder: 740516

Procurement Type: Central Master Agreement

Vendor ID: 000000227783



Legal Name: MID ATLANTIC MAINTENANCE INC

Alias/DBA:

Total Bid: \$235,125.00

Response Date: 08/12/2020



Response Time: 12:10

SO Doc Code: CRFQ

SO Dept: 0803

SO Doc ID: DOT2100000006

Published Date: 8/4/20

Close Date: 8/12/20

Close Time: 13:30

Status: Closed

Solicitation Description: ADDENDUM 2 FULL MATRIX
TRAILER MTD. SOLAR MESSAGE



Total of Header Attachments: 1

Total of All Attachments: 1



Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder : 740516

Solicitation Description : ADDENDUM 2 FULL MATRIX TRAILER MTD. SOLAR MESSAGE BOARD

Proc Type : Central Master Agreement

Date issued	Solicitation Closes	Solicitation Response	Version
	2020-08-12 13:30:00	SR 0803 ESR08122000000000874	1

VENDOR

000000227783

MID ATLANTIC MAINTENANCE INC

Solicitation Number: CRFQ 0803 DOT2100000006

Total Bid : \$235,125.00

Response Date: 2020-08-12

Response Time: 12:10:35

Comments:

FOR INFORMATION CONTACT THE BUYER

Crystal G Hustead
(304) 558-2402
crystal.g.hustead@wv.gov

Signature on File

FEIN #

DATE

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Full Matrix Trailer Mtd. Solar Powered Message Board	15.00000	EA	\$15,675.000000	\$235,125.00

Comm Code	Manufacturer	Specification	Model #
46161520			

Extended Description :	Full matrix trailer mounted solar powered message board
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Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Quotation
31 – Public Safety

Proc Folder: 740516

Doc Description: FULL MATRIX TRAILER MTD. SOLAR MESSAGE BOARD

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2020-07-20	2020-08-12 13:30:00	CRFQ 0803 DOT2100000006	1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

VENDOR

Vendor Name, Address and Telephone Number:

Mid Atlantic Maintenance, Inc

PO Box 3405

Parkersburg, WV 26103

1-304-346-5521

FOR INFORMATION CONTACT THE BUYER

Crystal G Hustead

(304) 558-2402

crystal.g.hustead@wv.gov

Signature X

FEIN #

80-0656610

DATE

8-12-2020

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

THE STATE OF WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS TO ESTABLISH AN OPEN-END CONTRACT FOR FULL MATRIX TRAILER MOUNTED SOLAR POWERED MESSAGE BOARDS PER THE ATTACHED DOCUMENTS.

QUESTIONS REGARDING THE SOLICITATION MUST BE SUBMITTED IN WRITING TO CRYSTAL.G.HUSTEAD@WV.GOV PRIOR TO THE QUESTION PERIOD DEADLINE CONTAINED IN THE INSTRUCTIONS TO VENDORS SUBMITTING BIDS

INVOICE TO	SHIP TO
DIVISION OF HIGHWAYS EQUIPMENT DIVISION RT 33 83 BRUSHY ROAD CROSSING, PO BOX 610 BUCKHANNON WV26201 US	DIVISION OF HIGHWAYS EQUIPMENT DIVISION 83 BRUSHY FORK RD CROSSING BUCKHANNON WV 26201 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Full Matrix Trailer Mtd. Solar Powered Message Board	15.00000	EA		

Comm Code	Manufacturer	Specification	Model #
46161520			

Extended Description :

Full matrix trailer mounted solar powered message board

SCHEDULE OF EVENTS

Line	Event	Event Date
1	MANDATORY PRE-BID MEETING	2020-07-28
2	VENDOR QUESTION DEADLINE	2020-07-31

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

☐ A pre-bid meeting will not be held prior to bid opening

☒ A **MANDATORY PRE-BID** meeting will be held at the following place and time:

Date and Time: July 28, 2020 at 11:00 AM

Location:

WV DOH Equipment Division Conference Room
83 Brushy Fork Road Crossing
Buckhannon, WV 26201

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting
Revised 01/09/2020

are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: July 31, 2020 at 10:00 AM

Submit Questions to: Crystal Hustead

2019 Washington Street, East

Charleston, WV 25305

Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)

Email: Crystal.G.Hustead@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:

Department of Administration, Purchasing Division

2019 Washington Street East

Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID:

BUYER: Crystal Hustead

SOLICITATION NO.: CRFQ DOT2100000006

BID OPENING DATE: August 12, 2020

BID OPENING TIME: 1:30 PM

FAX NUMBER: 304-558-3970

Revised 01/09/2020

The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression or Interest or Request for Proposal is not permitted in wvOASIS.

For Request For Proposal ("RFP") Responses Only: In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus n/a convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: (This only applies to CRFP)

☐ Technical

☐ Cost

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: August 12, 2020 at 1:30 PM

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATE MODEL OR BRAND: Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the

equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

☐ This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at:

<http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

15A. RECIPROCAL PREFERENCE: The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: <http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or

minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

22. INTERESTED PARTY DISCLOSURE: West Virginia Code § 6D-1-2 requires that the vendor submit to the Purchasing Division a disclosure of interested parties to the contract for all contracts with an actual or estimated value of at least \$1 Million. That disclosure must occur on the form prescribed and approved by the WV Ethics Commission prior to contract award. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

23. WITH THE BID REQUIREMENTS: In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.

GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

☒ **Term Contract**

Initial Contract Term: This Contract becomes effective on
Award _____ and extends for a period of One (1) year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to Three (3) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

☐ **Alternate Renewal Term** – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

☐ **Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

☐ **Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for _____ year(s) thereafter.

☐ **One Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

☐ **Other:** See attached.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

☒ **Open End Contract:** Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

☐ **Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

☐ **Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

☐ **One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

☐ **BID BOND (Construction Only):** Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

☐ **PERFORMANCE BOND:** The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract. The performance bond must be received by the Purchasing Division prior to Contract award.

☐ **LABOR/MATERIAL PAYMENT BOND:** The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.

☐ **MAINTENANCE BOND:** The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

☐ **LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

☐

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☐

☐

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:

☒ **Commercial General Liability Insurance** in at least an amount of: \$1,000,000.00-See Below per occurrence.

☒ **Automobile Liability Insurance** in at least an amount of: \$1,000,000.00 per occurrence.

☐ **Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: _____ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

☐ **Commercial Crime and Third Party Fidelity Insurance** in an amount of: _____ per occurrence.

☐ **Cyber Liability Insurance** in an amount of: _____ per occurrence.

☐ **Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

☐ **Pollution Insurance** in an amount of: _____ per occurrence.

☐ **Aircraft Liability** in an amount of: _____ per occurrence.

☒ ***Please make insurance certificate to read as follows:
State of WV, 1900 Kanawha Blvd E, Bldg 5, Charleston, WV 25305

☒ ***State of WV must be listed as additional insured.

☐

☐

Notwithstanding anything contained in this section to the contrary, the Director of the Purchasing Division reserves the right to waive the requirement that the State be named as an additional insured on one or more of the Vendor's insurance policies if the Director finds that doing so is in the State's best interest.

9. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. [Reserved]

11. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

☐ _____ for _____

☐ Liquidated Damages Contained in the Specifications

12. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

13. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

14. PAYMENT IN ARREARS: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

15. PAYMENT METHODS: Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

18. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

19. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

20. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.

21. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

22. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

23. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

24. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

25. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

26. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

27. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

28. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

29. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

30. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

31. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

32. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

33. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

34. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

35. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

36. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

37. PURCHASING AFFIDAVIT: In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State, Vendors are required to sign, notarize, and submit the Purchasing Affidavit to the Purchasing Division affirming under oath that it is not in default on any monetary obligation owed to the state or a political subdivision of the state.

38. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE: This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"), provided that both the Other Government Entity and the Vendor agree. Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

39. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

40. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

☒ Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

☐ Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

41. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Revised 01/09/2020

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

42. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
- c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

43. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a

“substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

44. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the vendor must submit to the Agency a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-award interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

45. PROHIBITION AGAINST USED OR REFURBISHED: Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Cameron Morrison Division Manager
(Name, Title)
Cameron Morrison, Division Manager
(Printed Name and Title)
PO Box 3405 Parkersburg WV 26103
(Address)
304-346-5521 / 304-346-5554
(Phone Number) / (Fax Number)
cmorrison@midatlantica.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Mid Atlantic Maintenance, Inc
(Company)

Cameron Morrison Cameron Morrison Division Manager
(Authorized Signature) (Representative Name, Title)

Cameron Morrison, Division Manager
(Printed Name and Title of Authorized Representative)

8-12-2020
(Date)

304-346-5521 / 304-346-5554
(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: CRFQ DOT2100000006

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

☒ Addendum No. 1

☒ Addendum No. 2

☐ Addendum No. 3

☐ Addendum No. 4

☐ Addendum No. 5

☐ Addendum No. 6

☐ Addendum No. 7

☐ Addendum No. 8

☐ Addendum No. 9

☐ Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Mid Atlantic Maintenance, Inc

Company



Authorized Signature

8-12-2020

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids On behalf of the West Virginia Division of Highways, Department of Transportation to establish an open-end contract for Class 843 Full Matrix Trailer Mounted Solar Powered Message Board.
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - 2.1 **“Contract Item” or “Contract Items”** means the list of items identified in Section 3, Subsection 1 below.
 - 2.2 **“Pricing Pages”** means the schedule of prices, estimated order quantity, and totals contained in wvOASIS or attached hereto as Exhibit A and used to evaluate the Solicitation responses.
 - 2.3 **“Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
 - 2.4 **“WVDOH”** means West Virginia Division of Highways.
 - 2.5 **“NTPEP”** means National Transportation Product Evaluation Program.
 - 2.6 **“MUTCD”** means Manual Uniform Traffic Control Devices.
 - 2.7 **“PVMS”** means Portable Variable Message Signs.
 - 2.8 **“NTCIP”** means National Transportation Communication For Its Protocol
 - 2.9 **“BPS”** means Bits Per Second.
 - 2.10 **“AASHTO”** means American Association of State Highway and Transportation Officials.
 - 2.11 **“L.E.D.”** means lighting emitting diode.
 - 2.12 **“LCD”** means liquid crystal display.
 - 2.13 **“USB”** means universal serial bus.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

3. GENERAL REQUIREMENTS:

3.1 Contract Items and Mandatory Requirements: Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.

3.1.1 Full Matrix Trailer Mounted Solar Powered Message Board

3.1.1.1 Unit must be as submitted by evaluation to AASHTO's National Transportation Product Evaluation Program (NTPEP)

3.1.1.2 The unit specified herein and offered shall be manufactured after January 1, 2020 and must be a new unit, not previously used or sold.

3.1.2 Sign Face

3.1.2.1 The sign face shall be of a sufficient size in order to display three (3) lines of eight (8) characters, each character must be minimum eighteen (18) inches tall by minimum twelve (12) inches wide. Characters must be spaced a minimum of three (3) inches apart.

3.1.2.2 The face of sign shall incorporate measures to prevent fading from UV light, such as a polycarbonate or Lexan face with UV inhibitors incorporated.

3.1.2.3 Optically enhanced L.E.D.s (lighting emitting diodes)shall have a minimum of 30° vertical and 30° horizontal cone of visibility.

3.1.2.4 Each pixel shall consist of a minimum of three (3) LED's (Lighting Emitting Diode)

3.1.2.5 Message color shall be a minimum 590 nanometers.

3.1.2.6 The sign shall have the capability to display up to six (6) messages in sequence, with variable timing in ¼ second increments under computer control.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

3.1.2.7 As part of the manufacturer's pre-programmed message sequences, arrow display and flashing caution functions shall be included. All arrow and flashing caution display described in the current MUTCD shall be provided.

3.1.2.8 All abbreviations used in pre-programmed messages shall be in compliance with the current MUTCD.

3.1.2.9 The sign shall be clearly visible a minimum of 4500 feet.

3.1.2.10 The sign legend shall be legible from a minimum distance of 1,000 feet under daylight conditions as defined by NTPEP for two- non-traffic word messages.

3.1.2.11 The sign legend shall be legible from a minimum distance of 900 feet under night-time conditions as by NTPEP for a two-non-traffic word message.

3.1.2.12 Under variable light conditions, the unit shall automatically adjust light source to meet the visibility requirements, without being too bright or too dim.

3.1.2.13 Entire sign shall have the capability to change all lines of message copy in not more than 100 milliseconds

3.1.2.14 Each character configuration shall contain 54 L.E.D. lamp pixels in a six (6) element horizontal by nine (9) element vertical arrangement.

3.1.3 Sign Panel

3.1.3.1 Length of sign panel shall not exceed 140 inches.

3.1.3.2 All exposed panels and seams shall be corrosion proof for a minimum of ten (10) years. With construction, all panels/parts shall be assembled as to prevent corrosion or to prevent dissimilar metal reaction from occurring.

3.1.3.3 The panel shall be supported on a telescoping upright member in order to permit raising the sign panel for operation and lowering the panel for transport. The upright must be capable of 360 degrees rotation and to

REQUEST FOR QUOTATION

CRFQ DOT2100000006

Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

lock into any position to which it is manually or electrically rotated.

- 3.1.3.4 Raise and lower travel shall be minimum of four (4) feet and shall be accomplished by a hydraulic power pack.
- 3.1.3.5 The bottom of the sign shall be a minimum of seven (7) feet above ground level when in the raised position.
- 3.1.3.6 In transport position, the sign shall orient to the longitudinal axis of the trailer in a manner that effectively reduces aerodynamic drag during towing.
- 3.1.3.7 The solar panel generator array shall recharge the battery bank at a rate of 2.5 hours sun to one (1) 24-hour period of usage.
- 3.1.3.8 The sign panel frame shall be constructed of a welded assembly of aluminum alloy channel, or from steel panels powder coated in corrosion proof manner for a minimum of ten (10) years.

3.1.4 Power Source

- 3.1.4.1 The full-matrix panel shall be powered by a bank of batteries in order to convey bright, distinctive messages to the traveling public.
- 3.1.4.2 Unit shall be designed to accept two (2) power sources: one (1) being a battery bank consisting of four (2) size 4-D, deep cycle, lead acid 12-volt DC batteries wired in parallel.
- 3.1.4.3 Batteries shall be automatically recharged by a group of solar panels producing a minimum 165 watts of power, located at the highest point on the unit.
- 3.1.4.4 Unit shall be designed with sufficient energy backup to operate for a period of 30 days without any sun.
- 3.1.4.5 Unit shall provide a built-in battery charger with a minimum 25 ampere per hour rating.

REQUEST FOR QUOTATION

CRFQ DOT2100000006

Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

3.1.4.6 Battery bank shall be housed in lockable heavy-duty weatherproof battery boxes.

3.1.4.7 Shall have a second power supply enables the unit to accept existing 120-volt commercial electric service.

3.1.4.8 Batteries shall be capable of being recharged by a commercial 110-volt battery.

3.1.5 Computer

3.1.5.1 The unit shall be controlled in all functions by an on-board dedicated computer of solid-state design and be removable.

3.1.5.2 Unit shall include a keyboard or graphic touch screen controller through which user originated messages may be entered for display or storage.

3.1.5.3 Computer shall store a minimum of 200 programmed messages for display when called upon by user through the keyboard.

3.1.5.4 Unit shall include an LCD display screen upon which messages can be reviewed before display on sign board.

3.1.5.5 Password coding or key entry is required for control programming to present sequences messages under operator control through keyboard entry; provide control for moving arrow displays.

3.1.6 Solar Panel Control Unit

3.1.6.1 The power control unit and computer shall be housed in a weather resistant, shock resistant lockable control box which includes lighting for night-time operation.

3.1.6.2 Power control unit shall contain two (2) current meters; one (1) to show amperage generated with the battery charge operating, and one (1) to indicate amperage generated from the solar panels to be stored in the battery bank.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

3.1.6.3 Message Cabinet dimensions shall be:

- A. Length: Maximum 140 inches.
- B. Height: Maximum 79 ½ inches.

3.1.6.4 The power control unit shall incorporate a PV regulator with thermal compensation for variances in ambient temperature to regulate the charge rate to battery bank.

3.1.6.5 The unit shall incorporate an automatic intensity control feature in order to keep L.E.D. lamp matrix intensity constant with a reduction in voltage.

3.1.6.6 The message unit shall provide a photocell in order to reduce the lamp intensity at night eliminating blinding.

3.1.7 Central Processing Unit

3.1.7.1 Microprocessor Based 27.1 MHz.

3.1.7.2 Power requirements: 175 mA DC at 12 volts DC.

3.1.7.3 Screen size: Minimum of three (3) lines, with Eight (8) characters per line.

3.1.7.4 Interfaces: (2) RS232 9 pin D connectors and documentation on port numbers and pins. In addition, one USB port or one Ethernet Port with USB adaptor shall be provided.

3.1.7.5 Code: Application source code shall be delivered with unit.

3.1.7.6 Documentation: Technical documentation and application programs shall be delivered with unit.

3.1.8 Communication

3.1.8.1 Unit shall be guarded from any unwanted outside RF interference which would include but not be limited to VHF/FM receiver, 2-way radio receiver, cell phones, etc.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

- 3.1.8.2** Each PVMS shall be controlled and monitored by its own sign controller directly from the control console inside the control cabinet on the trailer itself.
- 3.1.8.3** The PVMS sign controller shall be able to receive instructions from and provide information to a computer containing PVMS control software compliant using NTCIP compliant communications modes.
- 3.1.8.4** The system communications backbone, as well as all field modems or signal converters, shall provide the PVMS sign controller with a RS232 signal having a baud rate between 2,400 bps and 115,200 bps. Remote Communications control via wireless communications with a remotely located computer.
- 3.1.8.5** Local Communications control shall be available via direct connection with a laptop computer that is connected directly to the sign control using a null modem connection and a baud rate between 2,400 bps and 115,200 bps.
- 3.1.8.6** Local Communications control via a keypad and LCD interface: Features shall include addition or removal of message or message(s) from the PVMS list of playing messages, adjustment of luminosity to manual or automatic, and monitor miscellaneous data like battery voltage, photocells reading, etc.

3.1.9 Trailer

- 3.1.9.1** Two (2) wheel trailer shall be structurally adequate to serve both platform for components.
- 3.1.9.2** Unit shall include LED taillights, stop lights, turn signals, license mount with light, and all necessary reflectors.
- 3.1.9.3** A two (2) inch ball type trailer hitch 6,000-pound capacity with double safety chains in accordance with SAE J684F shall be installed.
- 3.1.9.4** Trailer shall be 12-volt DC motor, pump, valve, reservoir, manual hand pump.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

3.1.9.5 All trailer wiring shall be encased in heavy duty Hypalon type industrial wire looms clamped to underside of the trailer structural tubing.

3.1.9.6 Shall have a hydraulic brake actuator system and fenders one (1) each wheel, included on trailer.

3.1.9.7 Shall have Leveling Jacks: Four (4) crank type, heavy duty, industrial leveling jacks; one (1) at each corner of the trailer deck to be installed.

3.1.9.8 Shall have installation of trailer electrical cable and connector (7 Pole) compatible with towing vehicles.

3.1.10 Paint

3.1.10.1 Must be manufacturer standard color paint for this unit.

3.1.11 Miscellaneous:

3.1.11.1 Unspecified Accessories & Features: All parts, equipment, accessories, material, design and performance characteristics not specified herein, but which are necessary to provide a complete unit, must be furnished with each unit and required to conform to strength, quality of material, and quality of workmanship to those which are advertised and provided to the market in general by the unit industry. All parts and accessories advertised and regularly supplied as standard shall be included, except those which would represent duplication of these specified and except those which, by specification, are not to be furnished. All standard safety features, required by Federal and State Law, shall be included.

3.1.11.2 Unit shall be delivered: to WVDOH with all manufacturers recommended safety related decals and safety features intact.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

3.2.1 Vendor Responsibility:

3.2.1.1 The vendor is responsible to furnish a full matrix trailer mounted solar powered message board light that is properly engineered and that confirms to all and any laws governing such equipment.

3.2.2 Representative Unit for Test:

3.2.1.2 The successful vendor must (if specified) provide the DOH one (1) completed represented unit to be observed and evaluated on each order to in-sure compliance with specification. If requested, the time period for testing and evaluation shall be seven (7) working days following receipt of the unit. DOH will incur no obligation for deterioration of surfaces, finishes, seals, and mechanical or electrical parts on the unit resulting from operation and testing within the limits of these specifications; nor will DOH incur obligation for damage to the unit resulting from failure to meet specifications when due care and attention is given by DOH and testing is done within the limits of these specifications. Failure of the pilot unit to satisfactorily meet specifications as bid may be cause for cancellation of the purchase order and return of the delivered unit along with all associated equipment to the vendor at the vendor's expense.

3.2.3 Operating and Service Manuals and Parts Lists:

3.2.1.3 An operator's manual must be included with each unit upon delivery. A "line sheet" (if applicable) and the "Equipment Preventative Maintenance Questionnaire", (Exhibit "B") must be with pilot unit upon delivery, Attn: Todd Campbell. There must be 12 service/shop/maintenance manuals and 14 parts manuals; USB storage drive is preferred in lieu of parts manuals. Manuals and USB storage drive shall be delivered upon completion of delivery of total units. Failure to do so will delay payment.

REQUEST FOR QUOTATION

CRFQ DOT2100000006

Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

3.2.4 Training:

3.2.1.4 Manufacturers and/or dealers will be required to stage a thorough seminar on the subjects of Preventative Maintenance, Operator, and Mechanic Training. In order to keep operators and mechanics updated, the successful vendor shall conduct training sessions covering the operation, maintenance, troubleshooting with each purchase order against this open-end contract.

Manufacturers and/or dealers shall be required to furnish the Training Academy with one (1) Operator's Manual to be shipped direct to:

WVDOH

Training Academy

P.O. Box 610

Buckhannon, West Virginia 26201

Prior to delivery of the pilot unit. Training seminar to be held at the WVDOT, Equipment Division, Buckhannon, WV.

3.2.5 Preventative Maintenance & Operator Procedures:

3.2.1.5 Manufacturers and/or dealers will be required to submit to the Equipment Division, in addition to the operating and service manuals, booklets and pamphlets explaining the Preventative Maintenance and Operator Procedures to be used by the operators of this equipment, and must include such things as daily prestart inspection procedure, service, schedule, and routine maintenance required, safety precautions, etc. The successful vendor shall furnish all training aids, i.e. videos, projectors as required in conducting the training.

3.2.6 Warranty and Service Policy:

3.2.1.6 The unit must be accompanied upon delivery by the unit's manufacturers executed standard warranty and service policy.

REQUEST FOR QUOTATION

CRFQ DOT2100000006

Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

4. CONTRACT AWARD:

- 4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price on all Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 Pricing Pages:** Vendor should complete the Pricing Pages (Exhibit A) by completing the Year, Make, Model, and inserting quoted unit price and multiply by the Estimated Quantities to calculate the Total Bid Amount. Vendor should complete the pricing pages in their entirety as failure to do so may result in Vendor's bids being disqualified.

The Pricing Page contains a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied.

Vendor should electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document. In most cases, the Vendor can request an electronic copy of the Pricing Pages for bid purposes by sending an email request to the following address:
Crystal.G.Hustead@wv.gov.

5. ORDERING AND PAYMENT:

- 5.1 Ordering:** Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written forms of communication. Vendor may but is not required to accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.
- 5.2 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

- 6.1 Delivery Time:** Vendor shall deliver standard orders within 60 working days after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met. A completed pilot model for inspection must be provided within 30 working day(s) after receipt of the purchase agreement by the successful vendor. Working day is

REQUEST FOR QUOTATION

CRFQ DOT2100000006

Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

defined as any weekday, Monday thru Friday, excluding Federal and State Holidays. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.

- 6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 6.3 Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. Destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.

- 6.4 Condition of Unit(s) Upon Delivery:** All units must arrive at the prescribed delivery point having been completely pre-serviced with oil, lubricants, and coolant. All prescribed precautions pertaining to first operations and break-in of the unit are to be posted conspicuously on the unit for ready observance by the operator.

- 6.5 Delivery Point:** Delivery point of the completed representative unit will be the WVDOH, Equipment Division, 83 Brushy Fork Road Crossing, Buckhannon, WV 26201.

7. VENDOR DEFAULT:

- 7.1** The following shall be considered a vendor default under this Contract.

7.1.1 Failure to provide Contract Items in accordance with the requirements contained herein.

7.1.2 Failure to comply with other specifications and requirements contained herein.

7.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

7.1.4 Failure to remedy deficient performance upon request.

REQUEST FOR QUOTATION
CRFQ DOT2100000006
Full Matrix Trailer Mounted Solar Powered Message Board (7020EC14)

7.2 The following remedies shall be available to Agency upon default.

7.2.1 Immediate cancellation of the Contract.

7.2.2 Immediate cancellation of one or more release orders issued under this Contract.

7.2.3 Any other remedies available in law or equity.

8. MISCELLANEOUS:

8.1 No Substitutions: Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.

8.2 Reports: Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.

8.3 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Cameron Morrison
Telephone Number: 304-346-5521
Fax Number: 304-346-5554
Email Address: cmorrison@midatlanticusa.com

Full Matrix Trailer Mounted Solar Powered Message Board

Item No.	Description:	Make/Model & Year	Estimated Unit Quantity	Unit Price	Item Total Cost
1	Full Matrix Trailer Mounted Solar Powered Message Board		15	\$15,675.00	\$235,125.00
Total Bid Amount 					\$235,125.00

Vendor Information

Company Name: Mid Atlantic Maintenance, Inc

Contract Manager: Cameron Morrison

Address: PO Box 3405 Parkersburg WV 26103

Phone: 304-346-5521

Fax: 304-346-5554

Email: cmorrison@midatlanticusa.com

Signature: 

West Virginia Ethics Commission



Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or *"Interested parties"* means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education; Provided, that for purposes of *W. Va. Code* § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: Mid Atlantic Maintenance, Inc **Address:** PO Box 3405 Parkersburg WV 26103

Name of Authorized Agent: Cameron Morrison **Address:** PO Box 3405 Parkersburg WV 26103

Contract Number: DOT2100000006 **Contract Description:** Full Matrix Trailer Mtd. Solar Message Board

Governmental agency awarding contract: West Virginia Department of Highways- Equipment Division

☐ Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract

☒ Check here if none, otherwise list entity/individual names below.

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)

☐ Check here if none, otherwise list entity/individual names below.

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

☒ Check here if none, otherwise list entity/individual names below.

Signature: Cameron Morrison

Date Signed: 8-12-2020

Notary Verification

State of Ohio, County of Belmont:

I, Cameron Morrison, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.



Taken, sworn to and subscribed before me this 12th day of August, 2020

Notary Public
State of Ohio
My Comm. Expires
July 13, 2025

Andrea Paris
Notary Public's Signature

To be completed by State Agency:

Date Received by State Agency: _____

Date submitted to Ethics Commission: _____

Governmental agency submitting Disclosure: _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Mid Atlantic Maintenance, Inc

Authorized Signature: Camara Morrison

State of Ohio

County of Belmont, to-wit:

Taken, subscribed, and sworn to before me this 12th day of August, 2020.

My Commission expires July 13, 2025, 20 .

AFFIX SEAL HERE

NOTARY PUBLIC

Andrea Davis

Purchasing Affidavit (Revised 01/18/2018)

CONTRACTOR LICENSE

Authorized by the
West Virginia Contractor Licensing Board

Number: WV047493

Classification:

ASPHALT
SPECIALTY

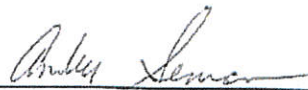
MID ATLANTIC MAINTENANCE INC
DBA MID ATLANTIC MAINTENANCE INC
PO BOX 3405
PARKERSBURG, WV 26103

Date Issued

OCTOBER 26, 2019

Expiration Date

OCTOBER 26, 2020


Authorized Company Signature


Chair, West Virginia Contractor
Licensing Board

WEST VIRGINIA
CONTRACTOR
LICENSING
BOARD

This license, or a copy thereof, must be posted in a conspicuous place at every construction site where work is being performed. This license number must appear in all advertisements, on all bid submissions and on all fully executed and binding contracts. This license cannot be assigned or transferred by licensee. Issued under provisions of West Virginia Code, Chapter 21, Article 11.

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. ☒ **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is an individual resident vendor and has resided continuously in West Virginia, or bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia, for four (4) years immediately preceding the date of this certification; **or**,
☐ Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; **or**,
☐ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or**,
2. ☒ **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,
3. ☐ **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a nonresident vendor that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's bid; **or**,
4. ☒ **Application is made for 5% vendor preference for the reason checked:**
Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or**,
5. ☐ **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or**,
6. ☐ **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
7. ☒ **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.**
Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.
8. ☐ **Application is made for reciprocal preference.**
Bidder is a West Virginia resident and is requesting reciprocal preference to the extent that it applies.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) rescind the contract or purchase order; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Mid Atlantic Maintenance, Inc

Signed: Carman Morrison

Date: 8-12-2020

Title: Division Manager



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 618
Charleston, West Virginia 25305-0430 • (304) 558-3931

Byrd E. White, III
Secretary of Transportation
Commissioner of Highways

Jimmy Wriston, P. E.
Deputy Secretary/
Deputy Commissioner

July 13, 2020

Ms. Amber Semones
Mid Atlantic Maintenance, Incorporated
Post Office box 3405
Parkersburg, West Virginia 26103

Dear Ms. Semones:

Annual Update - DBE Certification

We are pleased to inform you that the documents your firm submitted have been reviewed and approved. Your firm will continue to be listed in the West Virginia Department of Transportation, Division of Highways Contractor's Proposals as a DBE firm certified under the provisions of 49 CFR Part 26.

Please be reminded that as a DBE you must inform this office, within thirty days and in writing, of any change in circumstances affecting your ability to meet size, disadvantaged status, ownership, or control requirements or any material change in the information provided in your application form. Failure to do so may result in removal of your DBE certification in accordance with 49 CFR Part 26, §26.83(j) of the Federal Regulation.

Should you have questions or require additional information, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "William Hartwell", written over a horizontal line.

William Hartwell, Attorney
CRC Division

WH:F



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

8/12/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Peoples Ins Agcy-Marietta 124 Putnam Street Marietta OH 45750	CONTACT NAME: Nicole McCullough	
	PHONE (A/C, No, Ext): 937-283-3033	FAX (A/C, No): 740-376-6409
	E-MAIL ADDRESS: nicole.mccullough@pebo.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Brickstreet Mutual Ins Co	12372
	INSURER B : Encova (Motorists)	13331
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** 1989870161 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC OTHER:	Y		5000067811	11/23/2019	11/23/2020	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
B	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY			5000067811	11/23/2019	11/23/2020	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 0			5000068727	11/23/2019	11/23/2020	EACH OCCURRENCE \$ 6,000,000 AGGREGATE \$ 6,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y / N ☐ N / A			WCB1021886	2/1/2020	2/1/2021	☒ PER STATUTE ☐ OTH-ER Incl Empls Liab. E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	OH Employers Liability			5000067811	11/23/2019	11/23/2020	Limit 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Project Description: Sale of Electrical Equipment
Certificate holder is additional insured on the General Liability when required by written contract. 30 days notice of cancellation applies except for 10 days notice due to nonpayment.

CERTIFICATE HOLDER**CANCELLATION**

State of West Virginia
1900 Kanawha Blvd E
Building 5
Charleston WV 25305

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

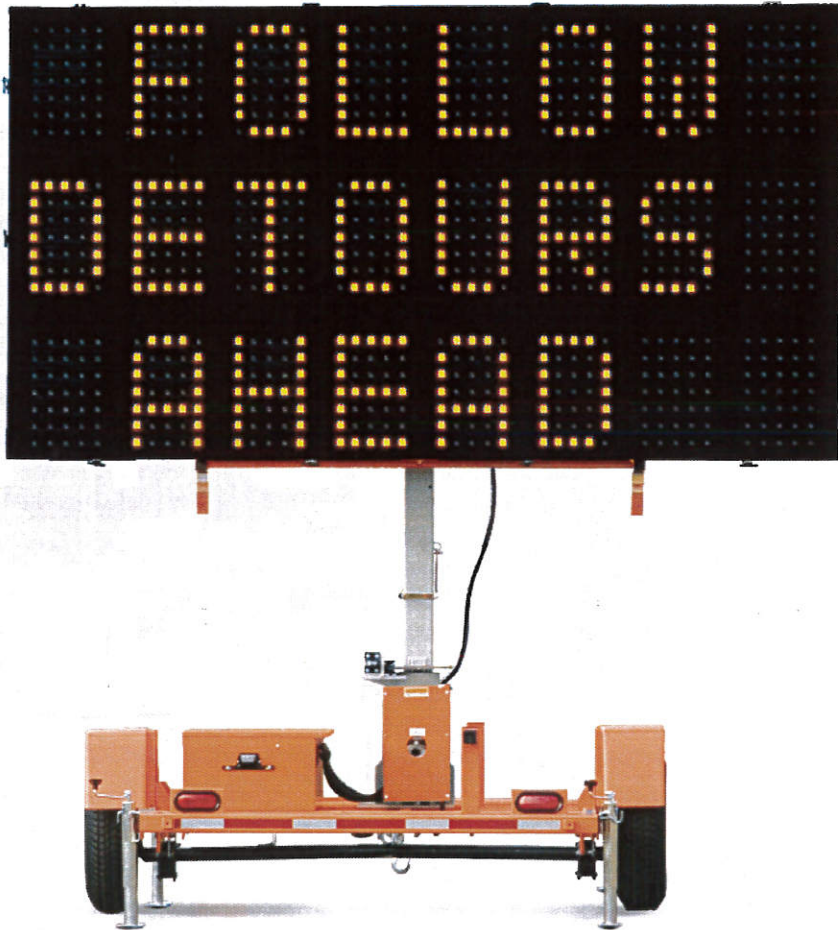
AUTHORIZED REPRESENTATIVE

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Variable Message Signs

Full-Matrix and Three-Line



- Easiest programming in the industry
- Capacitive touchscreen controller
- Intuitive interface with larger buttons
- Safer programming at eye level
- Multi-level password protection
- Out of reach of the casual hacker
- Better traffic visibility
- Less external wiring
- NTCIP compliant



In-Cabinet Controller
(location shown below)

- Durable powder-coat finish, custom colors available
- Standard tow hitch and removable drawbar
- Low power consumption and more uptime
- Solar-charged deep-cycle batteries
- Cooling fans overheat protection
- Standard 15-amp AC charger included
- Energy efficient and superior performance
- Preprogrammed, custom and MUTCD graphics
- 360° display rotation for optimal positioning
- For optional equipment, contact factory



The safest means for notifying motorists of changes in traffic patterns and road conditions.

Wanco Message Signs are the ideal choice when you need to get information to the public. Full-size signs provide versatility and great performance.

Full-matrix signs provide the greatest flexibility for displaying any type of message—large or small letters, symbols, graphics. Graphics and text can be combined in the same message.

Three-line message signs are capable of displaying three rows of alphanumeric characters. The ultra-bright, highly legible LEDs display your message clearly.

Changing the message is simple, as Wanco signs feature the easiest programming in the industry. The in-cabinet controller has a 7-inch LCD capacitive touchscreen.

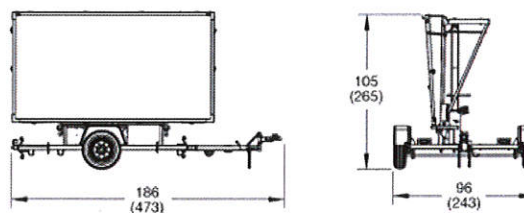
Signs come configured with preprogrammed standard messages. Multiple programming options provide flexibility for multiple applications.

Unsurpassed quality, engineering and value, paired with a multitude of functions and options, make these signs perfect for a wide variety of applications.

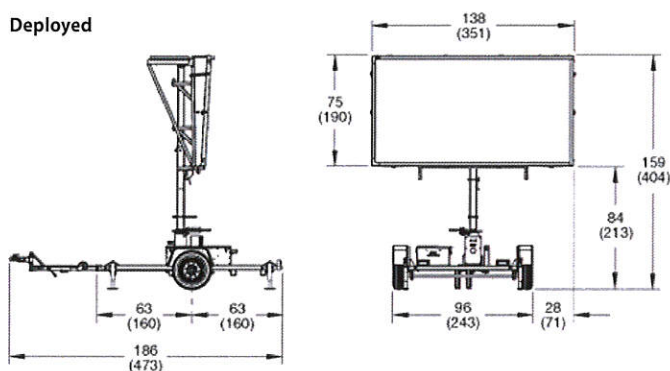
Meets NEMA TS 4-2005 Section 2 for ambient temperature, vibration, shock, electro-static discharge (ESD), and radio interference.

Dimensions in
Inches
(cm)

Travel position



Deployed



Weight
Tires

Approx. 2640 lbs. (1193 kg)
ST205/75 D15

Matrix Signs

WTMMB(A) Hydraulic lift
WTMMB(B) Manual winch

Display

Resolution Four amber LEDs form each pixel
Matrix 48 pixels wide, 27 pixels high
Fonts 12 fonts, selectable
Default font 5 x 7 pixels
3 lines of 8 characters max.
Default font size 11 x 16 in. (28 x 42 cm)

Power

Batteries Four 6 Vdc deep-cycle batteries wired for 12 Vdc power
Battery capacity 430 Ah total capacity @ 12 Vdc
Solar panels 130 W minimum
Power options Additional batteries, 4D AGM batteries and solar panels

Three-Line Signs

WTLMB(A) Hydraulic lift
WTLMB(B) Manual winch

Display

Resolution Four amber LEDs form each pixel
Font 1 font
5 x 7 pixels
3 lines of 8 characters per line max.
Font size 12 x 18 in. (30 x 45 cm)

Power

Batteries Four 6 Vdc deep-cycle batteries wired for 12 Vdc power
Battery capacity 430 Ah total capacity @ 12 Vdc
Solar panels 130 W minimum
Power options Additional batteries, 4D AGM batteries and solar panels

Due to Wanco's commitment to continuous improvement of our products, all information is subject to change without notice.
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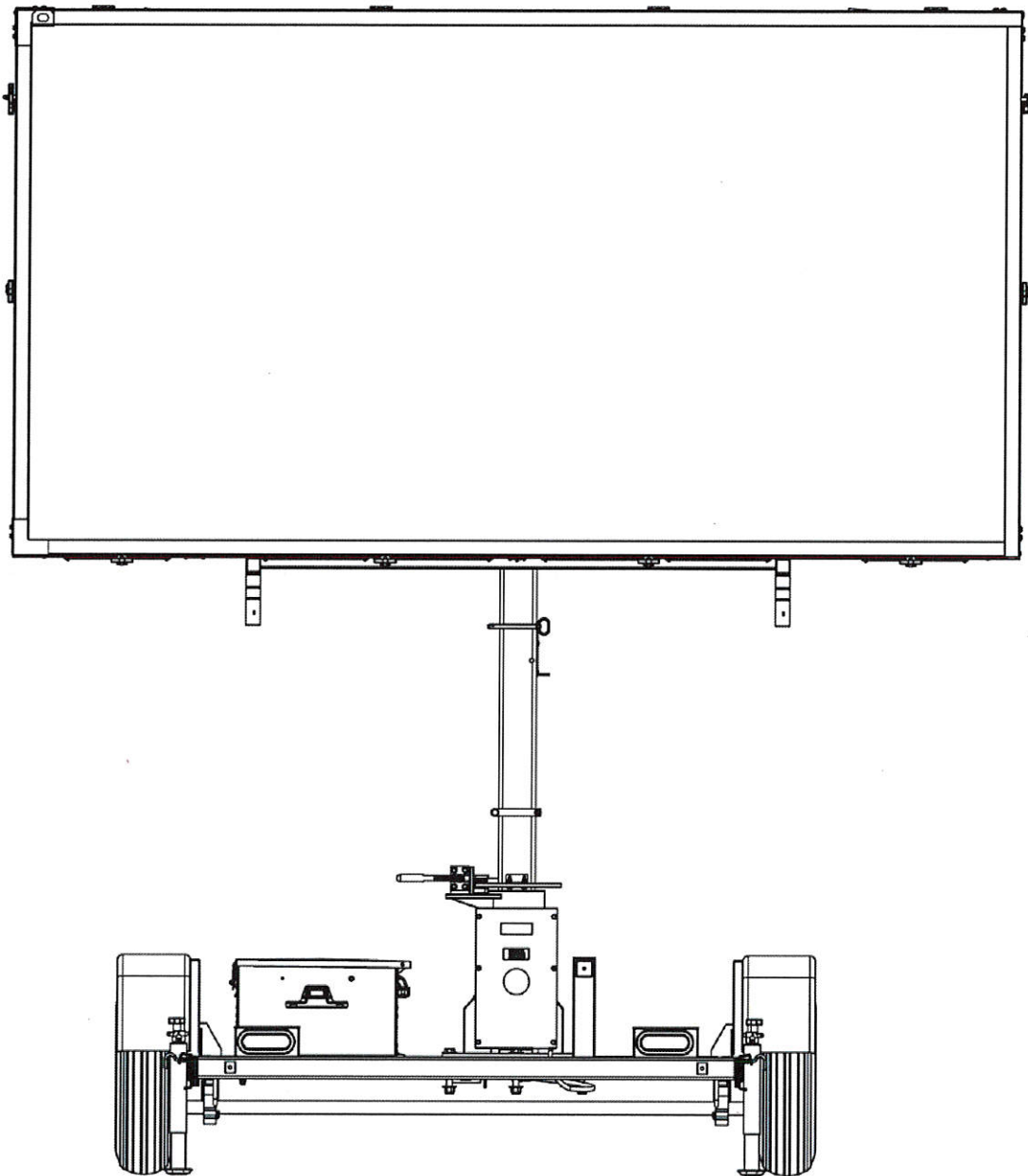
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MATRIX MESSAGE SIGNS

MODEL WTMMB

PRODUCT SPECIFICATIONS | MARCH 2020



1. SYSTEM

- 1.1. Description Wanco® message signs provide information to the public on a large, legible LED display. These signs are portable and self-powered, requiring no permanent installation or wiring. The full-matrix display can present messages as text, graphics, or a combination of both. Messages are programmed using a self-contained onboard controller, making a laptop or external controller unnecessary. Signs come configured with preprogrammed standard messages, and users can create custom messages easily.
- For optimal positioning, the sign rotates independent of the trailer and its height is fully adjustable. Jack-legs and optional outriggers provide more adjustability and added stability. The trailer is easy to maneuver and deploy, and can be towed by most vehicles. Power is provided by batteries, which are charged by an automated solar charging system.
- 1.2. Models
- 1.2.1. WTMMB(A) Full-size matrix message sign with hydraulic lift
- 1.2.2. WTMMB(B) Full-size matrix message sign with hand-operated winch
- 1.3. Temperature limits Operating -29 to 165°F (-34 to 74°C)
Storage -40 to 185°F (-40°C to 85°C)
- 1.4. Standards Compliant in accordance with:
- MUTCD, December 2009
- NTCIP Version 2
- NEMA TS 4-2005 Section 2 for ambient temperature, vibration, shock, electro-static discharge (ESD), and radio interference

2. FEATURES

- 2.1. Setup
- Hydraulic lift or winch with cable raises sign display on tower
 - Tower rotates 360 degrees for optimal positioning
 - Single disk brake holds display in place during operation, while a cradle supports and holds display in travel position
- 2.2. Operation
- Self-contained onboard control system, no laptop required
 - Full-color touchscreen controller with high-resolution display
 - Multi-level password protection restricts access to control software
 - Preprogrammed text messages, symbols and graphics
 - Easily center each line of text
 - Internal clock facilitates built-in schedule programming
 - Multiple alphanumeric fonts
 - Control box can be locked to prevent unauthorized access
 - Optical lenses and sunshades increase visibility and performance

- Cooling fans protect sign cabinet from overheating
 - Wide footprint provides stability in high wind, optional outriggers add more support
 - Meets MUTCD and NTCIP standards
- 2.3. Power system
- Battery powered and solar charging
 - Energy-efficient operation results in long run times
 - Solar panels charge batteries automatically without intervention
 - Charging system shuts down when batteries are fully charged, preventing damage
 - Power system allows battery charging with solar panels or commercial power
 - Cooling fan protects battery charger from overheating
 - Battery box can be locked to prevent unauthorized access
- 2.4. Maintenance
- Individual display modules can be replaced easily
 - Standard trailer tires
 - Heavy-duty bolt-on fenders can be replaced if damaged
 - Durable powder-coat finish resists the elements
- 2.5. Application
- Common applications include:
- Roadwork zones
 - Traffic calming
 - Road closures
 - Emergency response
 - Public events

3. DISPLAY

3.1. Cabinet

- 3.1.1. Description
- Weather-resistant cabinet contains display modules and related electronics. Hinged door with full-size display window protects electronics and provides access for maintenance. Clasps hold door closed during operation and can be locked with user-supplied padlock.
- Cabinet face is tapered five degrees downward (it is deeper at the top than at the bottom) to face traffic, reducing glare.
- 3.1.2. Size
- 138" x 75" x 12" (351 x 189 x 30cm)
- 3.1.3. Material
- Aluminum sheet, 5052-H32, 0.062" (1.575mm) thick
- 3.1.4. Construction
- Panels are riveted together, with internal ribs to add lateral strength
- 3.1.5. Door
- Cabinet door is aluminum extruded frame with sheet metal corner brackets. Stainless steel butt hinges are bolted to top of cabinet and door.
- Window is anti-glare Lexan® solar-grade polycarbonate, 0.150" (3.81mm) thick. Bulb-type weather seal ensures tight fit and seal between window and door frame.
- When sign is in stored position, door fully opens to service the sign cabinet interior. Telescoping prop-slides, one on each side of the cabinet, hold door open.

3.1.6.	Finish	Cabinet and door are coated with oven-baked, flat-black, powder-coat finish to ensure durability and corrosion protection. Assemblies are high-pressure phosphate-washed prior to finish coat.	
3.1.7.	Wiring	Wiring service loop from control box to display cabinet is routed inside liquid-tight loom and P-clamped to trailer frame. Service loop length is designed to allow 360-degree sign rotation. All wiring connectors and procedures are per CSA standards.	
3.1.8.	Ventilation	Two cooling fans located at the top of the display cabinet circulate air into, through, and out of the cabinet to cool electrical components. A duct is located at the top of the cabinet to ensure even airflow. It is proven that electronic components, including LEDs, degrade in conditions of extreme heat. Without the cooling fans the display cabinet can reach over 200 degrees Fahrenheit. A temperature sensor is mounted on the photocell PC board inside the cabinet to control fan operation. Each fan has its own thermal settings to optimize battery power usage.	
3.1.9.	Storage	When lowered for storage and transport, the display cabinet rests in two support cradles, parallel to the trailer length, no locking pins required	
3.2.	Display matrix		
3.2.1.	Description	The display matrix is comprised of a series of display modules laid out in a grid across the inside of the display cabinet. Each module has a matrix of LEDs installed on its face, which light up to show a portion of the configured message. Each module features the necessary electronics and coatings to ensure outstanding performance and durability.	
3.2.2.	Display modules	Modular design	Allows any display module to be installed in any position in the matrix without repositioning DIP switches
		Wiring	Modules have quick-connect electrical connectors for easy servicing. All wiring terminates at a single terminal strip inside the display cabinet.
		Replacement	Each module can be exchanged in less than two minutes. The only tool needed is a 5/16-inch nut driver socket or slotted screwdriver After a new module is installed, a one-step initialization process causes each module to sense its position in the full-matrix display. Initialization is accomplished using the sign's controller.
		Size	20.0" (50.8cm) wide by 22.5" (57.2cm) high, nominal
		Material	FR4 glass-reinforced epoxy laminate, double-sided, black solder mask with white silkscreen Board thickness, 0.094" (2.388mm) Copper size, 1 oz (28.4g)

	Coating	5-mil, military-spec, low-VOC, silicone conformal coating (Dow Corning 1-2577) provides long-term protection against moisture and other atmospheric contaminants, resists corrosion and shorts due to high humidity
	Vibration mounts	All display modules are mounted on rubber vibration-isolation mounts, decreasing risk of physical shock during transport and isolating characters from chassis ground
	Humidity limits	Conformal coating rated to 95% relative humidity
3.2.3. Pixels	Four LEDs form a "pixel"	
	Pixel size	1.25" x 1.25" (32 x 32mm)
	Full matrix	48 x 27 pixels (W x H), 1296 pixels total
	Display module	8 x 9 pixels (W x H), 72 pixels total
	Pixel pitch	66mm, horizontal and vertical
3.2.4. LEDs	Technology	AlInGaP II (aluminum indium gallium phosphide) technology, T-1¾ size, through-hole auto-insertion
	Color range	Amber, 589.5 to 592 nm
3.2.5. Lenses and visors	Each pixel has a snap-in optical lens over the LEDs, enhancing the brightness and angularity of each pixel while reducing power consumption. A polycarbonate visor shades each row of pixels to eliminate glare caused by direct sun exposure. The sunshades snap onto the display module without tools. The lenses snap into the sunshades. These enhancements enable the message sign to operate with approximately half the power consumption of other message signs. As a result, the system is fully functional using fewer solar panels and batteries, while providing outstanding brightness and readability in all lighting conditions, and 30-day battery autonomy without sun. Reducing the number of solar panels and batteries also lowers the trailer weight and reduces maintenance costs.	
3.2.6. Visibility	At least 1 mile (1.6km)	
3.2.7. Legibility	Word recognition with default font, 814 to 962 ft (248 to 293m)	
3.2.8. Viewing angle	Total viewing area with optical lenses, 42.8 to 54.6 degrees	
3.2.9. Brightness	Factory preset for optimal viewing and power consumption	
3.2.10. Auto dimming	Two photocells detect ambient light on the message sign; the message sign computer adjusts the brightness of the LEDs accordingly, dimming display brightness in darkness, increasing to full brightness in daylight Photocells are mounted inside the sign cabinet, one facing rear and one facing front	
3.2.11. Software design	Driver	LEDs controlled through 30mA pulse-width modulation design

	Addressing	Each display module address is selected through a software command; no DIP switches are used. The address does not change until reprogrammed, preventing the message from shifting due to an individual module failure.
	Pixel test	Each module is equipped with individual pixel failure notification
3.2.12. Fonts	12 fonts	
	See Exhibit A for font samples and additional font information	
	Default size	5 x 7 pixels (W x H), 12.80" x 18.00" (325 x 457mm) 3 lines of 8 characters per line, maximum
	Smallest size	4 x 5 pixels (W x H)
	Largest size	11 x 23 pixels (W x H)
	Other sizes	See Exhibit A
3.3. Standards	Meets MUTCD standards	

4. CONTROL SYSTEM

4.1. Description	Self-contained onboard computer, comprised of a power control unit (PCU), located behind display modules inside the message sign display cabinet; and a display control unit (DCU), located inside control box on the back of the message sign display cabinet.	
4.2. Control box		
4.2.1. Size	12.3" x 11.7" x 5.3" (31.2 x 29.7 x 14.4 cm) W x H x D	
4.2.2. Material	0.08" aluminum	
4.2.3. Mounting	Securely fastened to the sign cabinet with six mounting screws	
4.2.4. Door	Front-panel is a door, hinged on the left, which opens fully.	
4.2.5. Latch	Two quarter-turn latches on front of control box door keep hinged door closed. Both latches are keyed and can be locked.	
4.2.6. Finish	Cabinet and door are coated with oven-baked, equipment-white, powder-coat finish to ensure durability and corrosion protection. Assemblies are high-pressure phosphate-washed prior to finish coat.	

4.3. Control panel

4.3.1.	Touchscreen	Display	Full color, backlit, 7-inch display Capacitive touch panel 800 x 480 pixels, W x H Display automatically shuts off after 10 minutes of inactivity
		Interface	Menu-based structure, accessed with virtual buttons on the touchscreen display, provides access to all sign functions including programming messages Virtual keyboard appears when required for text entry Multi-level password protection restricts access
4.3.2.	LED indicators		Indicates the following status conditions: Solar charging system is charging batteries System power shutdown occurred Programmed schedule is active Power to optional radar device is on
4.3.3.	Data port		One USB port for local downloading of data from optional traffic data collector (if installed) and software updates See "Options and Optional Equipment"
4.4.	PC boards		
4.4.1.	Coating		100% coated with military-spec, low-VOC, silicone conformal coating to provide long-term protection against moisture and other atmospheric contaminants. Resists corrosion and shorts due to high humidity.
4.4.2.	Humidity limits		Conformal coating rated to 95% relative humidity
4.5.	Serviceability		Four plunger panel latches allow the control panel to be removed, providing access to internal components inside control box; PCU is accessible by removing display modules inside message sign display cabinet. All wiring connections have quick-connect plugs.
4.6.	Controller software		
4.6.1.	Standards		Fully NTCIP-compliant
4.6.2.	Security		Three levels of password protection
4.6.3.	Message programming		Instant access to program new messages Extremely easy to program

4.6.4.	Message types	Quick-messages	Easy quick-message activation
		Permanent	Over 90 preprogrammed permanent messages, including arrows and FHWA standards
		Changeable	250 changeable messages stored in NV flash
		Temporary	10 temporary or volatile messages, for ITS systems
		Blank	Easy sign blanking/power off
4.6.5.	Interface display	WYSIWYG (What You See Is What You Get) while programming	
4.6.6.	Text alignment	Selectable: left, center, or right; and top, middle, or bottom	
4.6.7.	Fonts	Selectable: see Exhibit A	
4.6.8.	Blinking	Each character can individually blink Individual lines of a multi-line message can blink The entire message can blink Adjustable timing and duty cycle	
4.6.9.	Message pages	Maximum 12 sequential “pages” per message, sequencing speed from 0.1 to 25.5 sec.	
4.6.10.	Scheduling	Real-time clock and calendar with DST control	
4.6.11.	Arrow board functions	Sign can display any of the following 12 full-size arrow functions Modes Flashing left or right arrow Flashing double arrow Flashing four-corner warning Flashing caution-bar warning Sequencing left or right stem arrow Sequencing left or right walking arrow Sequencing left or right chevron arrows Alternating diamonds (for samples, see Exhibit B)	
		Bold graphics	Each arrow and bar is 5 pixels wide
4.6.12.	Configuration	Menus provide access to all message sign configuration settings	
4.6.13.	Troubleshooting	System status on main screen, detailed status and diagnostic menus provide additional message sign information to assist in troubleshooting	

5. TRAILER

- | | | |
|--------|------------------|--|
| 5.1. | Frame | All welded structural steel |
| 5.2. | Tie-downs | One on each corner of frame |
| 5.3. | Finish | Oven-baked, safety-orange powder-coat finish to ensure durability and corrosion protection. Assemblies are bead-blasted and then run through a five-stage, high-pressure phosphate-wash prior to finish coat.

See "Options and Optional Equipment" for color options. |
| 5.4. | Traction tape | Traction tape on top of frame, sign side only, prevents slipping when standing on the frame to service sign |
| 5.5. | Fenders | Rectangular Jeep-style fenders, bolted to the trailer frame, removable and replaceable |
| 5.6. | Axle assembly | 3500 lb (1588kg) capacity, 4" (10cm) drop-axle, 5 on 4.5" B.C. idler hub

See "Options and Optional Equipment" for brake options |
| 5.7. | Springs | Double-eye leaf springs |
| 5.8. | Tires | ST205/75D15 steel-belted trailer tires, load rating B |
| 5.9. | Drawbar | |
| 5.9.1. | Construction | Telescopes inside receiver sleeve integrated into trailer frame. Removable for shipping and for added theft protection if needed. Secures with two 1/2-inch diameter bolts. |
| 5.9.2. | Material | Straight square tubular steel, 3" x 3/16" wall (7.62cm x 0.476cm wall) |
| 5.9.3. | Jack | Top-wind swivel, 800 lb (363kg) capacity with caster wheel to make moving trailer easier |
| 5.9.4. | Tow hitch | Standard 2-inch ball coupler tow-hitch, SAE Class 2, 3500 lb (1588kg) capacity. Bolts to drawbar, removable and replaceable.

See "Options and Optional Equipment" for tow-hitch options. |
| 5.9.5. | Tow chains | Two high-test proof coil chain assemblies, with "latching" S-hooks for towing. Chains attached to drawbar with quick connectors.

Material diameter 0.406" (10.3mm)
Working load limit 5400 lb (2450kg)
Breaking force 16,200 lb (72kN) |
| 5.10. | Stabilizer jacks | Four swivel jacks, each with 2000 lb (907kg) capacity, mounted on corners of trailer frame

See "Options and Optional Equipment" for outriggers |
| 5.11. | Wind resistance | In the deployed position, the maximum sustainable wind speed before overturning, when supported by the standard jack stands with tires off the ground, is 72 mph (115km/h) |

5.12. Wiring

5.12.1. Trailer plug	A sealed, molded, 4-square connector plugs into harness under trailer	
5.12.2. Tow-vehicle plug	Two-piece assembly with 4-flat molded connector on harness plugs into tow vehicle Meets SAE J1239 See "Options and Optional Equipment" for tow-vehicle plug options	
5.12.3. Protection	All trailer wiring encased in UV protective loom, and attached with P-clamp riveted to trailer frame; no exposed wires	
5.13. Taillights	Two oval-shaped, sealed, combination stop, turn and taillights No screws used for mounting; bracket is welded to trailer frame; each light held in place and sealed with snap-in rubber grommet	
5.14. License plate	Lighted license plate light holder	
5.15. Reflectors	Sides of trailer have amber reflectors near front and red reflectors near rear See "Options and Optional Equipment" for reflective tape	
5.16. Tower assembly		
5.16.1. Function	Sign cabinet is raised and lowered on a telescoping tower	
5.16.2. Tower construction	Two sections of square steel tubing with the inner section telescoping inside the outer section. Nylon guide blocks keep the sections tight, eliminating the need for greasing the tower and preventing dirt from building up on the inner tower section. Dirt would cause performance problems and maintenance issues.	
5.16.3. Swivel base	A steel tubular weldment is bolted to the trailer frame. The outer tower section rotates on a thrust bearing and washers inside the swivel base, reducing rotating friction.	
5.16.4. Finish	Winch model	Tower sections and swivel base are treated for corrosion resistance
	Hydraulic lift model	Tower sections and swivel base are fully galvanized
5.16.5. Height	At fully deployed height, 84" (213cm) from ground to bottom of display cabinet	
5.16.6. Height lock	Winch model	Spring-loaded locking pin prevents tower from falling if the winch or cable were to fail. Also locks tower when fully lowered into travel position.
	Hydraulic lift model	Locking pin inserted through the tower in the up position prevents the tower from falling if the hydraulics were to fail. Replaces spring-loaded locking pin.

5.16.7. Winch assembly (winch model only)	Function	Hand-operated winch raises and lowers sign cabinet	
	Capacity	2500 lb (1134kg)	
	Brake	Safety friction-brake prevents display cabinet from falling if operator loses grip on winch handle	
	Cable	1/4" (6.35mm) diameter galvanized aircraft cable	
5.16.8. Hydraulic lift (hydraulic model only)	Function	Raises display cabinet with a hydraulic power unit that pressurizes a cylinder; lowered by controlled gravity return. Control switch for hydraulic lift is located on battery box. Switch cover accepts small padlock.	
	Hydraulic cylinder	Single stage hydraulic, rated to 1500 psi, bottom end cap is keyed to prevent cylinder from rotating	
	Hydraulic power unit	Type	Electric motor driven See "Options and Optional Equipment" for hand pump
		Voltage	12Vdc
		Flow rate	1.5 gpm
		Pressure rating	Factory set to 950 psi
		Mounting	Installed vertically on bracket that is mounted to swivel base
		Fluid	AW-32 hydraulic oil
		Tank capacity	1.2 gal. total, 0.766 gal. usable capacity
		Cover	Sheet metal cover protects power unit from vandalism and environmental contaminants. Security screws fasten cover to power unit.
5.16.9. Rotation	Sign rotates by hand, pivoting 360 degrees on tower		
5.16.10. Rotation lock	Sign rotation is locked with an adjustable lever that operates a mechanical friction caliper and disk brake. The ½-inch thick, round, zinc-plated brake disk is bolted to the outer tower section.		
5.16.11. Sight tube	A sight tube for aiming the message sign in desired direction is mounted to tower mast		

6. POWER SYSTEM

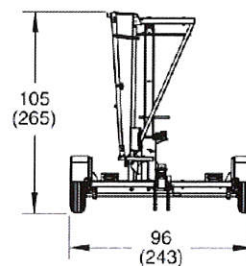
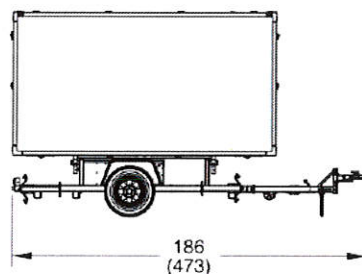
- | | | |
|--------|-----------------|--|
| 6.1. | Description | Electronics powered by batteries, which are charged automatically with integrated solar charging system |
| 6.2. | Battery box | |
| 6.2.1. | Function | Holds batteries and remote charger
See "Options and Optional Equipment" for heavy-duty secure battery box |
| 6.2.2. | Construction | Riveted all-steel construction
All parts powder-coated before assembly
Divider panel inside box separates batteries from electronics
Louvers provide ventilation
Latches keep cover closed and can accept user-supplied padlocks |
| 6.2.3. | Location | Centered over axle on left side of trailer, bolted to trailer frame |
| 6.3. | Batteries | |
| 6.3.1. | Description | Four deep-cycle golf-cart-type batteries, wired in parallel and series for a 12-volt system
See "Options and Optional Equipment" for battery options |
| 6.3.2. | Voltage | 6Vdc each |
| 6.3.3. | Weight | Approx. 60 lb (26kg) each |
| 6.3.4. | Capacity | 430 Ah total capacity @ 12Vdc |
| 6.4. | Remote charger | |
| 6.4.1. | Function | Plugs into a standard commercial power source to recharge batteries if battery voltage drops due to lack of sun for automated solar charging system |
| 6.4.2. | Type | 12-volt battery charger |
| 6.4.3. | Location | Inside battery box, mounted to divider panel on opposite side from batteries |
| 6.4.4. | Output capacity | 15A |
| 6.4.5. | Output voltage | 13.2Vdc range "float" mode
13.6Vdc range "absorption" mode
14.2Vdc range "bulk" mode |
| 6.4.6. | Input voltage | 105 to 135Vac, standard three-prong plug |
| 6.4.7. | Input frequency | 50 to 60 Hz |

6.4.8.	Cooling	Automatic fan cooling
6.4.9.	Protection	Automotive-style replaceable fuses
6.5.	Solar	
6.5.1.	Panels	One high-efficiency multi-crystal photovoltaic solar module
6.5.2.	Location	Behind message sign, over tower. Solar panel array lies flat, rises and rotates with message sign. No shadowing effect on any trailer component.
6.5.3.	Power output	130W See "Options and Optional Equipment" for solar power options
6.5.4.	Current	9.5A max. system current 10.3A open short-circuit current
6.5.5.	Voltage	17.9Vdc max. 21.8Vdc open short-circuit voltage
6.5.6.	Regulation	Solar panels regulated by message sign control system
6.5.7.	Security	Solar panel array bolted to message sign frame with security screws and special security nut. Tool for security screws mounted inside battery box.

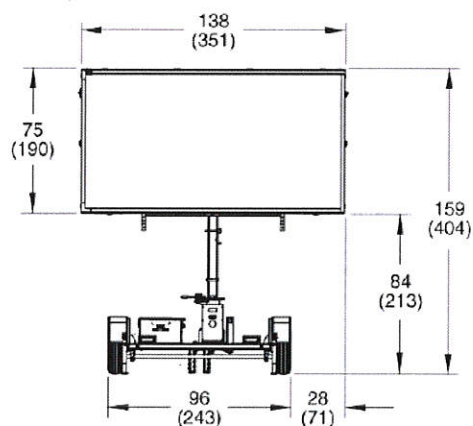
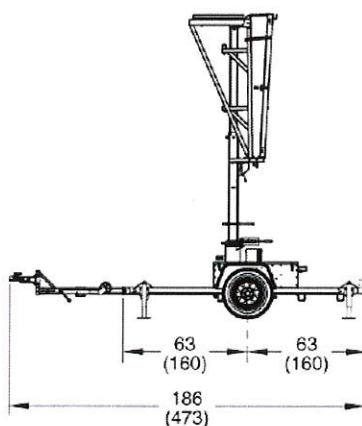
7. DIMENSIONS & WEIGHT

7.1. Dimensions *inches (cm)*

Travel position



Deployed



7.2. Weight

Approx. 2100 lb (953 kg)

8. OPTIONS AND OPTIONAL EQUIPMENT

8.1.	Integral drawbar	Integrated into trailer frame, with added "A-frame" supports that extend from corners of trailer frame to end of drawbar Replaces removable drawbar, uses same tow hitch and swivel jack as removable drawbar Message sign weight with A-frame: approx. 2640 lb (1193 kg)
8.2.	Tow hitch	
8.2.1.	Combo hitch	Combo-hitch for pintle hook and 2-inch ball hitch Heavy-duty lunette ring, 3" ID x 1½" cross-section
8.2.2.	Lunette ring	Heavy-duty lunette ring for pintle hook, 3" ID x 1½" cross-section
8.3.	Tow-vehicle plug	Many types of plugs available, prewired at the factory; contact factory for details
8.4.	Brakes	
8.4.1.	Hydraulic	Hydraulic surge brakes
8.4.2.	Electric	Electric brakes
8.5.	Outriggers	Telescoping outriggers (jack extensions), one at each corner of the trailer, expand trailer width when deployed, for extra wind-load resistance Width of trailer with outriggers extended: 126" (320cm)
8.6.	Hand pump	A mechanical hand pump can raise the sign if hydraulic lift fails to operate (hydraulic model only). Pump handle is stored inside battery box.
8.7.	Power	
8.7.1.	Additional batteries	For geographic locations with less solar charging potential or colder weather, and for applications that require year-round charging, add batteries for greater capacity Options Two additional 6Vdc deep-cycle batteries, 215Ah additional capacity Four additional 6Vdc deep-cycle batteries, 430Ah additional capacity Six additional 6Vdc deep-cycle batteries, 645Ah additional capacity
8.7.2.	AGM batteries	Replace deep-cycle batteries with top-of-the-line absorbed glass mat (AGM) batteries Features 100% maintenance-free Sealed and spill-proof Faster recharge and greater freeze resistance than conventional batteries Contains less lead than conventional batteries Options Two 4D AGM 12Vdc batteries, 400Ah total capacity Three 4D AGM 12Vdc batteries, 600Ah total capacity Weight Approx. 160 lb (72kg) each

8.7.3.	Remote charger	When required for added battery charging capacity, replace standard remote charger with higher amperage charger
	Options	12-volt, 45-amp charger 12-volt, 75-amp charger
	Details	Output voltage 13.4Vdc @ full load 13.6Vdc standard float voltage 14.2Vdc with dual-voltage jack installed Input voltage 108 to 132Vac, standard three-prong plug Input frequency 50 to 60 Hz
8.7.4.	Solar	For geographic locations with less solar charging potential or colder weather, and for applications that require year-round charging, additional solar power is available Options include 170W, 215W, 260W, and 390W solar arrays; contact factory for details
8.8.	Secure battery box	High-security battery box features heavy-gauge steel lid, hidden hinges, and heavy-duty hidden-shackle padlocks. Replaces standard battery box.
8.9.	Taillights	
8.9.1.	Dual sealed-bulb	Dual sealed-bulb taillights replace standard sealed-bulb taillights Requires SAE J560 7-pole round-pin trailer plug to replace standard trailer plug
8.9.2.	Single LED	Single LED taillights replace standard sealed-bulb taillights
8.9.3.	Dual LED	Dual LED taillights replace standard sealed-bulb taillights Requires SAE J560 7-pole round-pin trailer plug to replace standard trailer plug
8.10.	Reflective tape	Reflective red-and-white conspicuity tape across rear trailer frame for increased visibility
8.11.	Finish color	Specify power-coat color and, if applicable, color scheme
8.12.	Radar-based speed monitoring system	
8.12.1.	Description	Radar senses the largest, nearest mass moving toward it. The message sign conveys a user-selected message to the motorist.
8.12.2.	Sensor	Microwave K-band, approach-only
8.12.3.	Location	Radar head located on the bottom of the message sign display cabinet, just off-center, for maximum effectiveness regardless of which side of the road the trailer is being used
8.12.4.	Enclosure	Radar head is sealed to withstand the elements, while an aluminum cover goes over the head unit for impact resistance
8.12.5.	Standards compliance	FCC approved CE compliant

8.12.6.	Distance range	1000 ft (305 m)
8.12.7.	Speed range	5 to 138 mph (8 to 222 km/h)
8.12.8.	Accuracy	mph
		±1 mph from 5 to 40 mph
		±2 mph from >40 to 100 mph
		km/h
		±1.6 km/h from 8 to 64 km/h
		±3.2 km/h from >64 to 161 km/h
8.12.9.	Electrical protection	Fused and reverse-polarity protected
8.12.10.	Calibration	Calibration not required

8.13. Cellular modem package

8.13.1. Purpose	The remote communications package enables the message sign to be controlled from remote locations away from the message sign, using an Internet-connected computer, tablet, or smartphone. Includes all of the items described below.		
8.13.2. Remote NTCIP central control software	Description	Easy-to-use program connects a computer to an individual message sign via an Internet connection. Used for changing messages, checking on trailer health status (such as battery voltages), viewing GPS locations, and setting message schedules.	
	System requirements	Microsoft® Windows® (most versions) .NET framework Internet connection	
8.13.3. Web-based remote control	Description	Using a standard Web browser, allows connection to an individual message sign without software. Ideal for smartphone users.	
	System requirements	Modern standards-compliant Web browser with JavaScript enabled A platform that supports one of these browsers (smartphone, tablet, or computer) Internet connection	
8.13.4. Wanco Fleet Manager	Description	Web-based application for managing even the most diverse message sign fleets	
	Features	Add or remove equipment to groups for quick access, ideal for managing contractor rentals or entire projects all at once Map GPS locations of entire message sign fleet simultaneously Record vital information from signs, such as message changed by user and date, battery and solar voltages, and equipment alarms Mass broadcast capability, perfect for Amber Alerts and emergencies	

	System requirements	Modern standards-compliant Web browser with JavaScript enabled A platform that supports one of these browsers (smartphone, tablet, or computer) Internet connection
8.13.5. Cellular plans	User provided	User obtains cellular data plan from, and makes monthly payments to, service provider. Wanco programs modem according to user-provided specifications at time of modem purchase. Wanco tests modem setup.
	Wanco cellular service	Wanco provides Verizon® cellular service without activation charges, monthly payments, or overage charges. User makes a single payment annually to Wanco. For increased security, Wanco hosts the service on a virtual private network (VPN).
8.13.6. Modem	Compact industrial 3G cellular gateway with GPS Variety of models; contact factory for details	
8.14. Traffic Data Classifier System		
8.14.1. Design	Radar-based, nonintrusive, does not require loops or hoses, no disturbance of traffic flow during installation or use	
8.14.2. Direction	Registers both approaching and departing vehicles	
8.14.3. Traffic lanes	Most effective for 2-lane roads	
8.14.4. Traffic count	Can record data for up to 5 million vehicles in internal memory	
8.14.5. Data format	Speed, date, time, direction, length for each vehicle	
8.14.6. Units	English or metric	
8.14.7. Time stamp	Yr,Mo,Dy,Hr,Min,Sec	
8.14.8. Speed range	5 to 138 mph (8 to 222 km/h)	
8.14.9. Sensor	Microwave K-band 24.125 GHz	
8.14.10. Power supply	Message sign batteries	
8.14.11. Power output	20 dbm (EIRP)	
8.14.12. Current	110 mA	
8.14.13. Internal memory	16GB	
8.14.14. Baud rate	9600, 8 bit, no parity	
8.14.15. Calibration	Calibration not required	
8.14.16. Regulatory rating	FCC part 15 class A, Canadian RSS-210	

8.14.17. Installation	Automatically positioned horizontally when trailer is level; adjustable bracket allows user to point toward traffic at a 45-degree angle
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8.14.18. Analytic software	Wanco Traffic Analyzer
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8.15. Remote-Video Monitoring System

8.15.1. Description	Monitor activity around the trailer remotely, using an integrally installed video camera and a computer with an Internet connection
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Specifications for this option are provided in a separate document

EXHIBIT A: MESSAGE FONTS



Font 1

5 x 7 pixels

Equivalent size: 12.80" x 18.00" (325 x 457mm)

Physical size: 11.64" x 16.84" (296 x 428mm)

Standard fixed-width font with lower-case letters

3 lines of 8 characters, maximum



Font 2

5 x 7 pixels

Equivalent size: 12.80" x 18.00" (325 x 457mm)

Physical size: 11.64" x 16.84" (296 x 428mm)

Fixed-width font with lower-case letters

3 lines of 8 characters, maximum



Font 3

6 x 9 pixels

Equivalent size: 15.40" x 23.20" (391 x 589mm)

Physical size: 14.24" x 22.04" (362 x 560mm)

Bold proportional font with 4x9-pixel capitals for lower-case letters

2 lines of 7 characters, typical



Font 4

6 x 11 pixels

Equivalent size: 15.40" x 28.39" (391 x 721mm)

Physical size: 14.24" x 27.23" (362 x 692mm)

Bold proportional font with lower-case letters and accented characters

2 lines of 6 characters, typical



Font 5

6 x 11 pixels

Equivalent size: 15.40" x 28.39" (391 x 721mm)

Physical size: 14.24" x 27.23" (362 x 692mm)

Bold proportional font with lower-case letters, accented characters, and increased spacing

2 lines of 6 characters, typical



Font 6

5 x 12 pixels

Equivalent size: 12.80" x 30.99" (325 x 787mm)

Physical size: 11.64" x 29.83" (296 x 758mm)

Tall fixed-width font with 5x8-pixel capitals for lower-case letters

2 lines of 8 characters, maximum



Font 7

7 x 12 pixels

Equivalent size: 18.00" x 30.99" (457 x 787mm)

Physical size: 16.84" x 29.83" (428 x 758mm)

Bold fixed-width font with 6x8-pixel capitals for lower-case letters

2 lines of 6 characters, maximum



Font 8

7 x 23 pixels

Equivalent size: 18.00" x 59.57" (457 x 1513mm)

Physical size: 16.84" x 58.42" (428 x 1484mm)

Large fixed-width font with 6x14-pixel capitals for lower-case letters

1 line of 6 characters, maximum



Font 9

11 x 23 pixels

Equivalent size: 28.39" x 59.57" (721 x 1513mm)

Physical size: 27.23" x 58.42" (692 x 1484mm)

Large bold fixed-width font, capitals only (no lower-case letters)

1 line of 4 characters, maximum



Font 10

4 x 5 pixels

Equivalent size: 10.20" x 12.80" (259 x 325mm)

Physical size: 9.05" x 11.64" (230 x 296mm)

Mini proportional font with limited lower-case

4 lines of 9 characters, typical

12 characters per line, maximum



Font 11

7 x 10 pixels

Equivalent size: 18.00" x 25.80" (457 x 655mm)

Physical size: 16.84" x 24.64" (428 x 626mm)

Large fixed-width font, capitals only (no lower-case letters)

2 lines of 5 characters, maximum



Font 12

9 x 14 pixels

Equivalent size: 23.20" x 36.19" (589 x 919mm)

Physical size: 22.04" x 35.03" (560 x 890mm)

Large bold fixed-width font, capitals only (no lower-case letters)

1 line of 4 characters, maximum

EXHIBIT B: ARROW-BOARD FUNCTIONS

Flashing patterns



Flashing left or right arrow



Flashing double arrow



Flashing four-corner warning



Flashing caution-bar warning

Sequential patterns



Sequencing left or right stem arrow



Sequencing left or right walking arrow



Sequencing left or right chevron arrows



Alternating diamonds



Wanco Variable Message Signs

WANCO manufactures a product that is NOT the cheapest in the market; we are the industry majority **holding 65% of the market**. We supply our devices internationally and to over 40 different sectors. Naturally, in any business we do have competitors, but understand our competitors take 35% as a majority. They mainly will use a low price strategy (where they try to offer a cheaper product), they will use an exclusive strategy (where they pick one dealer for a whole state to push their product), or they will use a coupling strategy (where they offer free modems, cell service, batteries, or solar, in hopes of acquiring business). There are many reasons why clients pick Wanco and these reasons can be further examined below.

Wanco and I believe we manufacture a product that will reduce your **LIABILITY**. What I mean by this is we manufacture a product that we believe is built to higher quality standards. We engineer our devices to mitigate ergonomic and health and safety issues. We design our products for maximum efficiency and longevity and consider how the design of a product if not carefully considered will influence **YOU**.

How WANCO Message Board's (MB) reduce **Liability**

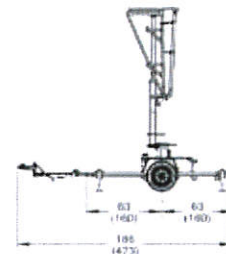
1. Tow-ability.

Our products are traffic-calming devices; they are routinely moved to various locations as needed. If the act of towing a device is unsafe or dangerous, that is a major liability.

Wanco uses large tires, 15" for better tow ability, and a 5' long removable draw bar. We 40% over weld the structural points on our trailer frame. We supply a fifth wheel on the draw bar at no charge. This feature allows the MB to be moved around a yard with ease and reduces low back strains, as the sign is less likely to be needed to be picked up.

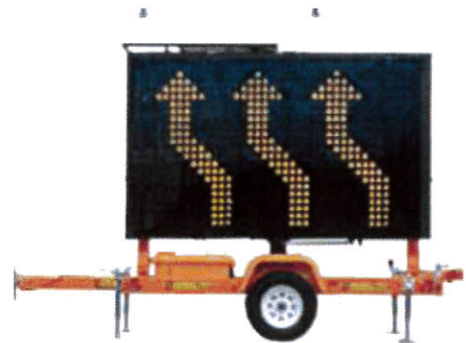
These features increase safety as other MFG's use wheels 13" or smaller and a 4' draw bar, that results in fishtailing or wobbling. A unit that has weak welds or structural connections, and that fishtails is a liability.

WANCO ----->





Others ----->



2. ICC In Cabinet Touch Screen Controller

We use an ICC Touch Screen Controller.

The mounting location of our controller is critical, as Wanco is the only mfg who mounts the controller on the back of the display of the sign. From the design of our product, we reduce your liability, as this will allow the following;

1. A display-mounted controller compared to a frame mounted controller or a controller mounted in a battery box will improve operator ergonomics. It allows the operator to raise the sign, rotate as needed, to have a clear line of sight of what is coming towards him.
2. Clients state this controller is the easiest to use in the market.
3. This design also eliminates wires and cables from being external and keeps them inside the board. Resulting in a decrease in mntc, or reduction in the liability that can occur with wires dangling in the air. A frame mounted controller or a controller mounted in a battery box will have external wires dangling and these will likely be damaged.



Frame-mounted controllers increases the risks for back injuries and prevents the operator from seeing oncoming traffic. Some mount controllers in a battery box, which is not recommend as it exposes personnel to dangerous chemicals, reduces operator visibility, and can degrade sensitive electronics. An in cabinet capacitive touch screen is the safest and most ergonomical controller in the market.



To the left is another brand that has the controller mounted inside a plastic battery box.

Wanco uses a steel battery box that houses the batteries and charger.

Our controller is mounted on the back of the display.





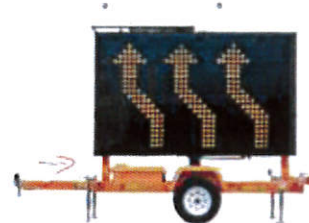
3. Battery Box

Our box does not open in the direction of travel; other units do open in the direction of travel. If the lid can open in the direction of travel, you are at risk for the battery box to open when in motion! If for example, a plastic battery box is broken into or the lid flies off into traffic, you will be liable. Our battery box is steel not plastic, which decreases the risks for theft and is more robust than plastic. We have various battery box styles for various needs.



Wanco to the left.

Others use plastic battery boxes



4. Stability/Breaks/Trailer Footprint

We use a disc brake to secure the mast in place, while others use a pin. Critical as if you have a wind gust over 85MPH our design could rotate in theory, others with a pin design would blow over. Disc brakes are high quality compared to a pin. Wanco uses a trailer footprint that is 30% larger than others, improving performance and reducing the liability of these assets falling over.

Others...



5. Efficiency & Longevity

Wanco produces the most efficient MB in the industry requiring about ½ the power consumption of others. To understand how we do this you should understand some general info on best practices.

Power consumption: LED's have a design requirement to be powered between 10-30ma for optimum Performance.

Over driving an LED:

- Degrades the color range from amber to a dark orange color.
- Greatly shortens the life of the LED.
- Consumes more battery power and solar charging performance.

Under driving an LED:

- Hard to control the uniformity of the light brightness. Pixels will appear to be different brightness's.
- If pulse width modulated is too low, the human eye may see a flickering of the sign.



Conclusion: Keep the LED between the recommended power curves, 10 -30ma per string.

What does Wanco do to address these issues?

Wanco feels that all LED's should not be treated equal. Individuality of each LED is important. To obtain this LED individuality Wanco places an optical lens in front of each pixel. This lens redirects the light focal point for each LED inside the pixel. Taking light that would be directed over the head of the individual to focusing light directly to the individual. Four LEDs are used on the interstate spec message signs to obtain larger character sizes, brighter signs, and optimize the different viewing angles at all distance lengths.



Our Lenses do the following:

Pixel #1: The LONG distance LED. This optical lens has a horizontal and vertical viewing angle of 6.0 degrees.

Pixel #2: The mid-long LED. This optical lens has a horizontal angle: 15.0 degrees; vertical angle: 7.0 Degrees

Pixel #3: The mid-short LED. This optical lens has a horizontal angle: 30.0 degrees and vertical angle: 6.0 degrees with a tilt down toward ground of 1.34 degrees.

Pixel #4: The wide angle LED. This optical lens has a horizontal angle of 50.0 degrees and vertical angle of 8.0 degrees with a tilt down to ground of 2.34 degrees.

WANCO has the largest portfolio of message signs, for boards that are not on the interstate road network, they do not need to adhere to 1-mile visibility or the interstate specification. Wanco produces various size boards for various needs. The Metro Medium & Metro Large are our smallest size boards. These signs are targeted for areas where speeds are under 45MPH. Metro Boards, use a smaller display, take about 1/3 the size of a full size message sign, and as it is a different board for a different need; we use different LED's and optical lenses. This is described below.

Smaller message signs: Metro Medium & Metro Large

Two LEDs used on the smaller trailers and vehicle units to obtain smaller character sizes, LED power consumption curves; and proper viewing angles for reduced viewing distances.

Pixel #1: Distance LED. This optical lens has a horizontal angle: 15.0 degrees and vertical angel: 7.0 degrees with a tilt angel to ground at 0.84 degrees.

Pixel #2: Wide angle LED. This optical lens has a horizontal angle: 50.0 degrees and vertical angle: 8.0degrees with a tilt down to ground of 2.34 degrees.

Conclusion:

Wanco feels we need a two LED pixel for smaller trailers and vehicle message signs and four LEDs for larger trailers with greater distance viewing. We design our products to accomplish all aspects of making the message sign readable; covering distance, viewing angle, and not over driving the power of the LED in our design.



Now that you know that, you should know Wanco boards are the most efficient boards in the industry, we have the follow differentiators;

1. We source higher quality LED's that last longer than most.
2. We use lenses over our LEDs to direct the light where we want it to go and power that LED with the adequate consumption as noted above.
3. Heat is the largest proponent to LED failure so we cool our LED's with two cool fans which operate automatically when the board reaches 160 degrees, this increases the longevity of LED's and decreases your liability as our LED's will have less failures.
4. Four isolator pads are used behind our character cards to reduce impact. Obviously, more impact the LED's take, the more likely they will fail, an isolator pad reduces impact and shock. This is key to prolonging character card life.
5. We use visors to shade our LED's to dissipate heat, just like the visor in your car to keep the sun from shining in your eyes.



Understanding if a MB requires service due to faulty character cards or needs to be charged, personnel must now enter a known hazard like a work zone to complete this service; this act puts them at a higher risk for something to occur. By this act occurring, the liability you face is increased.

Both images below are on a sunny day, Wanco MB's are the most efficient boards in the business and reduce your liability. With 3hrs of sunlight, our boards are fully charged.



You should not have to charge a Wanco Message Board.

With other Brands, you may consider adding the costs of an additional power source to charger your asset in winter months.



6. Conformal Coating

A conformal coating on the LED panels prolonging life, and reduces damage from dust, dirt, and moisture. We take the time to do this, as we know it is critical. This protective layer allows us to offer a 5-year warranty! Character cards are the most expensive component of a message sign, if factoring a bid on price, are parts and mntc considered? If this is not done you may want to consider the investment of replacing the most expensive part being character cards.

7. Quality-where it counts

The tower is the most critical structural connection on the sign. If this connection fails you run the risk of a display cabinet coming off, can you image the impact that would have on YOU? Wanco uses a hot dipped galvanized tower



base. The average life expectancy of this tower is more than 30 years. Cheaper mfgs do not do this, increasing your chance of a structural failure.

8. Security

As these are traffic-calming devices required by the federal government, and these devices are typical left outside, you will be liable if components are tampered with or stolen. Wanaco builds security into the product. We take security seriously throughout the entire design. You have multiple locking points on the display cabinet, battery box, and controller. All four jack stands can be locked with pad locks. If any component of a message sign is tampered with or stolen, you will be impacted. Below is an image of what happens when controllers are not locked or not secure.



9. Warranty.

We lead the industry with our warranty being **5 Years**.

WANCO trailer-mounted variable message signs

Control box including internal components — 5 years (60 months)

WANCO printed circuit boards — 5 years (60 months)

WANCO LED display modules (character boards) — 5 years (60 months)

Trailer, sign — 5 years (60 months)

Camera, solar panels, charger, batteries, axle, tires — see Mfr. Warranties and Exclusions

We can offer a warranty for this long due to the efficiency and reliability of our product, if others try to match the warranty you must understand there are reasons why Wanaco offers and leads with this, compared to others who do not.

10. Wanaco Network

Wanaco is the largest mfg. of Traffic Safety Product in the world. We supply the majority of these devices being about 65% of the market. Equipped with one **18-acre** state of the art facility located in Arvada, CO, we hear we stand out. Couple our size and ability to produce with more stocking dealers and distributors in your local area; we can solve your problems. When your needs for these devices come up, selecting Wanaco ensures a product that is built with quality and is made in America!



If your organization requires a bid process and you make the decision solely on price, do you consider the impacts of not having a local support network, do you value people you can call who stock local parts, and will do repairs and supply you a rental when in a pinch?

Wanco has more dealers who stock, service, sell, rent, and repair our products than any other mfg in your local market!



Overall, these points of discussion are reasons why WANCO products decrease LIABILITY. These are the reasons why people invest in our product despite the upfront cost being more initially, they recognize choosing Wanco will decrease their liability and save them money over the life of the asset.



If after reviewing this data, you need to develop specs for your organization and want to ensure you get the correct type and quality product, the info below should help with creating specifications.

-Full 5-year PUBLISHED warranty on all Wanco-made components (Buyer Beware that many companies have published warranties of only 1 or 2 years, particularly on Display Modules/Character Cards. Some will extend their warranty in initial quotes to match Wanco and try to meet your spec, but may not keep records of which shipped units have this extension. If it is not the standard PUBLISHED warranty, you may have trouble getting warranty service on the units. There is a reason why other companies can only warrant their products for 1 or 2 years.).

- In Cabinet Control panel at eye height.
- Lockable lift switch and controller.
- Removable drawbar to help prevent theft and ease replacement in case of accident. Also facilitates loading more units on trucks and storing more in less yard space.
- Front wheel (on drawbar) near hitch for easy movement without forklift. Boards can easily be moved by hand—one person—if needed.
- Phosphate-washed, Media-blasted and Powder-Coated Steel Frame
- Hot Dipped Galvanized Mast
- 2 cooling fans (important for LED life in Hot Summers)
- Vibration isolators for character panels (reduces shock and potential for damage during movement and transport)—this is one of the things that makes it possible for Wanco to warranty our display modules/characters for 5 years.
- Conformal plasticized coating on the display cards (eliminates issues from condensation and humidity)
- 4 LEDs per pixel with lenses and Pulse Width Modulation (for Efficiency, long LED life and advanced visibility to motorists) 2 LEDs for smaller trailers to obtain smaller character sizes, LED power consumption curves; and proper viewing angles for reduced viewing distances.
- 360 display rotation
- Camera wiring enclosed in loom or other protective covering
- Full Radar Speed Warning/Advisory setup and message support built in
- Full-color capacitive touchscreen controller with high-resolution display

Remote Communication Specs

- Cellular antennas placed on top of units (for best range to cell towers)
- 4G router (for advanced communication speed and accessibility)
- Message Board Remote access through the cloud, web-enabled requires no downloads or updates. Works on Smartphones, iPads, Laptops—any web-enabled device
- Accurate and real-time data



- Message management
- Mass-message broadcast
- Temperature and electrical system graphs
- Real-time access to equipment health information, including battery charge, alarms and electrical and physical information.
- GPS mapping to identify and locate fleet equipment
- Geofencing to designate specific areas where equipment is allowed, with notifications and configurable alarms that are triggered when boundaries are breached.
- Ability to Monitor and change messages on message signs, and send mass-message broadcasts to multiple signs.

If you need any other specs, brochures, or data you can find them on this webpage;

<https://www.wanco.com/products/variable-message-signs/>

If you do not know the sign that is best for your application, this one-minute video will help you to understand your options <https://www.youtube.com/watch?v=unRk48X8E2I&t=1s>

If you use the above points and these specs that would help to ensure you get the product you want.

Further Questions can be sent here:

Daniel Lorine
Mid-Atlantic Sales Manager
[303-476-8321](tel:303-476-8321) CELL
[303-867-3495](tel:303-867-3495) FAX
<https://zoom.us/j/2415384524> ZOOM
dan.lorine@wanco.com EMAIL

Wanco® Traffic Safety Products

MANUFACTURER'S LIMITED WARRANTY

Scope of Warranty

WANCO INCORPORATED (WANCO) warrants to the original purchaser (PURCHASER) that each product of its manufacture (PRODUCT) is covered by this warranty from the date of original purchase if properly installed, serviced, and operated under normal conditions. Any part or parts thereof replaced during the base warranty period assumes the remainder of that warranty period or the parts warranty period, whichever is greater. The warranty coverage for the PRODUCT is continual from the original date of purchase and does not restart upon the replacement of any part or complete unit.

Eligibility

To be eligible for warranty service, the PRODUCT or replacement part must have been purchased from an authorized WANCO distributor or dealer. This warranty applies to PURCHASER only and is not transferable. Proof of purchase is required.

Coverage

Parts and service labor will be covered by WANCO for any failure that is proven to be a failure in material or workmanship under normal use during the applicable warranty period. This coverage is limited to parts and labor. The warranty for replacement parts is limited to direct replacement only with no allowance for freight or transportation charges.

Reimbursement of labor charges to replace a defective part within its warranty period will be limited only to authorized WANCO service centers and then only if the authorized service center installs the replacement part. Travel time and expenses are not covered, authorized, or reimbursed.

WANCO reserves the right to repair or replace any part, component, or assembly at its option. WANCO may request defective parts be returned for examination before the issuance of credit. Any item that is replaced under warranty becomes the property of WANCO.

Purchaser's Responsibilities

The PURCHASER is responsible for maintaining the PRODUCT as described in the PRODUCT instruction manuals. WANCO recommends retaining all records and receipts regarding maintenance of PRODUCT.

The PURCHASER is required to take the PRODUCT to an authorized WANCO service center for repairs as soon as a problem exists. For warranty service, contact an authorized WANCO dealer or service center. To locate a dealer or service center, contact WANCO by calling 1-303-427-5700 or visiting www.wanco.com.

When contacting a dealer, a service center, or WANCO, include a description of the problem as well as all return contact information such as address, phone number, fax number, and email address. PRODUCT serial number or VIN, and proof of purchase and registration are required.

Exclusions

THIS WARRANTY SHALL NOT APPLY TO ANY WANCO PRODUCT OR PARTS THEREOF THAT MUST BE REPLACED BECAUSE OF NORMAL WEAR, THAT HAS BEEN SUBJECT TO ALTERATION, MISUSE, NEGLIGENCE, ACCIDENT OR COLLISION, NATURAL DISASTER OR ACTS OF NATURE, THAT HAS BEEN DAMAGED DUE TO SHIPPING, TRANSPORT OR HANDLING, FUEL OR ANY OTHER FLUID CONTAMINATION OR DEGRADATION, THAT HAS FAILED DUE TO MISAPPLICATION OR USE OF THE PRODUCT IN A MANNER INCONSISTENT WITH SUCH PRODUCT'S DESIGN OR INTENDED PURPOSE, OR THAT HAS BEEN SUBJECT TO ANY OTHER ACT, OMISSION OR CIRCUMSTANCE BEYOND WANCO'S REASONABLE CONTROL.

THIS WARRANTY DOES NOT EXTEND TO NORMAL MAINTENANCE ITEMS SUCH AS BELTS, HOSES, SPARK PLUGS, AND FILTERS PAST THE FIRST SCHEDULED REPLACEMENT OR SERVICE INTERVAL FOR THESE ITEMS, WHICHEVER COMES FIRST.

WANCO makes no warranties with respect to engines, batteries, battery chargers, axles, tires, or other component parts or accessories not manufactured by WANCO, same being subject only to such warranties, if any, as may be made by their respective manufacturers. Use on any PRODUCT of replacement parts other than WANCO-certified replacement parts purchased through WANCO or an authorized WANCO distributor or dealer shall void this warranty.

Disclaimer of Consequential Damage and Limitation of Implied Warranties

WANCO DENIES ANY RESPONSIBILITY FOR LOSS OF TIME OR USE OF THE PRODUCT, TRANSPORTATION, COMMERCIAL LOSS, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGE. ANY IMPLIED WARRANTIES ARE LIMITED TO THE DURATION OF THIS WRITTEN LIMITED WARRANTY.

THIS WARRANTY, AND WANCO'S OBLIGATION HEREUNDER, IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, and all other obligations or

liabilities including special or consequential damages or contingent liabilities arising out of the failure of any product or part to operate properly. WANCO shall not be liable for any special, indirect, incidental, or consequential damages whether in contract, in tort, under any warranty, or otherwise beyond the warranty stated herein for PRODUCTS or parts.

No person is authorized to give any other warranty or to assume any additional obligation on WANCO's behalf unless made in writing and signed by an officer of WANCO. This warranty, dated November 2018, supersedes all prior and undated WANCO warranty statements for traffic safety products, except statements authorized by WANCO in individual contracts.

Length of Warranty

WANCO trailer- and pole-mounted variable message signs

WANCO message sign conversion kits

Control box including internal components 5 years (60 months)
WANCO printed circuit boards 5 years (60 months)
WANCO LED display modules (character boards) 5 years (60 months)
Trailer, sign 5 years (60 months)
Camera, solar panels, charger, batteries, axle, tires see *Mfr. Warranties and Exclusions*

WANCO vehicle-mounted message signs

Control box including internal components 2 years (24 months)
WANCO printed circuit boards 2 years (24 months)
WANCO LED display modules (character boards) 2 years (24 months)
Sign, frame 2 years (24 months)
Electric actuator see *Mfr. Warranties and Exclusions*

WANCO trailer- and skid-mounted arrow boards

Control box including internal components 5 years (60 months)
Display panel LED lights 5 years (60 months)
Batteries, 12VDC VRLA only 4 years (48 months)
Trailer, sign, frame 5 years (60 months)
Solar panels, charger, other batteries, axle, tires see *Mfr. Warranties and Exclusions*

WANCO vehicle-mount arrow boards

Control box including internal components 2 years (24 months)
Display panel LED lights 5 years (60 months)
Display panel halogen lights 1 month (30 days)
Sign, frame 1 year (12 months)
Electric actuator see *Mfr. Warranties and Exclusions*

WANCO radar-speed signs and variable speed limit signs

Control box including internal components 5 years (60 months)
WANCO printed circuit boards 5 years (60 months)
WANCO LED display modules (character boards) 5 years (60 months)
Radar head 2 years (24 months)
Trailer, sign, frame 5 years (60 months)
Solar panels, charger, batteries, axle, tires see *Mfr. Warranties and Exclusions*

WANCO caution beacons

Control box including internal components 1 year (12 months)
LED lights 2 years (24 months)
Solar panels, batteries see *Mfr. Warranties and Exclusions*

WANCO traffic data collectors 2 years (24 months)

WANCO asset tracker

Internal electronics 5 years (60 months)

WANCO 4G modem 2 years (24 months)

WANCO X-Marker™ L-893(L) runway closure marker

. 1 year (12 months) after start of service or 2 years (24 months) after purchase, whichever is later
LED lights 5 years (60 months) after start of service
Engine, generator 2 years (24 months) or 2,000 hours of operation, whichever is earlier
Batteries, axle, tires see *Mfr. Warranties and Exclusions*

All other WANCO traffic safety products

. 1 year (12 months) after start of service or 18 months after purchase, whichever is earlier
Engine, solar panels, charger, batteries, axle, tires see *Mfr. Warranties and Exclusions*

Mfr. Warranties (provided by their respective manufacturers)

Solar panels 20 years by manufacturer
AC battery chargers 1 year by manufacturer, prorated
Batteries other than 12VDC VRLA 1 year by manufacturer, prorated
Electric actuators 1 year by manufacturer, prorated
Cameras varies
Engines, generators, batteries, axles, tires, other components not specified varies