



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.

Header #1

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Procurement Folder: 1655390

Procurement Type: Central Master Agreement

Vendor ID: 000006170058

Legal Name: ROTH MASTER INC

Alias/OSA:

Total Bid: 5171,320.00

Response Date: 8/18/2025

Response Time: 16:12

Responded By User ID: Mike VarScopPMB

First Name: Mike

Last Name: VarScop

Email: mike.varscop@pathbreakers.com

Phone: 330-425-4884

SO Doc Code: CRFD

SO Dept: 9903

SO Doc ID: S012548000657

Published Date: 4/3/25

Close Date: 4/18/25

Close Time: 12:35

Status: Closed

Solicitation Description: Miscellaneous Interchangeable Traffic Signal Equipment

Total of Header Attachments: 6

Total of All Attachments: 6



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

State of West Virginia
Solicitation Response

Proc Folder: 1655350
Solicitation Description: Miscellaneous InterchangeableTraffic Signal Equipment
Proc Type: Central Master Agreement

Solicitation Closes	Solicitation Response	Version
2025-04-16 13:30	SR 0803 ESR04162500000006260	1

VENDOR
000000176550
PATH MASTER INC

Solicitation Number: CRFQ 0803 DOT2500000057
Total Bid: 171320
Response Date: 2025-04-16
Response Time: 10:12:10
Comments: Bidding equivalent throughout. Cut sheets attached for review.

FOR INFORMATION CONTACT THE BUYER
John W Estep
304-558-2566
john.w.estep@wv.gov

Vendor
Signature X **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	Traffic Signal Conflict Monitor	30.00000	EA	1225.000000	36750.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Traffic Signal Conflict Monitor

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Traffic Signal Conflict Monitor	30.00000	EA	1357.000000	40710.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Traffic Signal Conflict Monitor

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Bus Interface Unit	30.00000	EA	369.000000	11070.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Bus Interface Unit

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Green LED Signal Lamp	200.00000	EA	33.000000	6600.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Green LED Signal Lamp

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Yellow LED Signal Lamp	200.00000	EA	33.000000	6600.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Yellow LED Signal Lamp

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	Red LED Signal Lamp	200.00000	EA	33.000000	6600.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Red LED Signal Lamp

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
7	Green Arrow LED Signal Lamp	1.00000	EA	35.000000	35.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Green Arrow LED Signal Lamp

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
8	Yellow Arrow LED Signal Lamp	1.00000	EA	35.000000	35.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Yellow Arrow LED Signal Lamp

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
9	Red Arrow LED Signal Lamp	0.00000	EA	35.000000	0.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Red Arrow LED Signal Lamp

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
10	3 Head Signal Housing and Hardware	1.00000	EA	855.000000	855.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

3 Head Signal Housing and Hardware

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
11	5 Head Signal Housing and Hardware	1.00000	EA	1490.000000	1490.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

5 Head Signal Housing and Hardware

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
12	LED Pedestrian Head with Housing and Mounting Hardware	30.00000	EA	446.000000	13380.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

LED Pedestrian Head with Housing and Mounting Hardware

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
13	Audible Pedestrian Push Button	30.00000	EA	685.000000	20550.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Audible Pedestrian Push Button

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
14	PS 175 B 4 Channel Rack Mounted Power Supply or equivalent	50.00000	EA	290.000000	14500.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

PS 175 B 4 Channel Rack Mounted Power Supply or equivalent

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
15	TS2 Cabinet Power Supply	15.00000	EA	583.000000	8745.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

TS2 Cabinet Power Supply

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
16	Tiem Clocks	5.00000	EA	536.000000	2680.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Tiem Clocks

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
17	Flash Transfer Relays	20.00000	EA	36.000000	720.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments: Bidding equivalent throughout. Cut sheets attached for review.

Extended Description:

Flash Transfer Relays



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

07/31/2024

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 SeibertKeck Insurance Partners 26865 Center Ridge Rd Westlake OH 44145	CONTACT NAME: Linda Krell PHONE (A/C, No, Ext): (440) 835-9600 E-MAIL ADDRESS: lkrell@seibertkeck.com FAX (A/C, No): (866) 500-7650
INSURED Path Master Inc. 1960 Midway LLC 1960 Midway Drive Twinsburg OH 44087	INSURER(S) AFFORDING COVERAGE INSURER A: Great Northern Insurance Co. INSURER B: Federal Insurance Company INSURER C: INSURER D: INSURER E: INSURER F:
	NAIC # 20303 20281

COVERAGES**CERTIFICATE NUMBER:** 2024-2025 V 1.0**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
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y		35993589	07/31/2024	07/31/2025	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 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
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			000073594899	07/31/2024	07/31/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0			000079898461	07/31/2024	07/31/2025	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000
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 <input type="checkbox"/>	N / A	35993589	07/31/2024	07/31/2025	PER STATUTE <input checked="" type="checkbox"/> OTH-ER Ohio Stop Gap E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate Holder is included as Additional Insured for General Liability where required by written contract or agreement per 80-02-2367 (5/07).

CERTIFICATE HOLDER**CANCELLATION**State of West Virginia
1900 Kanawha Blvd E.
Bldg 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

Linda J Krell

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GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, 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: The Initial Contract Term will be for a period of One (1) year. The Initial Contract Term becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as _____), and the Initial Contract Term ends on the effective end date also shown on the first page of this Contract.

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:

☐ the contract will continue for _____ years;

☐ the 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).

☐ **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.

☐ **Construction/Project Oversight:** This Contract becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as _____), and continues until the project for which the vendor is providing oversight is complete.

☐ **Other:** Contract Term specified in _____

4. AUTHORITY TO PROCEED: Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked in Section 3 above. If either "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

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/Award Document 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.

☐ **Construction:** This Contract is for construction activity more fully defined in the specifications.

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 in this section must be provided to the Purchasing Division by the Vendor as specified:

☐ **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.

☐☐☐☐

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 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 that insurance requirement is listed in this section.

Vendor must maintain:

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

☐ **Automobile Liability Insurance** in at least an amount of: _____ 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.

☐

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9. WORKERS' COMPENSATION INSURANCE: 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. VENUE: All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.

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.

☐ Liquidated Damages Are Not Included in this Contract.

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: Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

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, included in the Contract, 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. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

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 regarding 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 www.state.wv.us/admin/purchase/privacy.

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 NON-CONFLICT: Neither Vendor nor its representatives are permitted to have any interest, nor shall they 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.

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. NO DEBT CERTIFICATION: 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. By submitting a bid, or entering into a contract with the State, Vendor is affirming 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, neither the Vendor nor any related party owe a debt as defined above, and neither the Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

38. 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.

39. 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.division@wv.gov.

40. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, 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. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

41. 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.
- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
 1. 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
 2. 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.

42. 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.

43. 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 disclosure of interested parties prior to beginning work under this Contract. Additionally, the Vendor must submit a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-work 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.

44. 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.

45. VOID CONTRACT CLAUSES: This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

46. ISRAEL BOYCOTT: Bidder understands and agrees that, pursuant to W. Va. Code § 5A-3-63, it is prohibited from engaging in a boycott of Israel during the term of 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.

(Printed Name and Title) Halle Van Scoy, Vice President

(Address) 1960 Midway Drive, Twinsburg, OH 44087

(Phone Number) / (Fax Number) 330-425-4994 / 330-425-9338

(email address) halle.vanscoy@pathmasterinc.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract 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/Contract 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 this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; 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; 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Path Master, Inc.

(Company)

Halle Van Scoy

(Signature of Authorized Representative)

Halle Van Scoy, Vice President

April 16, 2025

(Printed Name and Title of Authorized Representative) (Date)

330-425-4994 / 330-425-9338

(Phone Number) (Fax Number)

halle.vanscoy@pathmasterinc.com

(Email Address)

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SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways (WVDOH) to establish an open-end contract for Parts and Equipment for existing Traffic Signal Systems (TSS) and Intelligent Transportation Systems (ITS) infrastructure.
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 3.1 below and on the Pricing Pages.
 - 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 **“LED”** means Light Emitting Diode.
 - 2.5 **“MMU”** means Malfunctioning Monitoring Unit.
 - 2.6 **“TS1”** means NEMA Standards Publication TS 1-2003 (R2008) Traffic Controller Assemblies for Traffic Signal Systems [updated in 2003, revised in 2008].
 - 2.7 **“TS2”** means NEMA Standards Publication TS 2-2003 (R2008) Traffic Controller Assemblies for Traffic Signal Systems [updated in 2003, revised in 2008].
 - 2.8 **“RFQ”** means Request For Quotation.
 - 2.9 **“ASTM”** means American Society for Testing and Materials.
 - 2.10 **“AASHTO”** means American Association of State Highway Transportation Officials.
 - 2.11 **“NEMA”** means National Electrical Manufacturers Association.

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- 2.12 "Equivalent"** means equal in value, function or quality.
- 2.13** The symbol " %" means percent which means one part in every hundred.
- 2.14 "SEPAC®"** is a registered trade name (trademark) for a traffic signal control software program owned by Siemens/Eagle.
- 2.15 "TACTICS®"** is a registered trade name (trademark) for a traffic signal control software program owned by Siemens/Eagle.
- 2.16 "SEMARC®"** is a registered trade name (trademark) for a traffic signal control software program owned by Siemens/Eagle.
- 2.17 "BIU"** means Bus Interface Unit.
- 2.18 "RC"** means Resistive/Capacitive.
- 2.19 "DC"** means Direct Current.
- 2.20 "AC"** means Alternating Current.
- 2.21 "AWG"** means American Wire Gauge.
- 2.22 "PVC"** means PolyVinyl Chloride.
- 2.23 "SDLC"** means Synchronous Data Link Control.
- 2.24 "HACR"** means Heating, Air-Conditioning and Refrigeration.
- 2.25 "UL"** means Underwriters Laboratories.
- 2.26 "VDC"** means Volts Direct Current.
- 2.27 "VAC"** means Volts Alternating Current.
- 2.28 "GFI"** means Ground-Fault Interrupting.

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- 2.29 “ETL”** means Environmental Testing Laboratories.
- 2.30 “EMTRAC”** is a registered trade name (trademark) for a traffic signal control software program and system owned by STC, Inc.
- 2.31 “FPM”** means Flashes Per Minute.
- 2.32 “I/O”** means Input/Output.
- 2.33 “ARIES®”** is a registered trade name (trademark) for a traffic signal control software program owned by Econolite.
- 2.34 “CENTRACS®”** is a registered trade name (trademark) for a traffic signal control software program owned by Econolite.
- 2.35 “RTV”** is a designation for high-temperature resistive silicone gasket material.
- 2.36 “GE”** means General Electric.
- 2.37 “MUTCD”** means Manual on Uniform Traffic Control Devices (2009 Edition with Revisions 1 and 2, May 2012).
- 2.38 “EMI”** means ElectroMagnetic Interference.
- 2.39 “RFI”** means Radio Frequency Interference.
- 2.40 “FCC”** mean Federal Communications Commission.
- 2.41 “GHZ”** means GigaHertz, a measurement of frequency.
- 2.42 “MHZ”** means MegaHertz, a measurement of frequency.
- 2.43 “CPU”** means Central Processing Unit.
- 2.44 “MPH”** means Miles Per Hour.
- 2.45 “dB”** means decibel, a unit of measuring sound power.

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2.46 "VSWR" means Voltage Standing Wave Ratio.

2.47 "BUS" is a designation for a metal strip or bar.

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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. The specifications of this RFQ and or any WVDOH Standards referenced in and/or attached to this RFQ may include references to specific recognized "industry standard" specifications which are issued by third parties, such as the American Society for Testing and Materials (ASTM) and the American Association of State and Highway Transportation Officials (AASHTO). Such specifications are protected by strict copyright restrictions and cannot be published as part of this RFQ. The ability to access such specifications shall be considered a mandatory requirement for participation in this RFQ process as a Vendor or as a supplier to the Vendor, as applicable.

3.1.1 Contract Item #1 – Traffic Signal Conflict Monitor

3.1.1.1 Contract Item #1 shall be an Edi SSM-LE Monitor or equal, 12- channel conflict monitor.

3.1.2 Contract Item #2 - Traffic Signal Malfunction Management Unit or Equal

3.1.2.1 Contract Item #2 shall be an EDI MMU-LE Series (Model # MMU-16LE) or Equal, 16-channel MMU or equivalent with EIA-232 port.

3.1.3 Contract Item #3 - Traffic Signal Bus Interface Unit or Equal

3.1.3.1 Contract Item #3 shall be an EDI standard-width (Model # BIU-700) or half-width (Model #BIU-700H) bus interface unit or equivalent with EIA-232 port.

3.1.4 Contract Item #4 - Green LED Signal Lamp or Equal

3.1.4.1 Contract Item # 4 shall be a 12-inch green LED signal lamp, GE Lighting Solutions GTX series (Model #DR6-GTFB-77A or # DR6-GTFB-VLA) or Leotek IL6-P3 series (Model

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TSL-12G-LX-IL6-A1-P3) or equivalent and shall carry a five (5) year warranty from the time of purchase.

3.1.5 Contract Item #5 - Yellow LED Signal Lamp or Equal

3.1.5.1 Contract Item #5 shall be a 12-inch yellow LED signal lamp, GE Lighting Solutions GTX series (Model #DR6-YTFB-77A or # DR6-YTFB-VLA) or Leotek IL6-P3 series (Model # TSL-12Y-LX-IL6-A1-P3) or equivalent and shall carry a five (5) year warranty from the time of purchase.

3.1.6 Contract Item #6 - Red LED Signal Lamp or Equal

3.1.6.1 Contract Item #6 shall be a 12-inch red LED signal lamp, GE Lighting Solutions GTX series (Model #DR6-RTFB-77A or # DR6-RTFB-VLA) or Leotek IL6-P3 series (Model # TSL-12R-LX-IL6-A1-P3) or equivalent and shall carry a five (5) year warranty from the time of purchase.

3.1.7 Contract Item #7 – Green Arrow LED Signal Lamp or Equal

3.1.7.1 Contract Item #7 shall be a 12-inch green arrow LED signal lamp, GE Lighting Solutions GT1 series (Model #DR6-GTAAN-17A) or Leotek IL6-P3 series (Model # TSL-12GA-IL6-A1-P3) or equivalent and shall carry a five (5) year warranty from the time of purchase.

3.1.8 Contract Item #8 – Yellow Arrow LED Signal Lamp or Equal

3.1.8.1 Contract Item #8 shall be a 12-inch yellow arrow LED signal lamp, GE Lighting Solutions GT1 series (Model #DR6-YTAAN-17A-YX) or Leotek IL6-P3 series (Model # TSL-12YA-IL6-A1-P3) or equivalent and shall carry a five (5) year warranty from the time of purchase.

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3.1.9 Contract Item #9 – Red Arrow LED Signal Lamp or Equal

3.1.9.1 Contract Item #9 shall be a 12-inch red arrow LED signal lamp, GE Lighting Solutions GT1 series (Model #DR6-RTAAN-17A-YX) or Leotek IL6-P3 series (Model # TSL-12RA-IL6-A1-P3) or equivalent and shall carry a five (5) year warranty from the time of purchase.

3.1.10 Contract Item #10 – Three (3) Section Signal Head Housing and Mounting Hardware or Equal

3.1.10.1 Contract Item #10 shall be a three (3) section signal head configuration traffic signal enclosure for LED lamps, Mobotrex Eagle Traffic Control Systems SG or SA series or equivalent, with aluminum or polycarbonate housing and stainless steel hardware, in full compliance with the MUTCD.

3.1.11 Contract Item #11 – Five (5) Section Signal Head Housing and Mounting Hardware or Equal

3.1.11.1 Contract Item #11 shall be a five (5) section signal head configuration traffic signal enclosure for LED lamps, Mobotrex Eagle Traffic Control Systems SG or SA series or equivalent, with aluminum or polycarbonate housing and stainless steel hardware, in full compliance with the MUTCD.

3.1.12 Contract Item #12 - LED Pedestrian Signal Head with Housing and Mounting Hardware or Equal

3.1.12.1 Contract Item #12 shall be a 16-inch by 18-inch LED countdown pedestrian signal, GE Lighting Solutions GT1 series (Model # PS7-CFF1-27A-J) or equivalent in full compliance with the MUTCD.

3.1.13 Contract Item #13 - Audible Pedestrian Push Button or Equal

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3.1.13.1 Contract Item #13 shall be a Polara Model #iN3 or Campbell Model #APS or Pelco Intellicross APS or equivalent.

Commented [EDL1]: Just "APS"

3.1.14 Contract Item #14 – Rack Mounted Cabinet Power Supply or Equal

Commented [EDL2]: Needs to match the updated APL for April 22, 2019.

3.1.14.1 Contract Item #14 shall be a NEMA TS-1 rack mounted cabinet power supply, EDI PS175B or equivalent.

3.1.15 Contract Item #15 - TS2 Cabinet Power Supply or Equal

3.1.15.1 Contract Item #15 shall be a NEMA TS-2 cabinet power supply, EDI Model #PS-250 or equivalent.

3.1.16 Contract Item #16 - Time Clocks or Equal

3.1.16.1 Contract Item #16 shall an ELTEC Model # TC-18 or Equal programmable time clock or equivalent.

3.1.17 Contract Item #17- Flash Transfer Relays or Equal

3.1.17.1 Contract Item #17 shall be Struthers-Dunn Model #W21ACPX-2/W21ACPXD-5 or equivalent.

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 by completing Exhibit A by entering the Unit Price for each commodity line item requested. The Exhibit A Pricing Pages are supplied in Excel and formatted to calculate the Extended Cost

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and the Grand Total Cost. It is the vendor's responsibility to ensure the calculations for their bid is correct before submitting. Vendor should complete the Pricing Pages in their entirety as failure to do so may result in Vendor's bids being disqualified.

The Pricing Pages contain 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: John.W.Estep@wv.gov.

5 ORDERING AND PAYMENT:

- 5.1 Ordering:** Vendor shall accept orders through WVOASIS, regular mail, facsimile, e-mail, or any other written form 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.
- 5.1 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

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6 DELIVERY AND RETURN:

6.1 Delivery Time: Vendor shall deliver standard orders within thirty-two (32) working days after orders are received. The vendor shall deliver emergency orders within three (3) working day(s) after orders are received. The 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 order not received in full after thirty-two (32) working days of ARO will be penalized \$40.00 per calendar day until order is completed in full.

Any Agency seeking to obtain items from a third party under this provision must first obtain the 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 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. The vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

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- 6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

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.

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7.2 The following remedies shall be available to the 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 **Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.

8.3 **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.

8.4 **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: Halle Van Scoy
Telephone Number: 330-425-4994 x114
Fax Number: 330-425-9338
Email Address: halle.vanscoy@pathmasterinc.com



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

State of West Virginia
Centralized Request for Quote
Public Safety

Proc Folder: 1655350			Reason for Modification:
Doc Description: Miscellaneous InterchangeableTraffic Signal Equipment			
Proc Type: Central Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2025-04-03	2025-04-16 13:30	CRFQ 0803 DOT2500000057	1

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code: 000 000 176550
Vendor Name : Path Master, Inc.
Address : 1960
Street : Midway Drive
City : Twinsburg
State : Ohio **Country :** United States **Zip :** 44087
Principal Contact : Halle Van Scoy
Vendor Contact Phone: 330-425-4994 **Extension:** 114

FOR INFORMATION CONTACT THE BUYER

John W Estep
304-558-2566
john.w.estep@wv.gov

Vendor Signature X *Halle Van Scoy* **FEIN#** 34-1233777 **DATE** *April 16, 2025*

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

ADDITIONAL INFORMATION**REQUEST FOR QUOTATION:**

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways (WVDOH) to establish an open-end contract for Parts and Equipment for existing Traffic Signal Systems (TSS) and Intelligent Transportation Systems (ITS) infrastructure. Per the Bid Requirements, Specifications, Terms and Conditions attached to this solicitation.

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US		DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Traffic Signal Conflict Monitor	30.00000	EA	\$1,225.00	\$36,750.00

Comm Code	Manufacturer	Specification	Model #
46161504	Eberle Design Inc.		SSM-12LE

Extended Description:

Traffic Signal Conflict Monitor

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US		DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Traffic Signal Conflict Monitor	30.00000	EA	\$1,357.00	\$20,355.00

Comm Code	Manufacturer	Specification	Model #
46161504	Eberle Design Inc.		MMU2-16LEip

Extended Description:

Traffic Signal Conflict Monitor

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US		DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Bus Interface Unit	30.00000	EA	\$369.00	\$11,070.00

Comm Code	Manufacturer	Specification	Model #
46161504	Eberle Design Inc.		BIU-700

Extended Description:

Bus Interface Unit

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US		DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Green LED Signal Lamp	200.00000	EA	\$33.00	\$6,600.00

Comm Code	Manufacturer	Specification	Model #
46161504	Current Lighting Solutions, LLC.		DR6-GCFB-VLA

Extended Description:

Green LED Signal Lamp

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US		DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Yellow LED Signal Lamp	200.00000	EA	\$33.00	\$6,600.00

Comm Code	Manufacturer	Specification	Model #
46161504	Current Lighting Solutions, LLC.		DR6-YTFB-VLA

Extended Description:

Yellow LED Signal Lamp

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US		DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	Red LED Signal Lamp	200.00000	EA	\$33.00	\$6,600.00

Comm Code	Manufacturer	Specification	Model #
46161504	Current Lighting Solutions, LLC.		DR6-RTFB-VLA

Extended Description:

Red LED Signal Lamp

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	Green Arrow LED Signal Lamp	1.00000	EA	\$35.00	\$35.00

Comm Code	Manufacturer	Specification	Model #
46161504	Current Lighting Solutions, LLC.		DR6-GCAAN-VLA

Extended Description:

Green Arrow LED Signal Lamp

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	Yellow Arrow LED Signal Lamp	1.00000	EA	\$35.00	\$35.00

Comm Code	Manufacturer	Specification	Model #
46161504	Current Lighting Solutions, LLC.		DR6-YTAAN-VLA

Extended Description:

Yellow Arrow LED Signal Lamp

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	Red Arrow LED Signal Lamp	0.00000	EA	\$35.00	\$35.00

Comm Code	Manufacturer	Specification	Model #
46161504	Current Lighting Solutions, LLC.		DR6-GCAAN-VLA

Extended Description:
Red Arrow LED Signal Lamp

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
10	3 Head Signal Housing and Hardware	1.00000	EA	\$855.00	\$855.00

Comm Code	Manufacturer	Specification	Model #
46161504	Oriux Pelco Products, Inc.		S054592 and S012922 Various (See Attached Cut Sheets)

Extended Description:
3 Head Signal Housing and Hardware

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
11	5 Head Signal Housing and Hardware	1.00000	EA	\$1,490.00	\$1,490.00

Comm Code	Manufacturer	Specification	Model #
46161504	Oriux Pelco Products, Inc.		S054592, S054138, and S012922 Various (See Attached Cut Sheets)

Extended Description:

5 Head Signal Housing and Hardware

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
12	LED Pedestrian Head with Housing and Mounting Hardware	30.00000	EA	\$446.00	\$13,380.00

Comm Code	Manufacturer	Specification	Model #
46161504	Oriux Current Lighting Solutions, LLC.		TBD Upon Order PS7-CFF1-VLA

Extended Description:

LED Pedestrian Head with Housing and Mounting Hardware

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
13	Audible Pedestrian Push Button	30.00000	EA	\$685.00	\$20,550.00

Comm Code	Manufacturer	Specification	Model #
46161504	Pelco Products, Inc.		SE-2901 and Various (See Attached Cut Sheets)

Extended Description:
Audible Pedestrian Push Button

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
14	PS 175 B 4 Channel Rack Mounted Power Supply or equivalent	50.00000	EA	\$290.00	\$14,500.00

Comm Code	Manufacturer	Specification	Model #
46161504	Eberle Design Inc.		PS-175B

Extended Description:
PS 175 B 4 Channel Rack Mounted Power Supply or equivalent

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
15	TS2 Cabinet Power Supply	15.00000	EA	\$583.00	\$8,745.00

Comm Code	Manufacturer	Specification	Model #
46161504	Eberle Design Inc.		PS-250

Extended Description:
TS2 Cabinet Power Supply

INVOICE TO				SHIP TO			
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US				DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
16	Tiem Clocks	5.00000	EA	\$536.00	\$2,680.00

Comm Code	Manufacturer	Specification	Model #
46161504	RTC Manufacturing, Inc.		AP22

Extended Description:
Tiem Clocks

INVOICE TO			SHIP TO		
DIVISION OF HIGHWAYS TRAFFIC ENGINEERING DIVISION 1900 KANAWHA BLVD E, BLDG 5 RM A550 CHARLESTON WV US			DIVISION OF HIGHWAYS TRAFFIC ENG. TSC - SIGNAL MAINTENANCE 180 DRY BRANCH DR CHARLESTON WV US		

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
17	Flash Transfer Relays	20.00000	EA	\$36.00	\$720.00

Comm Code	Manufacturer	Specification	Model #
46161504	Reno A&E		TR-200

Extended Description:
Flash Transfer Relays

SCHEDULE OF EVENTS		
<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Tech Questions due by 10:00am	2025-04-10

	Document Phase	Document Description	Page 11
DOT2500000057	Final	Miscellaneous InterchangeableTraffic Signal Equipment	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

EXHIBIT A

Item Number	Estimated Quantity	Unit of Measure	Description	UNSPC CODE	Unit Price	Extended Extended
1	30	ea	Traffic Signal Conflict Monitor	46161504	\$ 1,225.00	\$ 36,750.00
2	15	ea	Traffic Signal Malfunction Management Unit	46161504	\$ 1,357.00	\$ 20,355.00
3	30	ea	Traffic Signal Bus Interface Unit	46161504	\$ 369.00	\$ 11,070.00
4	200	ea	Green LED Signal Lamp	46161504	\$ 33.00	\$ 6,600.00
5	200	ea	Yellow LED Signal Lamp	46161504	\$ 33.00	\$ 6,600.00
6	200	ea	Red LED Signal Lamp	46161504	\$ 33.00	\$ 6,600.00
7	1	ea	Green Arrow LED Signal Lamp	46161504	\$ 35.00	\$ 35.00
8	1	ea	Yellow ArrowLED Signal Lamp	46161504	\$ 35.00	\$ 35.00
9	1	ea	Red Arrow LED Signal Lamp	46161504	\$ 35.00	\$ 35.00
10	1	ea	3 Head Signal Housing AND HARDWARE	46161504	\$ 855.00	\$ 855.00
11	1	ea	5 Head Signal Housing AND HARDWARE	46161504	\$ 1,490.00	\$ 1,490.00
12	30	ea	LED Pedestrian Signal Head with Housing and Mounting Hardware	46161504	\$ 446.00	\$ 13,380.00
13	30	ea	Audible Pedestrian Push Button	46161504	\$ 685.00	\$ 20,550.00
14	50	ea	PS175 B 4 Channel Rack Mounted Power Supply or equivalent	46161504	\$ 290.00	\$ 14,500.00
15	15	ea	TS2 Cabinet Power Supply	46161504	\$ 583.00	\$ 8,745.00
16	5	ea	Time Clocks	46161504	\$ 536.00	\$ 2,680.00
17	20	ea	Flash Transfer Relays	46161504	\$ 36.00	\$ 720.00
TOTAL				\$	151,000.00	



SSM-LE

Enhanced NEMA Signal Monitor Unit

A NEW STANDARD OF SAFETY AND DIAGNOSTIC CAPABILITIES

Providing the signal technician with powerful monitoring and trouble-shooting tools helps assure that cabinet malfunctions are detected, diagnosed, and repaired with confidence. The Full Intersection LCD display and event log recording capabilities present the signal technician with detailed and accurate information regarding cabinet operation. New True RMS voltage sensing capabilities make the SSM-LE series the most reliable signal monitor available at any cost.

The SSM-LE series signal monitor includes both ~~six channel~~ (SSM-6LE) and twelve channel (SSM-12LE) configurations.

SSM-LE OPERATIONAL FEATURES

- Enhanced Monitoring Functions:** The SSM-LE series meets all specifications of NEMA Standard TS1-1994, Part 6. Basic fault coverage includes Conflict, Red Fail, CVM, 24V-I and 24V-II. Dual Indication Monitoring detects simultaneous active signals on a channel. Clearance Monitoring assures proper sequencing of signals and a minimum yellow clearance interval. AC Line Monitoring responds to low AC Line voltages as well as interruptions.
- Full Intersection Display:** High contrast, large area Liquid Crystal Displays (LCD) show full intersection status with an active Red, Yellow, Green, and Walk indicator for each channel. Separate indicators identify channels involved in the fault.
- Event Logging:** The SSM-LE series maintains a nonvolatile event log recording the complete intersection status as well as previous fault events, AC Line events, configuration changes, monitor resets, cabinet temperature and true RMS voltages for all AC inputs. A real time clock time stamps each log event with time and date.
- Signal Sequence:** The Signal Sequence History Log stored in nonvolatile memory graphically displays up to 30 seconds of signal status prior to the fault trigger event with 50ms resolution to ease diagnosing of intermittent and transient faults.
- EDI RMS-Engine:** A DSP coprocessor converts ac input measurements to True RMS voltages, virtually eliminating false sensing due to changes in frequency, phase, or sine wave distortion.
- Configuration Options:** Front panel options include GY Dual indication, +24V and CVM Latching, Red Fail Walk Disable, External Watchdog input, and CVM Log Disable.
- ECcom PC Software:** Access by a computer is provided by EDI ECcom Windows based software for status, event log review and archival, using the standard EIA-232 front panel port.
- CU Communication:** The SSM-LE model will upload to a Controller Unit for remote interrogation. Consult the factory for availability.

EBERLE DESIGN INC.

3819 E. La Salle Street Phoenix, AZ 85040 USA
tel +1-480-968-6407 www.editraffic.com



Complies With The New
NEMA MMU2 Standard and
MUTCD Requirements



SmartMonitor

MMU2-16LE SERIES

NEMA LCD MALFUNCTION MANAGEMENT UNIT

-
- MMU2-16LEip with Ethernet Port
 - MMU2-16LE with EIA-232 Port

Whether you're a **NOVICE** or **EXPERT** Signal Technician, wouldn't it be great if you could:

- ☐ Use a built-in SETUP WIZARD to **quickly and accurately configure** the Signal Monitor to the exact requirements of the cabinet and intersection?
- ☐ Use a MENU DRIVEN LCD interface to **view** vital cabinet operational details such as field signal voltages, historical event logs, and monitor configuration data?
- ☐ Use a built-in DIAGNOSTIC WIZARD to **automatically diagnose** cabinet malfunctions and **pinpoint** faulty signals?

If your answer is Yes, the **MMU2-16LE SmartMonitor®** is for YOU!

NEW MMU2-16LE SmartMonitor® ENHANCED FEATURES

NEMA TS2-2003 (R2008) Standard Including Amendment #4:	The MMU2-16LE SmartMonitor® meets all specifications of the NEMA Standard TS2-2003 (R2008) for the MMU2 configuration while maintaining compatibility with NEMA TS1-1989 Assemblies.
NEMA Standard Flashing Yellow Arrow PPLT:	The MMU2-16LE SmartMonitor® supports MUTCD Flashing Yellow Arrow PPLT operation and meets / exceeds the NEMA Standard MMU2 requirements of TS-2 Amendment #4-2012, providing modes for both TS-2 or TS-1 cabinet configurations.
Standardized Communications:	Real-time SDLC communications with the Controller Unit exchanges field input status, Controller Unit output status, fault status, MMU programming, and time and date.
Full Intersection & Status Display:	Two high contrast, large area Liquid Crystal Displays (LCD) continuously show full RYG(W) intersection status. A separate graphic LCD provides a menu driven user interface to status, signal voltages, configuration, event logs, and the Help system.
Event Logging:	A time-stamped nonvolatile event log records the complete intersection status as well as AC Line events, configuration changes, monitor resets, temperature and true RMS voltages.
Setup Wizard:	Use the built-in Setup Wizard to configure the Nema Enhanced settings of the SmartMonitor® by answering a short series of questions regarding intersection design and operation.
Diagnostic Wizard and Help System	The Diagnostic Wizard <i>automatically pinpoints</i> faulty signals and offers trouble-shooting guidance. The integrated Help System provides context sensitive operational assistance.
TS-1 Type 12 with SDLC Mode:	The MMU2-16LE SmartMonitor® can be configured to operate with the Port 1 SDLC function and Diagnostic Wizard enabled in a TS-1 twelve channel cabinet with no cabinet wiring changes.
Program Card Memory:	Enhanced settings of the MMU2-16LE SmartMonitor® are stored in nonvolatile memory on the EDI Program Card. Moving the Program Card to another MMU2-16LE automatically transfers all settings.
Signal Sequence History Log:	The five Signal Sequence History logs stored in nonvolatile memory graphically display up to 30 seconds of signal status prior to each fault event.
LEDguard®:	This EDI innovative signal threshold technique can be used to increase the level of monitoring protection when using LED based signal heads.
EDI RMS-Engine:	A DSP coprocessor converts AC input measurements to True RMS voltages, virtually eliminating false sensing due to changes in frequency, phase, or sine wave distortion.
ECcom PC Software:	Access to the MMU2-16LE data is provided by the industry standard EDI ECcom Windows based software for status, event log retrieval, configuration, and data archival.

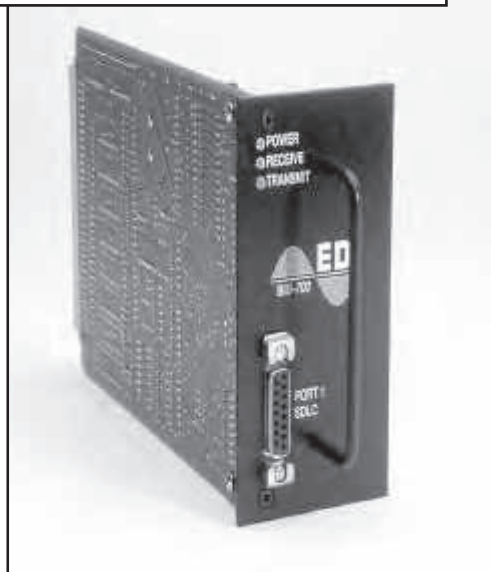
EBERLE DESIGN INC.

3510 East Atlanta Avenue
Phoenix, AZ 85040 USA
www.EDITraffic.com

Tel (480) 968-6407
Fax (602) 437-1996



WV DOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 3
Qty. 30



BIU-700

NEMA TS-2 Bus Interface Unit

The BIU-700 Bus Interface Unit (BIU) performs the interface between Port 1 of the Controller Unit and the Loop Detector Racks, Terminals and Facilities, and other devices in a NEMA TS-2 Cabinet Assembly. Its functions include controlling load switch outputs, detector resets, communicating with Inductive Loop Detectors and other devices, and the conditioning and conversion of Terminals and Facilities and Loop Detector call inputs for the Controller Unit.

Each EDI BIU-700 is put through a vigorous three part Total Quality Assurance program and tested under the extreme environmental conditions experienced on the street. It is this commitment to quality and performance that EDI products are known for, providing years of trouble free operation.

BIU-700 OPERATIONAL FEATURES

Basic Functions: The BIU-700 Bus Interface Unit meets or exceeds all requirements of the NEMA Standard TS2-1998 for the BIU configuration.

Display Indicators: Separate Power, Receive, and Transmit LED indicators display DC power status and SDLC Port 1 status.

Input / Output Pins: Signal I/O Configuration:

- ✓ 15 DC Output pins
- ✓ 24 Programmable Input / Output pins
- ✓ 8 DC Input pins
- ✓ 4 Optically isolated input pins
- ✓ 1 Line Frequency Reference input pin
- ✓ 4 Address Select input pins

Output Drivers: All outputs are rated at 150mA continuous sink current. Each output provides a 500mA typical current limit. Outputs are rated to 50 volts and utilize a voltage clamp for inductive transient protection.

Isolated Inputs: Four optically isolated inputs provide isolation for Pedestrian Detector and Remote Interconnect inputs. These inputs are intended for direct connection to 12 Vac from the cabinet power supply for Pedestrian Detector applications. They may also be connected for 'Low True' DC applications when the Opto Common pin is connected to a 24Vdc supply.

EBERLE DESIGN INC.

3819 E. La Salle Street Phoenix, AZ 85040 USA
tel +1-480-968-6407 www.editraffic.com



GTX®

VLA Model LED Signal Modules

8 and 12 inch

Incandescent look (120V)

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 4
Qty. 200

Project Name _____

Date _____

Notes _____

Green Ball LED Qty. 200

ROBUST FEATURES

- Optimal thermal management for longer life.
- Provides performance under extreme field temperature conditions.

INNOVATIVE DESIGN

- Low profile module permits efficient installation into existing traffic housings.
- Power consumption levels allow compatibility with most controllers.
- Mask compatible to fit your unique signaling needs.*

OUTSTANDING PERFORMANCE

- High-brightness central light source and custom optical lensing distribute light uniformly and efficiently.
- Rigorously tested for long life design and low maintenance costs.
- Excellent color uniformity.

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant.
- Compliant with ITE VTCSH LED Circular Signal Supplement dated June 27th 2005.
- CSA approved version available.

* Sold separately. Refer to masks datasheet TRAF208.



The Greatest Signals Stand the Test of Time.™

GTX® City LED Signal Modules

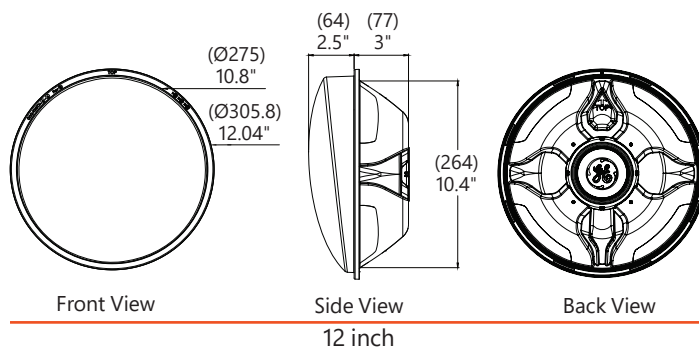
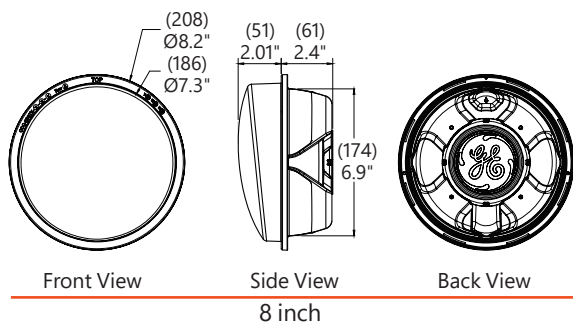
8 and 12 inch

Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline Dimensions in inches (mm)



Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Circular Signal Supplement-June 2005
Chromaticity	ITE VTCSH-LED Circular-June 2005
Moisture Resistance	Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sub. B Sec 15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10µF Sec. 2.1.8 NEMA TS2-2003, 1kV, 2Ω
Controller Compatibility	ITE VTCSH-LED Circular Signal Supplement-June 2005
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 61000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3kV, 2 Ω Sec. 8.0 IEC 61000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6kV, 30 Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Minimum Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75 ms
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	8 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief ** 12 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief **

* Operating Temperature Range per ITE 2005, Section 3.3.2

** For CSA approved version: 40in, 18AWG, Color Coded with Strain Relief

Product Information

Model Number	Front Shell	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Nominal	Maintained Intensity (Cd) Minimum ²
● DR4-RTFB-VLA	Tinted	8	120V - 60Hz	6.7	628	165
○ DR4-RCFB-VLA	Clear					
● DR4-YTFB-VLA	Tinted	8	120V - 60Hz	7.9	589	410
○ DR4-YCFB-VLA	Clear					
● DR4-GTFB-VLA	Tinted	8	120V - 60Hz	7.3	499	215
○ DR4-GCFB-VLA	Clear					
● DR6-RTFB-VLA	Tinted	12	120V - 60Hz	6.7	625	365
○ DR6-RCFB-VLA	Clear					
● DR6-YZFB-VLA	Tinted	12	120V - 60Hz	10.9	588	910
● DR6-YTFB-VLA	Tinted					
○ DR6-YCFB-VLA	Clear	12	120V - 60Hz	9.9	589	910
● DR6-GTFB-VLA	Tinted					
○ DR6-GCFB-VLA	Clear	12	120V - 60Hz	8.4	501	475
● DR6-GCFB-VLA	Clear					

Distributed by:

Standard product equipped with universal connectors (insulated spade-quick disconnect).
All colors available in tinted or clear lens.

¹ Class A

² Measured at vertical angle of -2.5° and at horizontal angle of 0°.

GTx[®]

VLA Model LED Signal Modules

8 and 12 inch

Incandescent look (120V)

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 5
Qty. 200

Project Name _____

Date _____

Notes _____

Yellow Ball LED Qty. 200



ROBUST FEATURES

- Optimal thermal management for longer life.
- Provides performance under extreme field temperature conditions.

INNOVATIVE DESIGN

- Low profile module permits efficient installation into existing traffic housings.
- Power consumption levels allow compatibility with most controllers.
- Mask compatible to fit your unique signaling needs.*

OUTSTANDING PERFORMANCE

- High-brightness central light source and custom optical lensing distribute light uniformly and efficiently.
- Rigorously tested for long life design and low maintenance costs.
- Excellent color uniformity.

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant.
- Compliant with ITE VTCSH LED Circular Signal Supplement dated June 27th 2005.
- CSA approved version available.

* Sold separately. Refer to masks datasheet TRAF208.



The Greatest Signals Stand the Test of Time.™

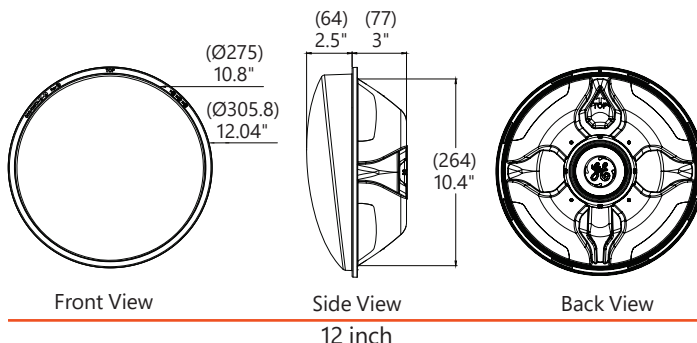
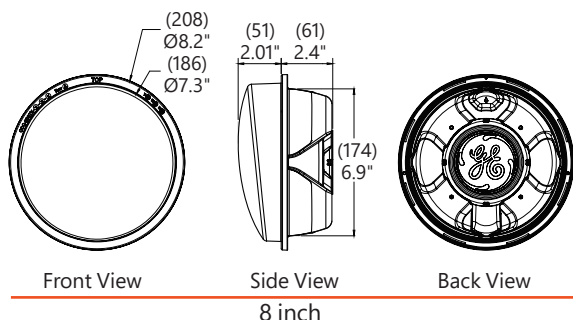
GTX® City

LED Signal Modules

8 and 12 inch

Project Name _____
 Date _____ Type _____
 Notes _____

Mechanical Outline Dimensions in inches (mm)



Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Circular Signal Supplement-June 2005
Chromaticity	ITE VTCSH-LED Circular-June 2005
Moisture Resistance	Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sub. B Sec 15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10µF Sec. 2.1.8 NEMA TS2-2003, 1kV, 2Ω
Controller Compatibility	ITE VTCSH-LED Circular Signal Supplement-June 2005
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 61000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3kV, 2 Ω Sec. 8.0 IEC 61000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6kV, 30 Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Minimum Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75 ms
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	8 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief ** 12 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief **

* Operating Temperature Range per ITE 2005, Section 3.3.2

** For CSA approved version: 40in, 18AWG, Color Coded with Strain Relief

Product Information

Model Number	Front Shell	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Nominal	Maintained Intensity (Cd) Minimum ²
● DR4-RTFB-VLA	Tinted	8	120V - 60Hz	6.7	628	165
○ DR4-RCFB-VLA	Clear					
● DR4-YTFB-VLA	Tinted	8	120V - 60Hz	7.9	589	410
○ DR4-YCFB-VLA	Clear					
● DR4-GTFB-VLA	Tinted	8	120V - 60Hz	7.3	499	215
○ DR4-GCFB-VLA	Clear					
● DR6-RTFB-VLA	Tinted	12	120V - 60Hz	6.7	625	365
○ DR6-RCFB-VLA	Clear					
● DR6-YZFB-VLA	Tinted	12	120V - 60Hz	10.9	588	910
● DR6-YTFB-VLA	Tinted					
○ DR6-YCFB-VLA	Clear	12	120V - 60Hz	9.9	589	910
● DR6-GTFB-VLA	Tinted					
○ DR6-GCFB-VLA	Clear	12	120V - 60Hz	8.4	501	475

Distributed by:

Standard product equipped with universal connectors (insulated spade-quick disconnect).
 All colors available in tinted or clear lens.

¹ Class A

² Measured at vertical angle of -2.5° and at horizontal angle of 0°.

GTX®

VLA Model LED Signal Modules

8 and 12 inch

Incandescent look (120V)

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 6
Qty. 200

Project Name _____

Date _____

Notes _____

Red Ball LED Qty. 200



ROBUST FEATURES

- Optimal thermal management for longer life.
- Provides performance under extreme field temperature conditions.

INNOVATIVE DESIGN

- Low profile module permits efficient installation into existing traffic housings.
- Power consumption levels allow compatibility with most controllers.
- Mask compatible to fit your unique signaling needs.*

OUTSTANDING PERFORMANCE

- High-brightness central light source and custom optical lensing distribute light uniformly and efficiently.
- Rigorously tested for long life design and low maintenance costs.
- Excellent color uniformity.

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant.
- Compliant with ITE VTCSH LED Circular Signal Supplement dated June 27th 2005.
- CSA approved version available.

* Sold separately. Refer to masks datasheet TRAF208.



The Greatest Signals Stand the Test of Time.™

GTX® City LED Signal Modules

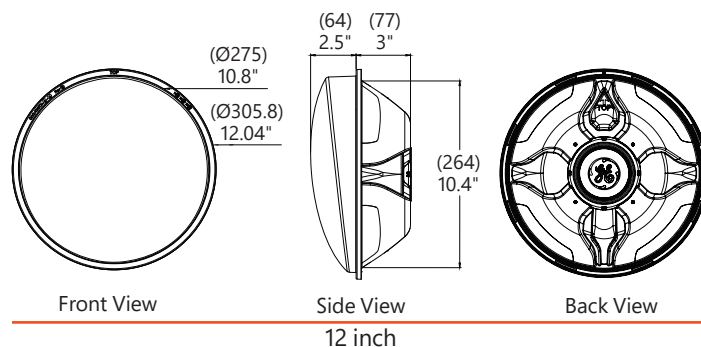
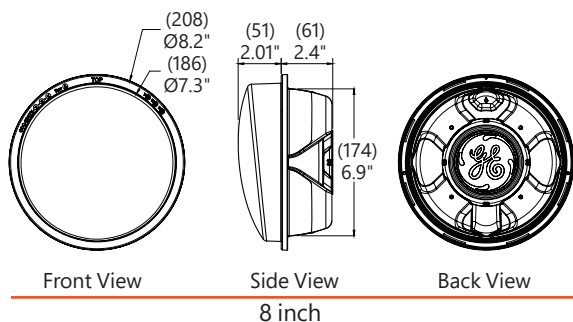
8 and 12 inch

Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline Dimensions in inches (mm)



Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Circular Signal Supplement-June 2005
Chromaticity	ITE VTCSH-LED Circular-June 2005
Moisture Resistance	Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sub. B Sec 15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10µF Sec. 2.1.8 NEMA TS2-2003, 1kV, 2Ω
Controller Compatibility	ITE VTCSH-LED Circular Signal Supplement-June 2005
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 61000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3kV, 2 Ω Sec. 8.0 IEC 61000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6kV, 30 Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Minimum Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75 ms
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	8 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief ** 12 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief **

* Operating Temperature Range per ITE 2005, Section 3.3.2

** For CSA approved version: 40in, 18AWG, Color Coded with Strain Relief

Product Information

Model Number	Front Shell	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Nominal	Maintained Intensity (Cd) Minimum ²
DR4-RTFB-VLA	Tinted	8	120V - 60Hz	6.7	628	165
DR4-RCFB-VLA	Clear	8	120V - 60Hz	7.9	589	410
DR4-YTFB-VLA	Tinted	8	120V - 60Hz	7.3	499	215
DR4-YCFB-VLA	Clear	8	120V - 60Hz	6.7	625	365
DR4-GTFB-VLA	Tinted	12	120V - 60Hz	10.9	588	910
DR4-GCFB-VLA	Clear	12	120V - 60Hz	9.9	589	910
DR6-RTFB-VLA	Tinted	12	120V - 60Hz	8.4	501	475
DR6-RCFB-VLA	Clear	12	120V - 60Hz			
DR6-YZFB-VLA	Tinted					
DR6-YTFB-VLA	Tinted					
DR6-YCFB-VLA	Clear					
DR6-GTFB-VLA	Tinted					
DR6-GCFB-VLA	Clear					

Distributed by:

Standard product equipped with universal connectors (insulated spade-quick disconnect).
All colors available in tinted or clear lens.

¹ Class A

² Measured at vertical angle of -2.5° and at horizontal angle of 0°.

GT[®]

City VLA Model LED Arrow Signals

12 inch

Incandescent look (120V)

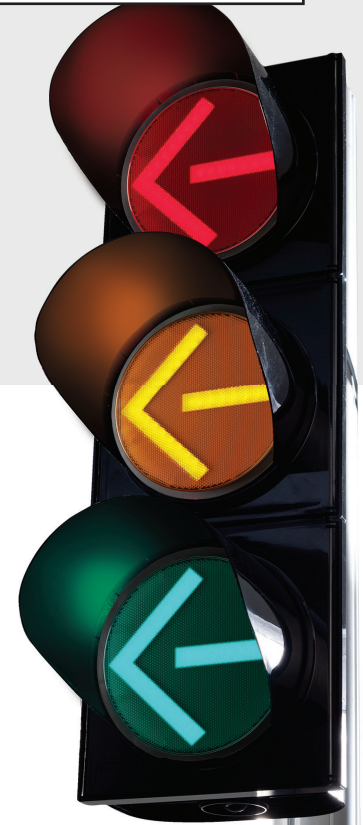
WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 7
Qty. 1

Project Name _____

Date _____

Notes _____

Green Arrow LED Qty. 1



EXCELLENT APPEARANCE & VISIBILITY

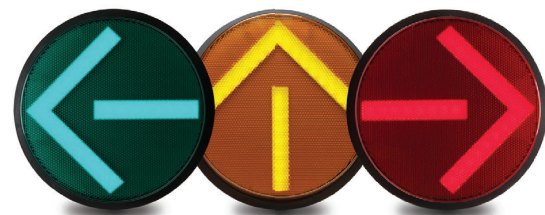
- Efficient optical design allows omnidirectional arrow placement with maximum light output
- Excellent color uniformity creates an incandescent look for easy readability
- New or retrofit use

OUTSTANDING RELIABILITY & ROBUST OPERATION

- High efficiency and high-brightness LED light source
- Failed state impedance protection detects the loss of LED load
- Optimized thermal management for longer life
- Provides performance under extreme field temperature conditions

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant
- DOE compliant
- CSA approved model available
- Using MIL-STD-810F and MIL-STD-883 for environmental robustness, passed reliability and qualification testing, including high temperature, high humidity cycling
- Compliant with ITE VTCSH LED Vehicle Arrow Traffic Signal Supplement dated July 1, 2007



The Greatest Signals Stand the Test of Time.™

GTX® City LED Arrow Signal Modules

12 inch module

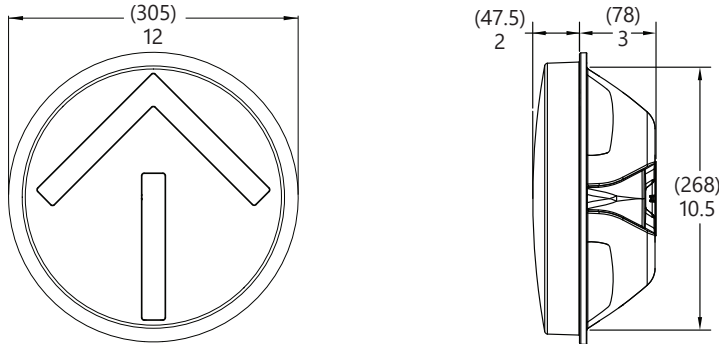
Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline

Dimensions in inches (mm)



Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90 %
Total Harmonic Distortion (THD)	< 20 %
Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75msec
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	40in, 20 AWG, Color Coded with Strain Relief

* Operating Temperature Range per ITE 2005 section 3.3.2

Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Chromaticity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Moisture Resistance	NEMA STD 250 Type 4 – 1991 Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	CC Title 47 Sub. B Sec.15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10μF Sec. 2.1.8 NEMA TS2-2003
Controller Compatibility	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 1000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3KV, 2Ω Sec. 8.0 IEC 1000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6KV, 30Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Product Information

Model Number	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Dominant	Maintained Intensity (cd) Minimum
● DR6-RTAAN-VLA	12	120V – 60Hz	6.5	625	59
○ DR6-RCAAN-VLA	12	120V – 60Hz	6.5	625	59
● DR6-YTAAN-VLA	12	120V – 60Hz	6.5	589	146
○ DR6-YCAAN-VLA	12	120V – 60Hz	6.5	589	146
● DR6-GTAAN-VLA	12	120V – 60Hz	6.5	500	76
○ DR6-GCAAN-VLA	12	120V – 60Hz	6.5	500	76

All lamps available in tinted or clear lens.

¹ Class A

Distributed by:

GTX[®]

City VLA Model LED Arrow Signals

12 inch

Incandescent look (120V)

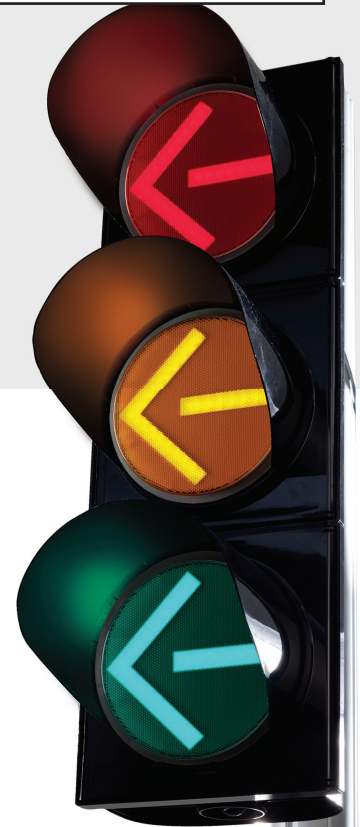
WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 8
Qty. 1

Project Name _____

Date _____

Notes _____

Yellow Arrow LED Qty. 1



EXCELLENT APPEARANCE & VISIBILITY

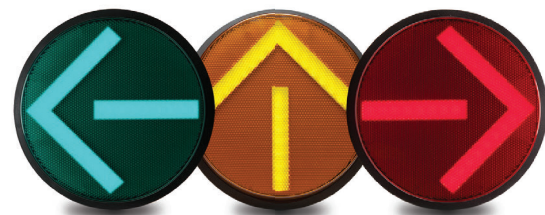
- Efficient optical design allows omnidirectional arrow placement with maximum light output
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- New or retrofit use

OUTSTANDING RELIABILITY & ROBUST OPERATION

- High efficiency and high-brightness LED light source
- Failed state impedance protection detects the loss of LED load
- Optimized thermal management for longer life
- Provides performance under extreme field temperature conditions

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant
- DOE compliant
- CSA approved model available
- Using MIL-STD-810F and MIL-STD-883 for environmental robustness, passed reliability and qualification testing, including high temperature, high humidity cycling
- Compliant with ITE VTC SH LED Vehicle Arrow Traffic Signal Supplement dated July 1, 2007



The Greatest Signals Stand the Test of Time.™

GTX® City LED Arrow Signal Modules

12 inch module

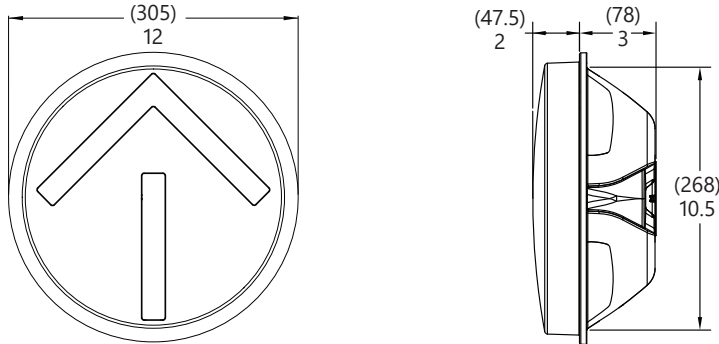
Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline

Dimensions in inches (mm)



Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90 %
Total Harmonic Distortion (THD)	< 20 %
Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75msec
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	40in, 20 AWG, Color Coded with Strain Relief

* Operating Temperature Range per ITE 2005 section 3.3.2

Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Chromaticity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Moisture Resistance	NEMA STD 250 Type 4 – 1991 Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	CC Title 47 Sub. B Sec.15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10μF Sec. 2.1.8 NEMA TS2-2003
Controller Compatibility	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 1000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3KV, 2Ω Sec. 8.0 IEC 1000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6KV, 30Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Product Information

Model Number	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Dominant	Maintained Intensity (cd) Minimum
● DR6-RTAAN-VLA	12	120V – 60Hz	6.5	625	59
○ DR6-RCAAN-VLA	12	120V – 60Hz	6.5	625	59
→ ● DR6-YTAAN-VLA	12	120V – 60Hz	6.5	589	146
○ DR6-YCAAN-VLA	12	120V – 60Hz	6.5	589	146
● DR6-GTAAN-VLA	12	120V – 60Hz	6.5	500	76
○ DR6-GCAAN-VLA	12	120V – 60Hz	6.5	500	76

All lamps available in tinted or clear lens.

¹ Class A

Distributed by:

GTX[®]

City VLA Model LED Arrow Signals

12 inch

Incandescent look (120V)

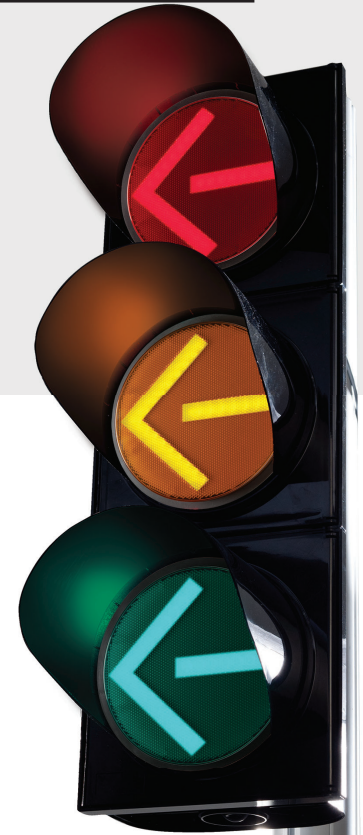
WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 9
Qty. 1

Project Name _____

Date _____

Notes _____

Green Arrow LED Qty. 1



EXCELLENT APPEARANCE & VISIBILITY

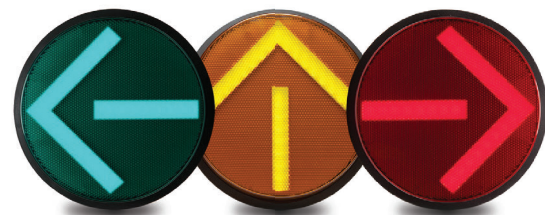
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MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant
- DOE compliant
- CSA approved model available
- Using MIL-STD-810F and MIL-STD-883 for environmental robustness, passed reliability and qualification testing, including high temperature, high humidity cycling
- Compliant with ITE VTCSH LED Vehicle Arrow Traffic Signal Supplement dated July 1, 2007



The Greatest Signals Stand the Test of Time.™

GTX® City LED Arrow Signal Modules

12 inch module

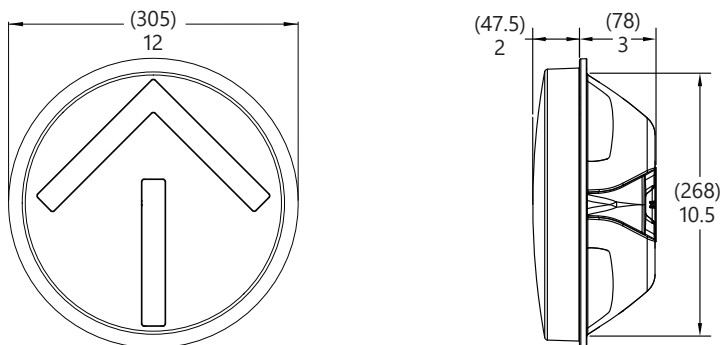
Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline

Dimensions in inches (mm)



Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90 %
Total Harmonic Distortion (THD)	< 20 %
Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75msec
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	40in, 20 AWG, Color Coded with Strain Relief

* Operating Temperature Range per ITE 2005 section 3.3.2

Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Chromaticity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Moisture Resistance	NEMA STD 250 Type 4 – 1991 Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	CC Title 47 Sub. B Sec.15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10μF Sec. 2.1.8 NEMA TS2-2003
Controller Compatibility	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 1000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3KV, 2Ω Sec. 8.0 IEC 1000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6KV, 30Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Product Information

Model Number	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Dominant	Maintained Intensity (cd) Minimum
● DR6-RTAAN-VLA	12	120V – 60Hz	6.5	625	59
○ DR6-RCAAN-VLA	12	120V – 60Hz	6.5	625	59
● DR6-YTAAN-VLA	12	120V – 60Hz	6.5	589	146
○ DR6-YCAAN-VLA	12	120V – 60Hz	6.5	589	146
● DR6-GTAAN-VLA	12	120V – 60Hz	6.5	500	76
○ DR6-GCAAN-VLA	12	120V – 60Hz	6.5	500	76

All lamps available in tinted or clear lens.

¹ Class A

Distributed by:

Traffic Signals

Features & Benefits

Unique design and technological advantages make Oriux Signals "Best in class"

Polycarbonate Signals

- Unaffected by scratches
- Impregnated color means that they never need painting
- Impervious to corrosive atmospheres
- One-piece doors, grooved.
- Simple alignment and positive locking in 5 degree steps
- Ribbed for structural stability
- Reinforced plates available
- Adaptable to span wire or mast suspension
- Universal vertical and horizontal ready mounting arrangement
- Exterior hardware in stainless steel available
- LED ready or equipped with reflectors
- Weatherproof and dust tight one piece doors plus gasket
- Fifty percent lighter than aluminum

Aluminum Signals

- Equipped with exterior stainless-steel hardware
- Doors and lens gaskets make the signal weatherproof and dust-tight
- Integral visor rims prevent leakage
- Available reflectors in Alzak®
- The lamp receptacle can be rotated 360 degrees for filament alignment
- Integral locking rings included
- Adaptable for span wire, mast arm suspension, side pole or post top mounting



*YELLOW HOUSING
*YELLOW VISOR CAPS

Specifications

Polycarbonate

Material	Ultraviolet-stabilized polycarbonate resin. Stainless steel exterior hardware. Couplers are standard steel-zinc, but a stainless steel option is available.
Reflector	Snap-out assembly. Swing out frame. Lane control uses a standard reflector.
Lamp receptacle	Heat-resistant molded phenolic, Rotatable through 360°. Pre-wired with 26" #18 AWG 105°C type TEW color-coded leads with Quick-disconnect terminals
Wire opening between sections	Accommodates three 3/4" diameter cables
Terminal Block	1-section 2-point 2-section 3-point 3-section 5-point 4-section 5-point 5-section 5-point, and 5 point
Signal alignment	Integral 72-tooth serrated adjustable in 5 steps.
Weight	8" (200mm) LED-Ready Section = 1.85 lb (0.84kg) 12" (300mm) LED-Ready Section = 3.15 lb (1.43kg)
Overall dimension	8"(200mm) Section = 9.75"W x 10"Hx 6.16"D 12"(300mm) Section = 13.5"W x 13.44"H x 6.44"D

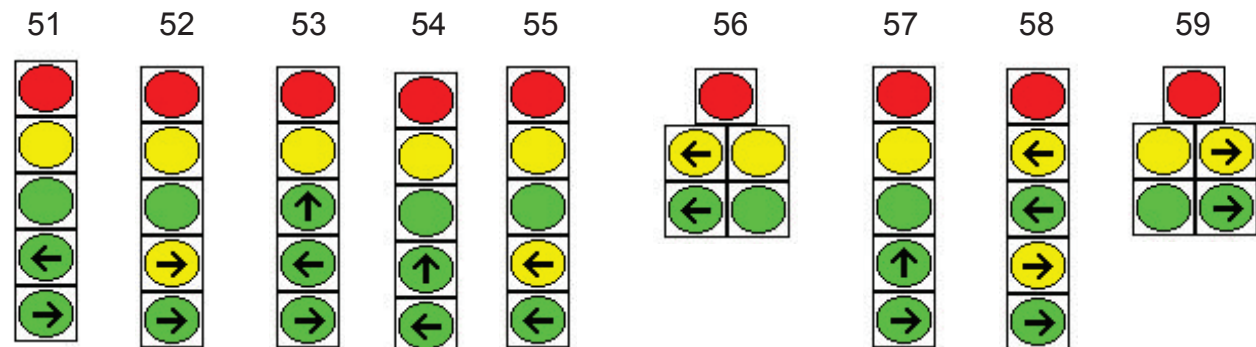
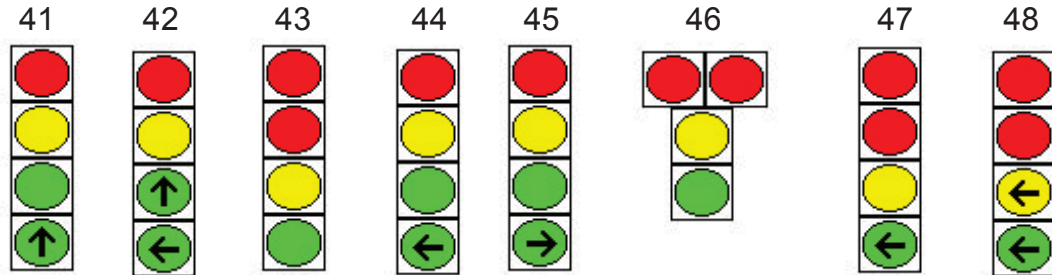
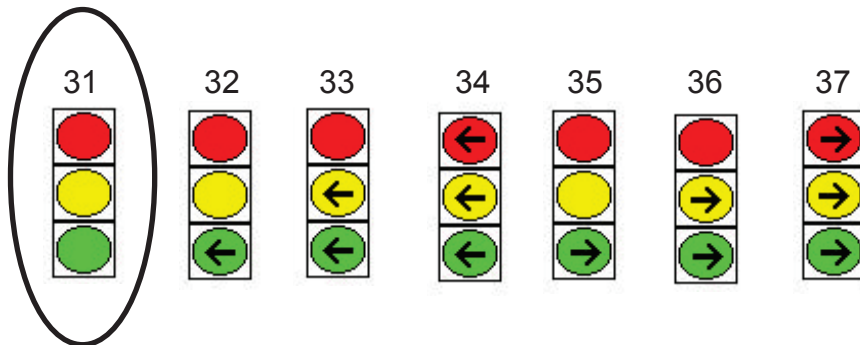
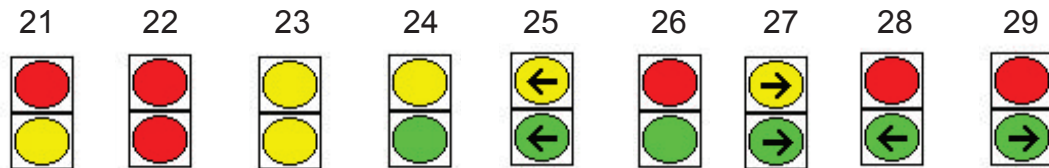
Aluminium

Material	Die-cast aluminum alloy housing and door. Stainless steel exterior hardware. Couplers are standard steel-zinc, but a stainless steel option is available.
Finish	Electrostatically applied powder coat with five stage iron phosphate treatment.
Reflector	Snap-out assembly. Swing out molded frame. Lane control uses a standard reflector
Lamp receptacle	Heat-resistant molded phenolic, Rotatable through 360°. Pre-wired with 26" #18 AWG 105°C type TEW color-coded leads with Quick disconnect terminals
Wire opening between sections	Accommodates three 3/4" diameter cables
Terminal Block	1-section 2-point 2-section 3-point 3-section 5-point 4-section 5-point, 2-point 5-section 5-point*2, and 3-point
Signal alignment	Integral 72-tooth serrated adjustable in 5° steps.
Weight	8" (200mm) LED-Ready Section = 4.2 lb. (1.9 kg) 12" (300mm) LED-Ready Section = 5.5 lb. (2.5 kg)
Overall dimension	8"(200mm) Section = 9.75"W x 10"Hx 6.16"D 12"(300mm) Section = 13.5"W x 13.44"H x 6.44"D

Poly and Aluminum signals are also available with LED ready Weights do not include hardware modifications. Door only, no visors.

FACE ARRANGEMENTS

VERTICAL



GTX®

VLA Model LED Signal Modules

8 and 12 inch

Incandescent look (120V)

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 10
Qty. 1

Project Name _____

Date _____

Notes _____

Red Ball LED Qty. 1
Yellow Ball LED Qty. 1
Green Ball LED Qty. 1



ROBUST FEATURES

- Optimal thermal management for longer life.
- Provides performance under extreme field temperature conditions.

INNOVATIVE DESIGN

- Low profile module permits efficient installation into existing traffic housings.
- Power consumption levels allow compatibility with most controllers.
- Mask compatible to fit your unique signaling needs.*

OUTSTANDING PERFORMANCE

- High-brightness central light source and custom optical lensing distribute light uniformly and efficiently.
- Rigorously tested for long life design and low maintenance costs.
- Excellent color uniformity.

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant.
- Compliant with ITE VTCSH LED Circular Signal Supplement dated June 27th 2005.
- CSA approved version available.

* Sold separately. Refer to masks datasheet TRAF208.



The Greatest Signals Stand the Test of Time.™

GTX® City LED Signal Modules

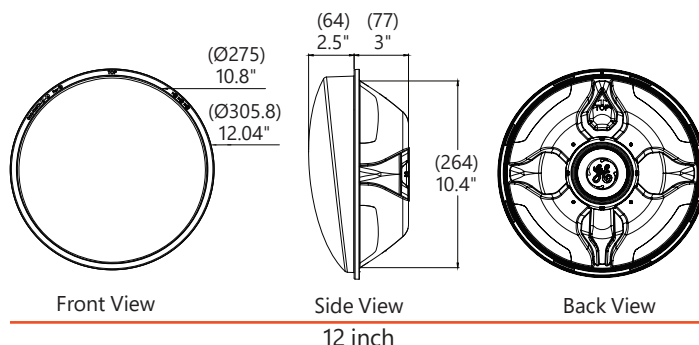
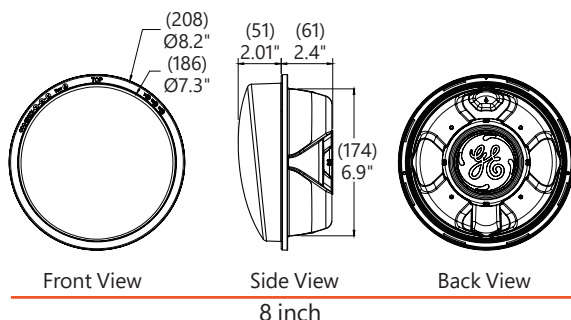
8 and 12 inch

Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline Dimensions in inches (mm)



Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Circular Signal Supplement-June 2005
Chromaticity	ITE VTCSH-LED Circular-June 2005
Moisture Resistance	Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sub. B Sec 15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10µF Sec. 2.1.8 NEMA TS2-2003, 1kV, 2Ω
Controller Compatibility	ITE VTCSH-LED Circular Signal Supplement-June 2005
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 61000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3kV, 2 Ω Sec. 8.0 IEC 61000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6kV, 30 Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Minimum Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75 ms
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	8 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief ** 12 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief **

* Operating Temperature Range per ITE 2005, Section 3.3.2

** For CSA approved version: 40in, 18AWG, Color Coded with Strain Relief

Product Information

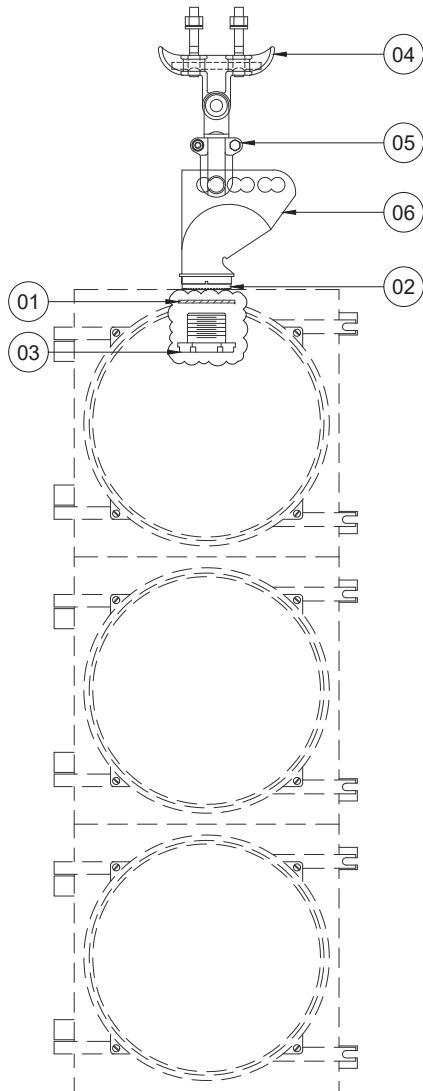
Model Number	Front Shell	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Nominal	Maintained Intensity (Cd) Minimum ²
DR4-RTFB-VLA	Tinted	8	120V - 60Hz	6.7	628	165
DR4-RCFB-VLA	Clear	8	120V - 60Hz	7.9	589	410
DR4-YTFB-VLA	Tinted	8	120V - 60Hz	7.3	499	215
DR4-YCFB-VLA	Clear	8	120V - 60Hz	6.7	625	365
DR4-GTFB-VLA	Tinted	12	120V - 60Hz	10.9	588	910
DR4-GCFB-VLA	Clear	12	120V - 60Hz	9.9	589	910
DR6-RTFB-VLA	Tinted	12	120V - 60Hz	8.4	501	475
DR6-RCFB-VLA	Clear	12	120V - 60Hz			
DR6-YZFB-VLA	Tinted	12	120V - 60Hz			
DR6-YTFB-VLA	Tinted	12	120V - 60Hz			
DR6-YCFB-VLA	Clear	12	120V - 60Hz			
DR6-GTFB-VLA	Tinted	12	120V - 60Hz			
DR6-GCFB-VLA	Clear	12	120V - 60Hz			

Distributed by:

Standard product equipped with universal connectors (insulated spade-quick disconnect).
All colors available in tinted or clear lens.

¹ Class A

² Measured at vertical angle of -2.5° and at horizontal angle of 0°.



BILL OF MATERIAL			
ITEM	QTY	DESCRIPTION	CATALOG
01	1	NEOPRENE GASKET, 1 1/2"	VSE-0354
02	1	SERRATED LOCKING RING	VSE-0360
03	1	HEX CAST COLLARED NIPPLE, IRON	VSE-0435
04	1	SPAN WIRE CLAMP, 1/2" WIDE SLOT, SS "U" BOLT & HDWR, IRON	VSE-0338-GLV
05	1	BALANCE ADJUSTER, 1/2" SLOT, 1/2" EYE	VSE-3219-0.50-0.50-GLV
06	1	WIRE OUTLET BODY IRON,	VSE-4118-*

COLOR DETAIL	
REPLACE "*" IN PART NUMBER WITH COLOR LISTED BELOW	
COLOR CODE	COLOR
BLANK NO "*"	NATURAL
Y	YELLOW
B	BLACK
GRN	GREEN
BZ	BRONZE
E	EASTON BLUE
EB	EASTON BLUE
DC	DARK GREEN
H1	NEW ALBANY GREEN
H1	GAHANNA GREEN
H2	IND. GREEN
H3	URBANA GREEN

WV DOT Traffic Signal Equipment
B/R# 10
Qty. 1
Yellow

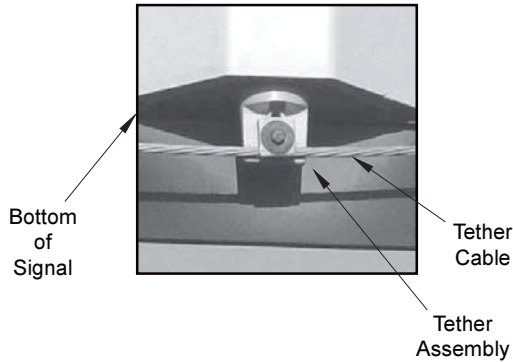
NOTE: Order This With VSE-5050-19-Y
Or Order VSIG-6009-03-Y

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TITLE KIT, 1-W SW W/BA IRON, WV WITHOUT SEALING CAP		
DRAWN BY SJM	APPROVED BY	CAD VSP-5003_-WV-U-IG
DATE 7-10-24	DATE	SCALE 1"=6"
REFERENCE		DRAWING No. DB-1242



ITEM	DESCRIPTION	PART NO.
------	-------------	----------

TETHER ASSEMBLY:

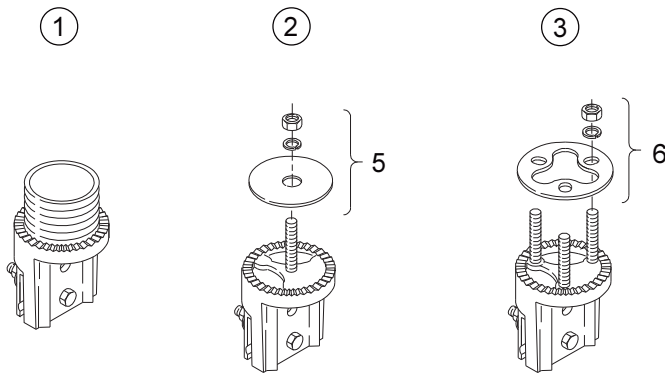
①	1½" Break-Away, Alum	SE-5121
②	Single-Stud Break-Away, Alum	SE-5058
③	Tri-Stud Break-Away, Alum	SE-5050
④	Break-Away Tether Assy, 1½" Pipe, Steel	SE-3055

HARDWARE KIT:

5	Single Stud, 5/16"	SE-5064
6	Tri-Stud w/o Gasket, 5/16"	SE-5035

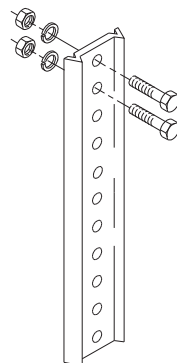
Notes:

1. All assemblies are supplied standard with stainless steel fasteners.
2. Please specify options when ordering.

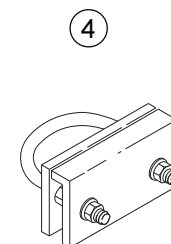


COLOR: YELLOW

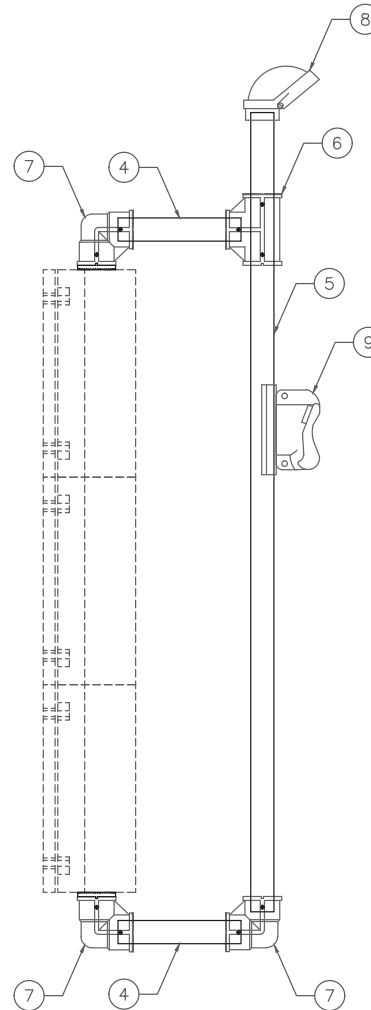
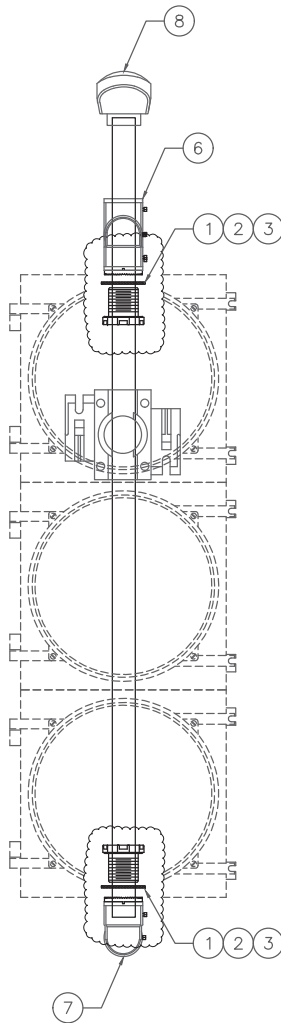
ITEM 1-3 OPTIONS
EXTENDER: 11" 19" or 72"
PAINT



Extender
Option



OPTIONS
PAINT



BILL OF MATERIAL			
ITEM	QTY.	DESCRIPTION	PART NUMBER
1	2	NEOPRENE GASKET, 1-1/2"	VSE-0354
2	2	SERRATED LOCKING RING	VSE-0360
3	2	HEX CAST COLLARED NIPPLE, IRON	VSE-0435
4	2	PIPE NIPPLE, 1.5"x8" IRON, PAINTED	VSE-0469-08Y
5	1	PIPE NIPPLE, 1.5"x52", IRON, PAINTED	VSE-0469-52Y
6	1	HORIZONTAL SLIP TEE, 1-1/2", IRON	VSE-4092Y-SBE
7	3	SERRATED ELBOW, IRON YELLOW	VSE-4415Y
8	1	BRIDGEPORT #1205 SVC ENT	GR1205
9	1	CLAMP KIT, GALAXY SERIES W/96"	VOAB3055Y-96

**NOTE: Order This Or Order
VSP-5003Y-WVI-U With
VSE-5050-19-Y**

WV DOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 10
Qty. 1
Yellow



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TITLE			
SIGNAL MTG ASSY, 3-12" 1-W RIGID MA YELLOW IRON			
DRAWN BY	SJM	APPROVED BY	—
DATE	5-2-19	DATE	—
REFERENCE		CAD	VSIG-6009-03Y
		SCALE	1"=8"
			DRAWING No. DB-1072

Traffic Signals

Features & Benefits

Unique design and technological advantages make Oriux Signals "Best in class"

Polycarbonate Signals

- Unaffected by scratches
- Impregnated color means that they never need painting
- Impervious to corrosive atmospheres
- One-piece doors, grooved.
- Simple alignment and positive locking in 5 degree steps
- Ribbed for structural stability
- Reinforced plates available
- Adaptable to span wire or mast suspension
- Universal vertical and horizontal ready mounting arrangement
- Exterior hardware in stainless steel available
- LED ready or equipped with reflectors
- Weatherproof and dust tight one piece doors plus gasket
- Fifty percent lighter than aluminum

Aluminum Signals

- Equipped with exterior stainless-steel hardware
- Doors and lens gaskets make the signal weatherproof and dust-tight
- Integral visor rims prevent leakage
- Available reflectors in Alzak®
- The lamp receptacle can be rotated 360 degrees for filament alignment
- Integral locking rings included
- Adaptable for span wire, mast arm suspension, side pole or post top mounting



*YELLOW HOUSING
*YELLOW VISOR CAPS

Specifications

Polycarbonate

Material	Ultraviolet-stabilized polycarbonate resin. Stainless steel exterior hardware. Couplers are standard steel-zinc, but a stainless steel option is available.
Reflector	Snap-out assembly. Swing out frame. Lane control uses a standard reflector.
Lamp receptacle	Heat-resistant molded phenolic, Rotatable through 360°. Pre-wired with 26" #18 AWG 105°C type TEW color-coded leads with Quick-disconnect terminals
Wire opening between sections	Accommodates three 3/4" diameter cables
Terminal Block	1-section 2-point 2-section 3-point 3-section 5-point 4-section 5-point 5-section 5-point, and 5 point
Signal alignment	Integral 72-tooth serrated adjustable in 5 steps.
Weight	8" (200mm) LED-Ready Section = 1.85 lb (0.84kg) 12" (300mm) LED-Ready Section = 3.15 lb (1.43kg)
Overall dimension	8"(200mm) Section = 9.75"W x 10"Hx 6.16"D 12"(300mm) Section = 13.5"W x 13.44"H x 6.44"D

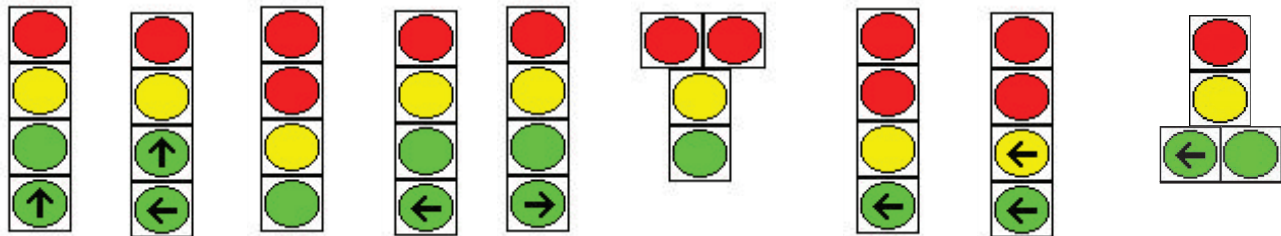
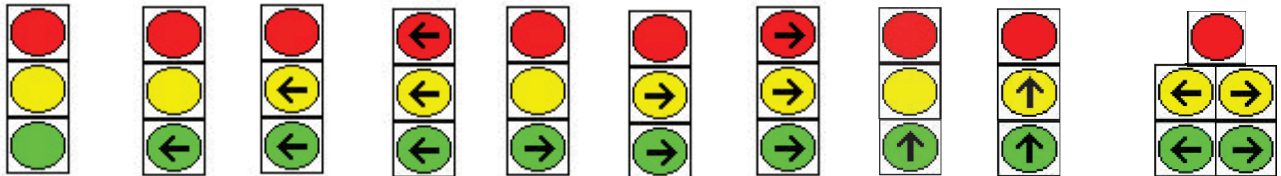
Aluminium

Material	Die-cast aluminum alloy housing and door. Stainless steel exterior hardware. Couplers are standard steel-zinc, but a stainless steel option is available.
Finish	Electrostatically applied powder coat with five stage iron phosphate treatment.
Reflector	Snap-out assembly. Swing out molded frame. Lane control uses a standard reflector
Lamp receptacle	Heat-resistant molded phenolic, Rotatable through 360°. Pre-wired with 26" #18 AWG 105°C type TEW color-coded leads with Quick disconnect terminals
Wire opening between sections	Accommodates three 3/4" diameter cables
Terminal Block	1-section 2-point 2-section 3-point 3-section 5-point 4-section 5-point, 2-point 5-section 5-point*2, and 3-point
Signal alignment	Integral 72-tooth serrated adjustable in 5° steps.
Weight	8" (200mm) LED-Ready Section = 4.2 lb. (1.9 kg) 12" (300mm) LED-Ready Section = 5.5 lb. (2.5 kg)
Overall dimension	8"(200mm) Section = 9.75"W x 10"Hx 6.16"D 12"(300mm) Section = 13.5"W x 13.44"H x 6.44"D

Poly and Aluminum signals are also available with LED ready Weights do not include hardware modifications. Door only, no visors.

FACE ARRANGEMENTS

VERTICAL



51



52



53



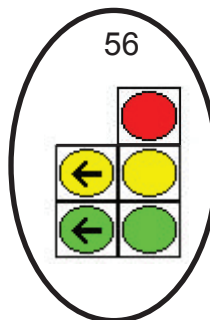
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56



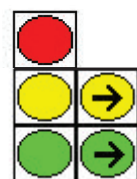
57



58



59



GTX®

VLA Model LED Signal Modules

8 and 12 inch

Incandescent look (120V)

Project Name _____

Date _____

Notes _____

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057

B/R# 11

Qty. 1

Red Ball LED Qty. 1

Yellow Ball LED Qty. 1

Green Ball LED Qty. 1



ROBUST FEATURES

- Optimal thermal management for longer life.
- Provides performance under extreme field temperature conditions.

INNOVATIVE DESIGN

- Low profile module permits efficient installation into existing traffic housings.
- Power consumption levels allow compatibility with most controllers.
- Mask compatible to fit your unique signaling needs.*

OUTSTANDING PERFORMANCE

- High-brightness central light source and custom optical lensing distribute light uniformly and efficiently.
- Rigorously tested for long life design and low maintenance costs.
- Excellent color uniformity.

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant.
- Compliant with ITE VTCSH LED Circular Signal Supplement dated June 27th 2005.
- CSA approved version available.

* Sold separately. Refer to masks datasheet TRAF208.



The Greatest Signals Stand the Test of Time.™

GTX® City LED Signal Modules

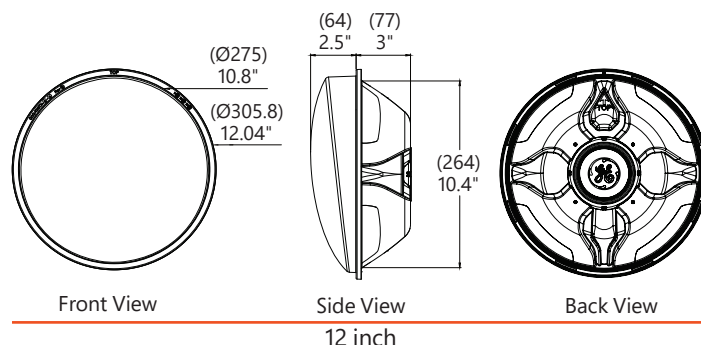
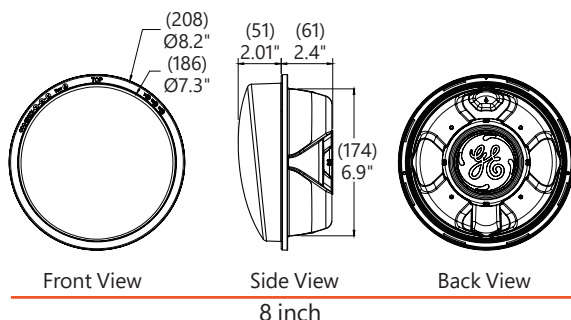
8 and 12 inch

Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline Dimensions in inches (mm)



Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Circular Signal Supplement-June 2005
Chromaticity	ITE VTCSH-LED Circular-June 2005
Moisture Resistance	Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sub. B Sec 15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10µF Sec. 2.1.8 NEMA TS2-2003, 1kV, 2Ω
Controller Compatibility	ITE VTCSH-LED Circular Signal Supplement-June 2005
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 61000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3kV, 2 Ω Sec. 8.0 IEC 61000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6kV, 30 Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Minimum Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75 ms
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	8 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief ** 12 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief **

* Operating Temperature Range per ITE 2005, Section 3.3.2

** For CSA approved version: 40in, 18AWG, Color Coded with Strain Relief

Product Information

Model Number	Front Shell	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Nominal	Maintained Intensity (Cd) Minimum ²
DR4-RTFB-VLA	Tinted	8	120V - 60Hz	6.7	628	165
DR4-RCFB-VLA	Clear	8	120V - 60Hz	7.9	589	410
DR4-YTFB-VLA	Tinted	8	120V - 60Hz	7.3	499	215
DR4-YCFB-VLA	Clear	8	120V - 60Hz	6.7	625	365
DR4-GTFB-VLA	Tinted	12	120V - 60Hz	10.9	588	910
DR4-GCFB-VLA	Clear	12	120V - 60Hz	9.9	589	910
DR6-RTFB-VLA	Tinted	12	120V - 60Hz	8.4	501	475
DR6-RCFB-VLA	Clear	12	120V - 60Hz			
DR6-YZFB-VLA	Tinted					
DR6-YTFB-VLA	Tinted					
DR6-YCFB-VLA	Clear					
DR6-GTFB-VLA	Tinted					
DR6-GCFB-VLA	Clear					

Distributed by:

Standard product equipped with universal connectors (insulated spade-quick disconnect).
All colors available in tinted or clear lens.

¹ Class A

² Measured at vertical angle of -2.5° and at horizontal angle of 0°.

GTX[®]

City VLA Model LED Arrow Signals

12 inch

Incandescent look (120V)

Project Name _____

Date _____

Notes _____

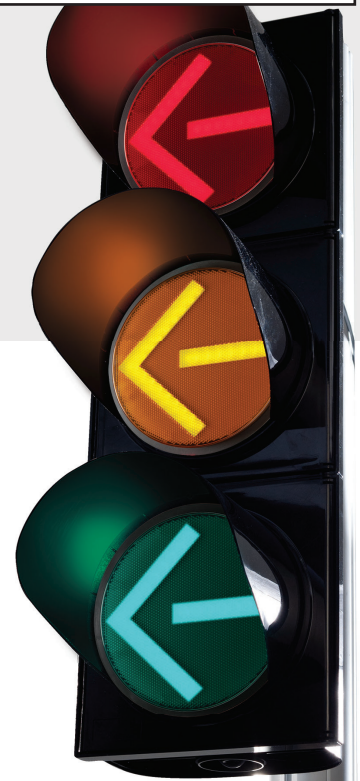
WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057

B/R# 11

Qty. 1

Yellow Arrow LED Qty. 1

Green Arrow LED Qty. 1



EXCELLENT APPEARANCE & VISIBILITY

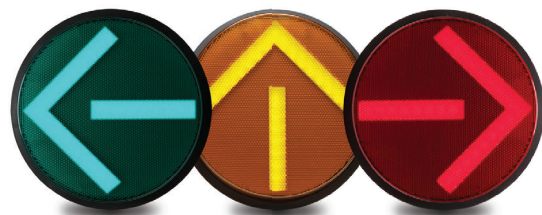
- Efficient optical design allows omnidirectional arrow placement with maximum light output
- Excellent color uniformity creates an incandescent look for easy readability
- New or retrofit use

OUTSTANDING RELIABILITY & ROBUST OPERATION

- High efficiency and high-brightness LED light source
- Failed state impedance protection detects the loss of LED load
- Optimized thermal management for longer life
- Provides performance under extreme field temperature conditions

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant
- DOE compliant
- CSA approved model available
- Using MIL-STD-810F and MIL-STD-883 for environmental robustness, passed reliability and qualification testing, including high temperature, high humidity cycling
- Compliant with ITE VTCSH LED Vehicle Arrow Traffic Signal Supplement dated July 1, 2007



The Greatest Signals Stand the Test of Time.™

GTX® City LED Arrow Signal Modules

12 inch module

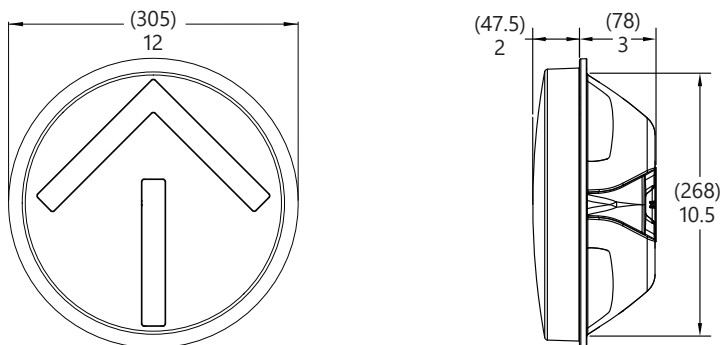
Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline

Dimensions in inches (mm)



Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90 %
Total Harmonic Distortion (THD)	< 20 %
Voltage Turn-Off (VTO)	35 V
Turn-On/Turn-Off Time	< 75msec
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	40in, 20 AWG, Color Coded with Strain Relief

* Operating Temperature Range per ITE 2005 section 3.3.2

Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Chromaticity	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Moisture Resistance	NEMA STD 250 Type 4 – 1991 Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	CC Title 47 Sub. B Sec.15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10μF Sec. 2.1.8 NEMA TS2-2003
Controller Compatibility	ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement, July 2007
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 1000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3KV, 2Ω Sec. 8.0 IEC 1000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6KV, 30Ω
Immunity	Radiated electromagnetic field immunity - radio frequencies IEC 6100-4-3:2020 10 V/m (80 MHz-1 GHz) – Class A

Product Information

Model Number	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) Dominant	Maintained Intensity (cd) Minimum
● DR6-RTAAN-VLA	12	120V – 60Hz	6.5	625	59
○ DR6-RCAAN-VLA	12	120V – 60Hz	6.5	625	59
→ ● DR6-YTAAN-VLA	12	120V – 60Hz	6.5	589	146
→ ○ DR6-YCAAN-VLA	12	120V – 60Hz	6.5	589	146
● DR6-GTAAN-VLA	12	120V – 60Hz	6.5	500	76
→ ○ DR6-GCAAN-VLA	12	120V – 60Hz	6.5	500	76

All lamps available in tinted or clear lens.

¹ Class A

Distributed by:

BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	CATALOG
1	4	NEOPRENE, GASKET	VSE-0354
2	1	SERRATED LOCKING RING	VSE-0360
3	1	WIRE OUTLET BODY, IRON,	VSE-4118-*
4	4	HEX CAST COLLARED NIPPLE, IRON	VSE-0435
5	1	SPAN WIRE CLAM, 1/2" WIDE SLOT, SS "U" BOLT & HEWR, IRON	VSE-0338-GLV
6	2	PIPE NIPPLE, 1.5"x6" IRON PAINTED	VSE-0469-06-*
7	1	PIPE NIPPLE, 1.5"x 13" IRON, PAINTED	VSE-0469-13-*
8	1	PIPE NIPPLE, 1.5"x 14" IRON, PAINTED	VSE-0469-14-*
9	1	NIPPLE, ALL THREAD, 1.5"x 3" STEEL/ZINC	VSE-0492-03
10	1	CENTER SUPPORT, FOUR WAY, IRON, PAINTED	VSE-0496-*
11	2	LONG ROSETTE, POLY	VSE-0499-*
12	1	BALANCE ADJUSTER, 1/2" SLOT, 1/2" EYE	VSE-3219-0.50-0.50-GLV
13	1	HORIZONTAL SLIP TEE, 1 1/2" IRON	VSE-4092-SBE-*
14	1	NOTCHED COUPLING, 1-1/2" NPS x 2" STEEL	VSE-4170-*
15	4	SERRATED ELBOW, IRON,	VSE-4415-*

COLOR DETAIL	
REPLACE WITH	REPLACE WITH
COLOR CODE	COLOR
Y	YELLOW
B	BLACK
BZ	BROWN
GRN	GREEN
E	EASTON BLUE
EB	EASTON BLUE
DB	DAKOTA BLUE
HT	NEW ALABAMA GREEN
HT	OHAWANA GREEN
HG	IND. GREEN
HS	UPPER GREEN

WV DOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 11
Qty. 1
Yellow

NOTE: Order This With
VSE-5121Y-19 Or Order
VSI-6355Y-WVRMS



PATH MASTER
Where Traffic Meets Technology

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TITLE KIT, 1-W SPAN WIRE CLUSTER, WDOH FOR TETHER, IRON PIPE			
DRAWN BY SUM	APPROVED BY —	CAD VSI-6355_-WTL-U-IG	
DATE 7-10-24	DATE —	SCALE 1" = 8"	
REFERENCE		DRAWING No. DB-1241	

Signal Accessories

Pelco supplies various accessories for span wire mounted signs and signals. See section T14 for additional components.

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 11
Qty. 1



Lower Arm Assy, 2-Way, 16-1/2" CTC, Steel

SE-3162 - Coating
P__=Paint



Lower Arm Assy, 3-Way, 16-1/2" CTC, Steel

SE-3163 - Coating
P__=Paint



Lower Arm Assy, 4-Way, 16-1/2" CTC, Steel

SE-3164 - Coating
P__=Paint



Tether Assembly, Break-Away, 1-1/2" Pipe, Steel

SE-3055 - Coating
ZN1=Zinc1 Plated
P__=Paint



Tether Assembly, Extended Bottom, Alum

SE-3307 - Length - Coating
6=6" PNC=Process No Color
18=18" P__=Paint
28=28"



Tether Assembly, Non-Break-Away, Alum

SE-3293 - Coating
PNC=Process No Color
P__=Paint



Tether Assembly, 1-1/2" Break-Away, Alum

SE-5121 - Extender - Coating
Blank=No Extender PNC=Process No Color
11=11" P__=Paint
19=19"
72=72"

COLOR: YELLOW



Note:
Available with or
without Extender Bar.

FREE-SWINGING



Note: 1. All assemblies are supplied standard with stainless steel fasteners.
2. See Reference Section for available paint colors.

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	PART NUMBER
1	1	BRIDGEPORT #1205 SVC ENT	GR1205
2	1	CLAMP KIT, GALAXY SERIES W/96"	VOAB3055Y-96
3	5	SERRATED ELBOW, IRON YELLOW	VSE-4415Y
4	1	PIPE TEE, 1-1/2" IRON, PAINTED	VSE-4092Y
5	1	HORIZONTAL SLIP TEE, 1-1/2", IRON	VSE-4092Y-SBE
6	4	PIPE NIPPLE, 1.5"x6" IRON, PAINTED	VSE-0469-06Y
7	1	PIPE NIPPLE, 1.5"x14" IRON	VSE-0469-14Y
8	2	PIPE NIPPLE, 1.5"x8" IRON, PAINTED	VSE-0469-08Y
9	1	PIPE NIPPLE, 1.5"x52", IRON, PAINTED	VSE-0469-52Y
10	1	NOTCHED COUPLING, 1-1/2"x2"	VSE-4170Y
11	4	SERRATED LOCKING RING	VSE-0360
12	4	NEOPRENE GASKET, 1-1/2"	VSE-0354
13	4	HEX CAST COLLARED NIPPLE, IRON	VSE-0435
14	1	CENTER SUPPORT, FOUR WAY	VSE-0496Y
15	2	LONG ROSETTE, POLY YELLOW	VSE-0499Y

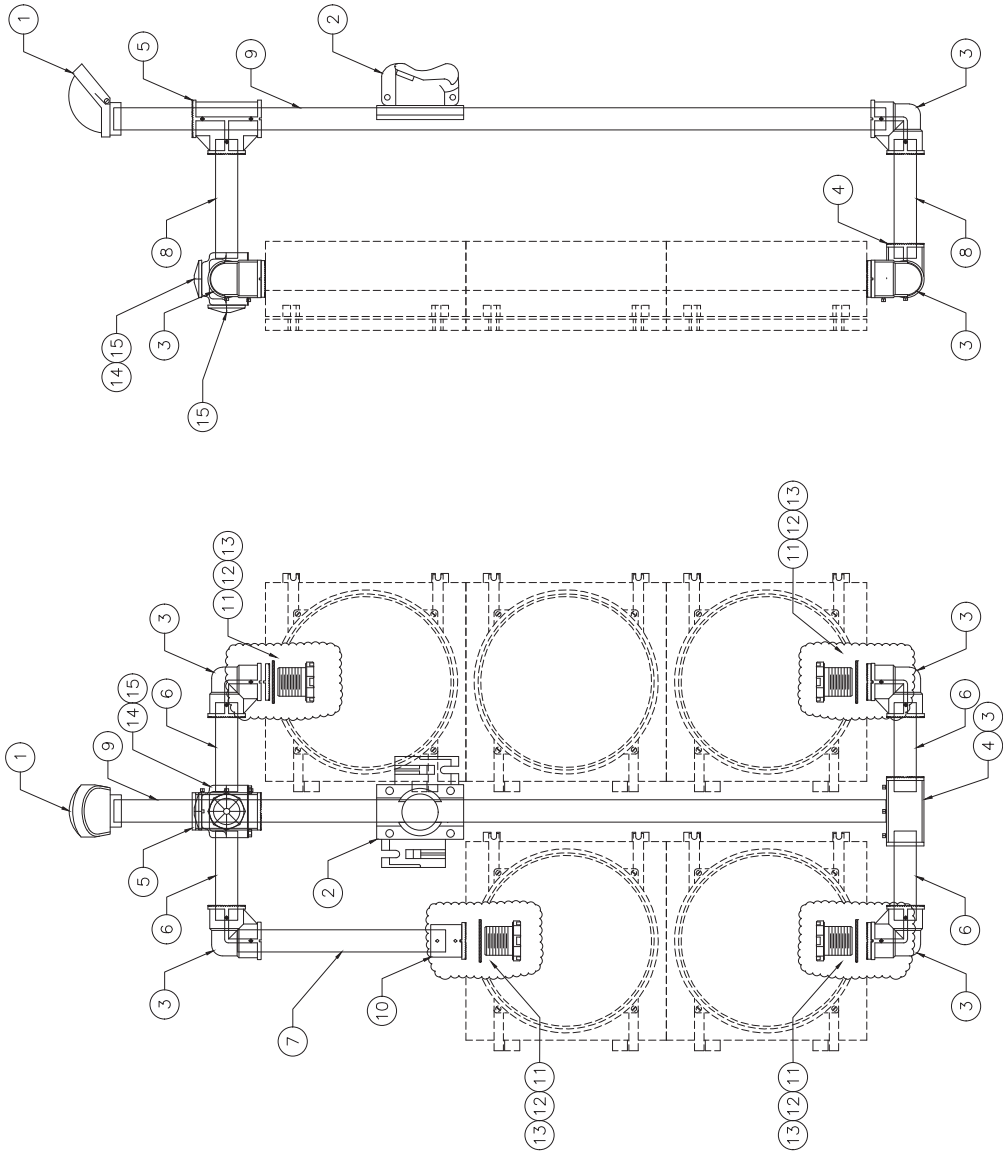
WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 11
Qty. 1
Yellow

NOTE: Order This Or Order
VSIG-6355Y-WVTI-U-IG With
VSE-5121Y-19



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TITLE KIT, 1-W 5-SEC CLUSTER WDOH FOR RIGID MOUNT, IRON PIPE			
DRAWN BY	SJM	APPROVED BY	
DATE	5-2-19	DATE	
REFERENCE		SCALE	1" = 8"
PMI P/N: VSIG-6355Y-WWRM		DRAWING No.	DB-1071



LED-Ready Pedestrian Signals

When you first look at a pedestrian signal from Oriux, you see a sign of experience — it comes from more than 40 years of building pedestrian signals.

Look even closer and you'll find the quality and durability that have made it our most popular signal ever...

Features & Benefits

- Available in polycarbonate and aluminum
- Vandal-resistant construction
- Compatible with our patented clamshell mount, which makes installing the 4302 a quick and clean process
- Compatible with mounting hardware used on California type A, B, C, and G pedestrian signal types
- Z-Crate Visor virtually eliminates sunphantom
- Designed for long years of service in all types of weather and harsh environmental conditions.

Our aluminum and polycarbonate lines are completely interchangeable with one another, allowing you to design the exact pedestrian signal you need. If you need a polycarbonate body with an aluminum door, or an aluminum body with a polycarbonate door, we can accommodate you. Couple that with the ability to exchange the Z-crate for an open visor, or just a door alone, and Oriux is sure to have the pedestrian signal that meets your exact needs



Specifications

Weight	Aluminum: 15 pounds (6.8kg) Polycarbonate: 12 pounds (5.5kg)	Coatings	All aluminum items are coated with electrostatically applied powder after undergoing a five stage pre-wash. Housings, Open Visors, and Clamshells come in Yellow, Black, or Green, as standard options. Other colors are available upon request. All aluminum doors are powder coated black.
Dimensions	18.75"H × 9.0"D × 18.5"W (476mm × 229mm × 470mm)		
Temperature Range	-4°F to +158°F (-20°C to +70°C)		
Z-Crate Visor	100% impregnated black polycarbonate plastic with a flat black finish		
Aluminum Door	One piece corrosion resistant aluminum alloy die-cast door, containing two integrally cast hinge lugs and two latch slots	Environmental	Dustproof and weatherproof when properly mounted Door Frame
"Vision" Z-Crate Visor/Door Combo	One piece door and z-crate combination, cast from 100% impregnated black polycarbonate, including two hinge lugs and two latch slots.	Door Frame Hardware	Stainless steel. Stainless steel spring pins. Latching and unlatching of door requires no tools
Housing Types	Smooth Top, Shurlock Top, or Ports Cast Closed housings are available in both Aluminum and Polycarbonate. All types contain 72 teeth on each Shurlock (if applicable) to allow for 5° alignment angles and four integrally cast lugs. All housings have a Shurlock boss on the bottom and can be ordered Standard, Drill- Right, Drill Left, or Maintained.	Terminal Strio	An aluminum terminal strip with a pre-mounted three-position quickconnect terminal block is a standard feature in all Oriux LED ready pedestrian signals

LED Countdown Pedestrian Signals

16 x 18 inch

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 12
Qty. 30

Project Name _____

Date _____

Notes _____



EXCELLENT APPEARANCE & VISIBILITY

- Robust LED system design enables high luminous intensity over product life cycle
- Efficient optical system minimizes power consumption while providing excellent uniformity and viewing angles
- Single piece transparent front window with internal masking to prevent:
 - countdown and icons display from being readily visible when not in operation
 - scratches and abrasions compared with external silk screen technology
- Bright and clear icons
- Fully uniform look
- Lower profile*
- Improved luminous intensity uniformity

OUTSTANDING RELIABILITY & ROBUST OPERATION

- Internal conflict monitor preventing walk and don't walk indications to light up at the same time
- Individual power supply drives each display to ensure proper indication
- Reduced overall power consumption*

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant
- DOE compliant
- Using MIL-STD-810F and NEMA 250-1991 Type 4 for environmental robustness, passed reliability and qualification testing including high temperature, high humidity cycling (HTHH for 1,000 hours)
- Compliant (for Full Hand/Full Person) with the ITE PTCSI LED Signal Modules
 - version dated August 2010

* Compared to PS7-CFF1-27A



The Greatest Signals Stand the Test of Time.™

GTX® City LED Countdown Pedestrian Signals

16 x 18 inch module

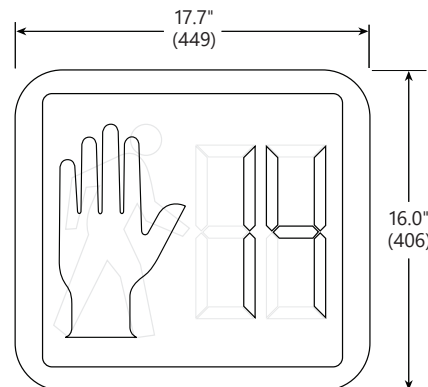
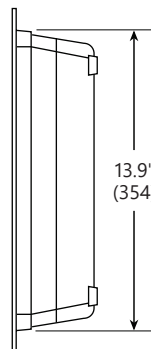
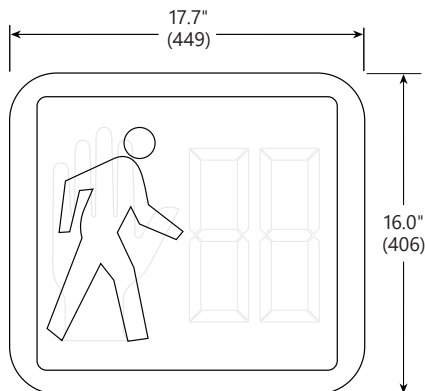
Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline

Dimensions in inches (mm)



Test type	Compliance
Luminous Intensity, Uniformity & Viewing Angles	ITE PTC SI LED Signal Modules version of August 2010
Chromaticity	ITE PTC SI LED Signal Modules version of August 2010
Moisture Resistance	MIL-STD-810F Procedure 1, Rain & Blowing Rain
Mechanical Vibration	MIL-STD-883 Test Method 2007
Electronic Noise	FCC Title 47 Sec 15 Sub. B ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS 2-2003 Sec. 2.1.8 NEMA TS 2-2003
Controller Compatibility	NEMA TS-2-2003
Transient Suppression	Sec. 8.2 IEC 1000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3KV, 2 Ω Sec. 8.0 IEC 1000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6KV, 30 Ω
Wiring	NFPA 70, National Electric Code
Digits	MUTCD 2014, Section 4E.07, Countdown Numbers Minimum 9" Height & 7" Width
Symbols	ITE PTC SI LED Signal Modules version as of August 2010, 11" Height & 7" Width

¹ Class A

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Voltage Turn-Off (VTO)	35 V
Start-up Time	< 75msec
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	16 AWG, Color Coded with Strain Relief
LED Color	Hand: Portland Orange Person: Lunar White Countdown: Portland Orange
Conflict Default Condition	Hand only

* Performed in compliance with ITE test method described in the technical notes

Product Information

Model Number	Dimensions		Symbol		AC Voltage Nominal	Power (W)			Minimum Luminous Intensity Cd/m ²	
	Dimensions	Layout	Hand	Person		Hand	Person	Countdown	Hand/Digit	Person
PS7-CFF1-VLA	16 x 18 in	Overlay Countdown	Full	Full	120V - 60Hz	6	6	8	1400	2200

¹ Class A.

Test Condition : Ta = 25°C. All values are design or typical values when measured under laboratory conditions.

IntelliCross APS

The IntelliCross APS is the state-of-the-art solution for solving pedestrian traffic challenges. The IntelliCross turns a pre-timed pedestrian into a fully actuated intersection. Pre-loaded or custom audio messages with remote or local configuration access are only two of the many key features of Pelco's intelligent pedestrian system. Contact Pelco for additional information.

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 13
Qty. 30
NOTE: Flat Sheet Sign To Be
Determined Upon Order



APS Assy, IntelliCross w/ Single Arrow, for 5" x 7-3/4" Sign, Alum

SE-2900 - Coating
PNC=Process No Color
P__=Paint

APS Assy, IntelliCross w/ Single Arrow, Custom Configured for 5" x 7-3/4" Sign, Alum

SE-2901 - Buttons per Intersection - Coating
2=2 Buttons
4=4 Buttons
6=6 Buttons
8=8 Buttons
PNC=Process No Color
P__=Paint
COLOR: YELLOW

Note:
PIM - Power Interface Module included.
Pedestrian signs, sign adapters, and double arrow kits sold separately.



CIU, Communication Interface Unit, Compact for APS IntelliCross Button

SE-6172-PNC

Note:
CIU is optional. Only required for advanced features.

Note: 1. All assemblies are supplied standard with stainless steel fasteners.
2. For pedestrian signs available refer to pages T8-27 through T8-29.
3. See Reference Section page v for available paint colors.



IntelliCross APS

The IntelliCross APS is the state-of-the-art solution for solving pedestrian traffic challenges. The IntelliCross turns a pre-timed pedestrian intersection into a fully actuated intersection. Pre-loaded or custom audio messages with remote or local configuration access are only two of the many key features of Pelco's intelligent pedestrian system. Contact Pelco for additional information.

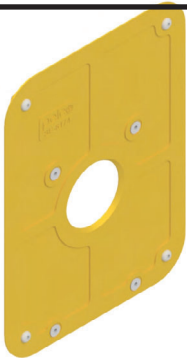
WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 13
Qty. 30



Adapter Assy, 9" x 15", w/ Hardware IntelliCross, Alum

SE-2174 -
Coating
PNC=Process No Color
P__=Paint

COLOR: YELLOW



Adapter Assy, 9" x 12", w/ Hardware IntelliCross, Alum

SE-2171 -
Coating
PNC=Process No Color
P__=Paint



Adapter Assy, 9" x 3", w/ Hardware IntelliCross, Alum

SE-2175 -
Coating
PNC=Process No Color
P__=Paint



Arrow, Double for APS IntelliCross Push Button, w/ Hardware, Alum

SE-6170-2 -
Coating
P__=Paint

Note: 1. All assemblies are supplied standard with stainless steel fasteners.
2. See Reference Section page v for available paint colors.





PS-175B

Heavy Duty Rack Power Supply

The ideal power source when using high current devices such as video detection cards.

The PS-175B Rack Power Supply is a rack mounted high efficiency switching power supply that provides regulated 24 VDC power for a Nema TS-1 Detector Rack. The PS-175B meets or exceeds all requirements of the NEMA Standard TS-1 1989 R2005.

Each EDI PS-175B Cabinet Power Supply is put through a rigorous three part Total Quality Assurance program and tested under the extreme environmental conditions experienced on the street. It is this commitment to quality and performance that EDI products are known for, providing years of trouble free operation.

- **PS175B:** 24Vdc @ 3 Amps

PS-175B OPERATIONAL FEATURES

Basic Functions: The PS-175B provides a regulated output rated at 3 Amps over the full -30°F to 165°F (-34°C to +74°C) Nema operating temperature range.

- ✓ 3 Amp Maximum Load Current
- ✓ Full Output Regulation: 24 Vdc +/- 2 Vdc
- ✓ Four DC Output pins are common
- ✓ Input and Output Fused

Display Indicators: Separate green LED indicators are provided to display input and output status and fuse integrity.

Output Protection: The output is fused for over-current protection and protected against voltage transients by a 1500 Watt suppressor.

Input Voltage Operating Range: 89 Vac to 270 Vac at 50 / 60 Hz

Input / Output Pins:

Pin	Pin	Function
A	1	DC Ground
B	2	DC Output
C	3	DC Output
L	10	Chassis Ground
M	11	AC Neutral
N	12	AC Line
U	17	DC Output
V	18	DC Output

Power Switch: Switches AC power input

Connector: Double sided 44-pin with gold contact fingers

Dimensions: 4.5 inches High x 2 inches Wide x 6.875 inches Deep excluding handle

EBERLE DESIGN INC.

3510 East Atlanta Avenue
Phoenix, AZ 85040 USA
www.EDITraffic.com

Tel (480) 968-6407
Fax (602) 437-1996



WV DOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 15
Qty. 15



PS-250

Heavy Duty Cabinet Power Supply

The ideal power source when using high current devices such as video detection cards.

The PS-250 Cabinet Power Supply is a shelf mounted unit which supplies regulated DC power, unregulated AC power, and a line frequency reference for the Detector Rack, BIUs, load switches, and other auxiliary equipment. The PS-250 meets and/or exceeds all requirements of the NEMA TS2-2003 (R2008) Standard.

All TS-2 Type 1 cabinet assemblies require the use of this unit as well as any TS-2 Type 2 cabinet assemblies that utilize Bus Interface Units (BIU).

Each EDI PS-250 Cabinet Power Supply is put through a rigorous three part Total Quality Assurance program and tested under the extreme environmental conditions experienced on the street. It is this commitment to quality and performance that EDI products are known for, providing years of trouble free operation.

PS-250 OPERATIONAL FEATURES

Basic Functions: The PS-250 provides four outputs rated over the full -30°F to 165°F (-34°C to +74°C) Nema operating temperature range:

- ☒ +12 VDC rated at 5 Amps
- ☒ +24 VDC rated at 3 Amps
- ☒ 12 VAC rated at 0.25 Amps
- ☒ 60 Hz Line Frequency Reference rated at 50 mAmps
- ☒ Input Voltage Operating Range is 89 Vac to 135 Vac at 50/60 Hz
- ☒ Power Factor Corrected

Display Indicators: A separate LED indicator is provided to display output status and fuse integrity for the four supply outputs. The Line Frequency Reference LED indicator pulses to show 60 Hz activity.

Input / Output Pins:	Pin	Function
	A	AC Neutral
	B	Line Frequency Reference Output
	C	AC Line Input
	D	+12 VDC Output
	E	+24 VDC Output
	F	Reserved
	G	Logic Ground
	H	Earth Ground
	I	12 VAC Output
	J	Reserved

Test Points: Individual test jacks are provided for the +12 VDC output, +24 VDC output, and Logic Ground reference.

Output Protection: The +12 VDC, +24VDC, and 12 VAC outputs are fused for over-current protection. Each output is protected against voltage transients by a 1500 Watt suppressor.

Dimensions: **Compact Size:** 6.0 inches High x 4.0 inches Wide x 8.4 inches Deep

EBERLE DESIGN INC.

3510 East Atlanta Avenue
Phoenix, AZ 85040 USA
www.EDIttraffic.com

Tel (480) 968-6407
Fax (602) 437-1996





AP22 TIME SWITCH

Industry-Standard, Time-Tested School Zone Appliance

WVDOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 16
Qty. 5

RTC's commitment to manufacturing high-quality, long-lasting products has made the AP22 the industry standard for school zone time switches. The reputable AP22 has the capacity to store the programming for the biggest cities with multiple districts and school schedules. The AP22 is a low maintenance, user-friendly time switch that you can trust to help make your community safe and efficient.



Upload and download programming via Cellular, 2-Way Radio, Ethernet, or Laptop.



Helping Kids Get To School Since 1987



AP22 TIME SWITCH

Industry-Standard, Time-Tested School Zone Appliance



*Upload and download
programming via Cellular,
2-Way Radio, Ethernet,
or Laptop.*

AP22 SPECIFICATIONS

DESCRIPTION	
DISPLAY	Two-line, 16 characters per line Liquid Crystal Display (LCD)
KEYBOARD	Sixteen-key, positive action push button
BACK-UP POWER	Non-volatile memory
OUTPUT	Two SPDT relays rated at 15 amps 12VDC or 115 VAC resistive load
POWER	Less than 0.25 Watt at rest, 0.6 watt with relay ON, 12VDC
TIME BASE	AC Power = 60Hz power line DC Power = Temperature-compensated crystal with accuracy of .35 seconds/day
SIZE	10.375"H x 4.75"W x 2"D
TEMPERATURE RANGE	-22° to +165° Fahrenheit

AP22 FEATURES

- Two-line, sixteen-character, Liquid Crystal Display (LCD)
- Daylight Saving Time adjustments
- Program memory stored for years - no batteries to replace
- The user-friendly display auto-prompts the operator through the programming process
- Ten day plans, sixteen program steps per plan accommodate standard school day, school holidays, early dismissal days, summer school days, etc.
- Standard week plan programming uses any day plan to accommodate the most complicated school schedules
- Thirty-six annual programs use exception-day programming to assign any day plan to any calendar day(s)
- Two independent 15-amp relay outputs
- Program transfers from unit to unit with accessory cable or via RTC Connect™ software
- Works on 120VAC and 12VDC power sources

AP22 ORDERING INFORMATION

PART NUMBER	DESCRIPTION
503644	Two-output time switch with CPC connector and 48" wiring harness
504558	Program transfer cable
500517	AC power cable with connector

COMPLIANCE

- The AP22 meets FCC and NEMA TS1/TS2 requirements

Model TR-200

FLASH TRANSFER RELAY

WV DOT Traffic Signal Equipment
CRFQ 0803 DOT00000057
B/R# 17
Qty. 20



- Operating voltage range: 89 to 135 VAC RMS
47 to 63 Hz
- Operating temperature range: -40° to +180° F
(-40° to 82° C)
- Operating humidity range: 5% to 95%
(non-condensing)
- Coil specifications:
 - Maximum pull-in voltage: 85 VAC
 - Minimum dropout voltage: 25 VAC
 - Nominal power: 4 VA at 120 VAC
- Contact material: Silver alloy
- Contact ratings:
 - 30 Amps resistive at 120 / 240 VAC
 - 20 Amps resistive at 28 VDC
 - 10 Amps tungsten at 120 VAC
 - 175 Amps one cycle surge RMS at 120 VAC
 - 100,000 operations at rated load
- Dielectric strength:
 - Across open contacts: 600V RMS
 - Contact to coil: 1500 V RMS
 - Contact to frame: 1500 V RMS
 - Leakage current: ≤ 1 mA
- LED provides visual indication of coil voltage
- Solid polarizing pin
- Dimensions: 2.47 inches (6.27 cm) high x 1.85 inches (4.70 cm) wide x 3.90 (9.91 cm) deep
(including connector)

Overview:

The Model TR-200 Flash Transfer Relay is designed to meet or exceed NEMA Standard TS 2-2003. Model TR-200 Flash Transfer Relays are constructed with a transient suppressed full wave rectified coil to provide chatter free operation in brownout conditions down to 89 VAC. The rectified coil provides lower power consumption than conventional AC coils. A rear mounted eight pin polarized connector mates with a Cinch-Jones 2408SB socket.



Reno A & E
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