TRAFFIC CONTROL EQUIPMENT SPECIFICATIONS

I. INTENT STATEMENT

II. GENERAL EQUIPMENT CATEGORY SPECIFICATIONS

A. ARROW PANELS
   1.) Arrow Board, Trailer Mounted
   2.) Arrow Board, Stationary (board only)
   3.) Arrow Board, Power Tilt (including board)
   4.) Arrow Board, Manual Tilt (including board)

B. PORTABLE CHANGEABLE MESSAGE SIGNS
   1.) Message Board, Trailer Mounted
   2.) Message Board, Stationary (board only)
   3.) Message Board, Power Tilt (including board)
   4.) Message Board, Manual tilt (Including board)

C. SPEED DISPLAY SIGNS
   1.) Board, Speed Display, Trailer Mounted

D. TRAFFIC ALERT RADIO
   1.) Radio, CB - Traffic Alert, Trailer Mounted

E. AUTOMATED FLAGGER ASSISTANCE DEVICE
   1.) Automated Flagger Assistance Device, Trailer Mounted

F. TEMPORARY TRAFFIC SIGNALS
   1.) Portable Traffic Signal Light, Trailer Mounted
I. INTENT STATEMENT:

The purpose of these specifications is to describe, in brief overview, the following categories of equipment designed to warn of traffic conditions and/or control traffic which are being bid for the Traffic Control Equipment contract: Arrow Panels, Portable Changeable Message Signs, Speed Display Signs, Traffic Alert Radio, Automated Flagger Assistance Device, and Temporary Traffic Signals.

The following requirements apply to all the equipment categories being bid:

A. Only models that have been pre-approved by the Pennsylvania Department of Transportation will be considered for this bid:

Only models that have been reviewed in accordance with this specification and for which a Certificate of Approval has been issued by the Pennsylvania Department of Transportation (PennDOT), as per PA Publication 35 - Bulletin 15 prior to the bid opening date and time.

B. The manufacturer must have a repair facility in the state of Pennsylvania.

C. Pennsylvania Commercial Item Description (PCID) No. 1075:

Pennsylvania Department of General Services, PCID No. 1075, “General Requirements for Bidding PennDOT Vehicles/Equipment”, the most current version is hereby incorporated as part of these specifications. An electronic copy is attached to the Invitation for Bid (IFB).

D. Delivery:

Delivery to be as required by PCID No. 1075 Section “G”. All units must be delivered within 120 calendar days after receipt of the purchase order.
E. Manuals:

The successful vendor shall furnish all applicable manuals per unit:

1. Operator’s
2. Parts
3. Service
4. Engine
5. Transmission (automatic or manual)
6. Body and sub-frame (parts and service)
7. Complete set of manuals for any additional items/equipment added to any specific piece of Traffic Control Equipment

The manuals listed shall be official O.E.M. publications supplemented with technical manuals for all components as published by sub-vendors/manufacturers.

Parts Manual presented must be relative to “all” items utilized to build these units, with appropriate part numbers.

Delivery of these manuals must be shipped with the equipment before we fully accept and process the equipment.

Manuals may be supplied on Thumb Drive or CD disc in lieu of paper manuals.

F. Warranty

Warranty to be in accordance with PCID No. 1075, Section E.1.A.

G. Training:

Awarded supplier must provide one on-site (7.5 hours) operator and mechanic training session upon delivery of each unit.
II. GENERAL EQUIPMENT CATEGORY SPECIFICATIONS

A.1. ARROW PANEL
ARROW BOARD, TRAILER MOUNTED
GENERAL SPECIFICATIONS:

1. TRAILER:
   • Unit shall be equipped with surge brakes if GVWR is 3,000lbs or greater with free backing brake shoes. **Dump valves and solenoids will not be accepted**

   • Hitch shall be able to accommodate a 3” pintle hook design or 2” ball. EQN-84 Drawing

   • Unit shall be equipped with a 7 way round trailer plug and cord that extends 8’ beyond pintle eye or hitch. Wired to match EQN-80B Drawing Ref: Pollack Connector No. 11-910 or equal.

   • Unit shall be equipped with 4 leveling jacks that swing out of the way for ground clearance.

   • Painted Penn Dot yellow Reference (DUPONT F9885, PPG 85246, SHERWIN WILLIAMS 73266, and NAPA 73266).

   • Unit shall be equipped with non-rusting safety chains extending 3’ past the hitch with hooks. Each safety chain shall be equal to or above the GVWR. EQN-84 Drawing

   • All Units shall be equipped with LED lighting.

   • Units must have solar charging with an on board 110 volt charging system

   • All compartments, battery boxes and control boxes must be locked and keyed alike with 2 sets of keys.

   • All battery boxes must be Poly or Plastic material to keep from rusting but still must be able to hold up to everyday use.

2. ARROW LIGHTING:
   • All units shall be equipped with LED lighting.
A.2. ARROW PANEL
ARROW BOARD, STATIONARY (BOARD ONLY)
GENERAL SPECIFICATIONS:

1. ARROW LIGHTING:
   • All units shall be equipped with all LED lighting.

A.3. ARROW PANEL
ARROW BOARD, POWER TILT (INCLUDING BOARD)
GENERAL SPECIFICATIONS:

1. FRAME:
   • Shall be painted with non-reflective flat black enamel.
   • There shall be an electromechanical lift mechanism. Lift mechanism shall be protected when full-up or full-down has been selected as to not allow the motor to bind or burn up (i.e. overload slip or clutch). There shall be an auxiliary method to lower the sign in case of raise/lower mechanism failure.

2. ARROW LIGHTING:
   • All units shall be equipped with LED lighting.

A.4. ARROW PANEL
ARROW BOARD, MANUAL TILT (INCLUDING BOARD)
GENERAL SPECIFICATIONS:

1. FRAME:
   • Shall be painted with non-reflective flat black enamel.
   • There shall be a hand operated lifting device to raise and lower the sign.

2. ARROW LIGHTING:
   • All units shall be equipped with LED lighting.
B.1. PORTABLE CHANGEABLE MESSAGE SIGNS
MESSAGE BOARD, TRAILER MOUNTED
GENERAL SPECIFICATIONS:

1. TRAILER:

- Unit shall be equipped with surge brakes if GVWR is 3,000lbs or greater with free backing brake shoes. **Dump valves and solenoids will not be accepted**

- Hitch shall be able to accommodate a 3" pintle hook design or 2" ball. EQN-84 Drawing

- Unit shall be equipped with a 7 way round trailer plug and cord that extends 8’ beyond pintle eye or hitch. Wired to match EQN-80B Drawing Ref: Pollack Connector No. 11-910 or equal.

- Unit shall be equipped with 4 leveling jacks that swing out of the way for ground clearance.

- Painted Penn Dot yellow Reference (DUPONT F9885, PPG 85246, SHERWIN WILLIAMS 73266, and NAPA 73266).

- Unit shall be equipped with non-rusting safety chains extending 3’ past the hitch with hooks. Each safety chain shall have the breaking strength equal to or above the GVWR. EQN-84 Drawing

- All Units shall be equipped with LED lighting.

- Units must have solar charging with an on board 110 volt charging system

- All compartments, battery boxes and control boxes must be locked and keyed alike with 2 sets of keys.

- All battery boxes must be Poly or Plastic material to keep from rusting but still must be able to hold up to everyday use.

2. BOARD LIGHTING:

- All units shall be equipped with LED lighting.

- The display module shall consist of (4) LEDs per pixel
B.2. PORTABLE CHANGEABLE MESSAGE SIGNS
MESSAGE BOARD, STATIONARY (BOARD ONLY)
GENERAL SPECIFICATIONS:

1. BOARD LIGHTING:
   • All units shall be equipped with all LED lighting.
   • The display module shall consist of (4) LEDs per pixel.

B.3. PORTABLE CHANGEABLE MESSAGE SIGNS
MESSAGE BOARD, POWER TILT (INCLUDING BOARD)
GENERAL SPECIFICATIONS:

1. FRAME:
   • Shall be painted with non-reflective flat black enamel.
   • There shall be an electromechanical lift mechanism. Lift mechanism shall be protected when full-up or full-down has been selected as to not allow the motor to bind or burn up (i.e. overload slip or clutch). There shall be an auxiliary method to lower the sign in case of raise/lower mechanism failure.

2. BOARD LIGHTING:
   • All units shall be equipped with LED lighting.
   • The display module shall consist of (4) LEDs per pixel.

B.4. PORTABLE CHANGEABLE MESSAGE SIGNS
MESSAGE BOARD, MANUAL TILT (INCLUDING BOARD)
GENERAL SPECIFICATIONS:

1. FRAME:
   • Shall be painted with non-reflective flat black enamel.
   • There shall a hand operated lifting device to raise and lower the sign.

2. BOARD LIGHTING:
   • All units shall be equipped with LED lighting.
   • The display module shall consist of (4) LEDs per pixel.
C.1. SPEED DISPLAY SIGNS
BOARD, SPEED DISPLAY, TRAILER MOUNTED
GENERAL SPECIFICATIONS:

1. TRAILER:

- Unit shall be equipped with surge brakes if GVWR is 3,000lbs or greater with free backing brake shoes. **Dump valves and solenoids will not be accepted**

- Hitch shall be able to accommodate a 3” pintle hook design or 2” ball. EQN-84 Drawing

- Unit shall be equipped with a 7 way round trailer plug and cord that extends 8’ beyond pintle eye or hitch. Wired to match EQN-80B Drawing Ref: Pollack Connector No. 11-910 or equal.

- Unit shall be equipped with 4 leveling jacks that swing out of the way for ground clearance.

- Painted Penn Dot yellow Reference (DUPONT F9885, PPG 85246, SHERWIN WILLIAMS 73266, and NAPA 73266).

- Unit shall be equipped with non-rusting safety chains extending 3’ past the hitch with hooks. Each safety chain shall have the breaking strength equal to or above the GVWR. EQN-84 Drawing

- All units shall be equipped with LED lighting.

- Units must have solar charging with an on board 110 volt charging system

- All compartments, battery boxes and control boxes must be locked and keyed alike with 2 sets of keys.

- All battery boxes must be Poly or Plastic material to keep from rusting but still must be able to hold up to everyday use.
D. 1. TRAFFIC ALERT RADIO
RADIO, CB - TRAFFIC ALERT, TRAILER MOUNTED
GENERAL SPECIFICATIONS:

1. TRAILER:

- Unit shall be equipped with surge brakes if GVWR is 3,000lbs or greater with free backing brake shoes. **Dump valves and solenoids will not be accepted**
- Hitch shall be able to accommodate a 3” pintle hook design or 2” ball. EQN-84 Drawing
- Unit shall be equipped with a 7 way round trailer plug and cord that extends 8’ beyond pintle eye or hitch. Wired to match EQN-80B Drawing Ref: Pollack Connector No. 11-910 or equal.
- Unit shall be equipped with 4 leveling jacks that swing out of the way for ground clearance.
- Painted Penn Dot yellow Reference (DUPONT F9885, PPG 85246, SHERWIN WILLIAMS 73266, and NAPA 73266).
- Unit shall be equipped with non-rusting safety chains extending 3’ past the hitch with hooks. Each safety chain shall be equal to or above the GVWR. EQN-84 Drawing
- All Units shall be equipped with LED lighting.
- Units must have solar charging with an on board 110 volt charging system
- All compartments, battery boxes and control boxes must be locked and keyed alike with 2 sets of keys.
- All battery boxes must be Poly or Plastic material to keep from rusting but still must be able to hold up to everyday use.
E.1. AUTOMATED FLAGGER ASSISTANCE DEVICE

GENERAL SPECIFICATIONS:

1. TRAILER:

- Unit shall be equipped with surge brakes if GVWR is 3,000lbs or greater with free backing brake shoes. **Dump valves and solenoids will not be accepted**

- Hitch shall be able to accommodate a 3” pintle hook design or 2” ball. EQN-84 Drawing

- Unit shall be equipped with a 7 way round trailer plug and cord that extends 8’ beyond pintle eye or hitch. Wired to match EQN-80B Drawing Ref: Pollack Connector No. 11-910 or equal.

- Unit shall be equipped with 4 leveling jacks that swing out of the way for ground clearance.

- Painted Penn Dot yellow Reference (DUPONT F9885, PPG 85246, SHERWIN WILLIAMS 73266, and NAPA 73266).

- Unit shall be equipped with non-rusting safety chains extending 3’ past the hitch with hooks. Each safety chain shall be equal to or above the GVWR. EQN-84 Drawing

- All Units shall be equipped with LED lighting.

- Units must have solar charging with an on board 110 volt charging system

- All compartments, battery boxes and control boxes must be locked and keyed alike with 2 sets of keys.

- All battery boxes must be Poly or Plastic material to keep from rusting but still must be able to hold up to everyday use.
F.1. TEMPORARY TRAFFIC SIGNALS
PORTABLE TRAFFIC SIGNAL LIGHT
GENERAL SPECIFICATIONS:

1. TRAILER:

- Unit shall be equipped with surge brakes if GVWR is 3,000lbs or greater with free backing brake shoes. **Dump valves and solenoids will not be accepted**

- Hitch shall be able to accommodate a 3” pintle hook design or 2” ball. EQN-84 Drawing

- Unit shall be equipped with a 7 way round trailer plug and cord that extends 8’ beyond pintle eye or hitch. Wired to match EQN-80B Drawing Ref: Pollack Connector No. 11-910 or equal.

- Unit shall be equipped with 4 leveling jacks that swing out of the way for ground clearance.

- Painted Penn Dot yellow Reference (DUPONT F9885, PPG 85246, SHERWIN WILLIAMS 73266, and NAPA 73266).

- Unit shall be equipped with non-rusting safety chains extending 3’ past the hitch with hooks. Each safety chain shall be equal to or above the GVWR. EQN-84 Drawing

- All Units shall be equipped with LED lighting.

- Units must have solar charging with an on board 110 volt charging system

- All compartments, battery boxes and control boxes must be locked and keyed alike with 2 sets of keys.

- All battery boxes must be Poly or Plastic material to keep from rusting but still must be able to hold up to everyday use.