

ITEM 619.0803--25 - TEMPORARY GLARE SCREEN

1. DESCRIPTION:

- 1.01 This work shall consist of furnishing, installing, maintaining, moving and removing glare screen at the locations indicated on the plans and in accordance with details in the plans, manufacturers instructions, the specification and as directed by the Engineer.

2. MATERIALS:

- 2.01 The system shall consist of either vertical blades placed at uniform spacing on a horizontal base rail which is in turn mounted on the barrier; or, individually mounted glare blades installed with anchor bolts directly on the concrete barrier.
- 2.02 The glare blades (and base rail if used) shall be constructed of durable, lightweight, non-metallic, non-warping, flexible, and weather and impact resistant materials. Impact resistance of the blade shall be tested by impacting the blade with 40 lb. force of energy by means of a weight dropped at least 12 inches. The blade shall not fracture or shatter upon this impact. Flexibility and impact resistance shall be retained over a temperature range of -31°F to +120°F. Copies of the test results shall be furnished to the Engineer.
- 2.03 The color of the glare blades shall be as specified on the plans. If not otherwise specified, the glare blades shall be green. The blades shall be one piece or constructed to function as one piece without breaking into separate components in time or when impacted. If no specific width requirement is included in the plans, the width of the blade shall be either six (6) inches or nine (9) inches (1/4" tolerance). If not otherwise specified in the plans, a blade length of two (2) feet shall be provided.
- 2.04 If not otherwise specified on the plans, intermittent blades shall be reflectorized at a maximum uniform spacing of 20 feet. Reflectorization shall conform to Section 730-05 of the Standard Specifications. The panels shall be reflectorized on both sides by a three (3) inches wide by six (6) inches high (minimum) piece of reflective sheeting, Material Designations 730-05.02 (Class B) or 730-05.03 (Class C), securely affixed to the right edge of the blade when traffic passes on the right, and the left edge of the blade when traffic passes on the left. Yellow sheeting shall be used facing traffic which is to pass to the right of the glare screen. White sheeting shall be used facing traffic which is to pass to the left of the screen. The centroid height of the reflective sheeting shall be four (4) feet above the base of the barrier.
- 2.05 The cumulative nominal length of modular base rail units, if used, shall equal the length of the individual section of barrier on which they are installed so that the joint between barrier sections shall not be spanned by any one unit. The base rail shall not overhang the face of the barrier. The base rail shall have sufficient rigidity to facilitate ease of handling and proper blade support and position.
- 2.06 The relative connection strengths between various components of the assembly shall be designed to minimize the potential impact and debris hazard to approaching traffic and to simplify repairs. The base to barrier, blade to base rail, or blade to barrier separation strength shall be at least 1.5 kip and the connection shall be designed in such a manner as to prevent unintentional blade rotation or dislocation. Anchoring to the barrier shall be by either a mechanical or adhesive system with sufficient pull out and shear strength to prevent the blade (or base rail) from being dislodged upon impact. All connecting hardware and brackets shall be corrosion resistant. Metallic brackets and anchor hardware shall be stainless steel AISI 302/305 or equivalent.

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2. MATERIALS: (cont'd)

2.07 Basis of Acceptance

Product acceptance will be based upon the manufacturer's certification that the product meets or exceeds all requirements of this specification. The Authority reserves the right to take random samples, at any time, for testing compliance with the requirements of this specification.

3. CONSTRUCTION DETAILS:

- 3.01 The glare screen shall be assembled and secured in accordance with the manufacturer's instructions.
- 3.02 Unless otherwise detailed in the plans or the manufacturer's instructions, the blades shall be spaced and angled to provide approximately a 22 degree headlight cutoff angle.
- 3.03 The plans may require that the blades not overhang the face of the barrier if there is reason to believe that the overhang will unduly restrict stopping sight distance or significantly increase the likelihood that the blades will be impacted.
- 3.04 All components of the glare screen shall be maintained in a safe and functional condition. The glare blades shall be kept plumb, and properly positioned. Reflectorization shall be kept clean and securely affixed to the blades. Cleaning of the reflectorization shall be by means that does not damage the paddles, reflectorization or barrier and is not hazardous to traffic. Damaged components shall be repaired or replaced at no cost to the Authority. It will be the Contractor's responsibility to ensure that the barrier provides adequate compressive strength (3 ksi) and aggregate composition for standard glare screen installation methods.
- 3.05 Damage to the barrier caused by the Contractor's operations shall be repaired by the Contractor as directed by the Engineer. The cost of the repairs shall be borne by the Contractor.
- 3.06 The Contractor shall remove and dispose of the glare screen upon completion of the project or as directed by the Engineer. Upon removal of the glare screen, there shall be no protrusions remaining on the top face of the barrier. Bolt holes or other damage to permanent barrier from the glare screen installation shall be repaired by the Contractor at no additional cost to the Authority.

4. METHOD OF MEASUREMENT:

- 4.01 The quantity of temporary barrier mounted glare screen will be computed by the number of linear feet placed in accordance with the contract documents and/or direction of the Engineer.

5. BASIS OF PAYMENT:

- 5.01 The unit price bid per linear foot of temporary glare screen shall include all material (including fasteners and adhesive), equipment, and labor necessary to erect, maintain, repair, and remove the required screening, including any delineation. Any movement of the glare screen, independent of the barrier to which it is attached, except for movements necessary to maintain, realign, or replace damaged units, will be considered as movement to a new location and the Contractor will be entitled to payment for the movement. No payment will be made for moving the glare screen if the barrier is moved with the glare screen attached.
- 5.02 No separate payment will be made for replacement of damaged blades, reflectorization of blades or repair or replacement of any other components of the glare screen for the duration of the contract.