TEMPORARY TRAFFIC CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Temporary Traffic Control Devices

B. Installation

C. Maintenance

D. Quality Control

1.02 DESCRIPTION OF WORK

This part of the specifications includes materials, equipment, and procedures for traffic control during construction. Furnish, erect, operate, maintain, move, and remove all traffic control devices required. Comply with the current edition of the MUTCD as adopted by the Iowa DOT.

1.03 SUBMITTALS

Comply with Division 1 - General Provisions and Covenants, as well as the following:

A. Submit a traffic control plan for review and approval prior to installation.

B. Submit proposed modifications to the traffic control plan for review and approval prior to making changes.

1.04 SUBSTITUTIONS

Comply with Division 1 - General Provisions and Covenants.

1.05 DELIVERY, STORAGE, HANDLING, AND SALVAGING

Comply with Division 1 - General Provisions and Covenants.

1.06 SCHEDULING AND CONFLICTS

Comply with Division 1 - General Provisions and Covenants.

1.07 SPECIAL REQUIREMENTS

A. When a bid item for Temporary Traffic Control is included on the proposal form, comply with this section for measurement and payment

B. When the proposal form does not include a bid item for temporary traffic control, all costs incurred by the contractor for temporary traffic control are incidental to other work and will not be paid for separately.

C. Provide 10 calendar days advance notification of a pedestrian path closure to the Engineer and the National Federation of the Blind of Iowa (www.nfbi.org).

1.08 MEASUREMENT AND PAYMENT

A. Temporary Traffic Control:

1. Measurement: Lump sum item; no measurement will be made.

2. Payment: Payment will be at the lump sum price for temporary traffic control. Proportional payments will be made equal to the percentage of the dollar amount paid on the original contract amount.

3. Includes: Lump sum price includes, but is not limited to, installation, maintenance, and removal of temporary traffic control; total roadway closures with installation and removal of detour signing as shown in the contract documents; removal and reinstallation or covering of permanent traffic control devices that conflict with the temporary traffic control plan; monitoring and documenting traffic control conditions; and flaggers. When required in the contract documents, the following are also included in traffic control unless a separate bid item is provided: portable dynamic message signs, temporary barrier rail, temporary flood lighting, and pilot cars.

PART 2 - PRODUCTS

2.01 GENERAL

Use products and materials complying with Part 6 of the MUTCD.

2.02 SIGNS

A. Material: Sheet aluminum, galvanized steel, plywood, or flexible roll-up material complying with Iowa DOT Article 4186.02.

B. Size and Type:

1. **Regulatory Signs:** As indicated in the contract documents or recommended in the MUTCD.
2. **Sidewalk Signs:** Minimum size 12 inch by 24 inch.
3. **Warning Signs:** Comply with Table 8030.01.

Table 8030.01: Warning Signs

Speed Limit (mph)	Minimum Sign Size	Minimum Uppercase Letter Size	Minimum Plaque Size
< 25	30” x 30”	4”	18” x 18”
25 - 35	36” x 36”	5”	18” x 24”
>35	48” x 48”	7”	24” x 30”

C. Retroreflective Sheeting: Comply with Iowa DOT Article 4186.03.

D. Posts:

1. **Wood Posts:** Comply with Iowa DOT Section 4164.
2. **U-Shaped Rail Steel Posts:** 3.0 pounds per foot.
3. **Perforated Square Steel Tube Posts:** 2 1/4 or 2 1/2 inch square 12 gage perforated steel tubing.

E. Portable Sign Stands: Crashworthy per the test and evaluation criteria of National Cooperative Highway Research Program (NCHRP) Report 350 or Manual on Assessing Safety Hardware (MASH). Must be stable in windy conditions.

2.03 CHANNELIZING DEVICES

Channelizing devices include cones, channelizers, tubular markers, vertical panels, drums, and barricades. Crashworthy per the test and evaluation criteria of NCHRP 350 or MASH-16.

A. Retroreflective Sheeting: Comply with Iowa DOT Article 4186.03.

B. Cones: Minimum height of 18 inches for daytime and speed less than or equal to 35 mph. Minimum height of 28 inches with retroreflective bands for nighttime or speed greater than 35 mph.

C. Channelizers: 42 inch height with retroreflective bands and 16 pound base.

D. Tubular Markers: Minimum diameter 2 inches with retroreflective bands. Minimum height 18 inches for daytime and speed less than or equal to 35 mph. Minimum height 28 inches for nighttime or speed greater than 35 mph.

2.03 CHANNELIZING DEVICES (Continued)

E. Vertical Panels: Minimum height 36 inches with 8 to 12 inch panel width and 24 inch minimum panel height.

F. Drums: Minimum width 18 inches. Minimum height 36 inches.

G. Barricades: Minimum rail length 2 feet for Type I or Type II barricades. Minimum rail length 4 feet for Type III barricades. Minimum height of top rail for Type I and Type II equals 3 feet and minimum height to top rail of a Type III is 5 feet.

2.04 MISCELLANEOUS PRODUCTS

A. Orange Mesh Safety Fence: Comply with Iowa DOT Article 4188.03.

B. Temporary Barrier Rail: Unless otherwise specified, use precast concrete units. Comply with Iowa DOT Standard Road Plan BA-401.

2.05 EQUIPMENT

A. Warning Lights:

1. For nighttime installation, provide Type A warning lights visible to both directions of traffic.

2. For 24 hour installations, provide Type B warning lights.

B. Arrow Boards: When required, provide Type A, B, or C arrow boards operating in sequential chevron mode.

C. Portable Dynamic Message Signs: Comply with Iowa DOT Article 4188.07.

D. Pilot Cars: Pickup trucks or automobiles with G20-4 signs reading: PILOT CAR - FOLLOW ME. Mount two signs on each vehicle, visible from both directions of traffic. Mount signs with bottom of signs at least 1 foot above the top of the vehicle's roof.

E. Vehicle Warning Lights: Supply amber, high-intensity rotating, flashing, oscillating, or strobe light.

2.06 FLAGGERS

A. General: Comply with the current Iowa DOT Flagger's Handbook for flagger operations, equipment, and apparel.

B. Lighting: Provide auxiliary lighting at flagger stations when nighttime flagging is required.

C. Training: For other than short time, emergency, or relief assignment of flaggers, provide flagger training to include the following:

1. Issuing a copy of the current Iowa DOT Flagger's Handbook to and review by each flagger.

2. Presentation of the current Iowa Professional Flagging Video to each flagger.

3. Issuing a flagger training card to each flagger, to be carried at all times and shown upon request. Include the following information on training card:
   a. Employee name
   b. Date of training
   c. Name of instructor
   d. Expiration date of December 31 of the year following the training date

PART 3 - EXECUTION

3.01 INSTALLATION

A. General: Install temporary traffic control devices according to the Section 8030 figures and Part 6 of the MUTCD.

B. Sign Posts: For durations more than 3 consecutive calendar days, mount the signs on fixed posts. For durations 3 consecutive calendar days or less, mount the signs on fixed posts or movable skids.

C. Temporary Barrier Rail: Place at locations specified in the contract documents. Tie and anchor units as shown on Iowa DOT Standard Road Plan BA-401.

D. Sandbags: Use sandbags to anchor all traffic control devices subject to movement by wind. Do not place sandbags on tops of barricades, drums, or vertical panels.

E. Conflicting Signs: Cover or remove signs with messages conflicting with temporary traffic control as approved or directed by the Engineer.

F. Modifications: Submit proposed traffic control plan modifications to the Engineer for review and approval prior to making changes.

3.02 MAINTENANCE

A. General: Promptly repair, replace, reposition, or clean traffic control devices, as needed, or as directed by the Engineer.

B. Non-working Hours: At the end of working hours, remove, cover, or turn down traffic control devices intended for working hours only.

3.03 QUALITY CONTROL

A. Traffic Control Technician: Maintain a traffic control technician on staff, responsible for the Contractor's traffic control quality control program, that has attended and passed the exam in one of the following classes:

1. ATSSA Traffic Control Technician
2. IMSA Work Zone Traffic Control
3. Minnesota DOT Traffic Control Supervisor
4. Texas Engineering Extension Service Work Zone Traffic Control

B. Monitoring and Documentation: Provide 24 hour mobile phone number for the traffic control technician. On a daily basis, perform the following quality control work associated with monitoring and documenting traffic control conditions.

1. Review all traffic control operations for compliance with the contract documents.
2. Monitor traffic operations and submit proposed traffic control plan changes to the Engineer for approval.
3. Coordinate all changes to the traffic control plan.
4. Coordinate all traffic control operations, including those of subcontractors and suppliers.

3.03 QUALITY CONTROL (Continued)

5. Maintain a traffic control diary to be submitted at the end of the project or as requested by the Engineer, with the following information:
   a. Listing and locating traffic control used each day, referenced to appropriate plan sheet or standard.
   b. All reviews of traffic control devices and operations, whether satisfactory or unsatisfactory, and corrections made.
   c. Approved changes to traffic control specified in the contract documents.
   d. Incidentals affecting the efficiency and safety of traffic.
   e. A list of trained flaggers used.

END OF SECTION