## ITEM 671

## TRAFFIC CONTROL

Description. This shall govern for furnishing, installing, moving, replacing, maintaining, cleaning and removing upon completion of work, all barricades, signs, barriers, barrels, cones, lights, delineators, pavement markings, and other such devices and detours in conformance with the drawings or as directed by the Engineer.

A Traffic Control Plan (TCP) has been established for this project in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD). The Contractor may propose an alternate TCP, and if the alternate plan is approved by the Engineer, it may be used. The alternate TCP must be prepared in accordance with Harris County Traffic Control Guidelines (Latest Edition) and sealed by a Professional Engineer registered in the State of Texas proficient in the field of Traffic Engineering.

671.2 Construction Methods. All barricades, signs and other types of traffic control devices shall conform to details shown on the drawings, and those indicated in Part VI of the TMUTCD.

Prior to beginning work, the Contractor shall designate in writing a competent person who will be responsible and available on the project site or in the immediate area to insure compliance with the TCP.

The Contractor is solely responsible for furnishing, erecting and maintaining all barricades, signs, barriers, barrels, cones, lights, delineators, pavement markings, and other such devices as necessary to adequately protect the project and workers and warn, advise and safeguard the traveling public over the entire length of the project. The Contractor's responsibility in this regard extends for the entire duration of the project, from the start of construction until acceptance by the County.

All reflective traffic control devices such as barricades, vertical panels, signs, etc. shall be maintained at all times by cleaning, replacing or a combination thereof such that during darkness and rain the reflective characteristics shall equal or exceed the retroreflective characteristics of the standard reflective panels in the Engineer's possession. Unless otherwise set forth in these Standard Specifications, the Contractor shall receive compensation for furnishing, erecting and maintaining the necessary barricades, signs, barriers, barrels, cones, lights, delineators, pavement markings, other such devices and any incidentals necessary for the good and proper safety, convenience and direction of traffic prior to final inspection and acceptance by the County.

Detours and temporary structures necessary for public travel during the prosecution of the work will be indicated on the TCP and the cost included in the bid and contract price. Any necessary detours or temporary

structures not indicated on the drawings or provided for in the specifications shall be at the expense of the Contractor. Increased maintenance costs incurred incidental to resulting traffic over an established road, street, or highway as a result of any detour shall not be considered as a cost of maintaining detours and will be paid for by the Contractor.

The Contractor shall provide at his expense, means of ingress and egress for all residents and businesses along any closed section of the work and shall provide property owners a means of access to a public road.

Temporary access driveways shall provide an all weather surface and shall be maintained by the Contractor in a condition acceptable to the Engineer. Where indicated in the bid documents, asphalt millings may be used for temporary driveways.

No section of the work shall be closed to traffic until so directed by the Engineer. No bridge, culvert or drainage structure shall be closed until an adequate detour has been arranged and constructed.

If, in the opinion of the Engineer, the Contractor does not comply with the above requirements such work as the Engineer may deem necessary for the safety, comfort and convenience of the traveling public may be performed and the charges therefore withheld from any money due or to become due to the Contractor. The Contractor shall not be paid to provide traffic control during delays caused by the Contractor.

The above does not preclude the requirements of the "Harris County General Conditions".

Providing, installing, moving, replacing, maintaining, cleaning and removing upon completion of work all barricades, signs, barriers, barrels, cones, lights, delineators, pavement markings, and other such devices shall be in accordance with Item 665 "Work Zone Pavement Markings", Item 670 "Barricades", Item 696 "Low Profile Concrete Barrier" and Item 698 "Temporary Polyethylene Water-Filled Barrier". Flagmen shall be furnished, maintained and possess the minimum qualification and requirements stipulated in the TMUTCD. Operation of flagmen shall be as outlined in Item 672 "Flagmen".

Temporary pavement markings shall be in accordance with Item 665 "Work Zone Pavement Markings".

Temporary signs and supports shall be made from wood, metal, or other approved materials. Wood for signs shall be minimum 1/2 inch, medium density, outdoor grade plywood. Metal signs shall be in conformance with Item 624 "Aluminum Signs". Reflectorized sign sheeting shall be in conformance with Item 649 "Wide Angle Prismatic Retroreflective Sheeting for Traffic Control Signs (Diamond Grade). Signs may be erected on portable, temporary, or fixed supports for use in the work zone. Signs erected on portable supports shall be for daytime use only. All wood supports shall be painted white. Sandbags shall be used where

portable or temporary sign supports require the use of weights to prevent a sign assembly from falling over. All signs shall be placed in accordance with the drawings and the TMUTCD.

Measurement & Payment. Barricades, signs, barriers, barrels, cones, lights, delineators, and other such devices shall be paid for by the month or per each Jobsite, provided the traffic control plan is properly installed and maintained. This includes preparation of an alternative Traffic Control Plan by the Contractor, if any, and approved by the Engineer.

<u>Detours shall be paid for in accordance with Item 673 "Constructing Detours for Maintaining Two-Way Traffic".</u>

Work Zone Pavement Markings shall be paid for in accordance with Item 665 "Work Zone Pavement Markings".

Barriers designated as "Low Profile Concrete Barrier" and "Temporary Polyethylene Water-Filled Barrier" shall be paid for in accordance with Items 696 and 698 respectively.

Temporary driveways and the removal of temporary driveways shall be measured and paid for as follows: "Temporary Commercial Driveways per Each" and "Temporary Residential Driveways per Each". Payment shall include all labor and materials, including shaping, furnishing and hauling necessary to complete the work.

There are line code(s), description(s) and unit(s) for this Item:

NOTE: This Item requires other Standard Specifications.

Item 624 "Aluminum Signs"

Item 649 "Wide Angle Prismatic Retroreflective Sheeting for Traffic Control Signs (Diamond Grade)"

Item 665 "Work Zone Pavement Markings"

Item 670 "Barricades"

Item 672 "Flagmen"

Item 673 "Constructing Detours for Maintaining Two-Way Traffic"

Item 696 "Low Profile Concrete Barrier"

Item 698 "Temporary Polyethylene Water-Filled Barrier"

**END OF ITEM 671**