

**Item No. 827S**  
**Designated Bicycle Lane Signing**

**8275S.1 Description**

This item shall govern the signage for Designated Bicycle Lanes of the types, sizes and placement indicated on the Drawings. Designated Bicycle Lanes shall be for the exclusive use of bicycle traffic.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text and accompanying tables, inch-pound units are given preference followed by SI units shown within parentheses.

**827S.2 Submittals**

The submittal requirements of this specification item include:

- A. Identification of the types of materials proposed for each type of bicycle lane sign (i.e. face, post, clamps, etc.
- B. Results of any State or Federal tests for sign faces (reflectance, diffuse day color, specific intensity brightness, Weather-O-meter, etc.) performed on their products,
- C. Construction details (p.c. concrete mix, reinforcing steel, etc.) for signpost p.c. foundation,

**827S.3 Materials**

The sign posts and support foundation, as well as sign blanks and sign face reflective sheeting for the Bicycle Lane Signage shall conform to Standard Specification Item No. 824S, "Traffic Signs".

**827S.4 Installation**

A. General

Designated Bicycle Lanes shall be delineated with appropriate signs to alert the automobile/truck driver of the possibility of the presence of bicyclists. Preferential Lane markings and symbols shall be installed in conformance with Standard Specification Item 829S, "Designated Bicycle Lane Markings". Signs shall be placed as described herein, as indicated on the Drawings and/or directed by the Engineer or designated representative.

B. Signage

A 'Bicycle Lane Ahead' sign (Texas MUTCD designation R3-16) shall be installed in advance of the beginning of the bicycle lane and a 'Bicycle Lane Ends' shall be placed prior to the end of the lane as identified in the Drawings or directed by the Engineer or designated representative. The 'Bicycle Lane Ends' sign shall be a modified Texas MUTCD designation R3-16 in which 'Ends' replaces 'Ahead' in the sign legend.

A 'Bicycle Lane Ends' sign should only be used at the end of the last segment of a stretch of bicycle lanes and should not be placed at a street intersection where the bicycle lane continues beyond the intersection.

The placement of 'Right Lane Bicycles Only' signs shall be coordinated with the installation of Preferential Lane markings. 'Right Lane Bicycles Only' signs should be placed at the beginning of the Designated Bicycle Lane and at the minimum spacing designated on the Drawings may be used on one way streets where the left portion of the street is designated for bicycle traffic only. The 'Left Lane Bicycles Only' sign shall be a modified Texas MUTCD designation R3-17 in which 'Left' replaces 'Right' in the sign legend.

The sign configuration and the lateral/vertical placement of sign face with respect to the outer edge of the bicycle lane as identified in the Drawings and shall conform to the requirements of Texas MUTCD, Part IX.

### **827S.5 Construction Methods**

Signs will be installed as indicated on the Drawings or as directed by the Engineer or designated representative. The installation as a whole shall be carried out in conformance with requirements herein stated and with details and dimensions indicated on the Drawings. Upon completion, the work shall present a neat and uniform appearance.

The sign supports shall be located as indicated on the Drawings, except that the Engineer or designated representative may shift a sign support where necessary to secure a more desirable location. The Engineer or designated representative will approve all sign support locations.

Sign supports shall be erected at the direction of the Engineer or designated representative so that the sign faces will normally be vertical and, if necessary, angled sufficiently away from a position perpendicular to the roadway, when attached to the supports, to prevent specular glare. If specular glare is apparent on the mounted signs during nighttime inspection, corrective adjustments in the sign orientation shall be made at the direction of the Engineer or designated representative.

The length of each traffic sign post, that is indicated on the Drawings, shall be verified by the Contractor in order to meet the existing field conditions and to conform with sign mounting heights indicated on the Drawings. If it is necessary to field cut a steel post to shorten it, the cut end shall be placed in the p.c. concrete foundation.

The pipe stub post shall be set carefully in the foundation holes and if directed by the Engineer or designated representative, it shall be held in place by an approved form or template before the p.c. concrete for the foundation is placed. The forms and templates, if used, shall not be removed until the p.c. concrete has aged at least 24 hours.

No sign shall be attached to the posts until the p.c. concrete has aged at least 2 days of curing or until otherwise directed by the Engineer or designated representative. A curing day shall be as defined in Standard Specification Item No. 410, "Concrete Structures". Springing or raking of posts to secure proper alignment will not be permitted.

Any part of the pipe post, that displays exposed bare metal or from which the galvanizing has been knocked or chipped off down to bare metal during fabrication, transit or erection, shall be repaired, in accordance with the manufacturer's recommendations, by application of galvanizing repair compounds meeting Federal Specification O-G-93 (stick only) or zinc dust-zinc oxide meeting Federal Specification TT-P-641b.

The message as indicated on the Drawings shall be screened on the reflective sheeting in accordance with the sheeting producer's recommended practices utilizing screen inks approved by the Engineer or designated representative. Screen inks shall conform to TxDOT Departmental Materials Specification DMS-8300, "Flat Surface Reflective Sheeting".

Before application, the surface must be prepared to the satisfaction of the Engineer or designated representative in accordance with the manufacturer's instructions. Whenever the sign is applied over expansion joints, deep cracks or seams, it shall be slit to avoid tearing or lifting. Any applied sign, that has wrinkles, air pockets, ragged edges, tears or bends, shall be removed and replaced at the sole cost of the Contractor.

### 827S.6 Measurement

This Standard Specification Item will be measured by sign type or by any other unit as shown on the Drawings. Payment for revised quantities will be paid for at the unit price bid for that bid item.

### 827S.7 Payment

The work performed and materials furnished in accordance with this Standard Specification Item and measured as provided under "Measurement" will be paid for at the Unit bid price for "Bicycle Lane Signs" of the type and shapes specified. The unit bid prices shall include full compensation for furnishing all materials, labor, tools, equipment and incidentals necessary to place, maintain and remove, when required, the signs.

Payment will be made under one or more of the following:

<b>Pay Item 827S-A:</b>	'Bicycle Lane Ahead' sign	per each.
<b>Pay Item 827S-B:</b>	'Bicycle Lane Ends' sign	per each.
<b>Pay Item 827S-C:</b>	'Right Lane Bicycles Only' sign	per each.
<b>Pay Item 827S-DL:</b>	'Left Lane Bicycles Only' sign	per each.

END

<b><u>SPECIFIC</u></b> CROSS REFERENCE MATERIALS
Specification Item 827S, Designated Bicycle Lane Signing'

City of Austin Standard Specification

<u>Designation</u>	<u>Description</u>
Item No. 410	Concrete Structures
Item No. 824S	Traffic Signs.
Item No. 829S	Designated Bicycle Lane Markings

Texas Department of Transportation (TxDOT) Departmental Materials Specification

<u>Designation</u>	<u>Description</u>
DMS-8300	Flat Surface Reflective Sheeting".

State of Texas Technical Documents:

<u>Designation</u>	<u>Description</u>
(Texas MUTCD)	Texas Manual on Uniform Traffic Control Devices

Other Specifications

Federal Specification O-G-93 (stick only)  
Federal Specification TT-P-64lb.

<b><u>RELATED</u> CROSS REFERENCE MATERIALS</b>
Specification Item 827S, Designated Bicycle Lane Signing”

City of Austin Contract Documents

<u>Designation</u>	<u>Description</u>
Section 00300U	Bid Form (Unit Price)

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 801S	Construction Detours
Item No. 803S	Barricades, Signs and Traffic Handling

Texas Department of Transportation Manual of Testing Procedures:

<u>Designation</u>	<u>Description</u>
Tex-839-B	Determining Color in Reflective Materials
Tex-842-B	Method for Measuring Retroreflectivity

Texas Department of Transportation; Departmental Materials Specifications

<u>Designation</u>	<u>Description</u>
DMS-8300	Flat Surface Reflective Sheeting

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

<u>Designation</u>	<u>Description</u>
Item No. 445	Galvanizing
Item No. 636	Aluminum Signs (Type A)
Item No. 637	Aluminum Signs (Type G)
Item No. 642	Aluminum Signs (Type O)
Item No. 646	Small Roadside Sign Supports
Item No. 647	Large Roadside Sign Supports
Item No. 656	Foundations for Signs, Traffic Signals and Roadway Illumination Assemblies

Texas Department of Transportation: Departmental Materials Specifications

<u>Designation</u>	<u>Description</u>
DMS-7110	Aluminum Sign Blanks
DMS-7120	Sign Hardware
DMS-8310	Flexible Roll-up Reflective Signs
DMS-8320	Vinyl, Non-reflective Decal Sheeting

Other Specifications

Federal Specification A-G-90  
Federal Test Method 8801