License Plate Specifications
Version 1.5

Jeremiah Kuntz, Director
Vehicle Titles and Registration Division

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Introduction

Design, Manufacture and Issuance of Texas License Plates

The Texas Department of Motor Vehicles is responsible for and has sole control over the "design, typeface, color and alphanumeric pattern" for all Texas license plates, in accordance with the Texas Transportation Code, Section 504.005.

Included in the department's responsibilities are the designs and specifications of all specialty license plates. The category of specialty license plates is broad, and includes not only department specialty and personalized license plates, but also includes those plates sold by the state's contracted private vendor.

The license plate specifications created by the Texas Department of Motor Vehicles are in compliance with state statute and were developed in consultation with law enforcement, our private specialty plate vendor and utilize the American Association of Motor Vehicle Administrators (AAMVA) best practices model to states for basic license plate specifications.

The AAMVA best practices model provides guidance to states for basic license plate specifications; and includes overall license plate dimensions, diameter and shape of the bolt holes, thickness of the metal used in manufacturing, and use of reflective sheeting for public safety.

General Issue License Plate Specifications

All General Issue license plates shall meet the following specifications:

LEGIBILITY
Legibility is the term for readability of a license plate. Legibility is measured using specialized software developed by Texas Department of Transportation engineers to gauge the difference between the values of the foreground characters and the background design to establish a Minimum Contrast Score (MCS) using an 8-bit grayscale digital image.

All Texas license plates must obtain a MCS of 90 points or higher.

REFLECTIVITY
All Texas license plates are manufactured utilizing reflective material as required by the Texas Transportation Code, §504.005, to promote highway safety.

Texas license plates are required to be reflective and readable in day light and at night with the use of low beam headlights, at a distance of no less than 75 feet.

All Texas license plates must obtain a minimum Coefficient of Retroreflection (Ra) score of 30 points.

MEASUREMENTS
Specifications:

Plate Dimensions (passenger, truck, bus and trailer)
- 12" width x 6" height

Bolt hole spacing - horizontal
  o 7" between the center of the left-side and right-side bolt holes

Bolt hole spacing - vertical
  o 4¾" between the center of the upside and downside bolt holes

Bolt hole diameter and shape
  o Each bolt hole is ½" width x 0.28" height – elongated bolt hole

Plate Dimensions (motorcycle)
- 7" width x 4" height

Bolt hole spacing - horizontal
  o 5 13/16" between the center of the left-side and right-side bolt holes

Bolt hole spacing - vertical
  o 2¾" between the center of the upside and downside bolt holes

Bolt hole diameter and shape
  o Each bolt hole is 5/16" x 5/16" – circular bolt hole

General Issue License Plate Specifications

MATERIAL SPECIFICATIONS FOR ALL TEXAS LICENSE PLATES

Type of plate metal
- Aluminum

Thickness of aluminum
- Thickness is .027"

Reflectorized Sheeting
- Departmental Material Specification # 8390 White Sheeting

Security Features
- All Texas license plates shall be manufactured with the 3M Ensure™ seal
- All Texas license plates shall be manufactured with two 3M Ensure™ virtual security threads, running vertically from the top of the plate to the bottom of the plate

TEXT AND GRAPHIC DESIGN

Background Color
Texas license plate background will be white or another color as determined by the department.

On any license plate, a solid background color in the primary Region of Interest (ROI) [the plate number] is allowed; however, the plate must pass legibility and reflectivity testing.

Characters (Primary Region of Interest)
A "character" is defined in Texas Administrative Code, Rule §217.22, as "a numeric or alpha symbol" displayed on a license plate, often called the "plate number," in the primary ROI.

- Alpha-numeric characters on a Texas plate shall be 1.0000" (width) x 2.5625" (height)
- Alpha-numeric font shall be Texas Block as developed by sheeting vendor (3M) and known as DLPCW01
- Alpha-numeric font color shall be black
- Spacing between characters shall be .375"

General issue plates may display up to seven alpha-numeric characters in the primary ROI.

- Seven-digit General Issue license plates shall feature three characters to the left of the Texas silhouette, and four characters to the right of the Texas silhouette
- Passenger and truck license plate patterns beginning 2012 shall be established with the following alpha and numeric sequencing: ABC-1234 or 123-ABCD
- Bus license plate pattern shall be six characters with sequencing: A12-123
- Trailer license plate pattern shall be six characters with sequencing: 12A-ABC
- Motorcycle license plate pattern shall be six characters with sequencing: A1212A (no silhouette used as a separator)

General Issue License Plate Specifications

Jurisdiction Name (Secondary Region of Interest)
The state name TEXAS appears centered at the top between the upper bolt holes.

- Characters shall be a minimum of ¾" x ¾", and a maximum of 1" x 1"
- Font shall be Texas Block
- Color shall be black
- Spacing between characters shall be .125"
- The jurisdiction name shall be at least ¼" from the slope and offset from the characters by at least ¼", to prevent encroachment on the plate number
- License plate for motorcycle is not required to have jurisdiction centered at the top of plate

Vehicle Type Designators Underneath the Jurisdiction
- License plates manufactured with a bus designator have the words CITY BUS, MOTOR BUS or PRIVATE BUS
  - o Each designator letter is ½" x ½"
  - o Font shall be Texas Block
  - o Color shall be black

- License plates manufactured with a trailer designator have the word TRAILER
  - o Each designator letter is ½" x ½"
  - o Font shall be Texas Block
  - o Color shall be black

Texas Silhouette
General Issue license plates are required to display a Texas silhouette between the letters and numbers, per Texas Transportation Code, §504.005.

- Silhouette size shall range from a minimum of ½" x ½" (per statute) up to 1" x 1"
- The silhouette does not appear as a separator on a motorcycle license plate due to the plate size but is found at the top of the license plate

Legend
Defined as a name, motto or slogan appearing between the lower bolt holes.

- The legend shall be "THE LONE STAR STATE"
- Font shall be Texas Block
- Character size in the legend shall not exceed 5/16" x 5/16"

General Issue License Plate Specifications

GENERAL ISSUE:
JURISDICTION CHARACTERS = 1" Height and Width with .125" spacing
7 - 1 INCH CHARACTERS and Texas silhouette

TEXAS

ABC • 1234

The Lone Star State

= Jurisdiction

= Region Of Interest

= Legend

Specialty License Plate (Department) Specifications

Specialty license plates issued under authority of the TxDMV primarily fall under three broad categories: Organizational, Collegiate and Military (proof of duty must be provided for a qualifying military plate).

All specialty license plates shall meet the following specifications:

LEGIBILITY
Legibility is the term for readability of a license plate. Legibility is measured using specialized software developed by Texas Department of Transportation engineers to gauge the difference between the values of the foreground characters and the background design to establish a Minimum Contrast Score (MCS) using an 8-bit grayscale digital image.

All Texas license plates must obtain a MCS of 90 points or higher.

REFLECTIVITY
All Texas license plates are manufactured utilizing reflective material as required by Texas Transportation Code, §504.005, to promote highway safety.

Texas license plates are required to be reflective and readable in day light and at night with the use of low beam headlights, at a distance of no less than 75 feet.   All Texas license plates must obtain a minimum Coefficient of Retroreflection (Ra) score of 30 points.

MEASUREMENTS
Specifications:

Plate Dimensions (passenger, truck, bus and trailer)
- 12" width x 6" height

Bolt hole spacing - horizontal
- o 7" between the center of the left-side and right-side bolt holes

Bolt hole spacing - vertical
- o 4 ¾" between the center of the upside and downside bolt holes

Bolt hole diameter and shape
- o Each bolt hole is ½" width x 0.28" height – elongated bolt hole

Plate Dimensions (motorcycle)
- 7" width x 4" height

Bolt hole spacing - horizontal
- o 5 13/16" between the center of the left-side and right-side bolt holes

Bolt hole spacing - vertical
- o 2 ¾" between the center of the upside and downside bolt holes

Bolt hole diameter and shape
- o Each bolt hole is 5/16" x 5/16" – circular bolt hole

Specialty License Plate (Department) Specifications

MATERIAL SPECIFICATIONS FOR ALL TEXAS LICENSE PLATES

Type of plate metal
- Aluminum

Thickness of aluminum
- Thickness is .027"

Reflectorized Sheeting
- Departmental Material Specification # 8390 White Sheeting

Security Features
- All Texas license plates shall be manufactured with the 3M Ensure™ seal
- All Texas license plates shall be manufactured with two 3M Ensure™ virtual security threads, running vertically from the top of the plate to the bottom of the plate

TEXT AND GRAPHIC DESIGN

Background Color

Texas specialty license plate background shall be white, in accordance with the Texas Transportation Code, §504.851.

Characters (Primary Region of Interest)

A "character" is defined in Texas Administrative Code, Rule §217.22, as "a numeric or alpha symbol" displayed on a license plate, often called the "plate number," in the primary ROI.

- Alpha-numeric characters on a Texas plate shall be 1.0000" (width) x 2.5625" (height)
- Alpha-numeric font shall be Texas Block as developed by sheeting vendor (3M) and known as DLPCW01
- Alpha-numeric font color shall be black*
- Spacing between characters shall be .375"

    * Color modification may be allowed upon approval by VTR Division Director

Specialty license plates may display up to six alpha-numeric characters in the primary ROI:

- Passenger, truck and motorcycle license plate patterns shall have the following alpha and numeric sequencing: BB01B or BB01BB
- A personalized specialty license plate may also include special characters in accordance with Texas Administrative Code, Rule §217.45 (i.e., a space, the heart symbol, a star symbol, a hyphen [dash], the International Symbol of Access, a period or the Texas silhouette)
- No more than three symbols may be used on a specialty license plate
- Each symbol used shall be separated by at least one character or blank space
- Graphic may not encroach into any characters in the primary ROI

Specialty License Plate (Department) Specifications

Jurisdiction Name (Secondary Region of Interest)

The state name TEXAS appears centered at the top between the upper bolt holes.

- Characters shall be a minimum of ¾" x ¾", and a maximum of 1" x 1"
- Font shall be Texas Block
- Color shall be black*
- Spacing between characters shall be .125"
- The jurisdiction name shall be at least ¼" from the slope and offset from the characters by at least ¼", to prevent encroachment on the plate number
- License plate for motorcycle is not required to have jurisdiction centered at the top of plate

    * Color modification may be allowed upon approval by VTR Division Director

Vehicle Type Designator Underneath the Jurisdiction

Specialty license plates do not have a vehicle type designator, except as required by statute:

- License plates manufactured with a private bus designator have the words PRIVATE BUS
    - Each designator letter is ½" x ½"
    - Font shall be Texas Block
    - Color shall be black

Texas Silhouette

Although the law requires the department to design each license plate to include the silhouette of Texas in between the letters and numerals, the law authorizes the department to omit the silhouette of Texas from specialty license plates, per Texas Transportation Code, §504.005. The Texas silhouette shall be omitted from the primary ROI on all Texas specialty license plates unless the plate is personalized with a special character.
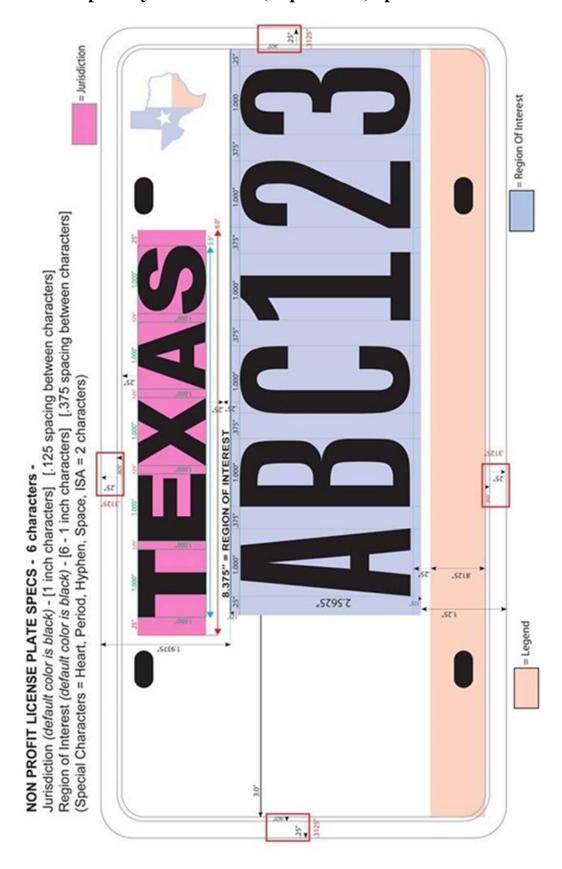
Graphic

A graphic is a design element, such as a logo or other graphic representation that appears on a license plate.

- Graphic shall appear on the left-hand side of a department specialty license plate, if applicable
- Graphic shall not exceed a width more than 4.25" from the left-side plate slope
- Graphic shall not encroach into any character in the primary ROI
- Graphic shall be at least ¼ " away from the first character

Legend

Defined as a name, motto or slogan appearing between the lower bolt holes.

- The legend on a department specialty license plate varies (by organization design or as set by statute)
- Font shall be Texas Block
- Character size in the legend shall not exceed 5/16" x 5/16"
- Other than Texas, no state name or state abbreviation shall appear in the legend area
- The legend shall not exceed 26 characters, with the exception of statutorily-mandated plates

Specialty License Plate (Department) Specifications

NON PROFIT LICENSE PLATE SPECS - 6 characters -

Jurisdiction (*default color is black*) - [1 inch characters] [.125 spacing between characters]

Region of Interest (*default color is black*) - [6 - 1 inch characters] [.375 spacing between characters]

(Special Characters = Heart, Period, Hyphen, Space, ISA = 2 characters)

= Jurisdiction

= Region Of Interest

= Legend

Specialty License Plate (Vendor) Specifications

Specialty license plates designed and marketed by the state's specialty license plate vendor, My Plates, shall meet the following specifications:

LEGIBILITY

Legibility is the term for readability of a license plate. Legibility is measured using specialized software developed by Texas Department of Transportation engineers to gauge the difference between the values of the foreground characters and the background design to establish a Minimum Contrast Score (MCS) using an 8-bit grayscale digital image.

Legibility testing allows the department to meet a statutory requirement for full-graphic, full-color license plates that are proposed and marketed by the specialty license plate vendor under the Texas Transportation Code, §504.851.

All Texas license plates must obtain a MCS of 90 points or higher.

REFLECTIVITY

All Texas license plates are manufactured utilizing reflective material as required by Texas Transportation Code, §504.005, to promote highway safety.

Texas license plates are required to be reflective and readable in day light and at night with the use of low beam headlights, at a distance of no less than 75 feet.

All Texas license plates must obtain a minimum Coefficient of Retroreflection (Ra) score of 30 points.

MEASUREMENTS
Specifications:

Plate Dimensions (passenger vehicle and truck)
- 12" width x 6" height
  #### Bolt hole spacing - horizontal
  o 7" between the center of the left-side and right-side bolt holes
  #### Bolt hole spacing - vertical
  o 4 ¾" between the center of the upside and downside bolt holes
  #### Bolt hole diameter and shape
  o Each bolt hole is ½" width x 0.28" height – elongated bolt hole

Plate Dimensions (motorcycle)
- 7" width x 4" height
  #### Bolt hole spacing - horizontal
  o 5 13/16" between the center of the left-side and right-side bolt holes
  #### Bolt hole spacing - vertical
  o 2 ¾" between the center of the upside and downside bolt holes
  #### Bolt hole diameter and shape
  o Each bolt hole is 5/16" x 5/16" – circular bolt hole

Specialty License Plate (Vendor) Specifications

MATERIAL SPECIFICATIONS FOR ALL TEXAS LICENSE PLATES

Type of plate metal
- Aluminum

Thickness of aluminum
- Thickness is .027"

Reflectorized Sheeting
- Departmental Material Specification # 8390 White Sheeting

Security Features
- All Texas license plates shall be manufactured with the 3M Ensure™ seal
- All Texas license plates shall be manufactured with two 3M Ensure™ virtual security threads, running vertically from the top of the plate to the bottom of the plate

TEXT AND GRAPHIC DESIGN

Background Color
License plate background may be any color or combination of colors, as submitted by the vendor for legibility/reflectivity testing and department approval.

- Specialty license plates may also contain graphic design elements in the same color family in the background of the plate encompassing the primary Region of Interest (ROI), generally called a "wallpaper" design.
- No contrasting colors shall be used in underlying graphics in the primary ROI.

Characters (Primary Region of Interest)
A "character" is defined in Texas Administrative Code, Rule §217.22, as "a numeric or alpha symbol" displayed on a license plate, often called the "plate number," in the primary ROI.

- Alpha-numeric characters on a Texas plate shall be 1.0000" (width) x 2.5625" (height)
- Alpha-numeric font shall be Texas Block as developed by sheeting vendor (3M) and known as DLPCW01
- Characters may be any color as approved by the department
- Spacing between characters is .375" between each letter or number (or symbol, on a personalized plate)
- A solid background color in the primary ROI is allowable but the plate must pass legibility and reflectivity testing
- A graphic may not encroach into any character in the primary ROI

Specialty License Plate (Vendor) Specifications

Vendor specialty license plates that are personalized by the customer may display up to seven characters in the primary ROI.

- A personalized specialty license plate may also include special characters in accordance with Texas Administrative Code, Rule §217.45 (i.e., a space, the heart symbol, a star symbol, a hyphen [dash], the International Symbol of Access, a period or the Texas silhouette)
- No more than three symbols may be used on a seven-character license plate
- Each symbol used must be separated by at least one character <u>or </u>blank space

Jurisdiction Name (Secondary Region of Interest)
The state name TEXAS appears centered at the top between the upper bolt holes.

- Characters shall be a minimum of ¾" x ¾", and a maximum of 1" x 1"
- Font is determined by vendor and subject to approval by the department
- Color is determined by vendor and subject to approval by the department
- Spacing between characters shall be .125"
- The jurisdiction name shall be at least ¼" from the slope and offset from the alpha-numeric characters by at least ¼", to prevent encroachment on the plate number
- On a vendor license plate, a graphic, background color or wallpaper design may encroach on the jurisdiction name; however, the jurisdiction ROI must pass legibility testing
- License plate for motorcycle is not required to have jurisdiction centered at the top of plate

Texas Silhouette
Although the law requires the department to design each license plate to include the silhouette of Texas in between the letters and numerals, the law authorizes the department to omit the silhouette of Texas from specialty license plates, per Texas Transportation Code, §504.005. The Texas silhouette shall be omitted from the primary ROI on all Texas specialty license plates unless the plate is personalized with a special character.

Graphic
A graphic is a design element, such as a logo or other graphic representation that appears on a license plate.

- Any graphic design shall be subject to approval by the department
- Graphic shall be at least ¼" from the first character
- With the exception of a wallpaper design, no graphic may encroach into any character in the primary ROI

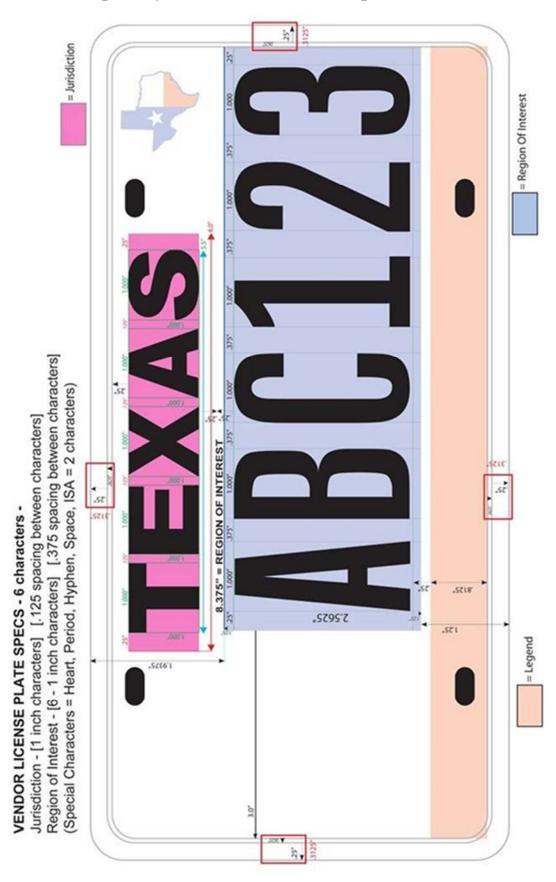# Specialty License Plate (Vendor) Specifications

Wallpaper
Wallpaper is a background design element on the face of the license plate.

- License plates with a wallpaper design shall be considered on a case-by-case basis, due to potential legibility and reflectivity issues
- Wallpaper is a background design element that may encompass the primary ROI
- Wallpaper used in the primary ROI shall be within the same color family (i.e., varying shades of the same color)
- Wallpaper encroaching the primary ROI shall not use contrasting colors
- Wallpaper underlying the primary ROI shall not feature multiple sharp horizontal and vertical lines that could appear to intersect any character

Legend
Defined as a name, motto or slogan appearing between the lower bolt holes.

- The legend is determined by the vendor and subject to approval by the department
- Font is determined by vendor and subject to approval by the department
- Color is determined by vendor and subject to approval by the department
- Other than Texas, no state name or state abbreviation shall appear in the legend area
- The legend shall not exceed 26 characters
- A solid color background and/or graphic may be acceptable in the legend area

Specialty License Plate (Vendor) Specifications

VENDOR LICENSE PLATE SPECS - 6 characters -

Jurisdiction - [1 inch characters] [.125 spacing between characters]

Region of Interest - [6 - 1 inch characters] [.375 spacing between characters]

(Special Characters = Heart, Period, Hyphen, Space, ISA = 2 characters)

= Jurisdiction

= Region Of Interest

= Legend

8.375" = REGION OF INTEREST

TEXAS

ABC1 23

License Plate Glossary

Background Color – License plate background is white or as determined by the department for General Issue and specialty license plates; vendor specialty license plates may have multiple color combinations in the background, if approved for use by the department. (See "Wallpaper")

Character – Term for a number or letter on a license plate, defined in Texas Administrative Code, also called the "plate number." (See "Symbol")

Digital License Plate System (DLPS) – Manufacturing process using digital technology that produces a flat plate instead of an embossed or stamped plate. The DLPS program began in December 2001 and is more efficient and environmentally-friendly than the embossed process.

Encroachment – When the design - such as license plate text or a graphic - touches or visually interferes with a Region of Interest (ROI) on the license plate, reducing overall legibility. (See "Offset")

Graphic – A design element, such as a logo or other graphic representation, that appears on a license plate.

Jurisdiction – Name of issuing state; jurisdiction name appears at the top of all Texas license plates between the upper bolt holes.

Legend – Name, phrase, or slogan that appears at the bottom of the license plate between the lower bolt holes.

Legibility Standard – Term for readability of a license plate. Legibility is measured using specialized software to gauge the difference between the values of the foreground characters and the background design. Legibility standard for approved license plates is a minimum of 90 points on a scale with a maximum score of 255 points. (See "Minimum Contrast Score")

Minimum Contrast Score (MCS) – The MCS is a numeric measure that gauges overall license plate legibility, by comparing the contrast of the foreground characters with the background of the design. (See "Legibility Standard")

Offset – A space allowance – at least ¼ inch - surrounding a Region of Interest (ROI), particularly the jurisdiction, a character, and the legend area. Also refers to a *manufacturing offset*, i.e., the need to allow for approximately ¼-inch movement in the inking process during plate production. (See "Encroachment")

Personalized Plate – Term for a specialty license plate with a custom alpha-numeric pattern (also may include up to three symbols if separated by a character or blank space).

License Plate Glossary

Continued

Region of Interest (ROI) – The ROI is the primary area of legibility on a license plate, defined by law enforcement as the field containing the alpha-numeric characters.

Secondary ROI – Considered by law enforcement to be the jurisdiction name.

Slope/Sloped Edge – The slope is the .0625-inch raised perimeter of the license plate, and the sloped edge is the ¼-inch outermost perimeter of the license plate. Both areas contain reflective sheeting but cannot be inked or included in the license plate design.

Specialty License Plate – Promotes awareness of an organization or cause, which may be: 1) authorized by the Texas Legislature as a department-issued license plate; 2) sponsored by a state agency or group and approved by the Board as a license plate; or 3) a vendor-proposed specialty license plate approved by the Board.

Symbol – A heart, star, hyphen [dash], period, space or Texas silhouette used to customize a personalized license plate, and which is ¾-inch wide (takes one character space). Eligible persons with disabilities have the option of customizing their license plate with the International Symbol of Access which must be at least one-inch wide (takes two character spaces). (See "Character")

Texas Block – A custom font developed by 3M (known as DLPCW01 by the sheeting vendor), and used primarily for the alpha-numeric characters, jurisdiction name, and vehicle type designator on Texas license plates.

Vendor Plate – Term for a specialty license plate approved by the Board and marketed by the state's specialty license plate vendor. The vendor markets different categories of license plates, each with its own fee structure, as established in Texas Administrative Code Rule:
- Background only (no personalization option)
- Custom (may be personalized with 3 alpha and 2-3 numeric characters, or vice versa)
- Freedom (may be personalized with up to 7 characters)
- Luxury (may be personalized with up to 6 characters)
- T-Plate (may be personalized with up to 7 characters)

Wallpaper – A background design such as a repetitive image in the primary Region of Interest (ROI), or a combination of multiple colors (three or more from the same color family), covering most of the license plate's surface area. (See "Background Color")

License Plate Specifications
Revision Record

Version History

- Version 1.0 – January 11, 2012 – Created document.
- Version 1.1 – April 11, 2012 – Clarified use of Texas silhouette symbol on all SLPs.
- Version 1. 2 – July 6, 2012 – Clarified use of TRUCK designator on general issue plate.
- Version 1.3 – December 4, 2014 – Reflect adoption of TAC Rule §217.28 (star symbol).
- Version 1.4 – December 7, 2015 – Clarified use of color on jurisdiction (secondary ROI) on department SLP.
- Version 1.5 - August 3, 2016 - Clarified use of color on characters (primary ROI) on department SLP.

Approval and Adoption

The Texas Department of Motor Vehicles License Plate Specifications document was approved and adopted by the Vehicle Titles and Registration (VTR) Director per the signature and date below.

Jeremiah Kuntz, VTR Director

8/4/16
Date

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