

ASIG

Texas Ancillary Structures Interest Group

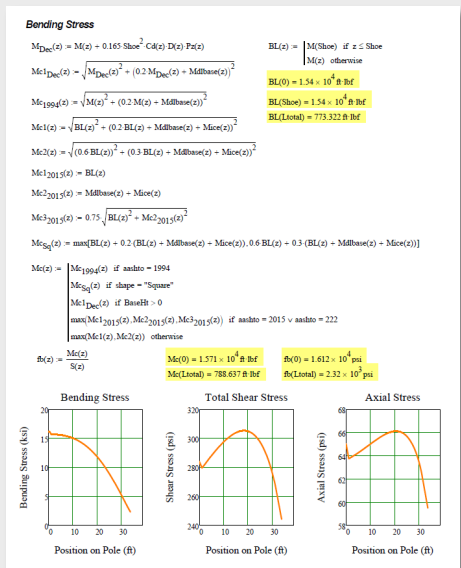
Welcome to the annual meeting



September 19, 2024

Texas Ancillary Structures Interest Group (TASIG)

Overview: This is a joint owner-industry forum aimed at guiding, advancing and improving ancillary structure aspects such as:



Design



Fabrication




Construction

Texas Ancillary Structures Interest Group (TASIG)

Goals:

- Industry feedback, industry education
- Advance design/details/fabrication/construction
- Address procedural and performance issues

Texas Ancillary Structures Interest Group (TASIG)



The screenshot shows the Texas Department of Transportation website page for the Texas Ancillary Structures Interest Group (TASIG). The page includes a navigation menu with options like 'Discover Texas', 'Data and maps', 'Do business', 'Explore projects', 'Stay safe', and 'About'. The main heading is 'Texas Ancillary Structures Interest Group'. Below this, there is a 'Partnerships' section with a dropdown menu. The main content area describes TASIG as a new joint owner-industry forum and lists the following participants:

- TxDOT staff from TRF, MTD, BRG, CST, and MNT Divisions, as well as TxDOT District staff involved with ancillary/traffic structures
- Fabricators of these ancillary/traffic structures
- Consultant engineers involved in ancillary/traffic structure design and alternate designs
- Contractors involved in construction of ancillary/traffic structures
- Researchers/Academics involved in ancillary/traffic structures

TASIG is interested in guiding, advancing, and improving the following aspects of ancillary/traffic structures within Texas:

- Design
- Fabrication
- Construction
- Performance

If you are interested in joining this group, please sign up for email notifications about TASIG events by visiting [Texas Department of Transportation \(govdelivery.com\)](https://www.txdot.gov/govdelivery) and selecting Bridge > Texas Ancillary Structures Interest Group.

Email the TxDOT representatives of TASIG if you have any questions or comments at: BRG-TASIG@txdot.gov.

Ancillary/traffic structures include the following:

- Overhead sign bridges
- Cantilever overhead sign structures
- Monotube sign structures
- High mast illumination poles (HMIP)
- Traffic signal structures
- Roadway illumination poles
- Intelligent Transportation System Poles

TASIG Email:

BRG-TASIG@txdot.gov

TASIG Website:

<https://www.txdot.gov/inside-txdot/division/bridge/ancillary-structures.html>

2024 TASIG AGENDA



Time	Topic	Speaker
9:00 AM	Welcome to TASIG 2024	Courtney Holle
9:05 AM	TxDOT Updates on Ancillary Structures	TxDOT
9:30 AM	2024 Specification Updates	Rafael Riojas
9:50 AM	Open Discussion	
10:30 AM	Break	
10:45 AM	Research Updates Presentation	Dr. Todd Helwig
11:10 AM	Open Discussion	
11:45 AM	Lunch	
1:00 PM	Geotechnical Updates	Ryan Eaves
1:15 PM	Open Discussion	
1:45 PM	Break	
2:00 PM	Resources Presentation	Courtney Holle
2:15 PM	Open Discussion	
2:55 PM	Closing Remarks	Courtney Holle
3:00 PM	Adjourn	

User Name: Guest

Wifi Password: Headsupphonesdown



TxDOT UPDATES



TRAFFIC




Policy & Standards Updates

Rafael Riojas, P.E. - Traffic Safety Division - Policy and Standards Branch Mgr



September 19, 2024

Standards

 <p>Texas Department of Transportation</p>		<p>Traffic Safety Division Standard</p>			
<h2>STANDARDS</h2>					
FILE:	standard.dgn	DN:	TxDOT	CK:	TxDOT
		DW:	TxDOT	CK:	TxDOT
© TxDOT	2023	CONT	SECT	JOB	HIGHWAY
REVISIONS					
		DIST	COUNTY		SHEET NO.
###					



SIGN MOUNTING DETAILS (SMD) - LARGE ROADSIDE SIGNS



SUMMARY OF LARGE SIGNS (SOLS)



HIGH MAST ILLUMINATION DETAILS (HMID)



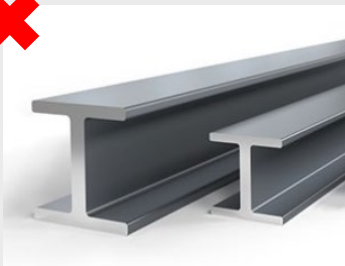
Removed Standards



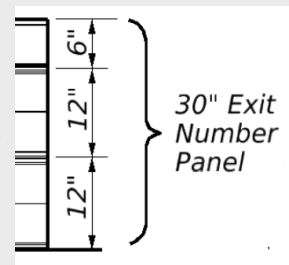
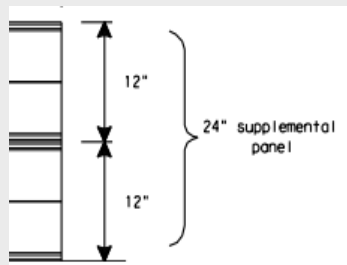
In Progress / Upcoming

SIGN MOUNTING DETAILS (SMD) - LARGE ROADSIDE SIGNS

- Sheets have been reorganized and reformatted for clarity and flow.
- Post sizes W10x26 and W6x12 removed, due to research results related to roadside signs.
- Exit panel dimensioning updated to conform with the Standard Highway Sign Designs for Texas (SHSD).
- Removed optional note on cope detail, to reinstate requirement.

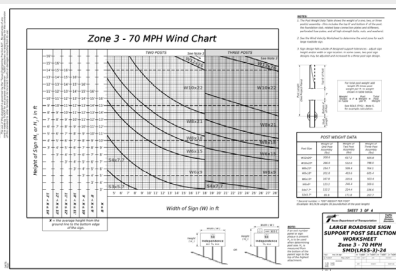
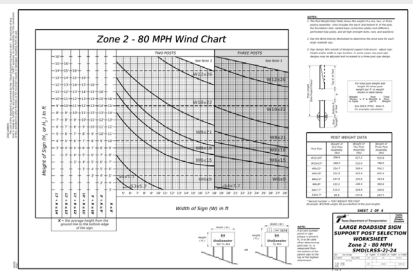
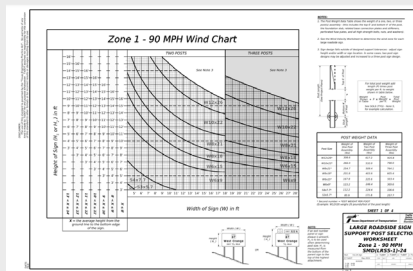
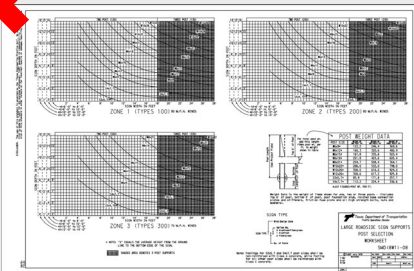
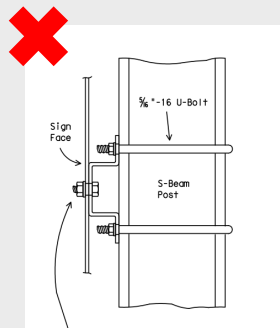


W10x26 and W6x12



SIGN MOUNTING DETAILS (SMD) - LARGE ROADSIDE SIGNS

- SMD (TY G)-08 removed
 - support and clamp detail no longer standard.
 - Non-reinforced foundation detailed dimensions moved to SMD(2-1)-23.
- SMD (8W1)-08 removed
 - Replaced by the new Large Roadside Sign Support (SMD(LRSS(1-3))).
 - which include revised wind loading zone charts that meet MASH standards and reduce the likelihood of wind related fuse plate failures.



SIGN MOUNTING DETAILS (SMD) - LARGE ROADSIDE SIGNS

- Maximum Sign Support Spacing Table(s) revised.
 - Added the option for W6x12 sign supports, for increased sign depths.
 - Added the option for a 60%-40% split, on COSS & OSB structures.
- Removed Sign Walkway & Lighting Brackets.



MAXIMUM SIGN SUPPORT SPACING "S" (FEET)

"d" Deepest Sign in Group (Ft.)	EXTRUDED ALUMINUM SIGN PANELS															
	WITH EXIT NUMBER PANELS								WITHOUT EXIT NUMBER PANELS							
	WITH WALKWAYS				WITHOUT WALKWAYS				WITH WALKWAYS				WITHOUT WALKWAYS			
	WIND ZONE				WIND ZONE				WIND ZONE				WIND ZONE			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	4.5	7	8	10	5	7	8	10	7	8	9	10	8.5	10	10	10
14	6	7.5	9.5	10	6	7.5	9.5	10	8	9	10	10	10	10	10	10
13	7.5	9	10	10	7.5	9	10	10	9	10	10	10	10	10	10	10
12	8.5	10	10	10	8.5	10	10	10	10	10	10	10	10	10	10	10
11 or less	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

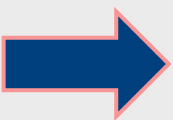
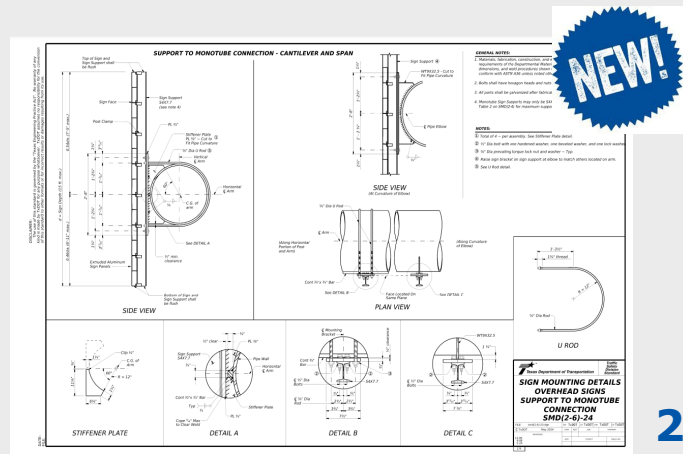
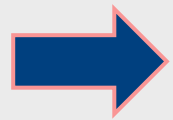
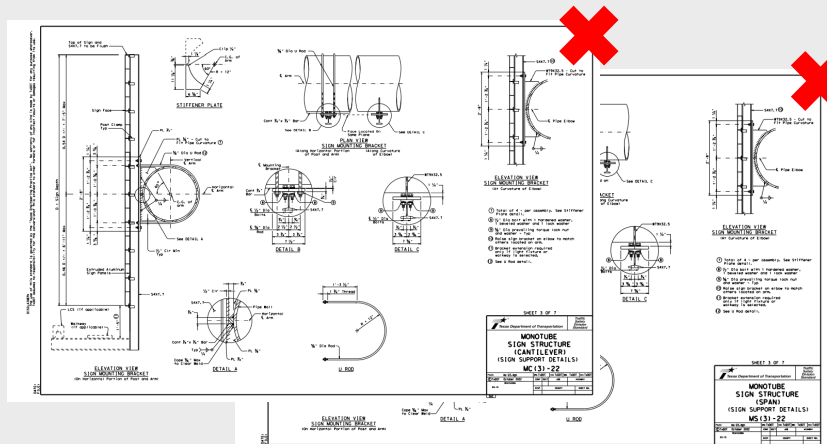


		TABLE 2																TABLE 3																					
		SPLIT 54%-46%																SPLIT 60%-40%																					
		MAXIMUM SIGN SUPPORT SPACING "S" (FEET)																MAXIMUM SIGN SUPPORT SPACING "S" (FEET)																					
Bracket Type	Deepest Sign in Group (feet)	EXTRUDED ALUMINUM SIGN PANELS																EXTRUDED ALUMINUM SIGN PANELS																					
		WITH EXIT NUMBER PANELS								WITHOUT EXIT NUMBER PANELS								WITH EXIT NUMBER PANELS								WITHOUT EXIT NUMBER PANELS													
		WITH WALKWAYS				WITHOUT WALKWAYS				WITH WALKWAYS				WITHOUT WALKWAYS				WITH WALKWAYS				WITHOUT WALKWAYS																	
		WIND ZONE				WIND ZONE				WIND ZONE				WIND ZONE				WIND ZONE				WIND ZONE																	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4										
S4x7.7	15	3.5	4.5	5.5	7	6	7.5	9.5	10	14	4	5	6.5	8	7.5	9.5	10	10	13	5	6	7.5	9	9.5	10	10	10	12	6	7	9	10	10	10	10	10	10	10	10
	14	4	5	6.5	8	7.5	9.5	10	10	14	6	7.5	9.5	10	15	5	6	7.5	9	9.5	10	10	10	12	7	8.5	10	10	10	10	10	10	10	10	10				
	13	5	6	7.5	9	9.5	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	12	6	7	9	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	< 11	7	8.5	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	20	5	6	7	9.5	7	9	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	19	5.5	6.5	8	10	8	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	18	6	7.5	9	10	9.5	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	17	7	8.5	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	16	8	9.5	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
W6x12	15	9	10	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	14	10	10	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	13	10	10	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	12	10	10	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	< 11	10	10	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	20	6.5	8	9.5	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	19	7.5	9	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				
	18	8	10	10	10	10	10	10	10	14	6	7.5	9.5	10	15	6	7	9	10	10	10	10	10	11	7	8.5	10	10	10	10	10	10	10	10	10				

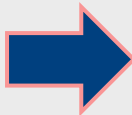
SIGN MOUNTING DETAILS (SMD) - LARGE ROADSIDE SIGNS

- MC(3)-22 and MS(3)-22 (Monotube)
 - Removed sheet 3 from MC-22 and MS-22.
- SMD(2-6)-24
 - Relocated support to monotube connection details for cantilever and span - for clarity and flow of application, as it relates to the installation of overhead signs, centralizing connection details.



SUMMARY OF LARGE SIGNS (SOLS)

- Split into 3 sheets
 - Summary of Large Signs - Ground Mount
 - Summary of Large Signs - Overhead
 - Summary of Large Signs Removal



SUMMARY OF LARGE SIGNS																
SHEET NO.	SHEET TOTALS	SHEET NO.	SHEET TOTALS	SIGN TYPE	SIGN LOCATION	SIGN NUMBER	SIGNALING	SIGNALING CODE	SIGNALING COLOR	SIGNALING SIZE	SIGNALING MOUNT	SIGNALING MATERIAL	SIGNALING WEIGHT	SIGNALING HEIGHT	SIGNALING NOTES	
																GROUND MOUNT

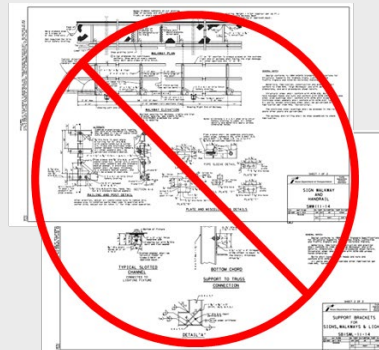
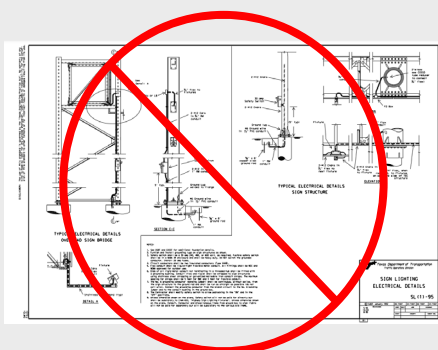
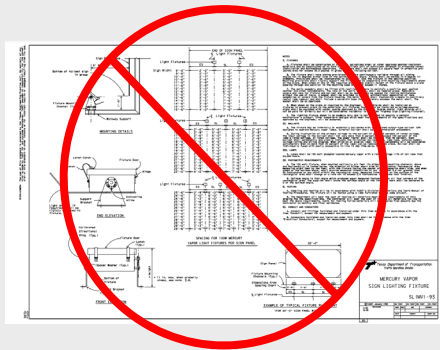
SUMMARY OF LARGE SIGNS TO BE REMOVED																
SHEET NO.	SHEET TOTALS	SHEET NO.	SHEET TOTALS	SIGN TYPE	SIGN LOCATION	SIGN NUMBER	SIGNALING	SIGNALING CODE	SIGNALING COLOR	SIGNALING SIZE	SIGNALING MOUNT	SIGNALING MATERIAL	SIGNALING WEIGHT	SIGNALING HEIGHT	SIGNALING NOTES	
																GROUND MOUNT

SUMMARY OF LARGE SIGNS - GROUND MOUNT (TY G)																
SHEET NO.	SHEET TOTALS	SHEET NO.	SHEET TOTALS	SIGN TYPE	SIGN LOCATION	SIGN NUMBER	SIGNALING	SIGNALING CODE	SIGNALING COLOR	SIGNALING SIZE	SIGNALING MOUNT	SIGNALING MATERIAL	SIGNALING WEIGHT	SIGNALING HEIGHT	SIGNALING NOTES	
																GROUND MOUNT

SUMMARY OF LARGE SIGNS - OVERHEAD (TY O)																
SHEET NO.	SHEET TOTALS	SHEET NO.	SHEET TOTALS	SIGN TYPE	SIGN LOCATION	SIGN NUMBER	SIGNALING	SIGNALING CODE	SIGNALING COLOR	SIGNALING SIZE	SIGNALING MOUNT	SIGNALING MATERIAL	SIGNALING WEIGHT	SIGNALING HEIGHT	SIGNALING NOTES	
																GROUND MOUNT

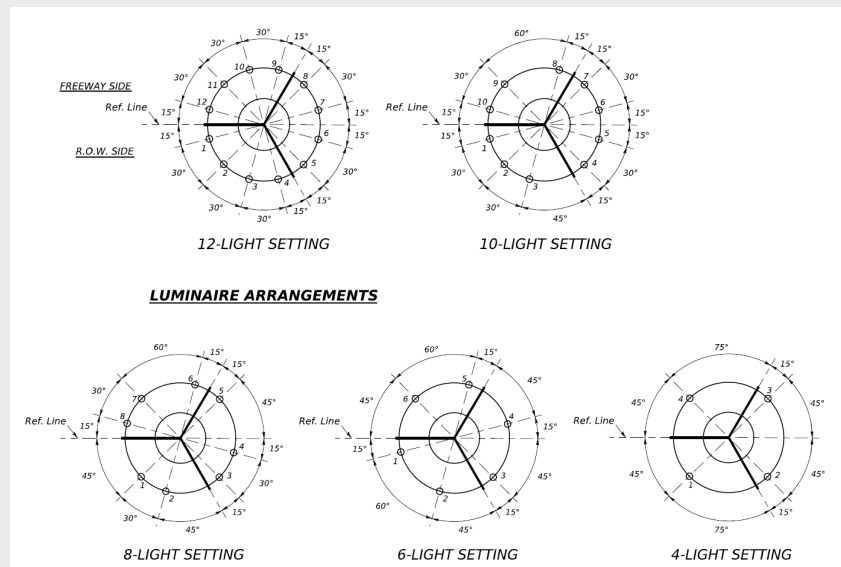
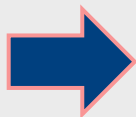
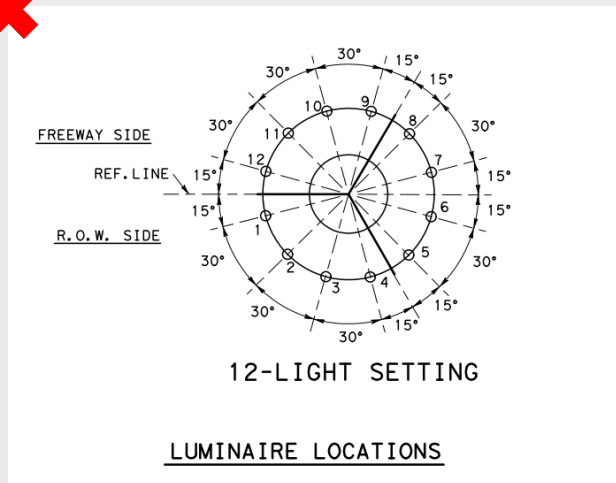
Removed Standards

- SL(MV)-93 | Mercury Vapor Sign Lighting Fixture
- SL(1)-95 | Sign Lighting Electrical Details
- SWW(1)-14 | Sign Walkway and Handrail
- SB(SWL-1)-14 | Support Bracket for Signs, Walkways and Lights
 - Relocated relevant support to truss connection details to SMD(2-5)-24.



HIGH MAST ILLUMINATION DETAILS (HMID)

- Shifted from High Pressure Sodium to LED.
- Moved from a single 12-light configuration to multiple configurations.

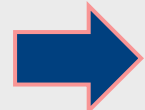


HIGH MAST ILLUMINATION DETAILS (HMID)

- Consolidated notes contained in OLD HMID(7), HMID(8), and HMID(9) into NEW HMID(7) & DMS-11020 and DMS-11021

OLD

High Mast Illumination Details (HMID 171-03, 181-03, 191-03) showing multiple sheets of specifications and diagrams. The sheets are marked with large red 'X's, indicating they are being replaced by the new specifications.



NEW

Departmental Materials Specification DMS-11021
HIGH MAST ILLUMINATION ASSEMBLY KITS
 Effective Date: Draft

Departmental Materials Specification DMS-11020
HIGH MAST LED Light Fixtures
 Effective Date: August 2020

DESCRIPTION
 This specification governs the materials, components, and quality of Light Emitting Diode (LED) beam-mounted high mast light fixtures.

UNITS OF MEASUREMENTS
 The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. The manufacturer is fully responsible. Combining values from the two systems may result in nonconformance with the standard.

MATERIAL PRODUCER LIST
 The Traffic Safety Division (TSD) maintains the Material Producer List (MPL) of all materials conforming to the requirements of this Specification. Materials appearing on the MPL, whether "Qualified," "Qualified and Tested," or "Not Qualified," require no further sampling and testing before use, unless deemed necessary by the Project Engineer or TSD.

BIDDERS AND SUPPLIERS' REQUIREMENTS
 The producer and only producer or allow on projects those products listed by producer and product code or designated master on the MPL. Use of any qualified product does not relieve the Contractor of the responsibility to produce product that meets the Specification. The Department may request or test material at any time and request material that does not meet the specifications.

PRE-QUALIFICATION PROCEDURE
 1.1 **Pre-Qualification Request:** Submit a request for evaluation under DMS-11020 to www.psw.state.tx.us.
 Includes following information in the request:
 • company name,
 • physical and mailing addresses, and
 • contact persons, phone number, and email address.
 1.2 **Pre-Qualification Submittal:** For each type of luminaires submit a sample meeting all specifications, and all pertinent documentation to the Texas Department of Transportation, Traffic Safety Division, 200 East Davalou Drive, Austin, Texas 78764.
 Includes the following with the samples:
 • luminaire cut sheets,
 • cut sheets for LED light sources,
 • and cut sheets for LED driver.

INSTALLATION AND TESTING DIVISION 1-0 Effective Date: August 2020

Departmental Materials Specification DMS-11021
HIGH MAST ILLUMINATION ASSEMBLY KITS
 Effective Date: Draft

Includes comparison, quality, sampling, and testing of high mast illumination.

Includes the following information in the request:
 • company name,
 • physical and mailing addresses, and
 • contact persons, phone number, and email address.

For each type of luminaires submit a sample meeting all specifications, and all pertinent documentation to the Texas Department of Transportation, Traffic Safety Division, 200 East Davalou Drive, Austin, Texas 78764.

Includes the following with the samples:
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Departmental Materials Specification DMS-11021
HIGH MAST ILLUMINATION ASSEMBLY KITS
 Effective Date: Draft

Includes comparison, quality, sampling, and testing of high mast illumination.

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Includes the following with the samples:
 • luminaire cut sheets,
 • cut sheets for LED light sources,
 • and cut sheets for LED driver.

OLD

26

In Progress / Upcoming

SMD

SOSS

RFBA &
SPRFBA

TSR

ED

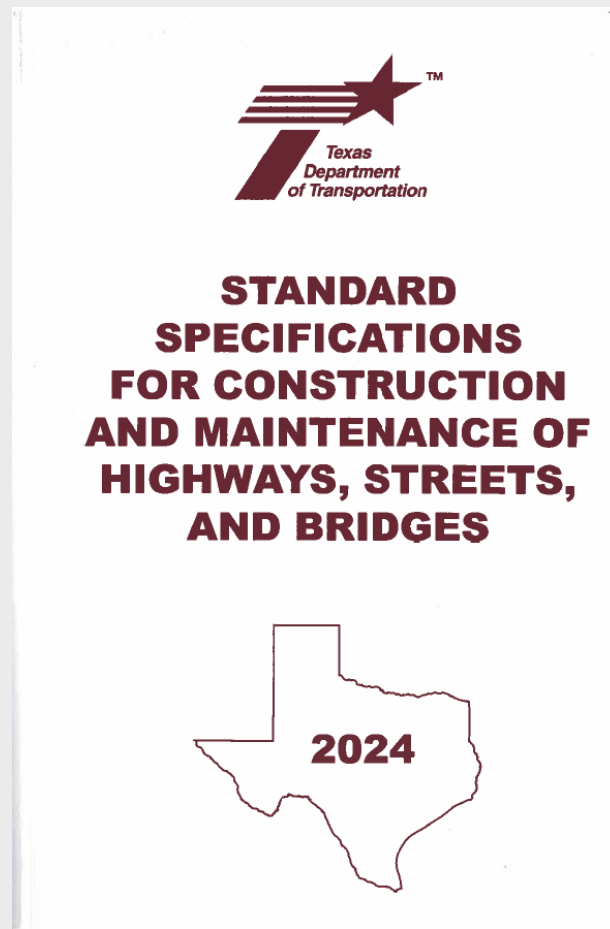
HMIP & HMIF

OSB

COSS

2024 Specification Book








- TxDOT has revised the specifications for projects letting in Fiscal Year 2025/September 2024
- The book will be available for purchase in one size, 6x9". Information on price and how to purchase will be posted at a later date.

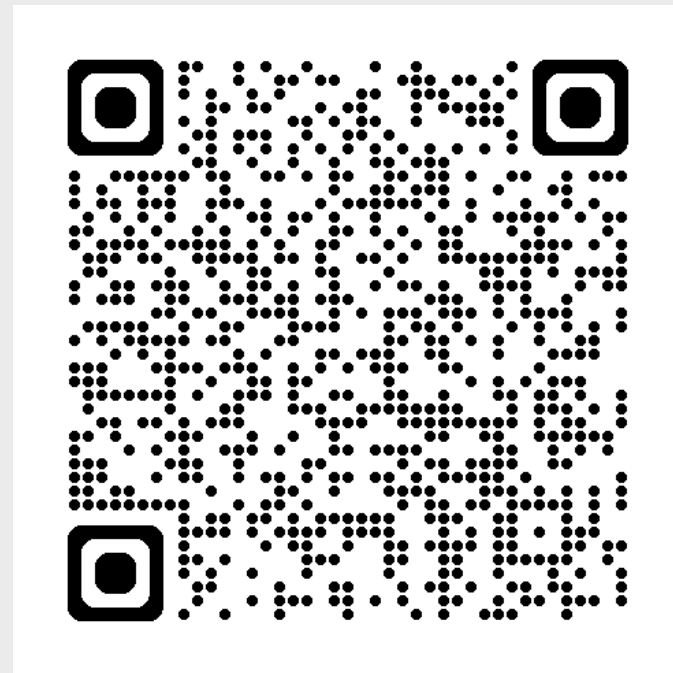


2024 Specification Book

- There are useful links under ADDITIONAL RESOURCES

Additional resources

- [Special Specification/Provisions change memos](#) 
- [Required Specification checklists](#) 
-  [Item 8 Delayed Start Provisions Request \(Standard Operating Procedure\) Memo - Nov. 20, 2023](#)
-  [Construction and Maintenance Specifications Style Guide](#)
-  [Subject Matter Experts \(SME\) Reference List for 2014 Standard Specifications](#)
- [Departmental Materials Specifications \(DMS\)](#)
- [Material producer lists](#)
- [Buy America material classification sheet](#)
- [Local Government Standard Specifications and Special Provisions](#)
-  [Engineering and Safety Operations 2024 Spec Book Memo - April 12, 2024](#)
- [Historical bridge and road specifications](#)
-  [2024 Spec Training Seminar](#)
- [2024 Specification Changes](#)





BRIDGE (STRUCTURES)

TxDOT Ancillary Structure Standards

BRG maintains the *structural aspects* of:

Standard Description	Standards	Current Design Spec.	Upcoming Design Spec.
High Mast Illumination Assy	HMIP, HMID	LTS-3 (1994)	LTS-6
Roadway Illumination Assy	RIP, RID	LTS-6 (2013)	LRFD-LTS
Overhead Sign Structures	OSB, HOSB, COSS, HCOSS	LTS-3 (1994)	LRFD-LTS
Monotube Sign Structures	MS, MC	LTS-6 (2013)	
Traffic Signal Poles	SP, SMA, DMA, MA, MAC, MAD, TS, LUM, CFA, LMA	LTS-3 (1994)	LRFD-LTS
Wind and Ice Maps	WV & IZ	LTS-3 (1994) & LTS-6 (2013)	LRFD-LTS

TxDOT Ancillary Structure Standards

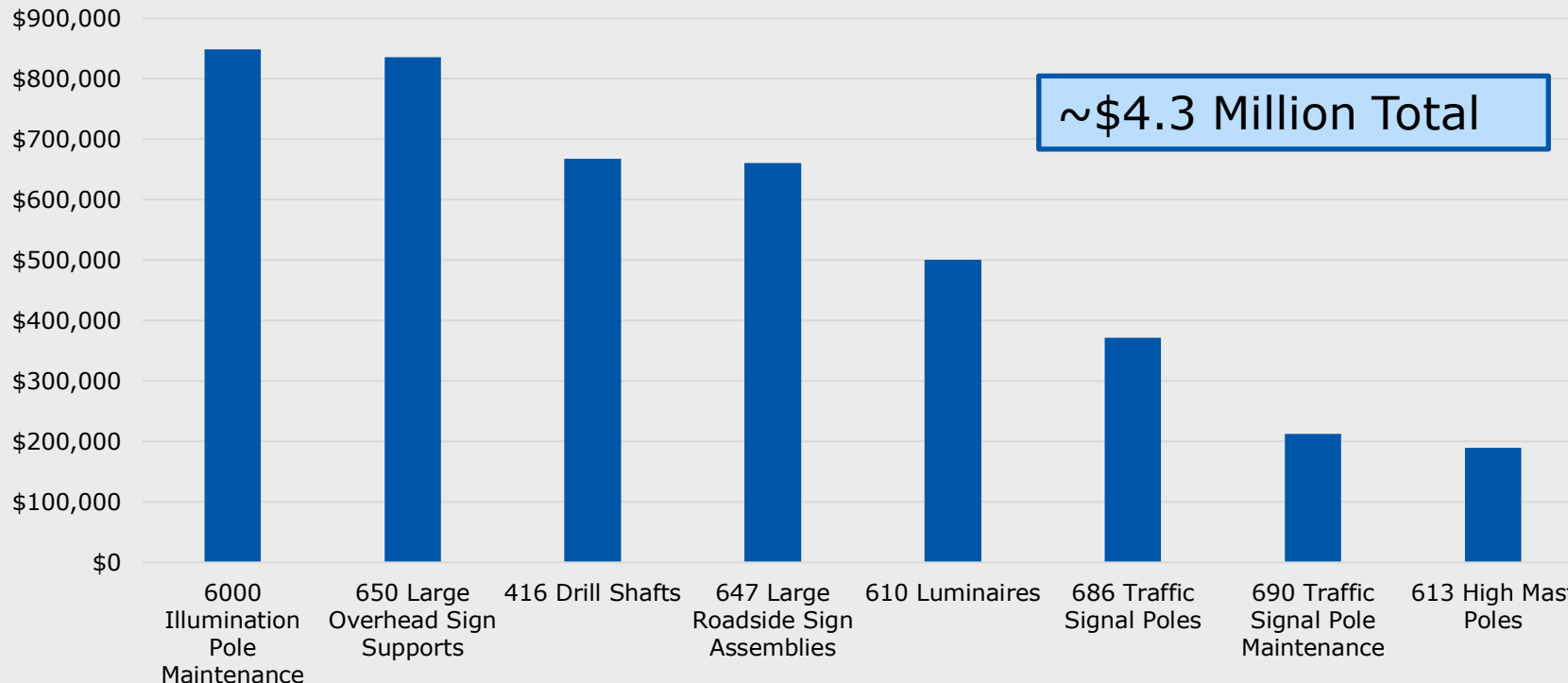
BRG maintains the *structural aspects* of:

Special Details	Standards	Current Design Spec.
DMS Attachment Details	DMS-TM & DMS-HZ	LTS-3 (1994)
Connection between concrete column & truss sign support	Upcoming	LTS-6 (2013)
Bridge Railing Sign Mount	SMD(BR)	LTS-6 (2013)
Sign Mounting Details	SMD	LTS-3 (1994)



MAINTENANCE

Recent 12 Months of Data on Ancillary Structures (RMC Contracts)



Other Observations

- TxDOT's maintenance budget increased from \$1.3B to \$1.6B in FY 24
- Much of the illumination maintenance continues to be related to LED upgrades
- The overhead sign structure work occurred on 4 contracts in 3 districts: Dallas, Houston, and Waco
- More than 50% of the drill shaft work was for sign mounts (both roadside and overhead)
- Majority of the large roadside sign work and luminaire work was for new sign/luminaire installs
- Only 2 contracts installed high mast poles (Pharr and Houston)





HMIP/COSS CONTRACT FINDINGS