State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Serious drought.
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To: ALL USERS OF THE BRIDGE STANDARD DETAILS SHEETS (XS)

Date: July 15, 2016

File: **http://www.dot.ca.gov/hq/esc/techpubs/**

From: SHANNON POST, Chief
Office of Design and Technical Services
Structure Policy and Innovation
Division of Engineering Services

Subject: **BRIDGE STANDARD DETAIL SHEETS (XS) – JULY 2016 POSTING**

We are pleased to announce the July 2016 posting to the Bridge Standard Details (XS) webpage at: http://www.dot.ca.gov/des/techpubs/bsds.html

Bridge Standard Details (XS) are developed and maintained by the Division of Engineering Services (DES) Technical Organization. The sheets contain pre-engineered details for a variety of structural systems, such as earth retaining systems, bridge railings and underground structures. Bridge standard details are not Standard Plans and are subject to frequent modification. .

The details are considered to be "Project Plans" for contract administration purposes in accordance with Section 5-1.02 "Contract Components", of the Standard Specifications.

As part of the July posting, the borders for all sheets have been updated to provide information regarding the responsibilities of the Technical Owner and the Registered Civil Engineer for the project.

Summary Table:

Number of Sheets	Type of Revision
4	Minor Revisions
32	Major Revisions
6	New Sheet
12	Archive

Attached is a detailed description of the revisions to each sheet.

Send general questions regarding the usage of XS sheets to "DES Design and Technical Services @ dot.ca.gov". Send technical questions to the applicable Technical Specialist or Technical Committee Manager.

Attachment:
Summary of Revisions to Bridge Standard Detail Sheets (XS) July 2016.

Attachment: Summary of Revisions to Bridge Standard Detail Sheets (XS)
July 2016

XS Sheet Number	XS Sheet Title	Previous Approval	Type of Revision	Summary of Revisions
Section 8	**BRIDGE JOINT SEALS**			
xs8-010	Strip Joint Seal Assembly-Maximum Movement Rating =4"	July 2014	Minor Revisions	Added sidewalk detail Revised height of steel plate from 9.5" to 9". Revised note 7
xs8-050	Joint Armor for Pedestrian Walkways	July 2014	Minor Revisions	Revised radius shown in detail A to 1/8"
xs8-070-1	Seismic Joint (Type I, Full Channel) Cross Section	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-070-2	Seismic Joint (Type I, Full Channel) Deck Plate Details No.1	Oct 2014	Major Revisions	Added details for skewed joints Improved joint details and updated notes
xs8-070-3	Seismic Joint (Type I, Full Channel) Deck Plate Details No.2	Oct 2014	Major Revisions	Changed welding and geometry details to reflect new joint design.
xs8-070-4	Seismic Joint (Type I, Full Channel) Channel Assembly Details No.1	Oct 2014	Major Revisions	Improved channel assembly details, update to new joint design
xs8-070-5	Seismic Joint (Type I, Full Channel) Channel Assembly Details No.2	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-070-6	Seismic Joint (Type I, Full Channel) Support Plate Details	Oct 2014	Major Revisions	Updated support plate details and notes
xs8-070-7	Seismic Joint (Type I, Full Channel) Reinforcement Details	Oct 2014	Major Revisions	Updated reinforcement, notes, spring assemblies, and steel plate sizes
xs8-070-8	Seismic Joint (Type I, Full Channel) Construction Sequence	Oct 2014	Major Revisions	Modified construction sequence, updated notes.
xs8-070-9	Seismic Joint (Type I, Full Channel) Optional Barrier Detail		New Sheet	Added a barrier detail for accommodating seismic joint movements
xs8-080-1	Seismic Joint (Type I, Half Channel) Cross Section	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-080-2	Seismic Joint (Type I, Half Channel) Deck Plate Details No.1	Oct 2014	Major Revisions	Added details for skewed joints Improved joint details and updated notes
xs8-080-3	Seismic Joint (Type I, Half Channel) Deck Plate Details No.2	Oct 2014	Major Revisions	Changed welding and geometry details to reflect new joint design.

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July 2016

XS Sheet Number	XS Sheet Title	Previous Approval	Type of Revision	Summary of Revisions
xs8-080-4	Seismic Joint (Type I, Half Channel) Channel Assembly Details No.1	Oct 2014	Major Revisions	Improved channel assembly details, update to new joint design
xs8-080-5	Seismic Joint (Type I, Half Channel) Channel Assembly Details No.2	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-080-6	Seismic Joint (Type I, Half Channel) Support Plate Details	Oct 2014	Major Revisions	Updated support plate details and notes
xs8-080-7	Seismic Joint (Type I, Half Channel) Reinforcement Details	Oct 2014	Major Revisions	Updated reinforcement, notes, spring assemblies, and steel plate sizes
xs8-080-8	Seismic Joint (Type I, Half Channel) Construction Sequence	Oct 2014	Major Revisions	Modified construction sequence, updated notes.
xs8-080-9	Seismic Joint (Type I, Half Channel) Optional Barrier Detail		New Sheet	Added a barrier detail for accommodating seismic joint movements
xs8-090-1	Seismic Joint (Type II, Full Channel) Cross Section	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-090-2	Seismic Joint (Type II, Full Channel) Deck Plate Details No.1	Oct 2014	Major Revisions	Added details for skewed joints Improved joint details and updated notes
xs8-090-3	Seismic Joint (Type II, Full Channel) Deck Plate Details No.2	Oct 2014	Major Revisions	Changed geometry details to reflect new joint design.
xs8-090-4	Seismic Joint (Type II, Full Channel) Channel Assembly Details No.1	Oct 2014	Major Revisions	Improved channel assembly details, update to new joint design
xs8-090-5	Seismic Joint (Type II, Full Channel) Channel Assembly Details No.2	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-090-6	Seismic Joint (Type II, Full Channel) Support Plate Details	Oct 2014	Major Revisions	Updated support plate details and notes
xs8-090-7	Seismic Joint (Type II, Full Channel) Reinforcement Details	Oct 2014	Major Revisions	Updated reinforcement, notes, spring assemblies, and steel plate sizes
xs8-090-8	Seismic Joint (Type II, Full Channel) Construction Sequence	Oct 2014	Major Revisions	Modified construction sequence, updated notes.
xs8-090-9	Seismic Joint (Type II, Full Channel) Optional Barrier Detail		New Sheet	Added a barrier detail for accommodating seismic joint movements

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July 2016

XS Sheet Number	XS Sheet Title	Previous Approval	Type of Revision	Summary of Revisions
xs8-100-1	Seismic Joint (Type II, Half Channel) Cross Section Sequence	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-100-2	Seismic Joint (Type II, Half Channel) Deck Plate Details No.1	Oct 2014	Major Revisions	Added details for skewed joints Improved joint details and updated notes
xs8-100-3	Seismic Joint (Type II, Half Channel) Deck Plate Details No.2	Oct 2014	Major Revisions	Changed geometry details to reflect new joint design.
xs8-100-4	Seismic Joint (Type II, Half Channel) Channel Assembly Details No.1	Oct 2014	Major Revisions	Improved channel assembly details, update to new joint design
xs8-100-5	Seismic Joint (Type II, Half Channel) Channel Assembly Details No.2	Oct 2014	Major Revisions	Joint redesign including anchorage, steel plate sizes, welding, and spring assemblies
xs8-100-6	Seismic Joint (Type II, Half Channel) Support Plate Details	Oct 2014	Major Revisions	Updated support plate details and notes
xs8-100-7	Seismic Joint (Type II, Half Channel) Reinforcement Details	Oct 2014	Major Revisions	Updated reinforcement, notes, spring assemblies, and steel plate sizes
xs8-100-8	Seismic Joint (Type II, Half Channel) Construction Sequence	Oct 2014	Major Revisions	Modified construction sequence, updated notes.
xs8-100-9	Seismic Joint (Type II, Half Channel) Optional Barrier Detail		New Sheet	Added a barrier detail for accommodating seismic joint movements
Section 11	**RAILROADS**			
xs11-010	Minimum Railroad Requirements for Overhead Structures	July 2014	Archive	XS sheet to be archived
Section 12	**EARTH RETAINING SYSTEMS**			
xs12-030-1	Vertical Ground Anchor Details No.1	July 2014	Minor Revisions	Changed AASHTO LRFD BDS version number to 6th edition Added missing welding symbol for fillet weld
xs12-030-2	Vertical Ground Anchor Details No.2	July 2014	Minor Revisions	Changed AASHTO LRFD BDS version number to 6th edition

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XS Sheet Number	XS Sheet Title	Previous Approval	Type of Revision	Summary of Revisions
Section 16	**BARRIERS AND RAILINGS**			
xs16-075	Concrete Barrier Type 60P	July 2014	Archive	Moved to Standard Plans, revised Standard Plan A76BA
xs16-076	Concrete Barrier Type 60PR	July 2014	Archive	Moved to Standard Plans, revised Standard Plan A76BB
xs16-077	Concrete Barrier Type 60AP	July 2014	Archive	Moved to Standard Plans, revised Standard Plan A76BC
xs16-110-1	Concrete Barrier Type 732SW Details No. 1		New Sheet	New Concrete Barrier with sidewalk
xs16-110-2	Concrete Barrier Type 732SW Details No. 2		New Sheet	New Concrete Barrier with sidewalk
xs16-120-1	California ST-20S Bridge Rail-Details No.1	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-75
xs16-120-2	California ST-20S Bridge Rail-Details No.2	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-76
xs16-120-3	California ST-20S Bridge Rail-Details No.3	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-77
xs16-120-4	California ST-20S Bridge Rail-Details No.4	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-78
xs16-130-1	California ST-70 Bridge Rail-Details No.1	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-71
xs16-130-2	California ST-70 Bridge Rail-Details No.2	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-72
xs16-130-3	California ST-70 Bridge Rail-Details No.3	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-73
xs16-130-4	California ST-70 Bridge Rail-Details No.4	Jan 2015	Archive	Moved to Standard Plans, revised Standard Plan B11-74