

2010 Construction Contract Standards

OFFICE ENGINEER 06



Caltrans
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**NOTICE TO BIDDERS
AND
SPECIAL PROVISIONS**

FOR CONSTRUCTION ON STATE HIGHWAY IN KINGS COUNTY IN AND NEAR
HANFORD AT VARIOUS LOCATIONS

In District 06 On Route 198
Under

Bid book dated July 8, 2013	Standard Specifications dated 2010
Project plans approved April 29, 2013	Standard Plans dated 2010

Identified by
Contract No. 06-X00004
06-Kin-198
Project ID 06XXXXXXXXXX

Electronic Advertising Contract

Bids open Tuesday, August 13, 2013
Dated July 8, 2013

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**STANDARD
SPECIFICATIONS
2010**



STANDARD PLANS

CALIFORNIA
DEPARTMENT OF TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION

2010

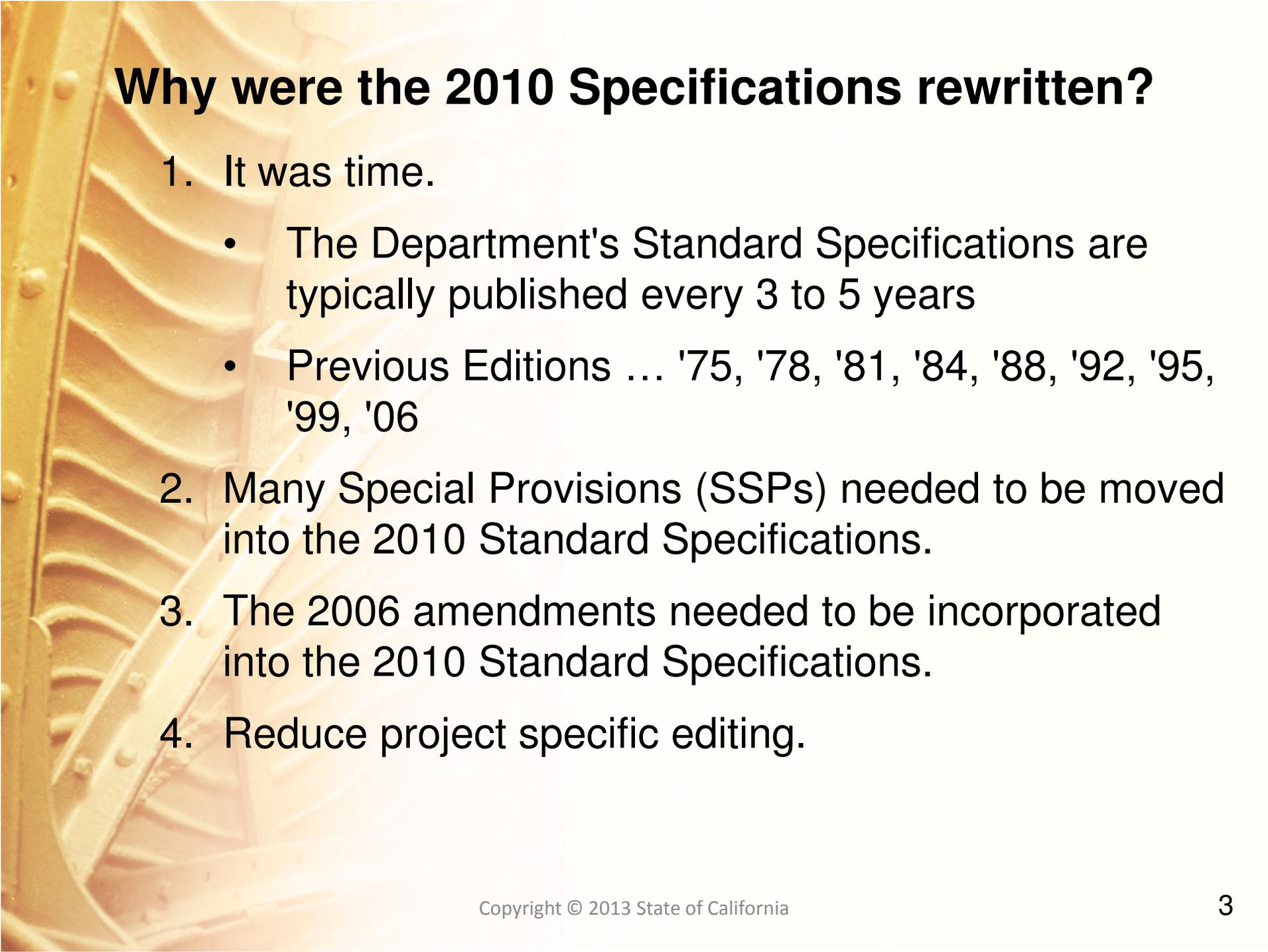
PUBLISHED BY
DEPARTMENT OF TRANSPORTATION





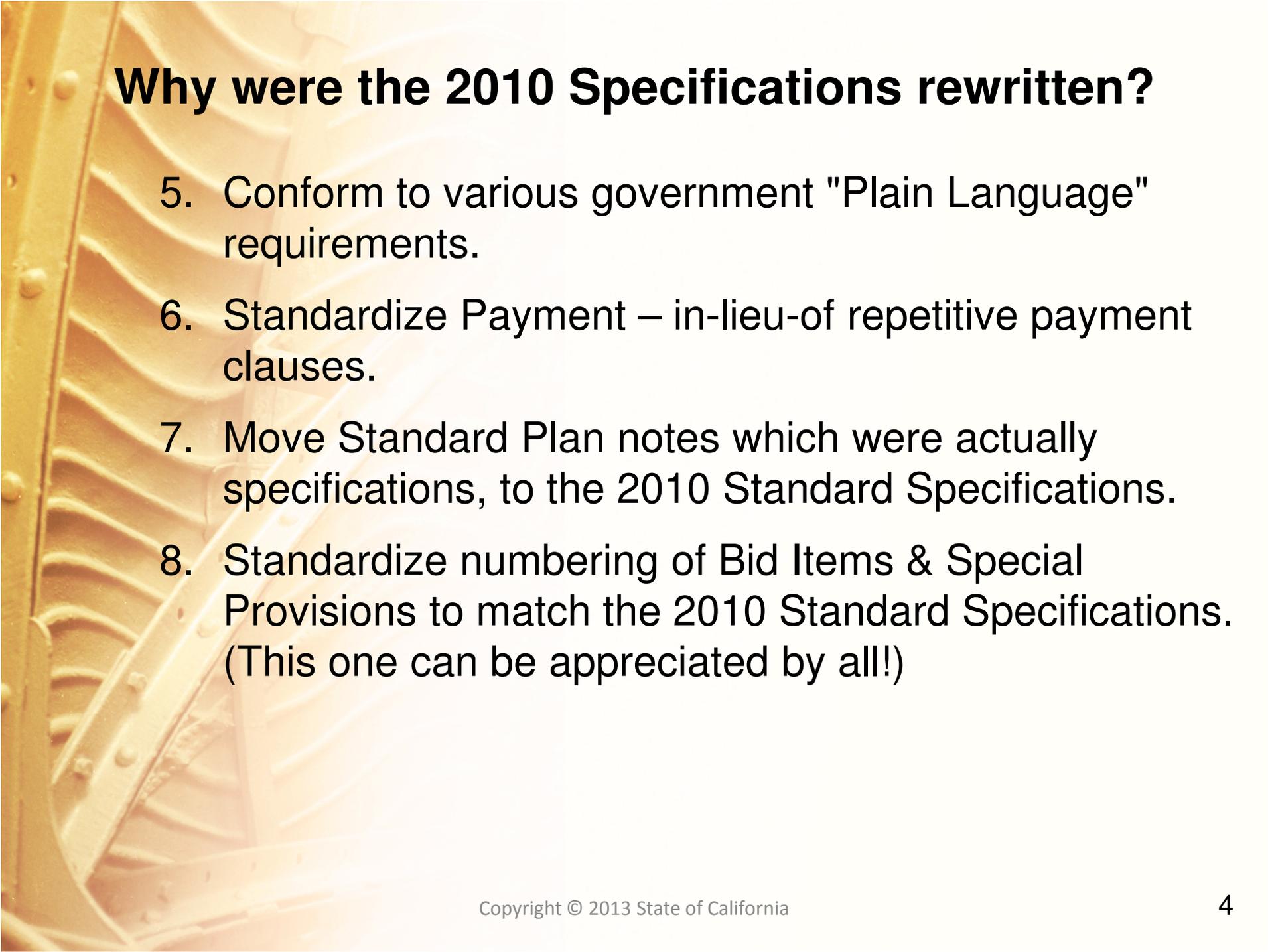
The 2010 Standards training includes:

- I. Why the 2010 Construction Contract Standards?
- II. Brief Review of the "*Style Guide for 2010 Specifications*".
- III. Review of the 2010 Standard Specifications and associated Special Provisions
- IV. Using the 2010 Standard Specifications



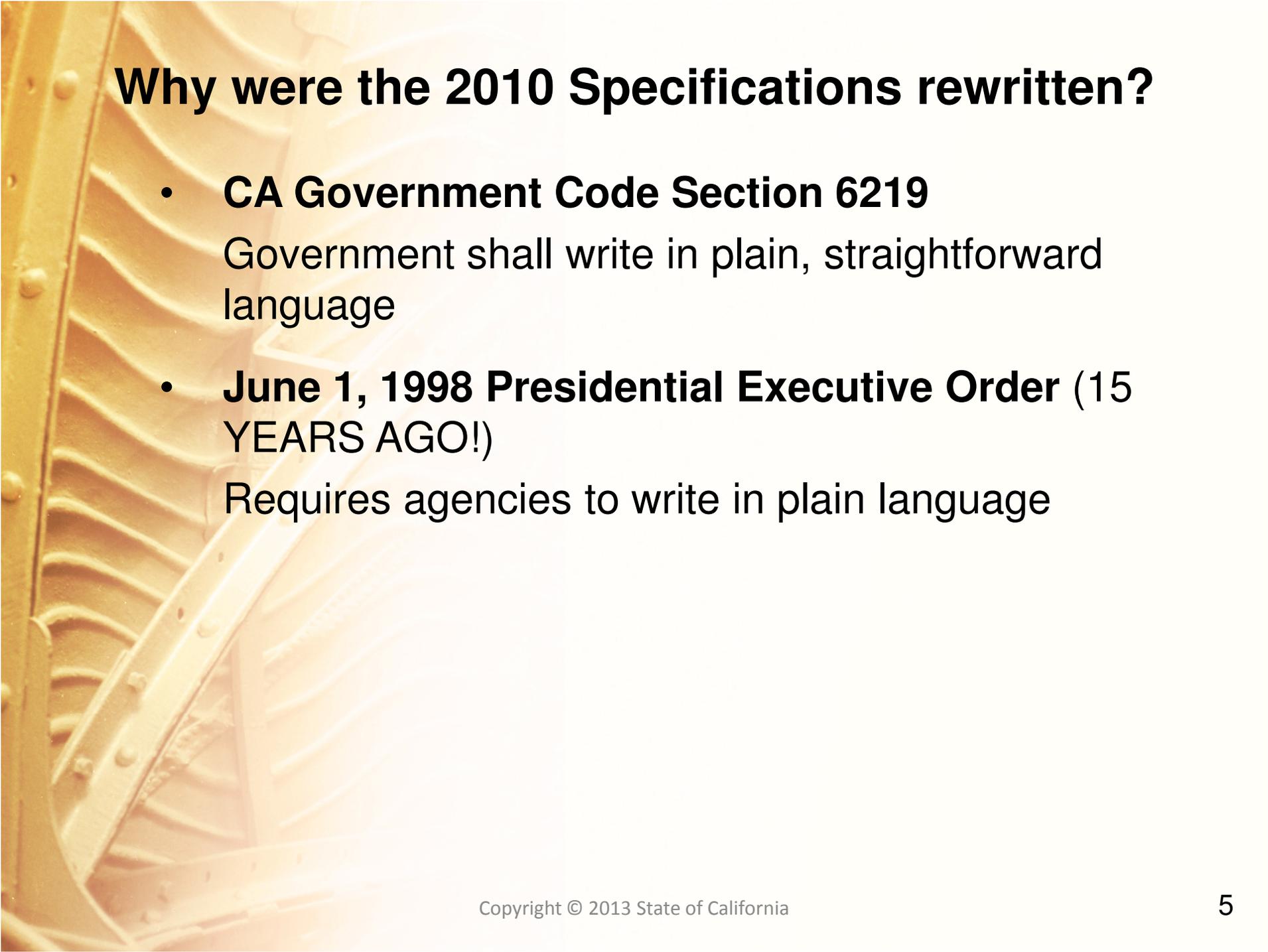
Why were the 2010 Specifications rewritten?

1. It was time.
 - The Department's Standard Specifications are typically published every 3 to 5 years
 - Previous Editions ... '75, '78, '81, '84, '88, '92, '95, '99, '06
2. Many Special Provisions (SSPs) needed to be moved into the 2010 Standard Specifications.
3. The 2006 amendments needed to be incorporated into the 2010 Standard Specifications.
4. Reduce project specific editing.



Why were the 2010 Specifications rewritten?

5. Conform to various government "Plain Language" requirements.
6. Standardize Payment – in-lieu-of repetitive payment clauses.
7. Move Standard Plan notes which were actually specifications, to the 2010 Standard Specifications.
8. Standardize numbering of Bid Items & Special Provisions to match the 2010 Standard Specifications.
(This one can be appreciated by all!)



Why were the 2010 Specifications rewritten?

- **CA Government Code Section 6219**
Government shall write in plain, straightforward language
- **June 1, 1998 Presidential Executive Order (15 YEARS AGO!)**
Requires agencies to write in plain language



II. Review of the Style Guide for 2010 Specifications.

- The Style Guide sets the style, language, format, and organization for the specifications
- The Style Guide is posted on the Office Engineer web site.

<http://www.dot.ca.gov/hq/esc/oe/>

The Style Guide – Where is it?



The screenshot shows the website for the California Department of Transportation, Office Engineer. The navigation menu includes: Home, Contact Us, Site Index, Print, Search, This Site, and California. The 'Guidance' menu item is circled in red. Below the navigation is a banner image of three children in hard hats looking at a model of a bridge. The main content area is titled 'DIVISION OF ENGINEERING SERVICES - OFFICE ENGINEER' and features a section for 'Our Mission' with a list of goals and a list of offices. A promotional banner for Caltrans is also visible.

CA .GOV California Department of Transportation Office Engineer

Home | Contact Us | Site Index | Print | Search | This Site | California

Contract Awards & Services | Construction Contract Standards | Contractor's Corner | **Guidance**

DIVISION OF ENGINEERING SERVICES - OFFICE ENGINEER

★ Our Mission

Improve mobility across California by providing qualified contractors with a fair opportunity to bid on Department construction contracts that are:

- Uniform statewide and aid efficient construction administration
- Full, complete, and accurate

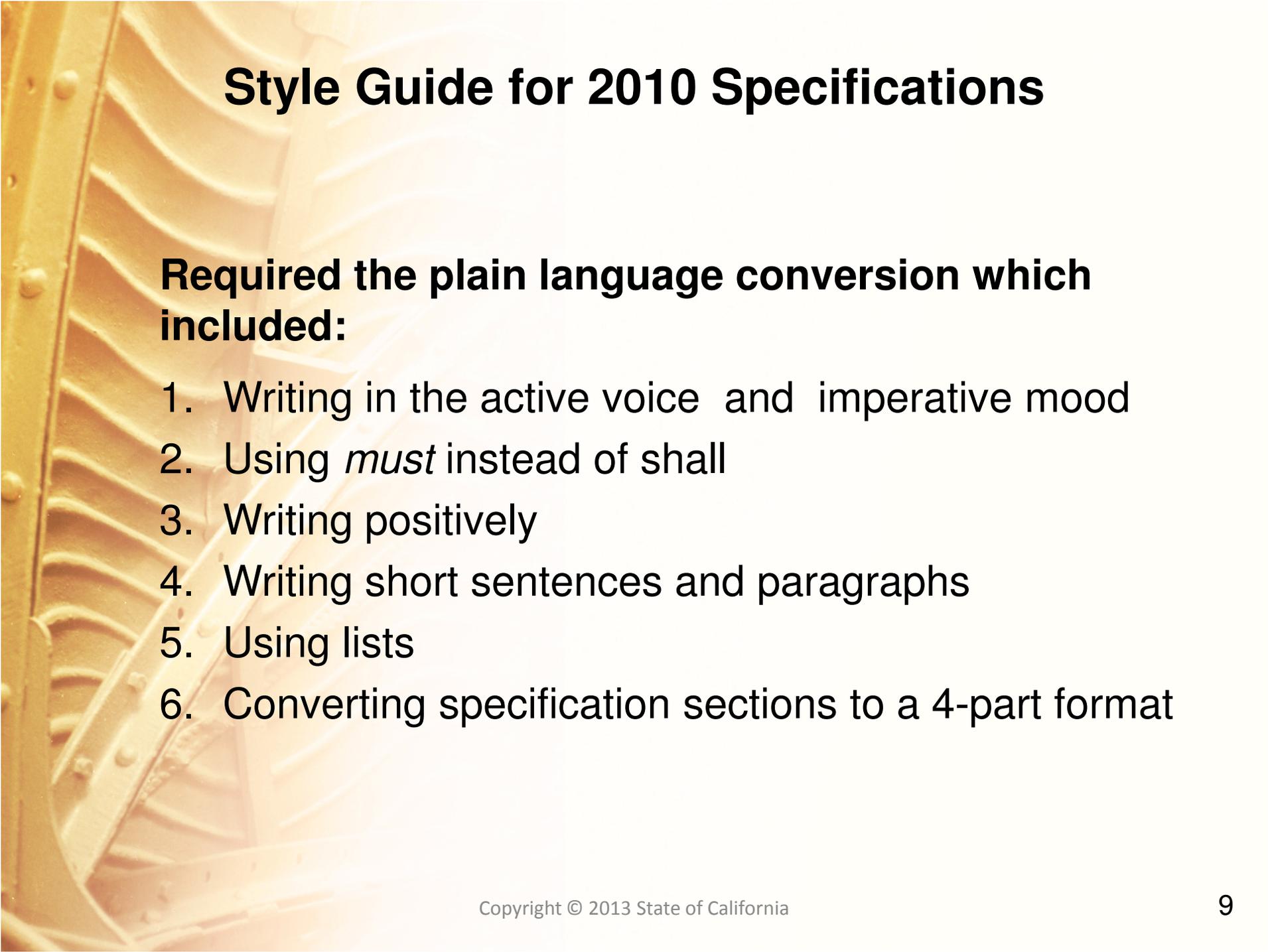
The Division of Engineering Services - Office Engineer is composed of four offices:

- Contract Awards and Services
- Construction Contract Standards

Caltrans... Building the Road to Recovery CONTRACTORS CLICK HERE

The Style Guide – Where is it?

The screenshot shows the website for the California Department of Transportation. The header includes the CA.GOV logo, the text 'California Department of Transportation', and the 'Office Engineer' logo. Navigation links for 'Home', 'Contact Us', 'Site Index', and 'Print' are present. A search bar is located in the top right corner. Below the header is a navigation menu with four items: 'Contract Awards & Services', 'Construction Contract Standards', 'Contractor's Corner', and 'Guidance'. The main content area shows a breadcrumb trail 'Home → Guidance' and a section titled 'Guides, Manuals and Training' with a green arrow icon. Under the 'GUIDES' heading, a list of links is provided, with '2010/2015 Specification Style Guide' circled in red. Other links include 'Electronic Bidding Guide', '2010 Construction Contract Standards Quick Guide', '2010 Wording Changes for the 2010 Standard Specifications', '2010 Historical Design Guidance SSPs (06-01-11)', '2010 Historical Design Guidance Standard Specifications (05-20-11)', '2006 Specification Style Guide', '2006 Specification Style Guide Q & A', 'Guide for the SSP and SN changes from 2006 to 2010', and 'Ready to List Guide (RTL Guide)'. Under the 'MANUALS' heading, there are links for 'Plans Preparation Manual' and 'CADD Users Manual'. Under the 'TRAINING' heading, there are links for 'Electronic Bidding Training' and '2010 Standards Training'.



Style Guide for 2010 Specifications

Required the plain language conversion which included:

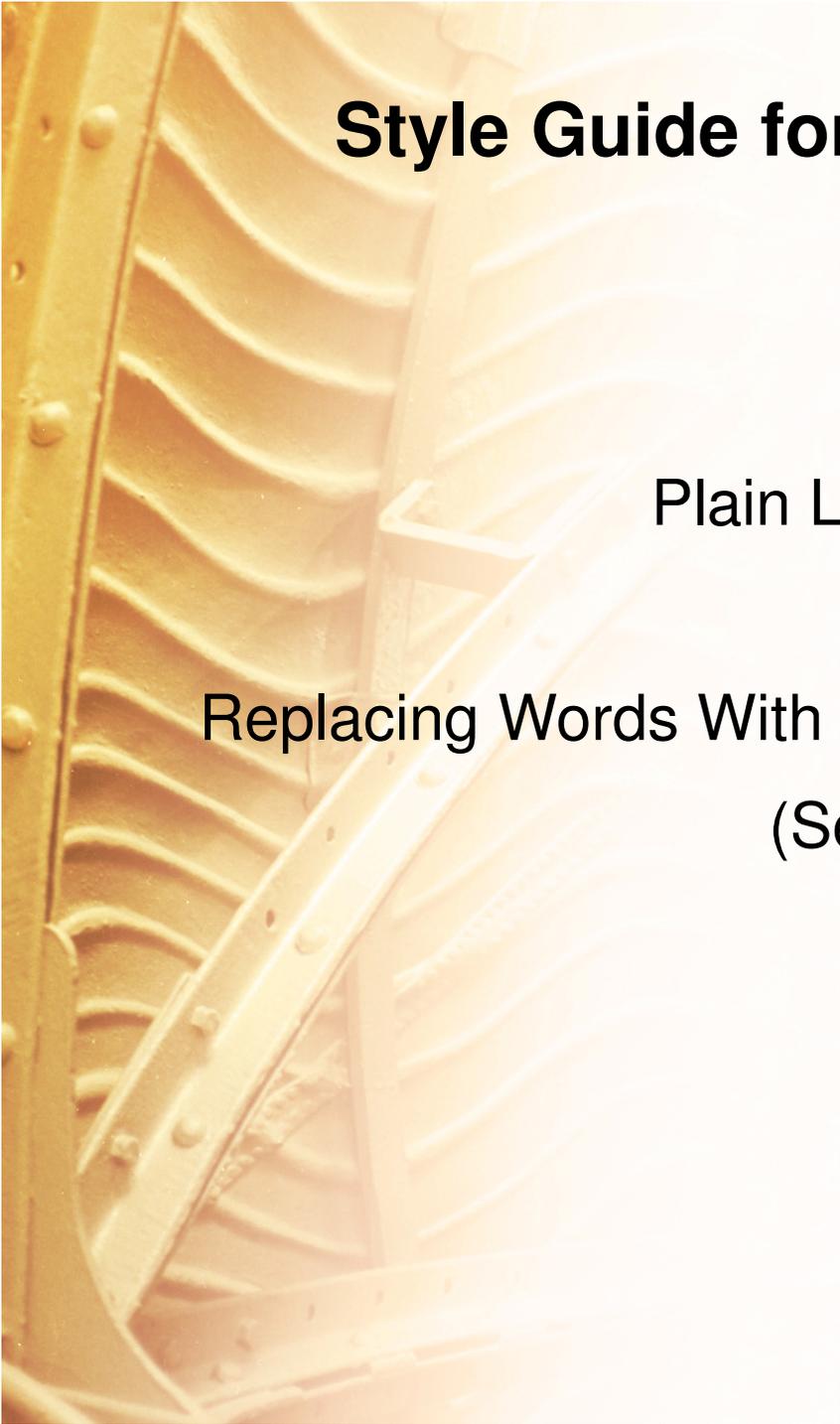
1. Writing in the active voice and imperative mood
2. Using *must* instead of shall
3. Writing positively
4. Writing short sentences and paragraphs
5. Using lists
6. Converting specification sections to a 4-part format

Style Guide for 2010 Specifications

Plain Language Terms:

1. "under" replaces "in conformance with"
2. "You may" replaces "The Contractor may"
3. "authorize" replaces "approve"
4. "shown" replaces "shown on the plans"
5. "must comply" replaces "shall conform "

Note: See section 6 "Expressions" in the Style Guide for more terms.



Style Guide for 2010 Specifications

Plain Language Lists

Replacing Words With Lists Increases Understanding
(See 5-1.02)

5-1.02 (Straightforward, To the Point)

5-1.02 CONTRACT COMPONENTS

A component in one Contract part applies as if appearing in each. The parts are complementary and describe and provide for a complete work.

If a discrepancy exists:

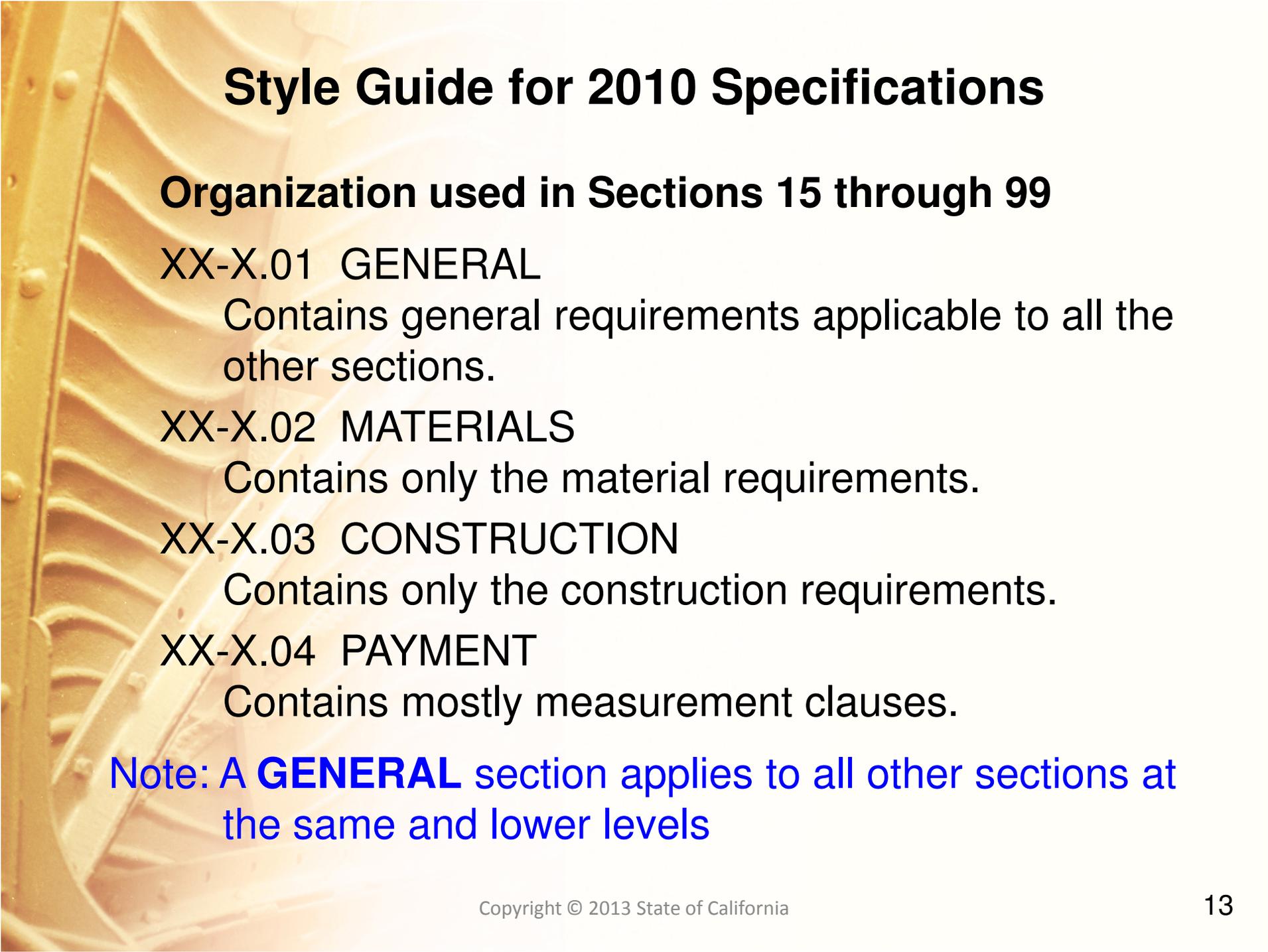
1. The governing ranking of Contract Plans in descending order is:
 - 1.1. Special Provisions
 - 1.2. Project Plans
 - 1.3. Revised standard specifications
 - 1.4. Standard specifications
 - 1.5. Revised standard plans
 - 1.6. Standard plans
 - 1.7. Supplemental project information
2. Written numbers and notes on a drawing govern over graphics
3. A detail drawing governs over a general drawing
4. A detail specification governs over a general specification
5. A specification in a section governs over a specification referenced by that section

If a discrepancy is found or confusion arises, submit an RFI.

5-1.04 COORDINATION AND INTERPRETATION OF PLANS, STANDARD SPECIFICATIONS, AND SPECIAL PROVISIONS

- These Standard Specifications, the Standard Plans, project plans, special provisions, contract change orders and all supplementary documents are essential parts of the contract, and a requirement occurring in one is a binding as though occurring in all. They are intended to be complementary, and to describe and provide for a complete work.
- Project plans shall govern over Standard Plans; Standard Plans and project plans shall govern over these Standard Specifications; and the special provisions shall govern over both these Standard Specifications and the plans.
- Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in these specifications, the special provisions or the plans, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to them as part of the contract. In the event of any doubt or question arising respecting the true meaning of these specifications, the special provisions or the plans, reference shall be made to the Engineer, whose decision thereon shall be final.
- In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct. Detail drawings shall prevail over general drawings.

Which Is More Straightforward?



Style Guide for 2010 Specifications

Organization used in Sections 15 through 99

XX-X.01 GENERAL

Contains general requirements applicable to all the other sections.

XX-X.02 MATERIALS

Contains only the material requirements.

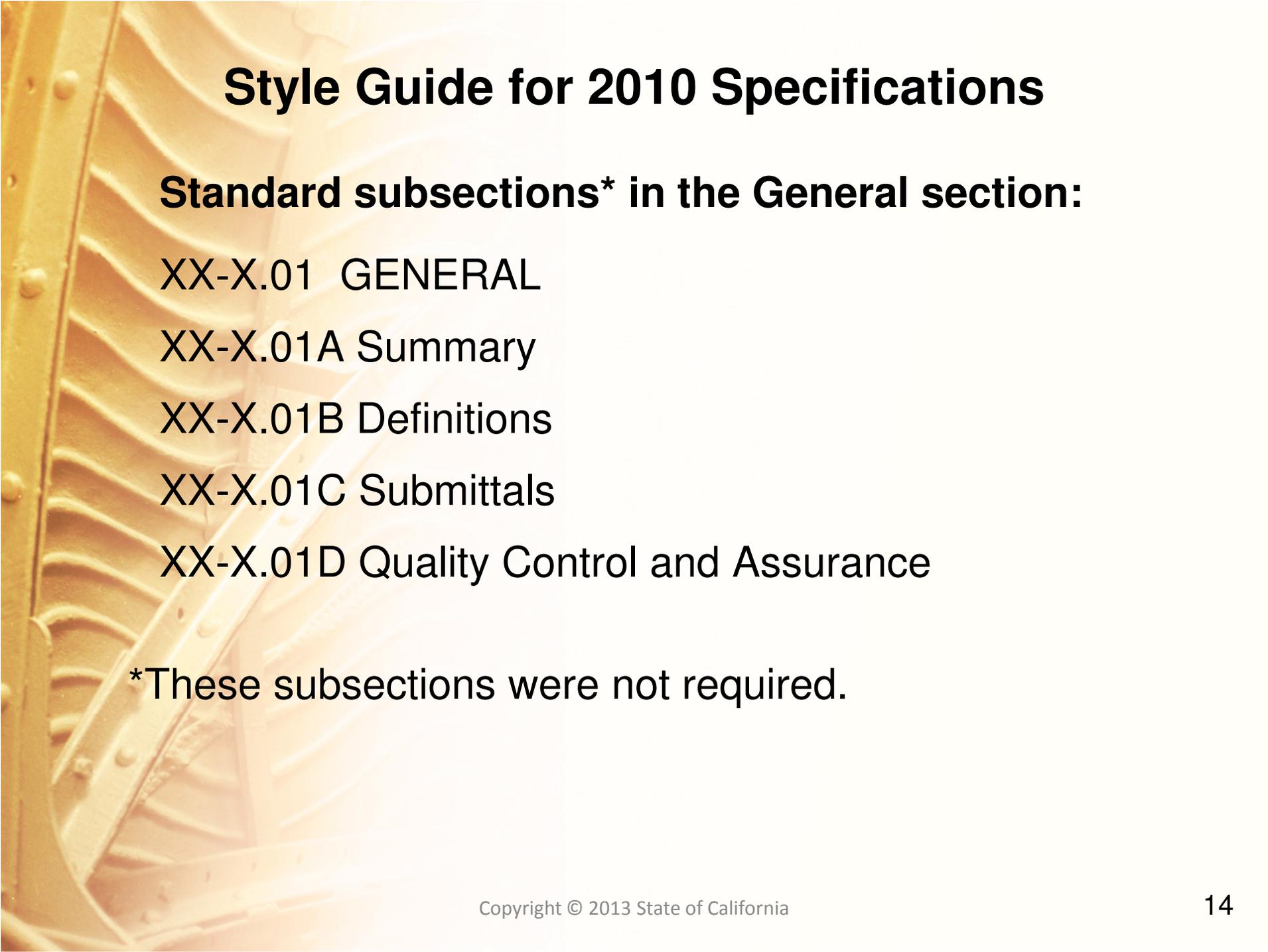
XX-X.03 CONSTRUCTION

Contains only the construction requirements.

XX-X.04 PAYMENT

Contains mostly measurement clauses.

Note: A **GENERAL** section applies to all other sections at the same and lower levels



Style Guide for 2010 Specifications

Standard subsections* in the General section:

XX-X.01 GENERAL

XX-X.01A Summary

XX-X.01B Definitions

XX-X.01C Submittals

XX-X.01D Quality Control and Assurance

*These subsections were not required.

Style Guide for 2010 Specifications

"Reserved" and "Not Used"

From the 2010 Standard Specifications (pages 1 and 2)

Headings are included for the purposes of organization and referencing. Inclusion of a heading with no related content, "Not Used," or "Reserved" does not indicate that no specification exists for that subject; applicable specifications may be covered in a general or referenced specification.

Sections are reserved in the *Standard Specifications* for correlation of special provisions and revised standard specifications with the *Standard Specifications* and for future expansion of the *Standard Specifications*.

From the 2010 Standard Specifications

8-1.04C Delayed Start

Reserved

12-3.01B Materials

Not Used

Style Guide for 2010 Specifications "Not Used"

From the 2010 Standard Specifications, Section 52-4 (page 634)

52-4 STAINLESS STEEL BAR REINFORCEMENT

Reserved

From the Special Provisions

Replace "Reserved" in section 52-4 with:

52-4.01 GENERAL

Section 52-4 includes specifications for fabricating stainless steel bar reinforcement.

52-4.02 MATERIALS

Stainless steel bar reinforcement must comply with ASTM A 955/A 955M, Grade 60.

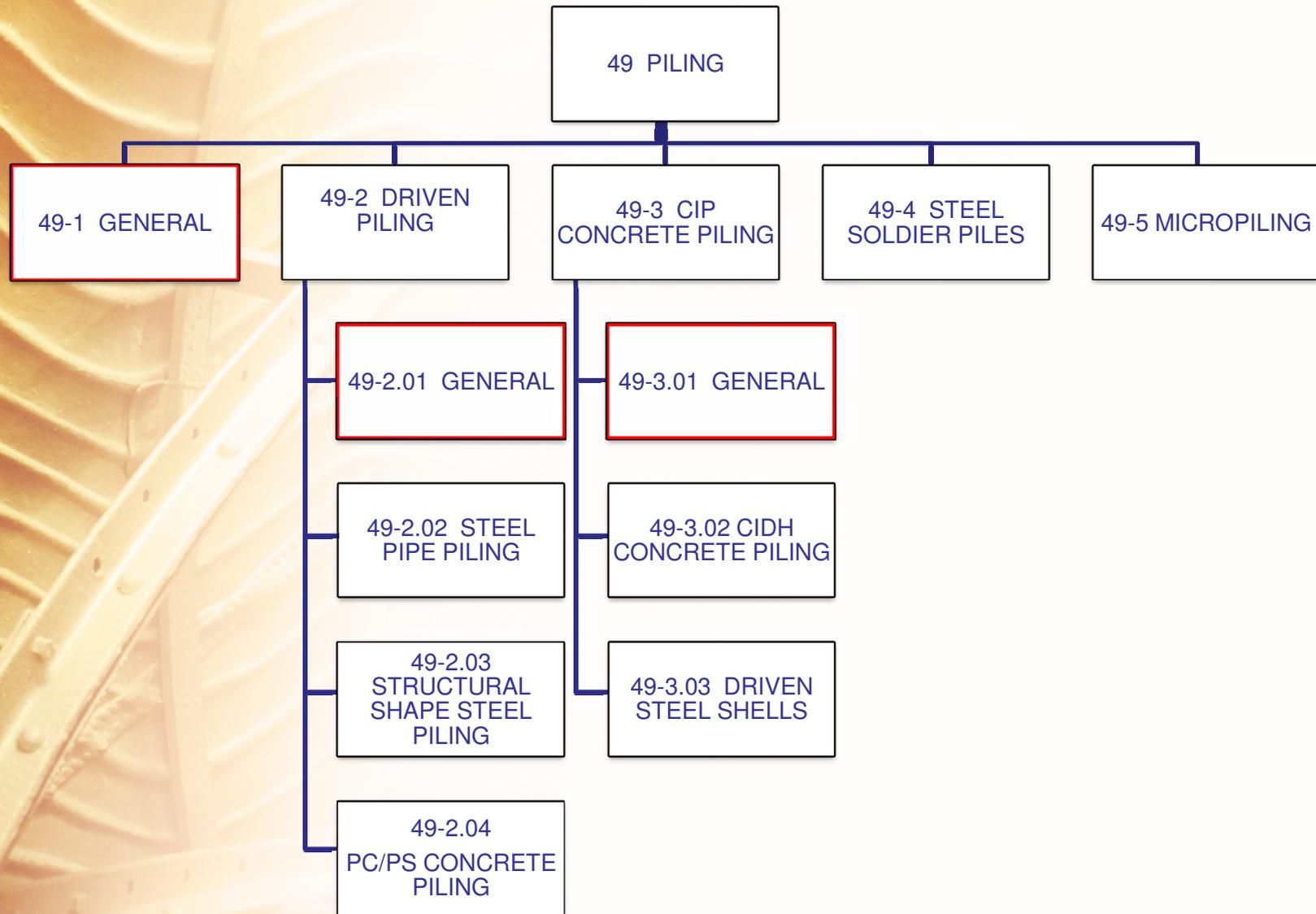
52-4.03 CONSTRUCTION

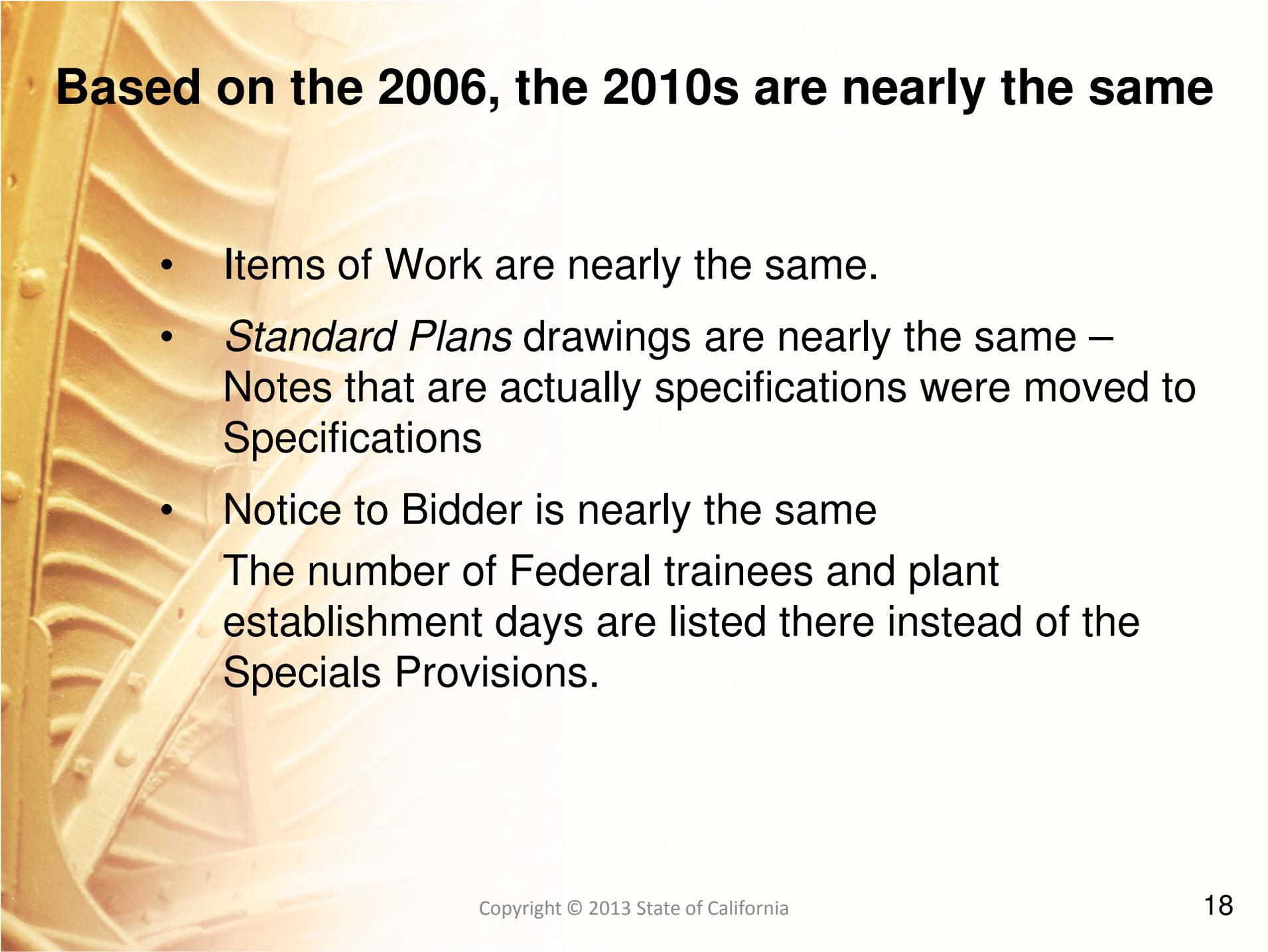
Not Used

52-4.04 PAYMENT

Not Used

2010 Format Example





Based on the 2006, the 2010s are nearly the same

- Items of Work are nearly the same.
- *Standard Plans* drawings are nearly the same – Notes that are actually specifications were moved to Specifications
- Notice to Bidder is nearly the same
The number of Federal trainees and plant establishment days are listed there instead of the Specials Provisions.

How are the 2010s the same?

- The *Bid* book is nearly the same.... **HOWEVER**,
- *A bidder acknowledgement has been added clarifying the **Permits, Licenses, Agreements, and Certifications (PLAC's)** and **Railroad Relations Are Part Of The Contract.***

PERMITS, LICENSES, AGREEMENTS, CERTIFICATIONS, AND RAILROAD RELATIONS AND INSURANCE REQUIREMENTS

Bidder acknowledges that permits, licenses, agreements, certifications, and the requirements in the document titled "Railroad Relations and Insurance Requirements" are components of the Contract under section 5-1.02 of the *Standard Specifications*.

How are the 2010s different?

- The 2010 Standard Specifications are periodically modified by ***Revised Standard Specifications (RSS)***
- The Special Provisions (SPs) may modify *both* the latest RSS and the 2010 Standard Specifications.
- The SPs may replace, add or delete a word, sentence, paragraph or Section in either the RSS, 2010 Standard Specifications or both.
- SPs are shorter, have new numbers that match the RSS and 2010 Standard Specifications for continuity
- The first two numbers of a Bid Item refers to the applicable Specification Section Number.
- Old non-uniform numbering system of SPs (10-1.0x) is NOT used.
- There are new Sections, e.g., Section 21 Erosion Control

How are the 2010s different?

Standard Specification section number

8-1.04 START OF JOB SITE ACTIVITIES

8-1.04A General

Reserved

8-1.04B Standard Start

Start job site activities within 15 days after receiving notice that the Contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department.

Submit a notice 72 hours before starting job site activities. If the project has more than 1 location of work, submit a separate notice for each location.

You may start job site activities before receiving notice of Contract approval if you:

1. Deliver the signed Contract, bonds, and evidence of insurance to the Department
2. Submit 72-hour notice
3. Obtain an encroachment permit from the Department
4. Are authorized by the Department to start
5. Perform work at your own risk
6. Perform work under the Contract

If the Contract is approved, work already performed that complies with the Contract is authorized.

If the Contract is not approved, leave the job site in a neat condition. If a facility has been changed, restore it to its former condition or an equivalent condition. The Department does not pay for the restoration.

The Department does not adjust time for starting before the 1st working day.

8-1.04C Delayed Start

Reserved

How are the 2010s different?

RSS (Revised Standard Specifications) section number

Replace the last paragraph of section 8-1.04B with:

10-19-12

The Department does not adjust time for starting before receiving notice of Contract approval.

Special Provision section number

Replace "Reserved" in section 8-1.04C with:

Section 8-1.04B does not apply.

Start job site activities within 55 days after receiving notice that the Contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department.

Do not start job site activities until the Department authorizes or accepts your submittal for:

1. Contractor-supplied biologist
2. Biological resource information program
3. CPM baseline schedule

How are the 2010s different?

8-1.04 START OF JOB SITE ACTIVITIES

8-1.04A. General

Reserved

8-1.04B. Standard Start

Start job site activities within 15 days after receiving notice that the Contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department.

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The Department does not adjust time for starting before receiving notice of Contract approval.

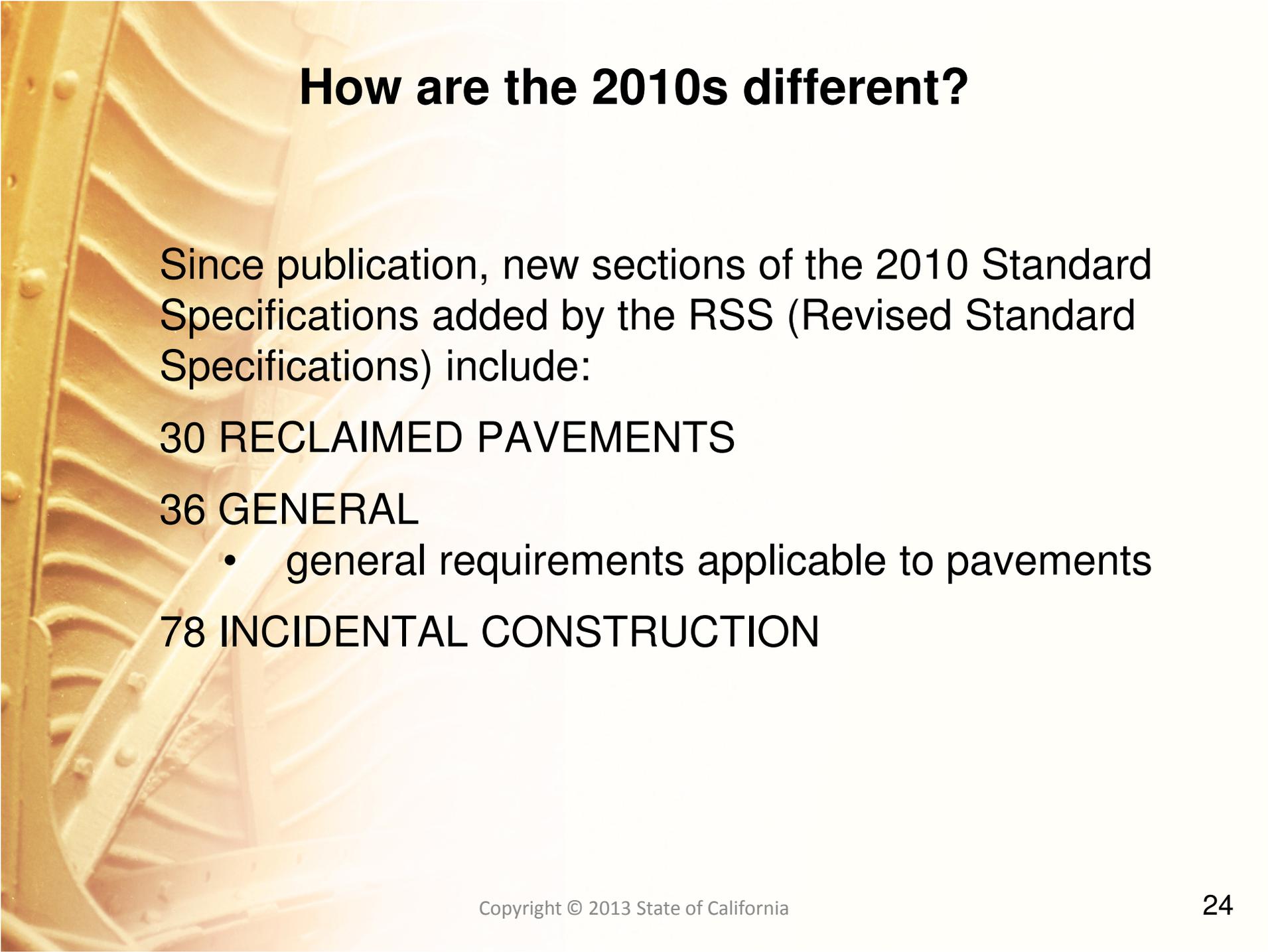
8-1.04C. Delayed Start

Section 8-1.04B does not apply.

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1. Contractor-supplied biologist
2. Biological resource information program
3. CPM baseline schedule



How are the 2010s different?

Since publication, new sections of the 2010 Standard Specifications added by the RSS (Revised Standard Specifications) include:

30 RECLAIMED PAVEMENTS

36 GENERAL

- general requirements applicable to pavements

78 INCIDENTAL CONSTRUCTION

How are the 2010s different?

- There is no Section 13 for railroad clauses.
- See 2010 Standard Specifications and RSS, Section 5-1.20 "Coordination With Other Entities", section 5-1.20C "Railroad Relations" (page 39)

5-1.20C Railroad Relations

Reserved

- Section 5-1.20C modified by the RSS

5-1.20C Railroad Relations

Replace "Reserved" in section 5-1.20C with:

If the Contract includes an agreement with a railroad company, the Department makes the provisions of the agreement available in the Information Handout in the document titled "Railroad Relations and Insurance Requirements." Comply with the requirements in the document.

10-19-12

How are the 2010s different?

The introductory sentence to sections have been minimized

- 2006 Reinforcement Standard Spec:

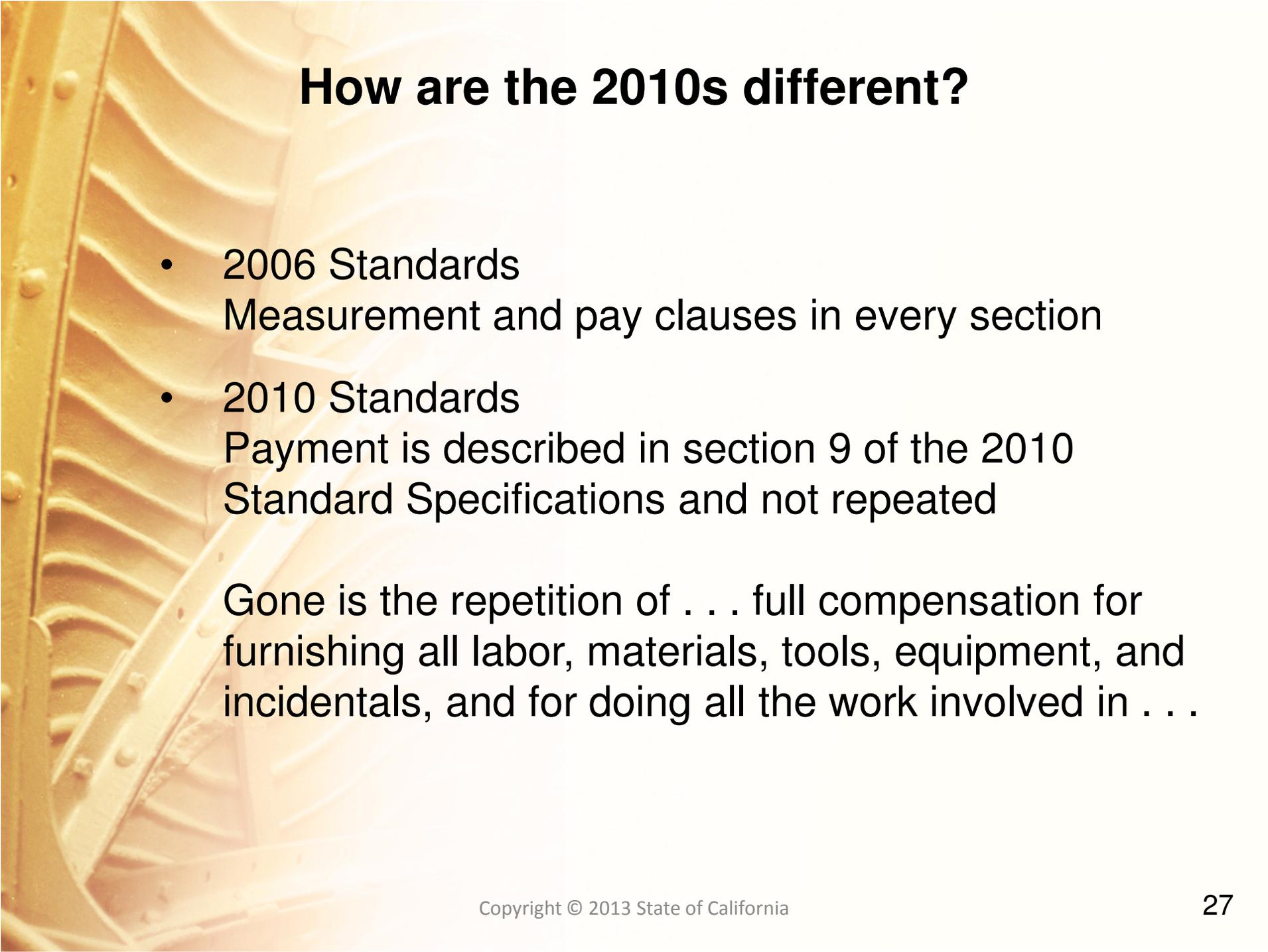
52-1.01

This work shall consist of furnishing and placing reinforcement of the shape and dimensions shown on the plans, and as specified in these specifications and the special provisions

- 2010 Reinforcement Standard Spec:

52-1.01

Section 52-1 includes general specifications for fabricating and placing reinforcement.



How are the 2010s different?

- 2006 Standards
Measurement and pay clauses in every section
- 2010 Standards
Payment is described in section 9 of the 2010 Standard Specifications and not repeated

Gone is the repetition of . . . full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in . . .

How are the 2010s different?

Here's an example of a measurement clause in the 2006 Standard Specifications:

16-1.05 MEASUREMENT

- Clearing and grubbing will be paid for at a lump sum price or by the acre as designated in the Engineer's Estimate.
- Unless otherwise specified in the special provisions, the work of clearing and grubbing disposal sites or material sites, will not be paid for when the sites are outside the right of way and the Contractor is permitted to exercise the option as to whether or not the Contractor elects to use the disposal sites or material sites.

How are the 2010s different?

Here's an example of a payment clause in the 2006 Standard Specifications:

16-1.06 PAYMENT

- The contract lump sum price, or the contract price per acre, paid for clearing and grubbing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in clearing and grubbing as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer, including the removal and disposal of the resulting material.
- When the contract does not include a contract pay item for clearing and grubbing as specified above, full compensation for any necessary clearing and grubbing required to perform the construction operations specified shall be considered as included in the prices paid for the earthwork involved, or in the prices paid for the contract items of work requiring clearing and grubbing when earthwork is not involved, and no additional compensation will be allowed therefor.

How are the 2010s different?

In the 2010 Standard Specifications, the Payment section is used when there are special instructions on how to measure the work for payment.

Here's an example of Payment from the 2010 Standard Specifications.

16-1.04 PAYMENT
Not Used

Measurement and payment is described in Section 9

- "Not Used" means there are no special instructions on how to measure the work.

Notice to Bidders and Special Provisions

1912 - 2012
OFFICE ENGINEER
100 Years of Construction Contracting Excellence



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NOTICE TO BIDDERS AND SPECIAL PROVISIONS

**FOR CONSTRUCTION ON STATE HIGHWAY IN SISKIYOU COUNTY ABOUT 13
MILES WEST OF HARRY CAMP AT 2 MILE WEST OF INDEPENDENCE**



III. Review of the 2010 Standard Specifications and associated SSPs

- New divisions
- New sections

DIVISIONS

DIVISION I - GENERAL PROVISIONS

DIVISION II - GENERAL CONSTRUCTION (new division name)

DIVISION III - GRADING

DIVISION IV - SUBBASES AND BASES

DIVISION V - SURFACING AND PAVEMENTS

DIVISION VI - STRUCTURES

DIVISION VII - DRAINAGE (new division name)

DIVISION VIII - MISCELLANEOUS CONSTRUCTION (new division)

DIVISION IX - TRAFFIC CONTROL FACILITIES (new division)

DIVISION X - MATERIALS

DIVISION XI - BUILDING CONSTRUCTION (new division)

Note: Divisions are shown in the table of contents starting on page i of the Standard Specifications.

DIVISION I - GENERAL PROVISIONS

Section 1-1.01

"Division I includes general specifications applicable to every contract unless specified as applicable under certain conditions."

Section 1-1.01 (Page 1)

"The bid items set forth the construction specifications that apply. The first 2 digits of a bid item code correspond to the specification section number with the same 2 first digits except for bid item code 999990 that corresponds to section 9 and unless shown otherwise in the table titled "Bid Items and Applicable Sections" in the special provisions."

Special Provision 1-1.01

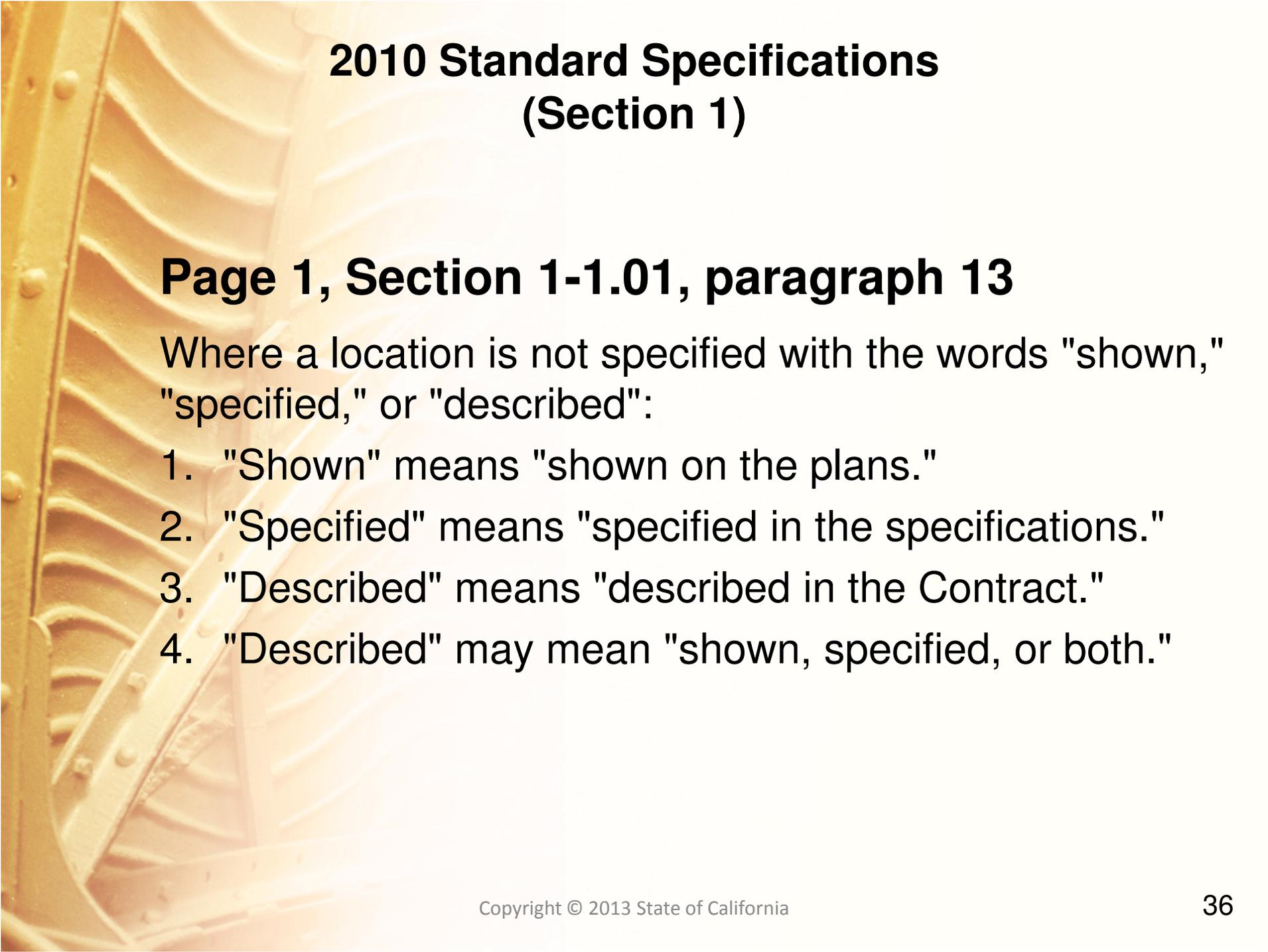
2010 Standard Specifications (Section 1)

DIVISION 1 - GENERAL PROVISIONS¶ 1 - GENERAL¶

Add to section 1-1.01:¶

Bid Items and Applicable Sections¶

Item code¶	Item description¶	Applicable section¶
043551¶	78" PERMANENT STEEL CASING¶	49¶
046799¶	30" WELDED STEEL PIPE CASING (BRIDGE)¶	70¶
¶	¶	¶



2010 Standard Specifications (Section 1)

Page 1, Section 1-1.01, paragraph 13

Where a location is not specified with the words "shown," "specified," or "described":

1. "Shown" means "shown on the plans."
2. "Specified" means "specified in the specifications."
3. "Described" means "described in the Contract."
4. "Described" may mean "shown, specified, or both."

2010 Standard Specifications (Section 1)

Page 2, Section 1-1.01, paragraph 18

All items in a list apply unless the items are specified as choices.

Page 185, Section 13-6.02B

Repair or replace a temporary cover whenever any of the following occur:

1. Covered area becomes exposed or exhibits visible erosion
2. Washouts occur between the joints or beneath the linear sediment barrier
3. Temporary cover becomes detached, torn, or unraveled

13-5.03L–13-5.03N Reserved

Example 2

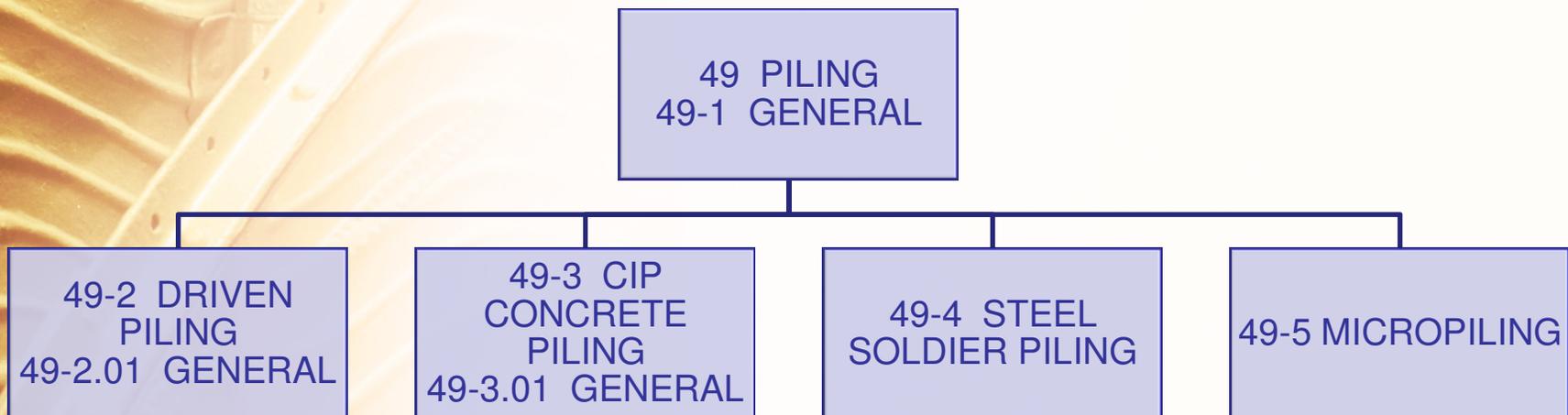
Design falsework to support placement of the entire superstructure cross-section, except railing, at one time. You may consider girder stems and connected bottom slabs self-supporting between falsework posts if:

1. They are placed more than 5 days before the top slab
2. The distance between falsework posts is at most 4 times the depth of the portion of the girder stem placed in the 1st pour

2010 Standard Specifications (Section 1)

Page 2, Section 1-1.05, paragraph 3.

A reference to a section includes the general specifications for the section.



2010 Standard Specifications (Section 1)

Page 4, Section 1-1.06 begins the abbreviations.

Abbreviations	
Abbreviation	Meaning
AASHTO	American Association of State Highway and Transportation Officials
AB	aggregate base
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AMA	archaeological monitoring area
ANSI	American National Standards Institute
API	American Petroleum Institute
AREMA	American Railway Engineering and Maintenance-of-Way Association
AS	aggregate <u>subbase</u>
ASME	American Society of Mechanical Engineers

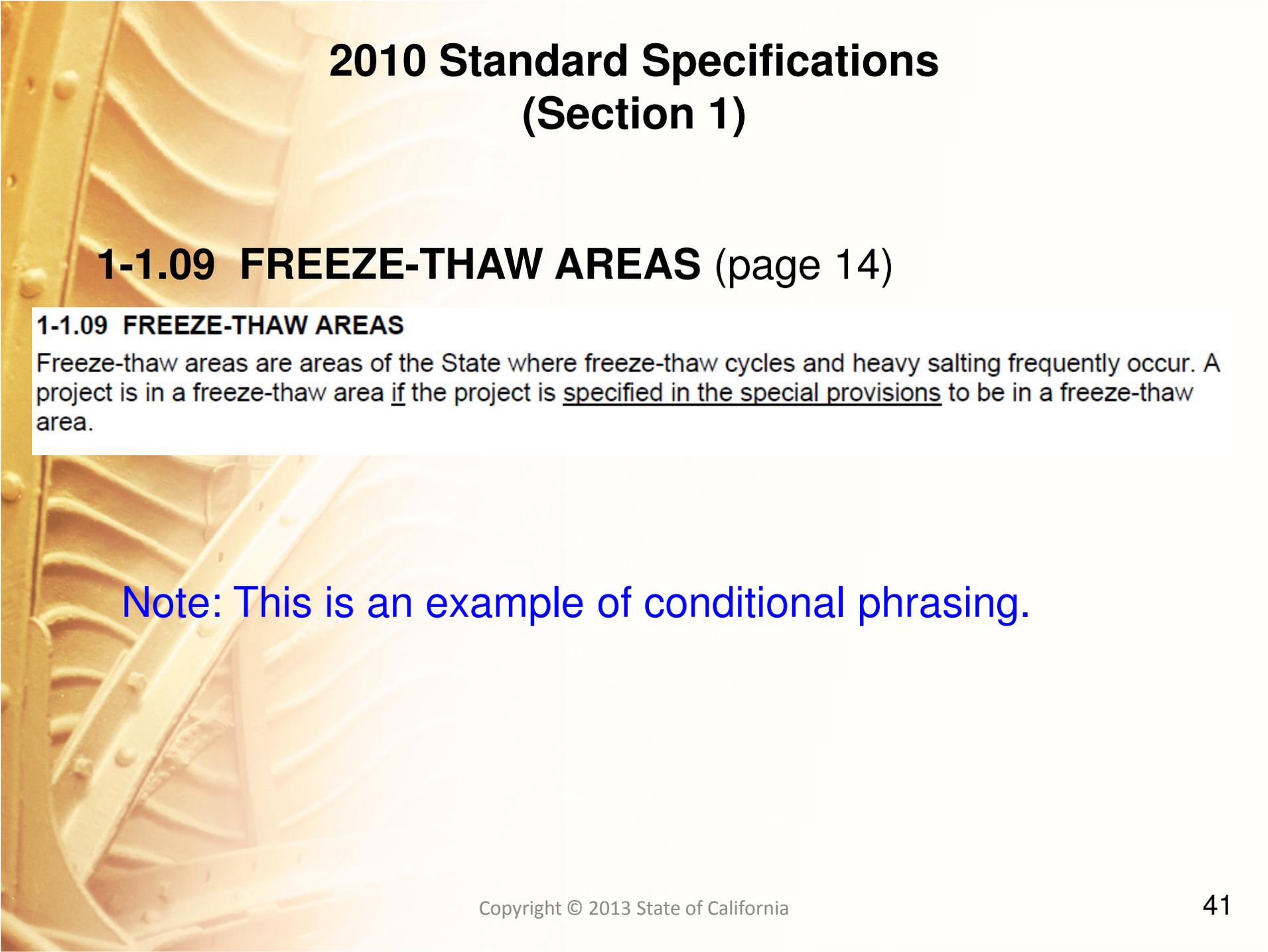
**2010 Standard Specifications abbreviations
do not match the Standard Plans.**



2010 Standard Specifications (Section 1)

Section 1-1.07 Definitions (page 6)

- **"Activity"** replaces "operation"
- **"Department"** means Department of Transportation.
- **"Dispose of"** means remove from the job site.
- **"Highway"** is the highway right-of-way.
- **"State"** means State of California
- **"Work"** is the resources and activities required for Contract acceptance, including labor, materials, equipment, and the created product.



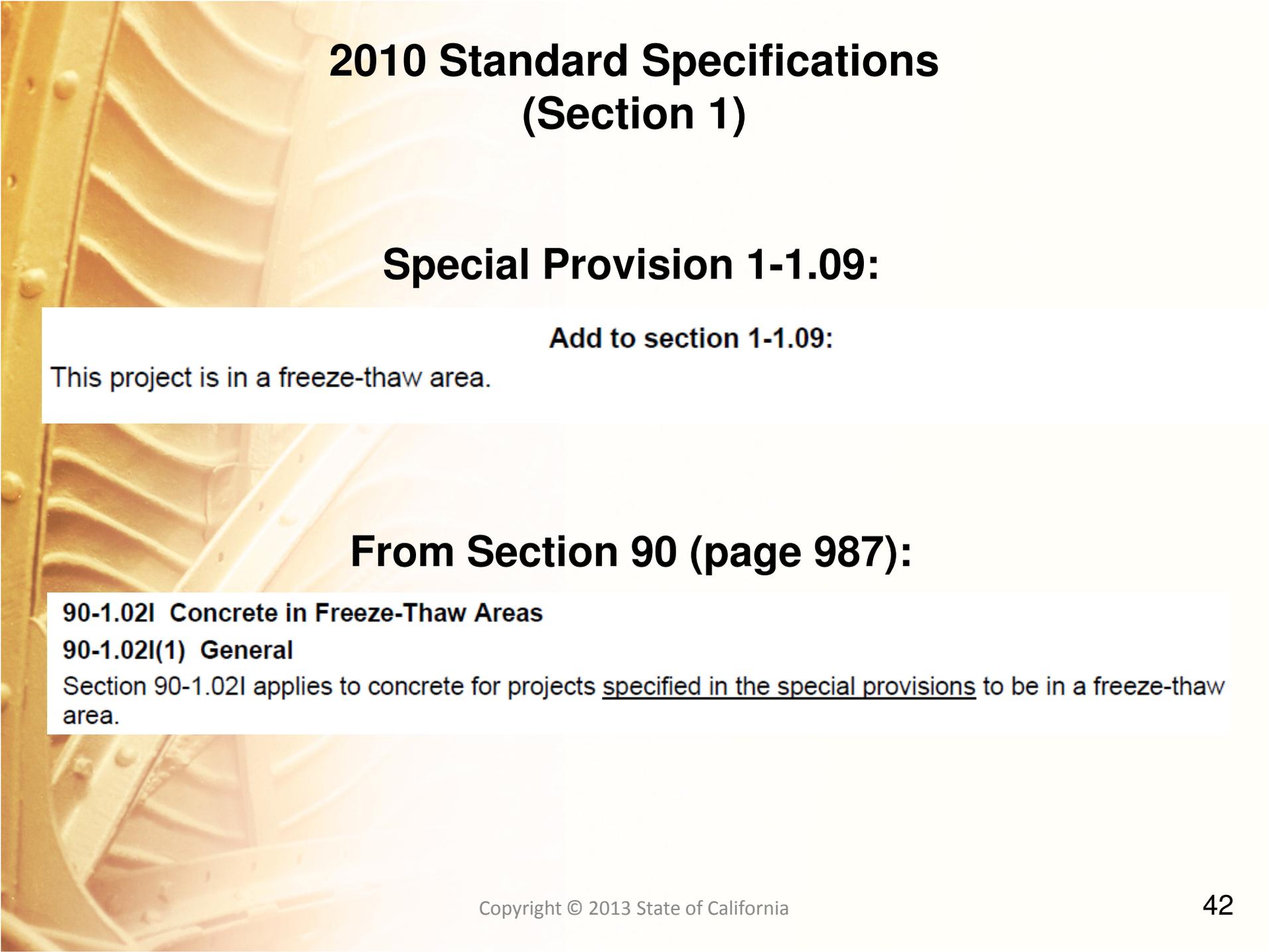
2010 Standard Specifications (Section 1)

1-1.09 FREEZE-THAW AREAS (page 14)

1-1.09 FREEZE-THAW AREAS

Freeze-thaw areas are areas of the State where freeze-thaw cycles and heavy salting frequently occur. A project is in a freeze-thaw area if the project is specified in the special provisions to be in a freeze-thaw area.

Note: This is an example of conditional phrasing.



2010 Standard Specifications (Section 1)

Special Provision 1-1.09:

Add to section 1-1.09:

This project is in a freeze-thaw area.

From Section 90 (page 987):

90-1.02I Concrete in Freeze-Thaw Areas

90-1.02I(1) General

Section 90-1.02I applies to concrete for projects specified in the special provisions to be in a freeze-thaw area.

2010 Standard Specifications (Section 2)

2-1.06B Supplemental Project Information (page 17)

2-1.06B Supplemental Project Information

The Department makes supplemental information available as specified in the special provisions.

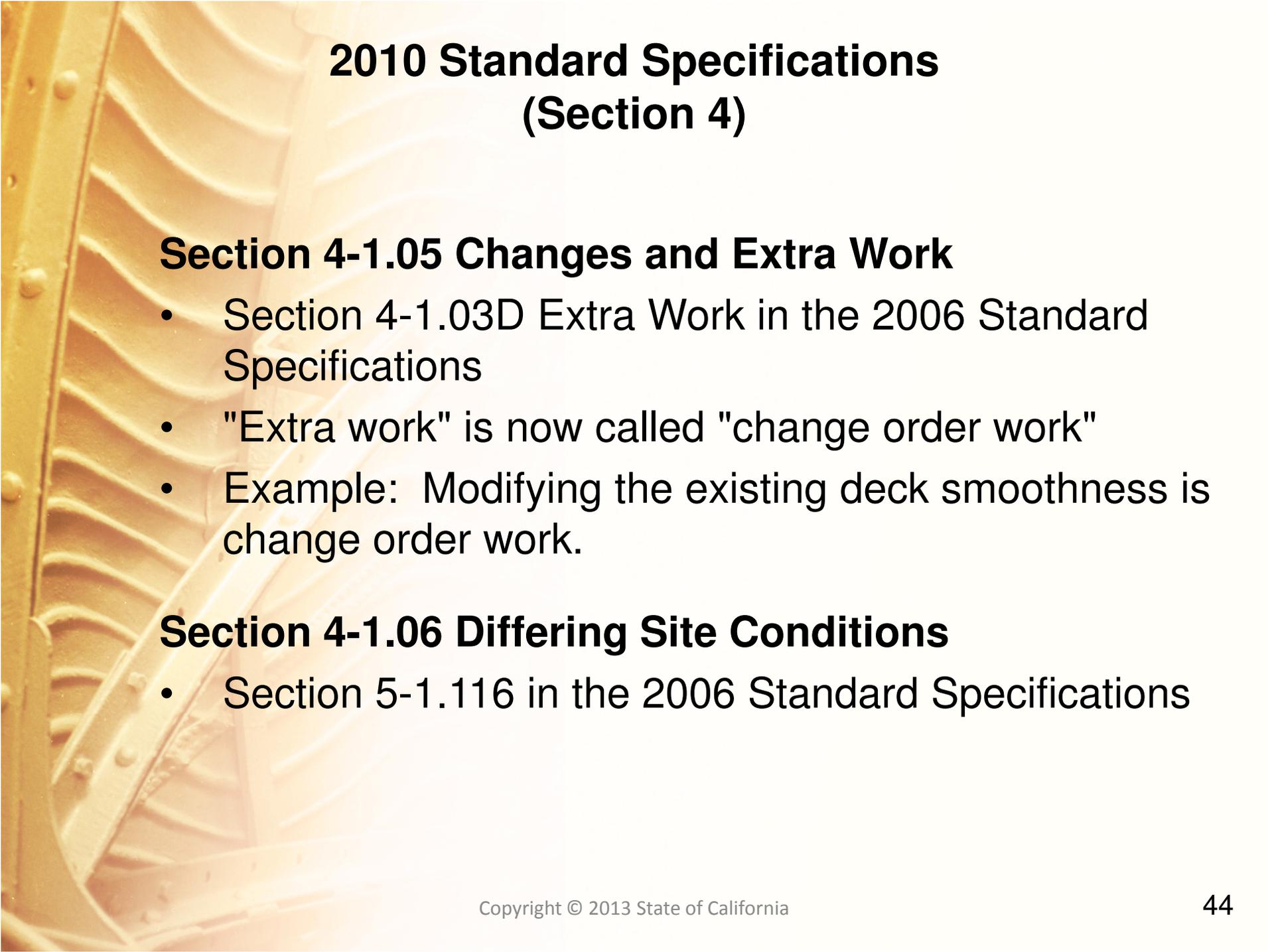
And Special Provision 2-1.06B

Add to section 2-1.06B:

The Department makes the following supplemental project information available:

Supplemental Project Information

Means	Description
Included in the <i>Information Handout</i>	Department of Fish and Wildlife Streambed Alteration Permit
Available as specified in the <i>Standard Specifications</i>	Cross Sections
Available for inspection at the Transportation Laboratory	Rock Cores



2010 Standard Specifications (Section 4)

Section 4-1.05 Changes and Extra Work

- Section 4-1.03D Extra Work in the 2006 Standard Specifications
- "Extra work" is now called "change order work"
- Example: Modifying the existing deck smoothness is change order work.

Section 4-1.06 Differing Site Conditions

- Section 5-1.116 in the 2006 Standard Specifications

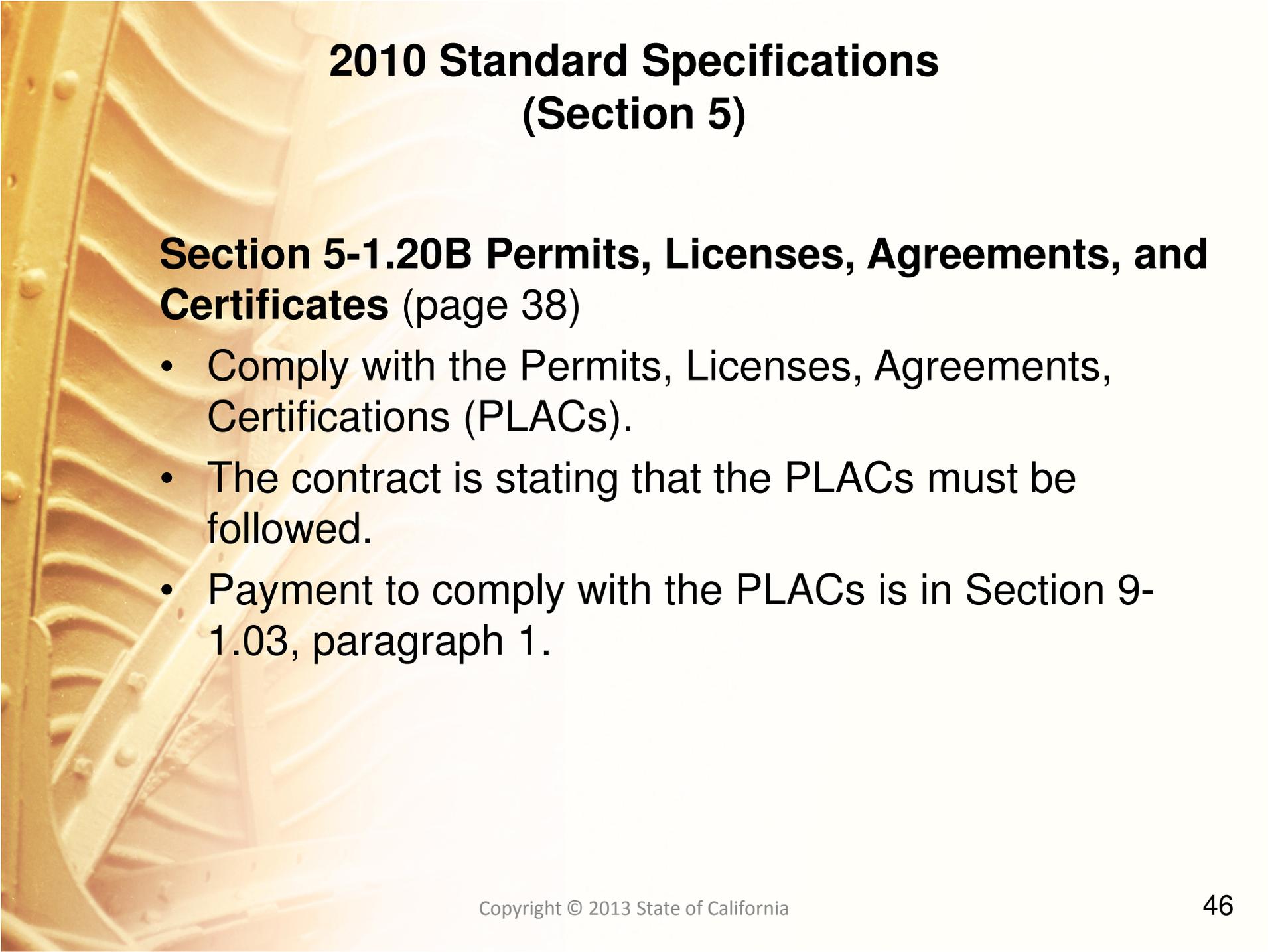
2010 Standard Specifications (Section 5)

5-1.02 CONTRACT COMPONENTS

A component in one Contract part applies as if appearing in each. The parts are complementary and describe and provide for a complete work.

If a discrepancy exists:

1. The governing ranking of Contract parts in descending order is:
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 - 1.2. Project plans
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2. Written numbers and notes on a drawing govern over graphics
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2010 Standard Specifications (Section 5)

Section 5-1.20B Permits, Licenses, Agreements, and Certificates (page 38)

- Comply with the Permits, Licenses, Agreements, Certifications (PLACs).
- The contract is stating that the PLACs must be followed.
- Payment to comply with the PLACs is in Section 9-1.03, paragraph 1.

2010 Standard Specifications (Section 5)

Section 5-1.20C Railroad Relations (page 39) (Section 13 in the 2006 Standard Specifications)

Replace "Reserved" in section 5-1.20C with:

10-19-17

If the Contract includes an agreement with a railroad company, the Department makes the provisions of the agreement available in the *Information Handout* in the document titled "Railroad Relations and Insurance Requirements." Comply with the requirements in the document.

In the Special Provisions, section 2-1.06B

Add to section 2-1.06B:

The Department makes the following supplemental project information available:

Supplemental Project Information	
Means	Description
Included in the <i>Information Handout</i>	



2010 Standard Specifications (Section 5)

INFORMATION HANDOUT

For Contract No. 10-123454
At 10-SJ-101-R3.0/6.6

Identified by
Project ID 1000000001

PERMITS

California Department of Fish and Wildlife

WATER QUALITY

California Regional Water Quality Control Board
Central Valley Region
Board Order No. 100A46

RAILROAD RELATIONS

Railroad Relations and Insurance Requirements

2010 Standard Specifications (Section 5)

5-1.23 SUBMITTALS (page 39)

5-1.23A General

Section 5-1.23 includes specifications for action and informational submittals.

Any submittal not specified as an informational submittal is an action submittal.

Add between the 2nd and 3rd paragraphs of section 5-1.23A:

10-19-12

Submit action and informational submittals to the Engineer.

Each sheet of a submittal must include:

1. Contract number
2. District–County–Route–Post Mile
3. Structure name and number, if any

The Department rejects a submittal if it has any error or any omission.

- Default review time for submittals is **15 days**.
- Working drawings are now called shop drawings and have a default review time of **20 days**. (page 40)



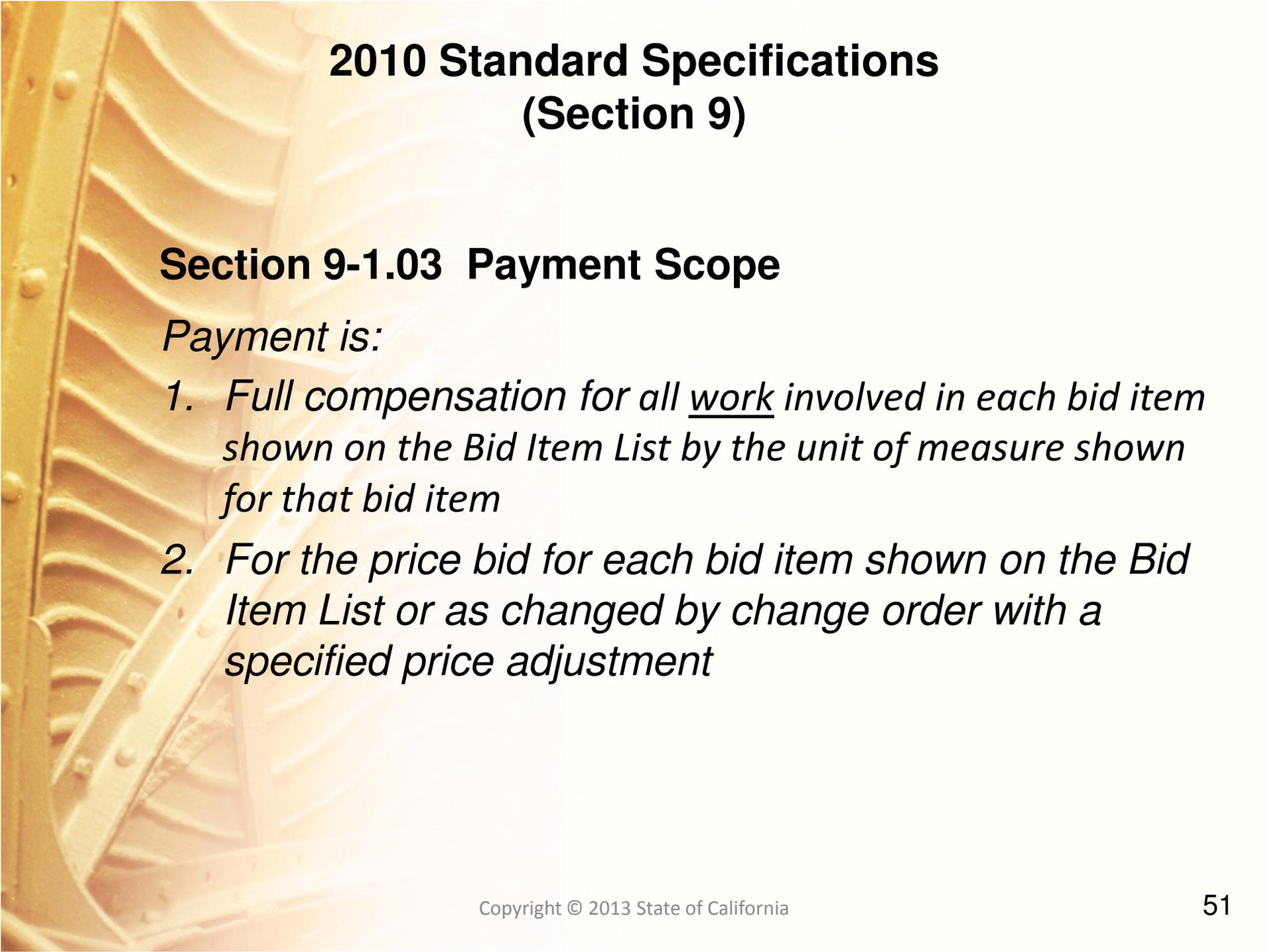
2010 Standard Specifications (Section 5)

Informational submittals include:

- Assignments
- Certificates of compliance
- Manufacturer's Instructions
- Notifications
- PLACs (Permits, Licenses, Agreements, & Certifications)

(These are PLACs the contractor obtains and include material sites, plant sites, disposal sites, etc.)

- Subcontracts



2010 Standard Specifications (Section 9)

Section 9-1.03 Payment Scope

Payment is:

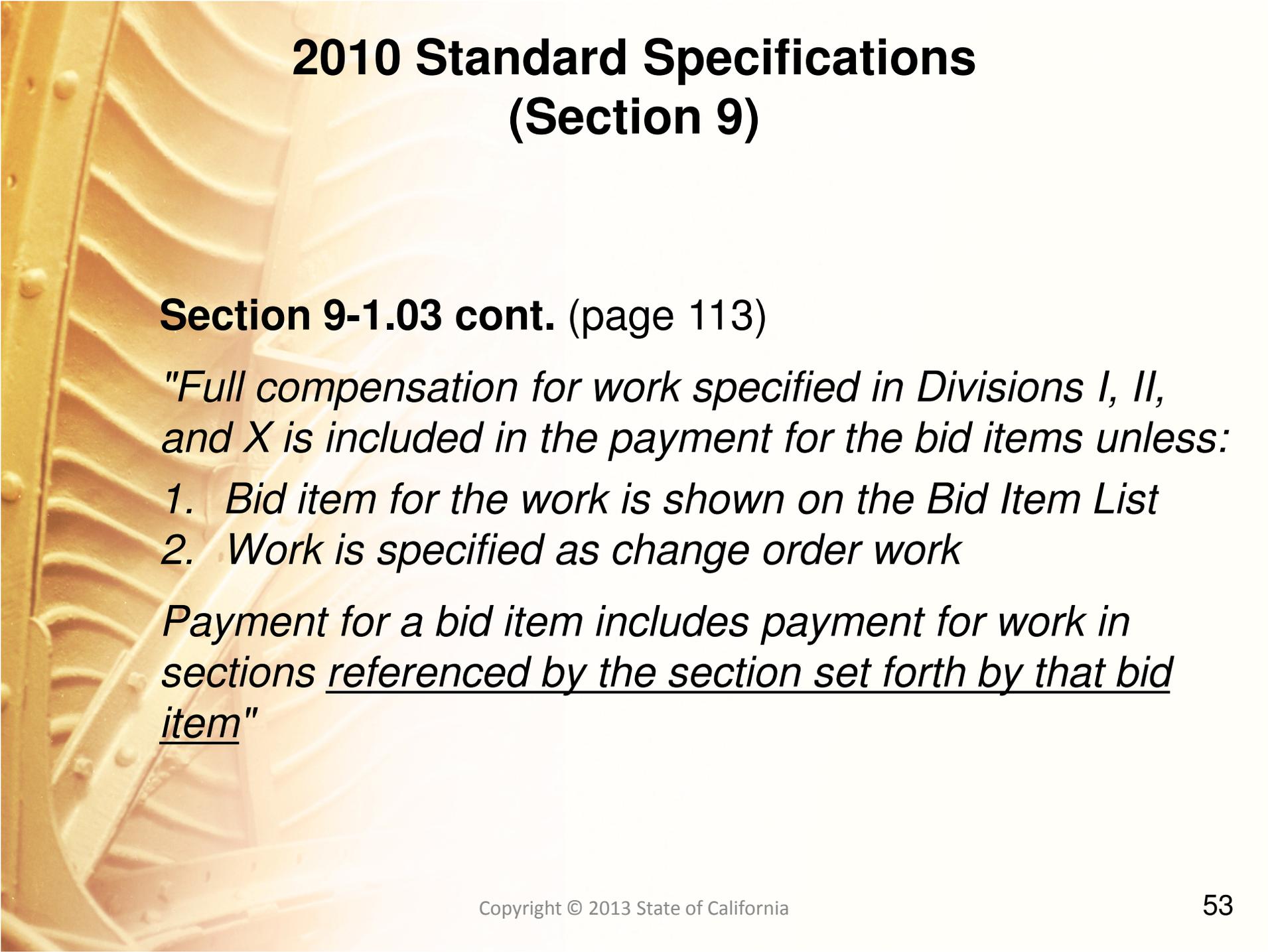
- 1. Full compensation for all work involved in each bid item shown on the Bid Item List by the unit of measure shown for that bid item*
- 2. For the price bid for each bid item shown on the Bid Item List or as changed by change order with a specified price adjustment*

For 2010, the bid items are the contract pay clauses.

Unit of Measure

510053	F	Structural Concrete, Bridge	CY
---------------	----------	------------------------------------	-----------

Section 51 describes the work



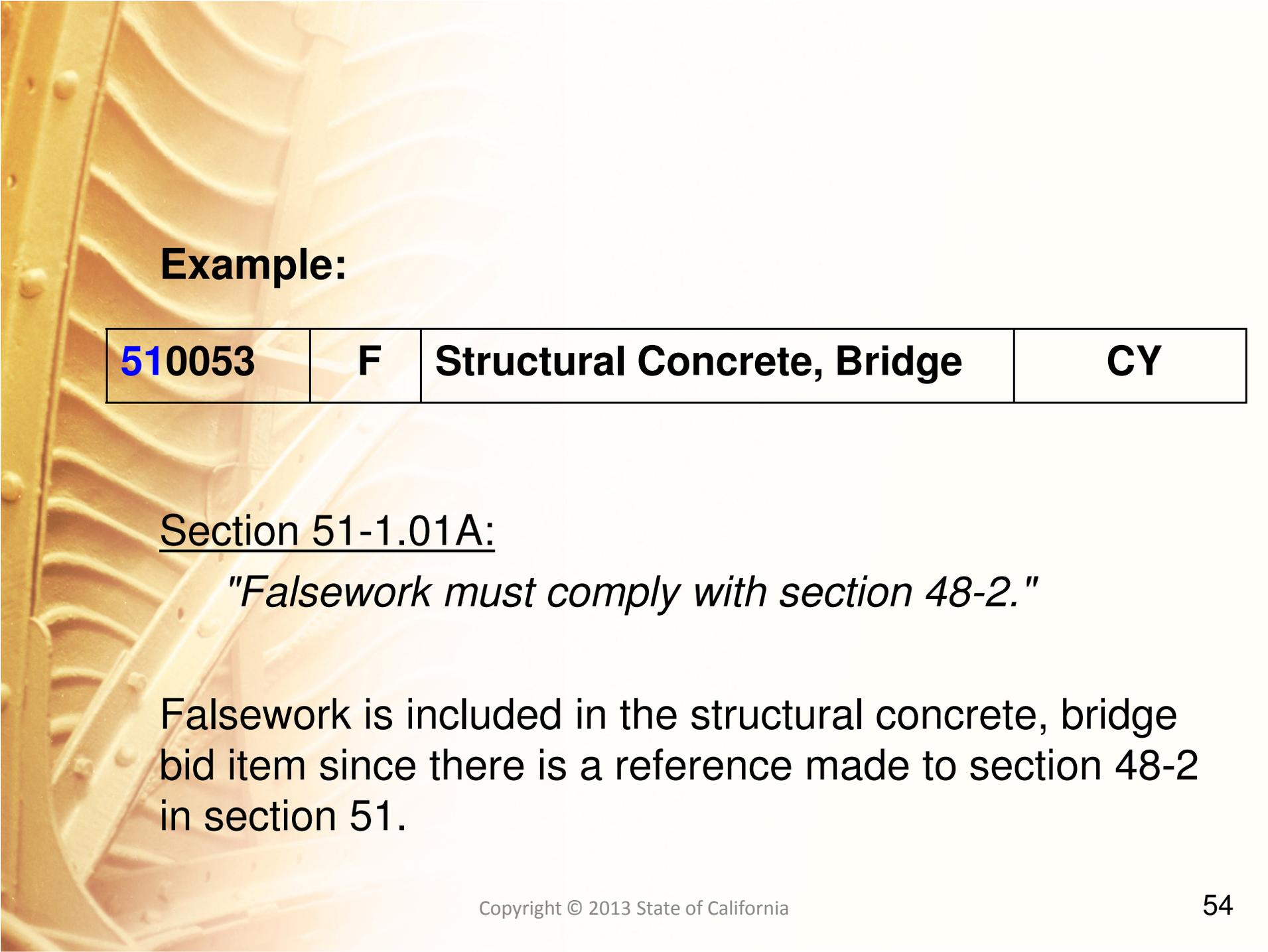
2010 Standard Specifications (Section 9)

Section 9-1.03 cont. (page 113)

"Full compensation for work specified in Divisions I, II, and X is included in the payment for the bid items unless:

- 1. Bid item for the work is shown on the Bid Item List*
- 2. Work is specified as change order work*

Payment for a bid item includes payment for work in sections referenced by the section set forth by that bid item"



Example:

510053	F	Structural Concrete, Bridge	CY
---------------	----------	------------------------------------	-----------

Section 51-1.01A:

"Falsework must comply with section 48-2."

Falsework is included in the structural concrete, bridge bid item since there is a reference made to section 48-2 in section 51.

RSS

Replace the paragraphs of section 51-1.01A with:

10-19-12

Section 51-1 includes general specifications for constructing concrete structures.

Earthwork for the following concrete structures must comply with section 19-3:

1. Sound wall footings
2. Sound wall pile caps
3. Culverts
4. Barrier slabs
5. Junction structures
6. Minor structures
7. Pipe culvert headwalls, endwalls, and wingwalls for a pipe with a diameter of 5 feet or greater

Falsework must comply with section 48-2.

Joints must comply with section 51-2.

Elastomeric bearing pads must comply with section 51-3.

Payment Example

Standard Specifications

Section 80-1 Fence, General (page 849)

80-1.10 PAYMENT

The fence payment quantity does not include the width of openings.

The fence is measured:

1. Parallel to the ground slope
2. Along the fence

Standard Specifications

Section 80-3 Chain Link Fences

80-3.04 PAYMENT

Not Used

RSS – no changes to 80-1.10 or 80-3.04

Special Provisions – no changes to 80-1.10
or 80-3.04



DIVISION II GENERAL CONSTRUCTION

"Division II includes specifications for general construction applicable to every contract unless specified as applicable under certain conditions."

(from section 1-1.01)

- 10 GENERAL **(new section)**
- 11 QUALITY CONTROL AND ASSURANCE **(new section)**
- 12 TEMPORARY TRAFFIC CONTROL **(new name)**
- 13 WATER POLLUTION CONTROL **(new section)**
- 14 ENVIRONMENTAL STEWARDSHIP **(new section)**
- 15 EXISTING FACILITIES **(new name)**

DIVISION II GENERAL CONSTRUCTION

"Division II includes specifications for general construction applicable to every contract unless specified as applicable under certain conditions."

(from section 1-1.01)

SECTION 10 GENERAL

- New section for general construction work
- Work sequencing requirements
- Time constraints
- Sustainable design

Work sequencing and time constraints are the new "Order of Work" sections. Please note that work sequencing and time constraints may also be found in other sections.

DIVISION II GENERAL CONSTRUCTION

SECTION 10 GENERAL

From the Revised Standard Specifications

10 GENERAL

Replace the headings and paragraphs in section 10 with:

04-19-13

10-1 GENERAL

10-1.01 GENERAL

Section 10 includes general specifications for general construction work.

10-1.02 WORK SEQUENCING

Before obliterating any traffic stripes, pavement markings, and pavement markers to be replaced at the same location, reference the stripes, markings, and markers. Include limits and transitions with control points to reestablish the new stripes, markings, and markers.

10-1.03 TIME CONSTRAINTS

Reserved

From the Special Provisions

Replace "Reserved" in section 10-1.03 of the RSS for section 10-1 with:

No construction activity is allowed from post mile _____ to post mile _____ from _____ to _____.

Do not work at the following locations until _____:

1. _____
2. _____

You may work within drainage channels only from _____ to _____ of any year.

No work is allowed over _____ from _____ to _____.

DIVISION II GENERAL CONSTRUCTION

SECTION 11 QUALITY CONTROL AND ASSURANCE

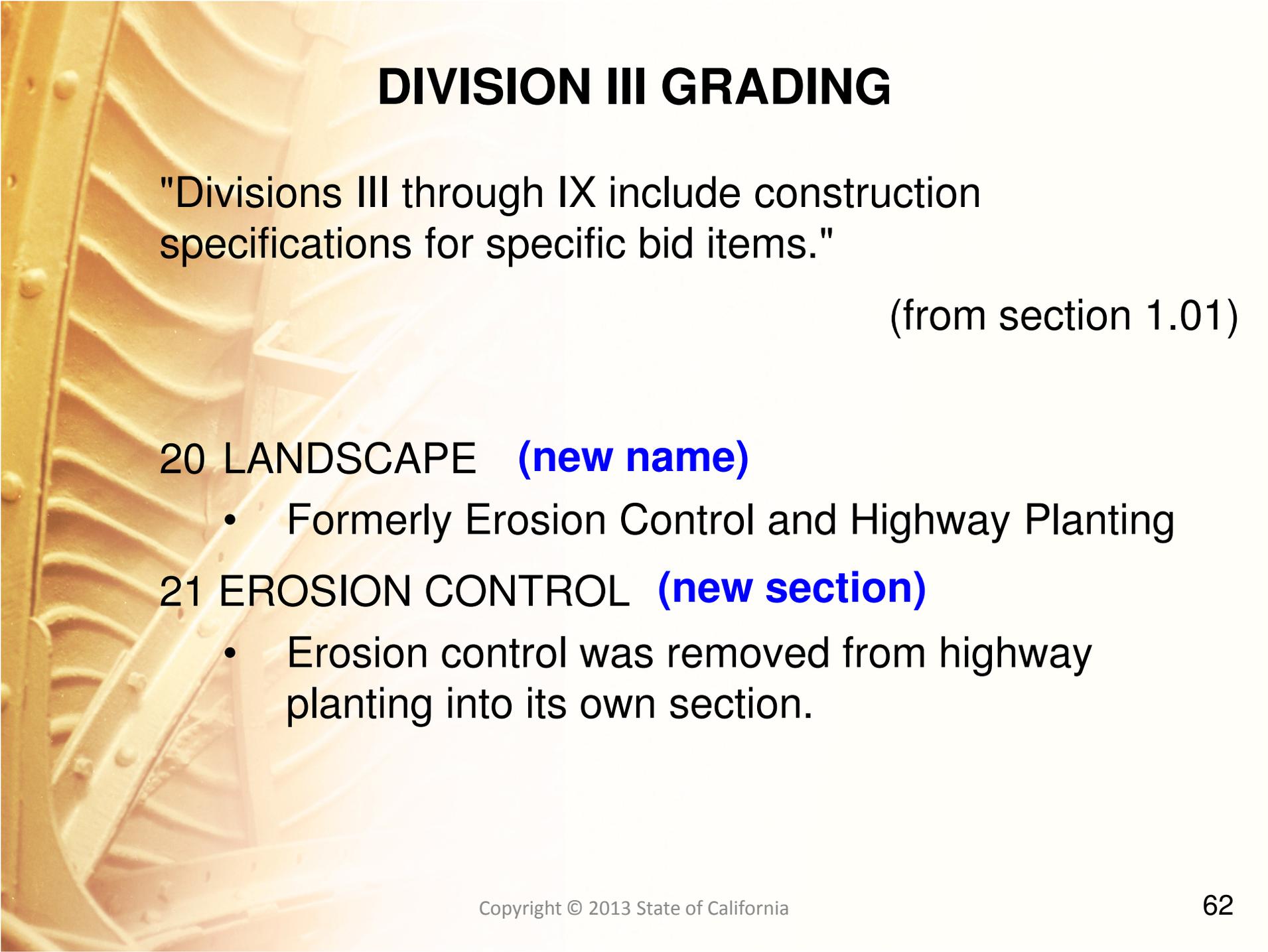
- Section 8, "Materials," of the 2006 special provisions.
- Quality Control Manager Specifications
- ~~Precast Concrete Quality Control~~ (moved to section 90-4 by RSS)
- Welding Quality Control

SECTION 13 WATER POLLUTION CONTROL

- Section 10, "Construction Details," of the 2006 Special Provisions.
- WPCP, SWPPP, job site management, sediment control, etc.

SECTION 14 ENVIRONMENTAL STEWARDSHIP

- Sections 5 & 10 of the 2006 Special Provisions
- Wide range of environmental topics: ESA, hazardous waste, cultural resources



DIVISION III GRADING

"Divisions III through IX include construction specifications for specific bid items."

(from section 1.01)

20 LANDSCAPE **(new name)**

- Formerly Erosion Control and Highway Planting

21 EROSION CONTROL **(new section)**

- Erosion control was removed from highway planting into its own section.



DIVISION IV SUBBASES AND BASES

"Divisions III through IX include construction specifications for specific bid items."

(from section 1.01)

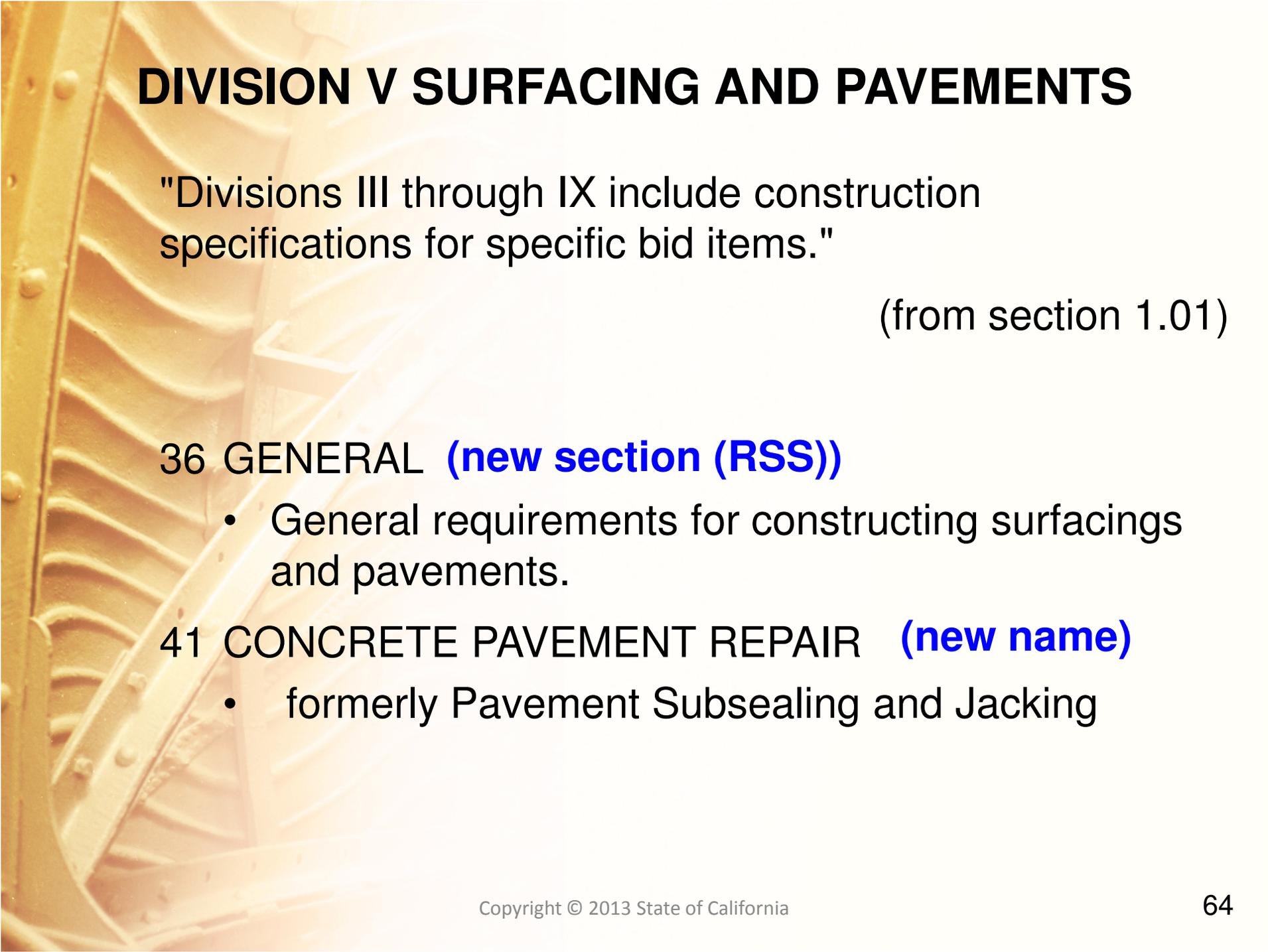
24 STABILIZED SOILS **(new name)**

- formerly Lime Stabilization

28 CONCRETE BASES **(new name)**

- formerly Lean Concrete Base

30 RECLAIMED PAVEMENTS **(new section (RSS))**



DIVISION V SURFACING AND PAVEMENTS

"Divisions III through IX include construction specifications for specific bid items."

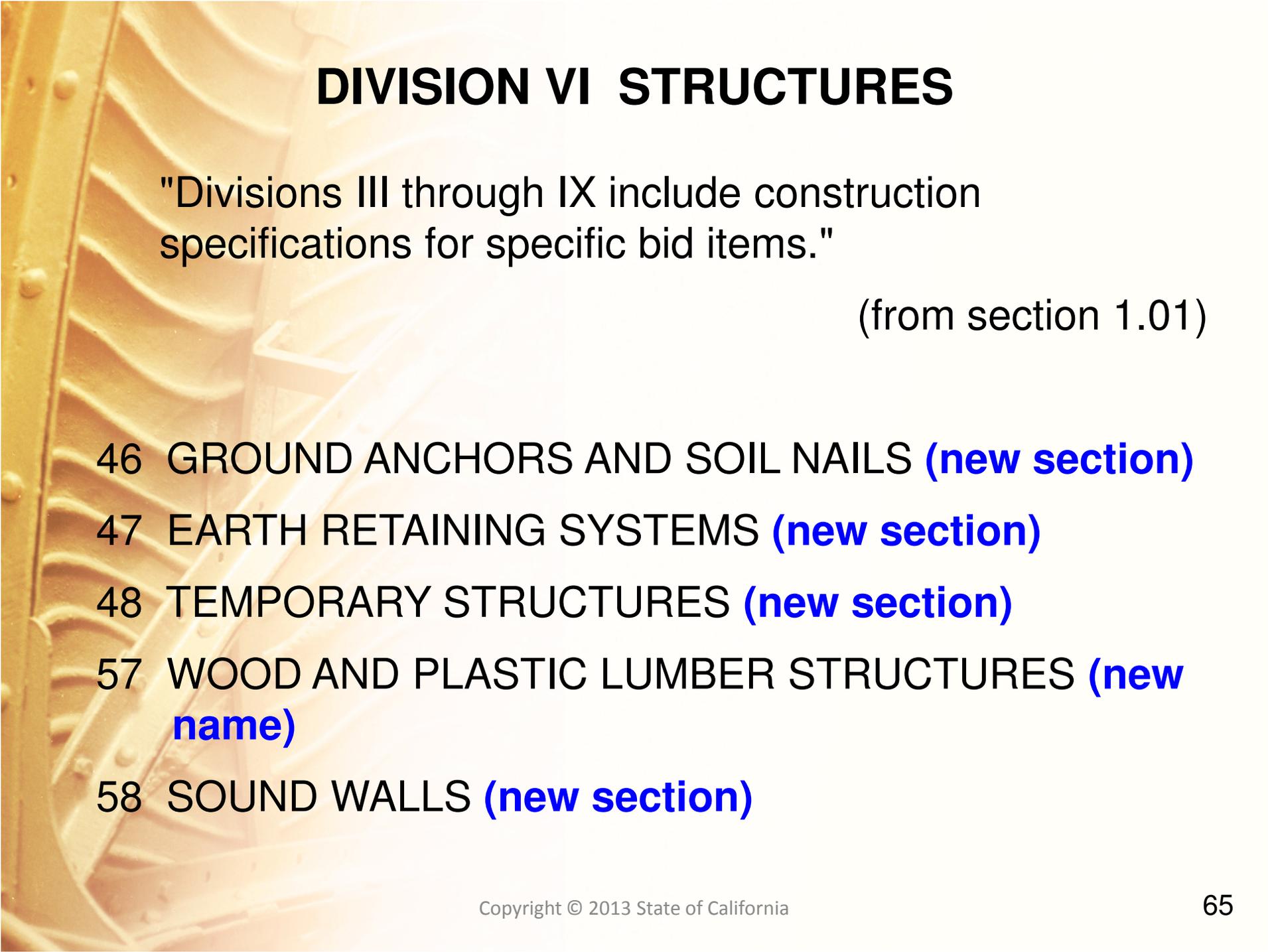
(from section 1.01)

36 GENERAL **(new section (RSS))**

- General requirements for constructing surfacings and pavements.

41 CONCRETE PAVEMENT REPAIR **(new name)**

- formerly Pavement Subsealing and Jacking

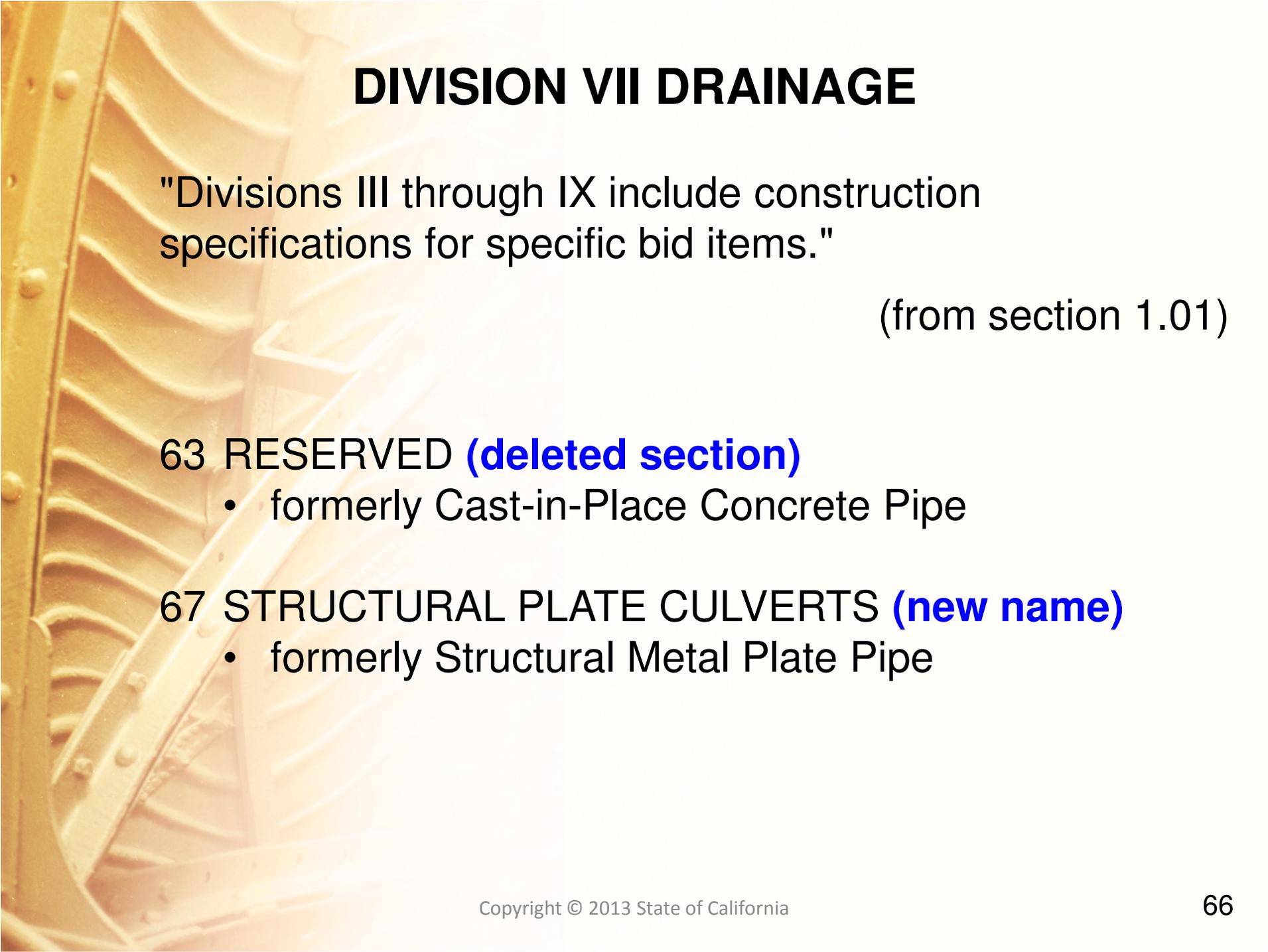


DIVISION VI STRUCTURES

"Divisions III through IX include construction specifications for specific bid items."

(from section 1.01)

- 46 GROUND ANCHORS AND SOIL NAILS **(new section)**
- 47 EARTH RETAINING SYSTEMS **(new section)**
- 48 TEMPORARY STRUCTURES **(new section)**
- 57 WOOD AND PLASTIC LUMBER STRUCTURES **(new name)**
- 58 SOUND WALLS **(new section)**



DIVISION VII DRAINAGE

"Divisions III through IX include construction specifications for specific bid items."

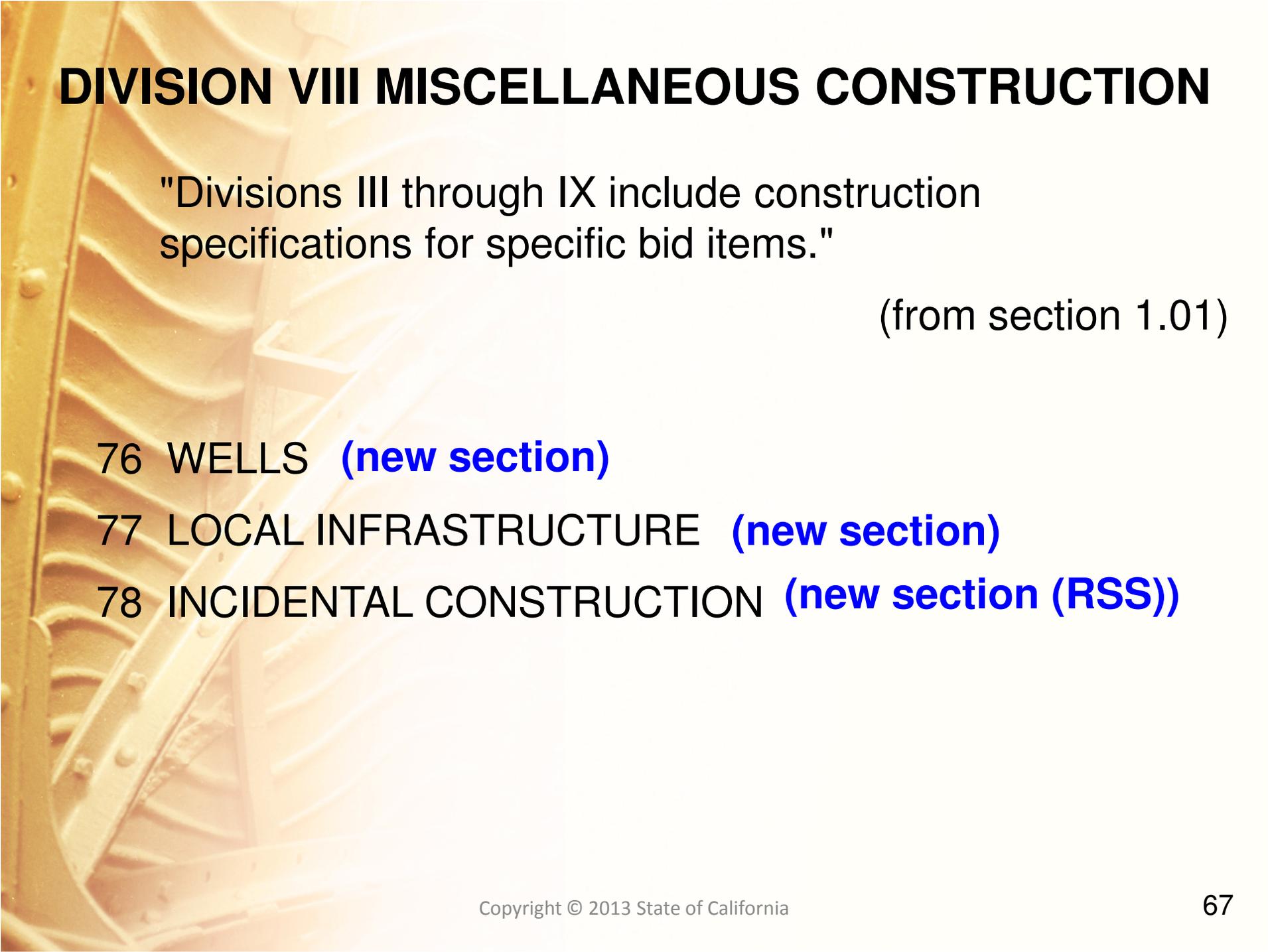
(from section 1.01)

63 RESERVED (**deleted section**)

- formerly Cast-in-Place Concrete Pipe

67 STRUCTURAL PLATE CULVERTS (**new name**)

- formerly Structural Metal Plate Pipe



DIVISION VIII MISCELLANEOUS CONSTRUCTION

"Divisions III through IX include construction specifications for specific bid items."

(from section 1.01)

76 WELLS **(new section)**

77 LOCAL INFRASTRUCTURE **(new section)**

78 INCIDENTAL CONSTRUCTION **(new section (RSS))**



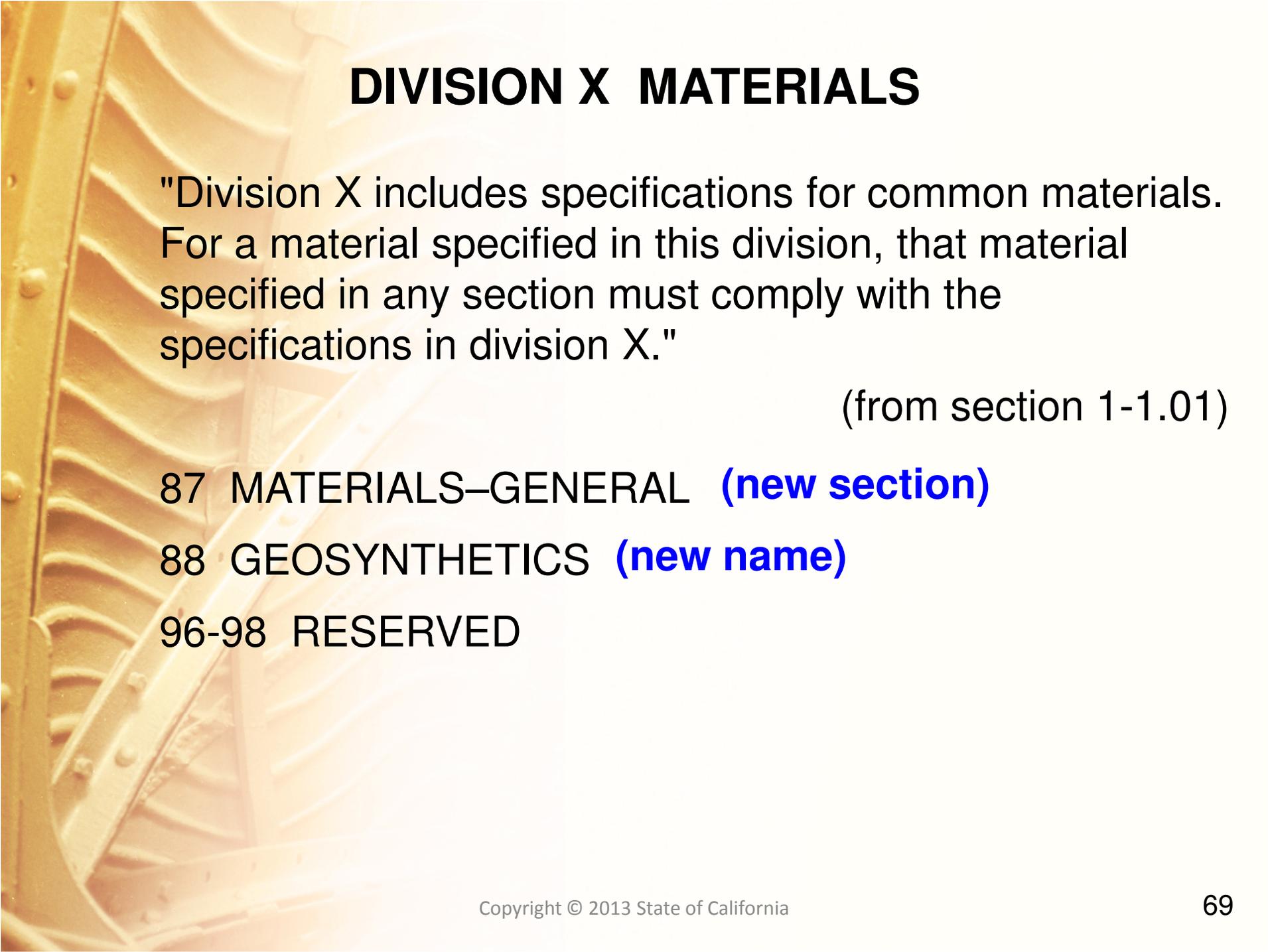
DIVISION IX TRAFFIC CONTROL FACILITIES

"Divisions III through IX include construction specifications for specific bid items."

(from section 1.01)

86 ELECTRICAL SYSTEMS **(new name)**

- Formerly, "Signals, Lighting and Electrical Systems" to "Electrical Systems."



DIVISION X MATERIALS

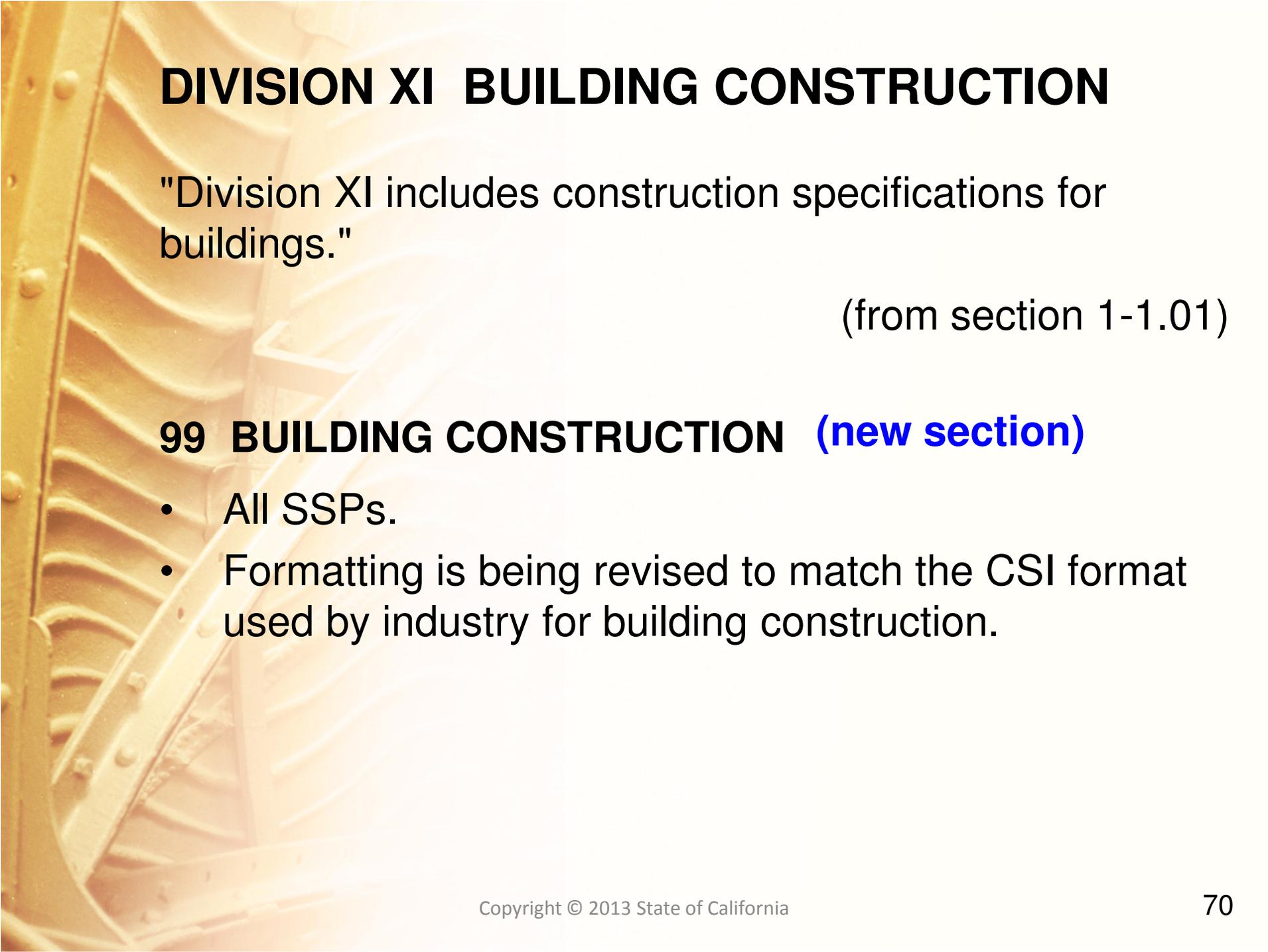
"Division X includes specifications for common materials. For a material specified in this division, that material specified in any section must comply with the specifications in division X."

(from section 1-1.01)

87 MATERIALS–GENERAL **(new section)**

88 GEOSYNTHETICS **(new name)**

96-98 RESERVED



DIVISION XI BUILDING CONSTRUCTION

"Division XI includes construction specifications for buildings."

(from section 1-1.01)

99 BUILDING CONSTRUCTION (new section)

- All SSPs.
- Formatting is being revised to match the CSI format used by industry for building construction.

Current Format Example

99-05310 METAL DECK

99-05310A General

99-05310A(1) Summary

Scope: This work consists of installing metal deck.

Metal deck includes ribbed sheet steel decking units, bent plates, accessories, fasteners and other components required for a rigid, secure, and complete installation.

Rectangular Snip

99-05310A(2) References

The design, fabrication, and erection of metal deck must comply with the applicable requirements of the American Iron and Steel Institute (AISI) publication, "North American Specifications for the Design of Cold Formed Steel Structural Members," the applicable Steel Deck Institute (SDI) "Code of Standard Practice," and applicable "Specifications and Commentary" in its "Design Manual for Composite Decks, Form Decks and Roof Decks" (Publication 31).

Welding must comply with AWS D1.3, "Structural Welding Code - Sheet Steel."

99-05310A(3) Definitions

Not Used

99-05310A(4) Submittals

Product Data: Submit manufacturer's descriptive data for each type of deck and for accessories.

This is what the special provisions look like now.

CSI Format Example

SECTION 053100 - STEEL DECKING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Roof deck.
2. Composite floor deck.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of deck, accessory, and product indicated.

B. LEED Submittals:

1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
2. Laboratory Test Reports for Credit EQ 4: For primers, documentation indicating that products comply with the testing and product requirements of the CDPH's "Standard Method for the Testing and Evaluation of Volatile Organic Emissions from Indoor Sources Using Environmental Chambers."

C. Shop Drawings:

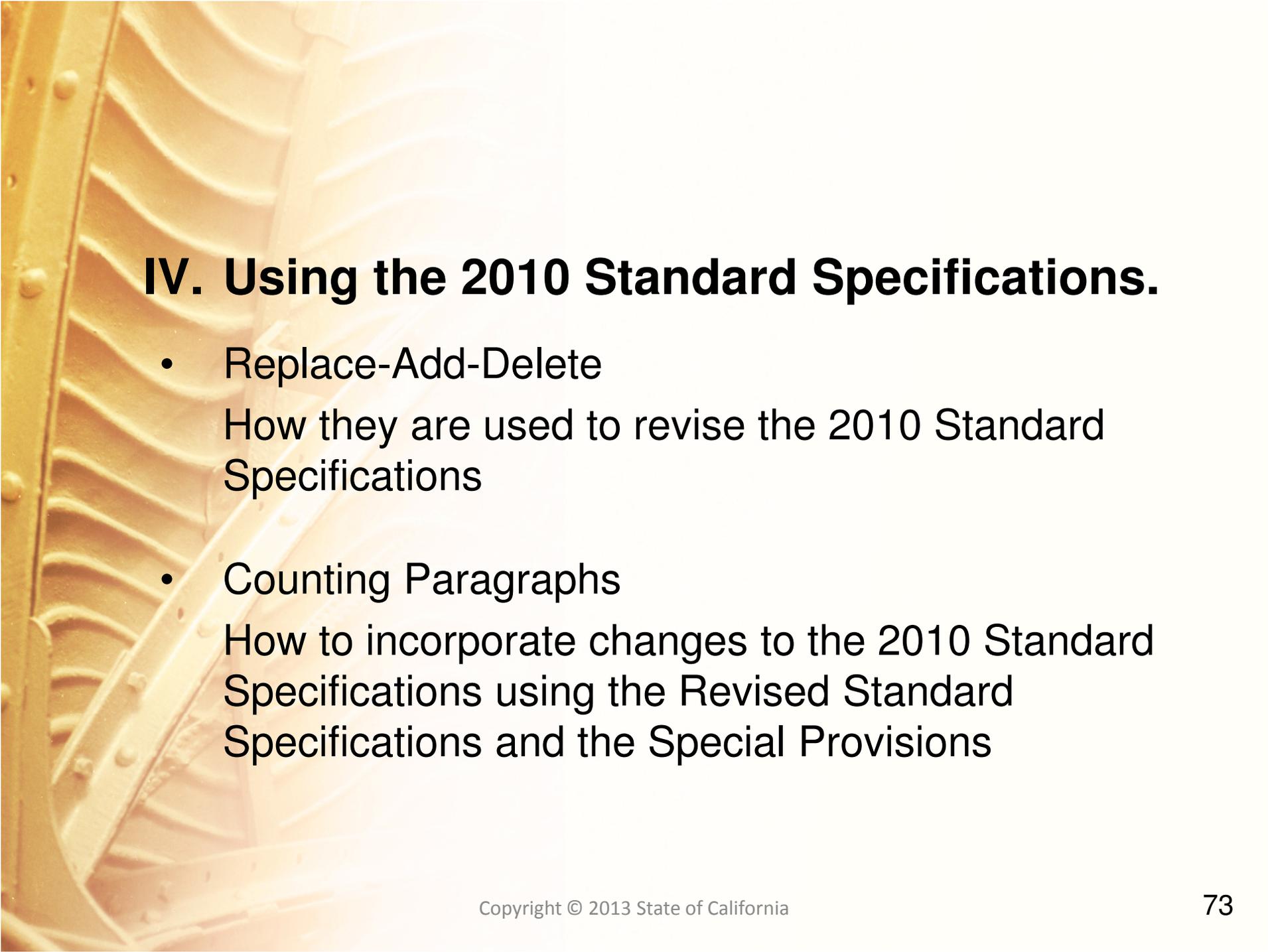
1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.3 INFORMATIONAL SUBMITTALS

A. Welding certificates.

This is what the special provisions will look like in the future.

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IV. Using the 2010 Standard Specifications.

- **Replace-Add-Delete**

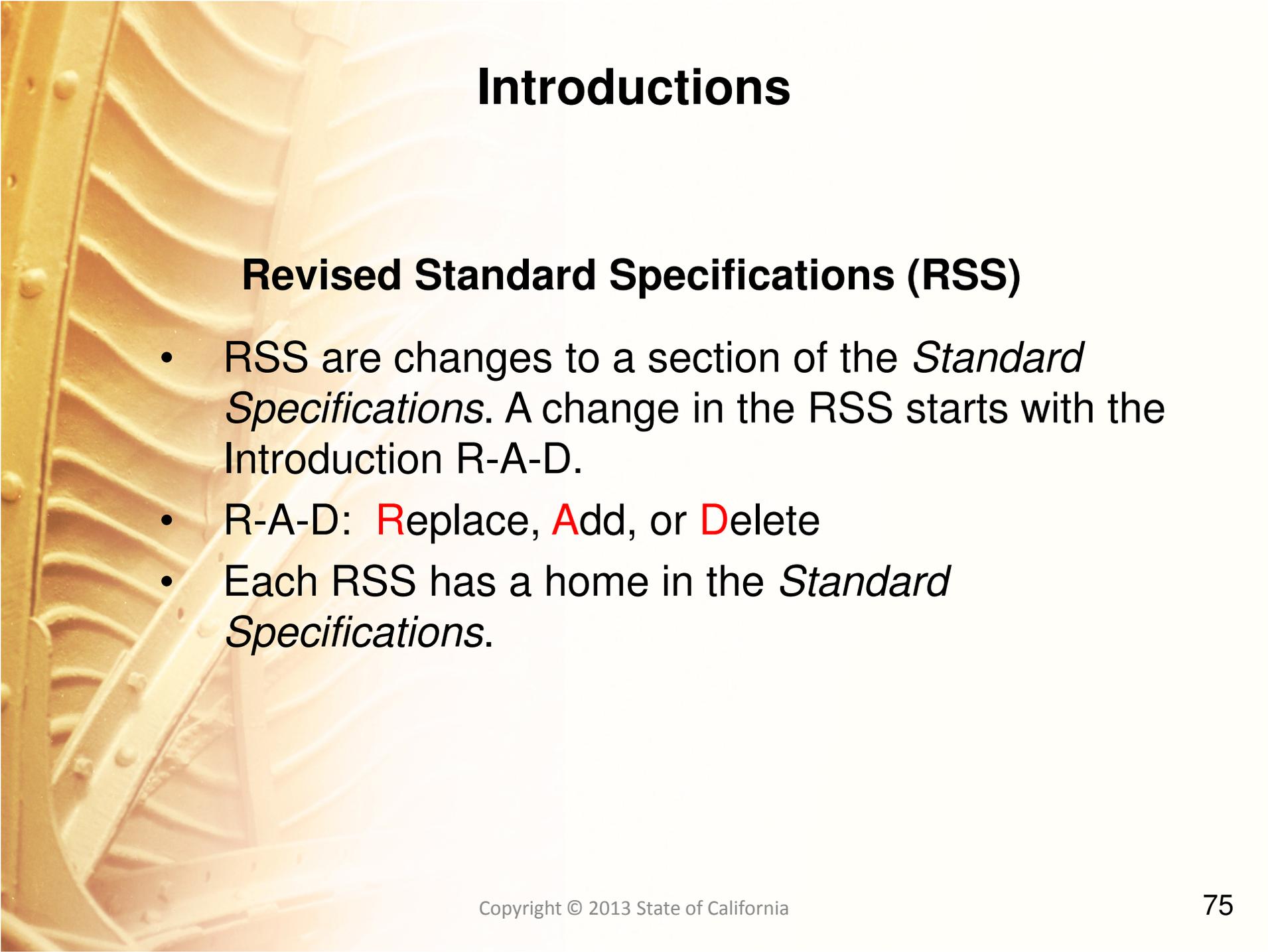
How they are used to revise the 2010 Standard Specifications

- **Counting Paragraphs**

How to incorporate changes to the 2010 Standard Specifications using the Revised Standard Specifications and the Special Provisions

R A D

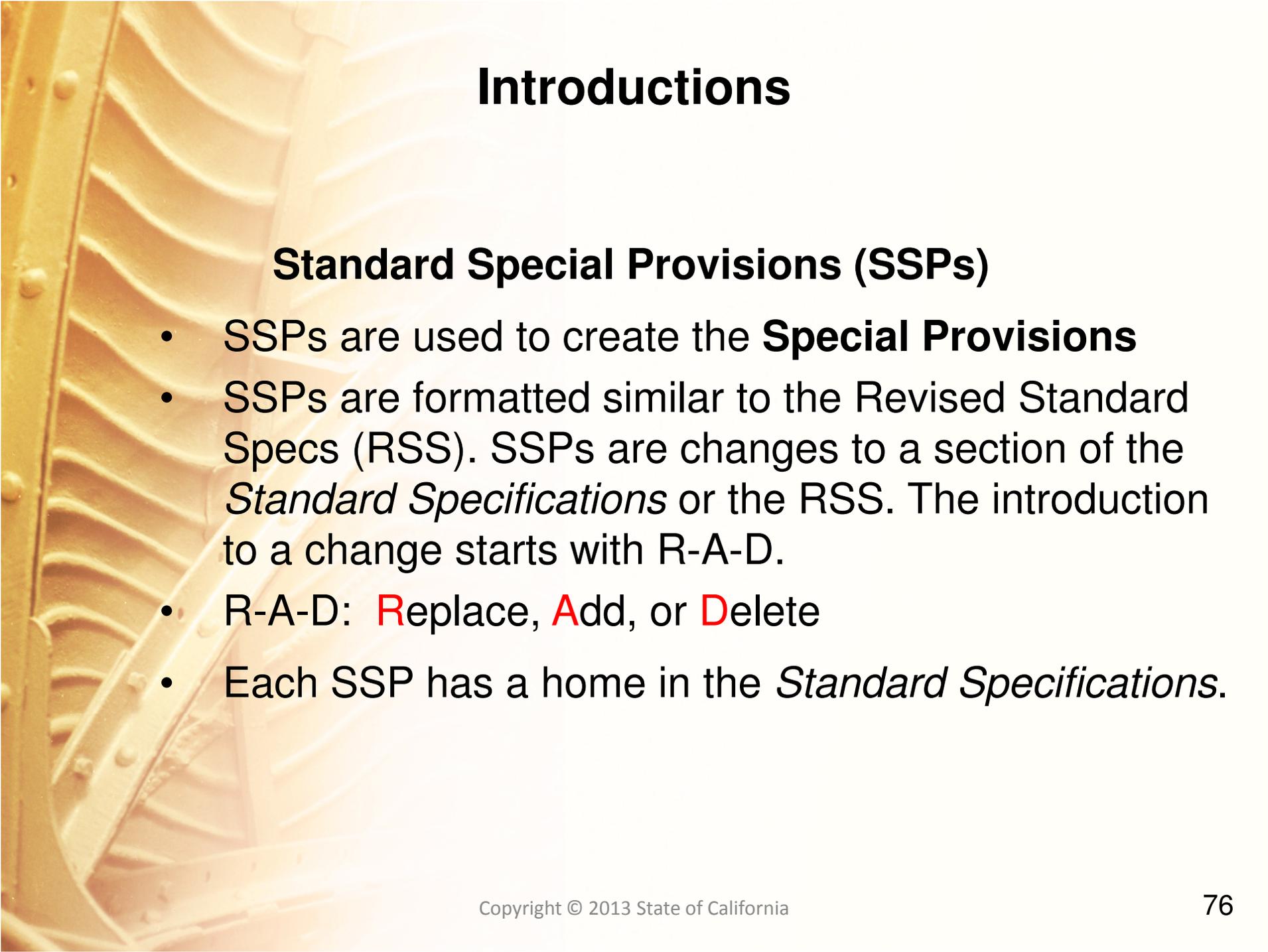
Replace – Add - Delete



Introductions

Revised Standard Specifications (RSS)

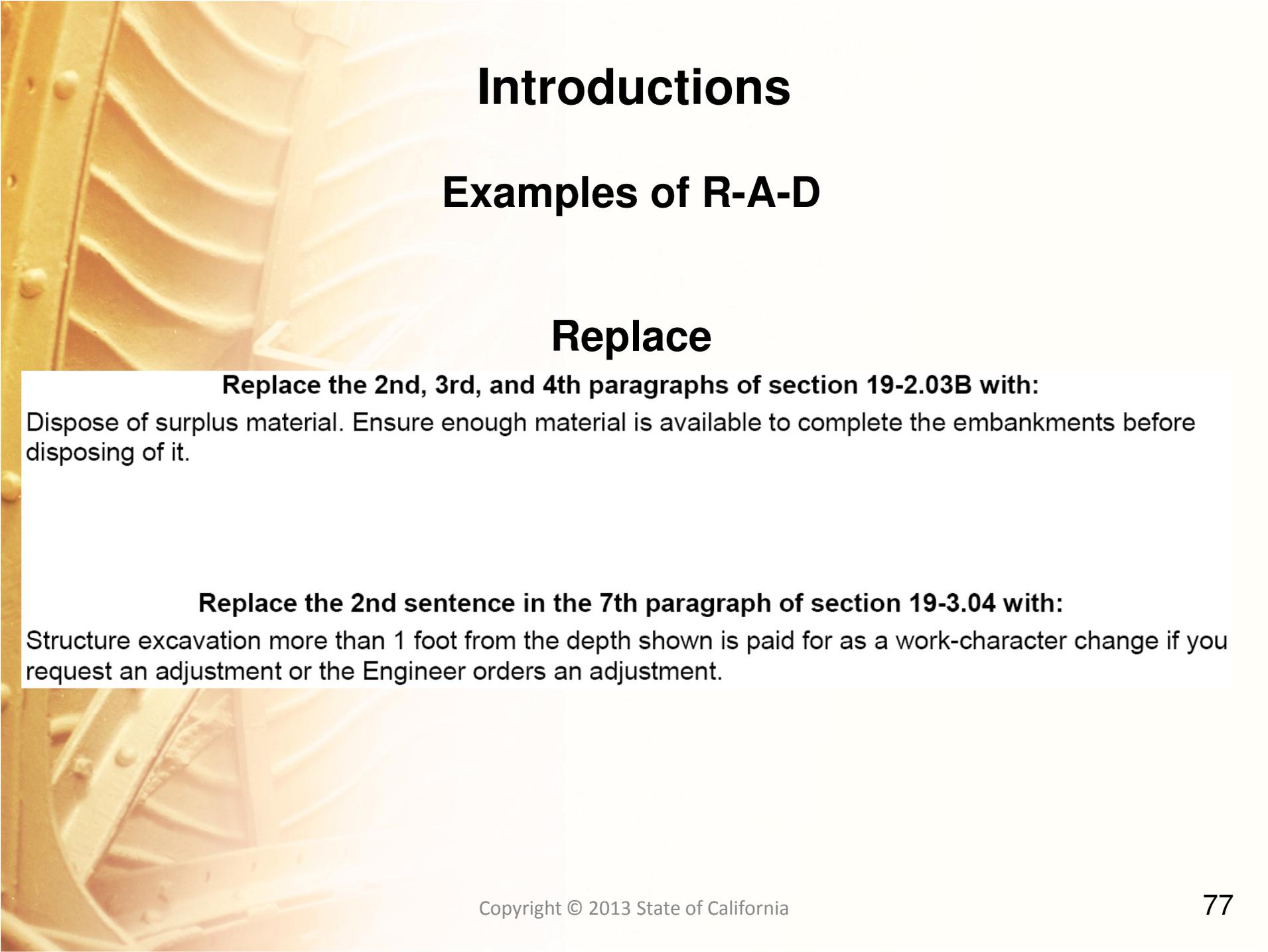
- RSS are changes to a section of the *Standard Specifications*. A change in the RSS starts with the Introduction R-A-D.
- R-A-D: **R**eplace, **A**dd, or **D**elete
- Each RSS has a home in the *Standard Specifications*.



Introductions

Standard Special Provisions (SSPs)

- SSPs are used to create the **Special Provisions**
- SSPs are formatted similar to the Revised Standard Specs (RSS). SSPs are changes to a section of the *Standard Specifications* or the RSS. The introduction to a change starts with R-A-D.
- R-A-D: **R**eplace, **A**dd, or **D**elete
- Each SSP has a home in the *Standard Specifications*.



Introductions

Examples of R-A-D

Replace

Replace the 2nd, 3rd, and 4th paragraphs of section 19-2.03B with:

Dispose of surplus material. Ensure enough material is available to complete the embankments before disposing of it.

Replace the 2nd sentence in the 7th paragraph of section 19-3.04 with:

Structure excavation more than 1 foot from the depth shown is paid for as a work-character change if you request an adjustment or the Engineer orders an adjustment.

Introductions

Examples of R-A-D

Add

Add to section 19-2.03G:

Roughen embankment slopes to receive erosion control materials by either track-walking or rolling with a sheepsfoot roller. Track-walk slopes by running track-mounted equipment perpendicular to slope contours.

Add to section 19-3.04:

Class 2 aggregate base placed below footings is paid for as structure backfill.

Delete

Delete the 1st paragraph of section 19-3.03B(2).

Introductions

Examples of R-A-D

RSS Example

49 PILING

04-19-13

Replace "sets" in the 1st paragraph of section 49-1.01C(2) with:

04-19-13

copies

Replace "set" in the 2nd paragraph of section 49-1.01C(2) with:

04-19-13

copy

Replace "Load Applied to Pile by Hydraulic Jack(s) Acting at One End of Test Beam(s) Anchored to the Pile" in the 5th paragraph of section 49-1.01D(2) with:

07-20-12

"Tensile Load Applied by Hydraulic Jack(s) Acting Upward at One End of Test Beam(s)"

Add to section 49-1.03:

04-20-12

Dispose of drill cuttings under section 19-2.03B.

Introductions

Examples of R-A-D

Special Provisions Example

DIVISION VI STRUCTURES 49 PILING

Add to section 49-1.03:

Expect difficult pile installation due to the conditions shown in the following table:

Pile location		Conditions
Bridge no.	Support location	
27 0119	Abutments 1 and 5	Zones of dense sand and claystone and sandstone rocks.
27-0119	Piers 2, 3 and 4	Sandstone and shale bedrocks, caving soils and high ground water.

Special Provision modifying the RSS Example

Replace the 2nd, 3rd, and 4th paragraphs of section 39-1.11B(1) of the RSS for section 39-1.11 with:

Place HMA on adjacent traveled way lanes so that at the end of each work shift the distance between the ends of HMA layers on adjacent lanes is from 5 to 10 feet. Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA to form temporary conforms. You may place Kraft paper or another authorized bond breaker under the conform tapers to facilitate the taper removal when paving operations resume.

Delete section 39-1.11B(2) of the RSS for section 39-1.11.



Counting Paragraphs

Counting Paragraphs Standard Specifications

Section 19-3 (page 271)

19-3.03K Ground Anchor and Soil Nail Walls

- 1 Excavate in lifts from the top down.
- 2 Before you excavate for the installation of production or proof test soil nails in a wall zone:
 1. Complete stability testing
 2. Complete verification testing
 3. Obtain authorization of test data
- 3 Clean the excavated face of loose materials, mud, rebound, and other materials that prevent or reduce shotcrete bond to the excavated face and soil nails.
- 4 Remove cobbles, boulders, portions of boulders, or debris at the final wall alignment that protrude more than 2 inches from the excavated face. Backfill the over excavation with shotcrete.
- 5 If stability testing is not performed, apply the shotcrete facing during the same work shift that the excavation is performed. You may delay placing the shotcrete facing up to 24 hours if you demonstrate the integrity of the excavated face is maintained.
- 6 Notify the Engineer immediately if raveling or instability of the excavated face occurs or the wall face moves horizontally more than 0.4 percent of the excavated wall height.
- 7 Stabilize unstable areas immediately by buttressing the excavated face with an earth berm or other authorized methods. Stop construction in unstable areas until remedial measures are authorized.
- 8 Protect installed soil nails and ground anchors during construction. Replace damaged soil nails and ground anchors.
- 9 Do not excavate to the next underlying excavation lift until the following conditions have been attained for the portion of the wall in the current excavation lift:
 1. Soil nails or ground anchors are installed and grouted
 2. Reinforced shotcrete facing is constructed
 3. Soil nail grout and shotcrete facing have cured for 72 hours
 4. The soil nail facing anchorages are attached
 5. Representative soil nail tests are complete for that portion of wall and the results are authorized
- 10 Do not excavate beyond the horizontal limits of the overlying completed wall section. At the end of each excavation lift, maintain temporary slopes flatter than 2:1 (horizontal:vertical) to ensure slope stability.

Counting Paragraphs

See the instructions at the beginning of the RSS on how to count paragraphs in sections affected by RSS additions or deletions.

REVISED STANDARD SPECIFICATIONS DATED 07-19-13

ORGANIZATION

Revised standard specifications are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*. A date under a main-section heading is the date of the latest revision to the section.

Each revision to the *Standard Specifications* begins with a revision clause that describes or introduces a revision to the *Standard Specifications*. For a revision clause that describes a revision, the date on the right above the clause is the publication date of the revision. For a revision clause that introduces a revision, the date on the right above a revised term, phrase, clause, paragraph, or section is the publication date of the revised term, phrase, clause, paragraph, or section. For a multiple-paragraph or multiple-section revision, the date on the right above a paragraph or section is the publication date of the paragraphs or sections that follow.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

Counting Paragraphs

See the instructions at the beginning of the Special Provisions on how to count paragraphs in sections affected by the Special Provision additions or deletions.

ORGANIZATION

Special provisions are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*.

Each special provision begins with a revision clause that describes or introduces a revision to the *Standard Specifications* as revised by any revised standard specification.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

Counting Paragraphs RSS

Inserting the RSS:

19-3.03K Ground Anchor and Soil Nail Walls

- 1 Excavate in lifts from the top down.
- 2 Before you excavate for the installation of production or proof test soil nails in a wall zone:
 1. Complete stability testing
 2. Complete verification testing
 3. Obtain authorization of test data

Add between the 2nd and 3rd paragraphs of section 19-3.03K:

Before you excavate for the installation of ground anchors in a wall zone:

1. Complete stability testing
 2. Obtain authorization of test data
 - 3 Clean the excavated face of loose materials, mud, rebound, and other materials that prevent or reduce shotcrete bond to the excavated face and soil nails.
 - 4 Remove cobbles, boulders, portions of boulders, or debris at the final wall alignment that protrude more than 2 inches from the excavated face. Backfill the over excavation with shotcrete.
- If stability testing is not performed, apply the shotcrete facing during the same work shift that the excavation is performed. You may delay placing the shotcrete facing up to 24 hours if you demonstrate the integrity of the excavated face is maintained.
- 5
 - 6 Notify the Engineer immediately if raveling or instability of the excavated face occurs or the wall face moves horizontally more than 0.4 percent of the excavated wall height.

01-20-12

Counting Paragraphs

7 Stabilize unstable areas immediately by buttressing the excavated face with an earth berm or other authorized methods. Stop construction in unstable areas until remedial measures are authorized.

8 Protect installed soil nails and ground anchors during construction. Replace damaged soil nails and ground anchors.

Add between the 8th and 9th paragraphs of section 19-3.03K:

01-20-12

When your excavation and installation methods result in a discontinuous wall along any soil nail row, the ends of the structurally completed wall section must extend beyond the ends of the next lower excavation lift by a distance equal to twice the lift height. Maintain temporary slopes at the ends of each wall section to ensure slope stability.

Replace the 9th paragraph of section 19-3.03K:

01-20-12

Do not excavate to the next underlying excavation lift until the following conditions have been attained for the portion of the soil nail or ground anchor wall in the current excavation lift:

1. Soil nails or ground anchors are installed and grouted.
2. Reinforced shotcrete facing is constructed.
3. Grout and shotcrete have cured for at least 72 hours.
4. Specified tests are complete for that portion of wall and the results are authorized.
5. Soil nail facing anchorages are attached or ground anchors are locked off.

01-18-13

01-20-12

~~9 Do not excavate to the next underlying excavation lift until the following conditions have been attained for the portion of the wall in the current excavation lift.~~

- ~~1. Soil nails or ground anchors are installed and grouted~~
- ~~2. Reinforced shotcrete facing is constructed~~
- ~~3. Soil nail grout and shotcrete facing have cured for 72 hours~~
- ~~4. The soil nail facing anchorages are attached~~
- ~~5. Representative soil nail tests are complete for that portion of wall and the results are authorized~~

10 Do not excavate beyond the horizontal limits of the overlying completed wall section. At the end of each excavation lift, maintain temporary slopes flatter than 2:1 (horizontal:vertical) to ensure slope stability.

Counting Paragraphs

Special Provision 19-3.03K

- 7 Stabilize unstable areas immediately by buttressing the excavated face with an earth berm or other authorized methods. Stop construction in unstable areas until remedial measures are authorized.
- 8 Protect installed soil nails and ground anchors during construction. Replace damaged soil nails and ground anchors.

Add between the 8th and 9th paragraphs of section 19-3.03K:

01-20-12
When your excavation and installation methods result in a discontinuous wall along any soil nail row, the ends of the structurally completed wall section must extend beyond the ends of the next lower excavation lift by a distance equal to twice the lift height. Maintain temporary slopes at the ends of each wall section to ensure slope stability.

Replace the 9th paragraph of section 19-3.03K:

- 9 Do not excavate to the next underlying excavation lift until the following conditions have been attained for the portion of the soil nail or ground anchor wall in the current excavation lift:
 1. Soil nails or ground anchors are installed and grouted.
 2. Reinforced shotcrete facing is constructed.

Replace item 3 in the list in the 9th paragraph of section 19-3.03K with:

3. Grout and shotcrete have cured for at least 72 hours or have attained a compressive strength of at least _____ psi
 4. Specified tests are complete for that portion of wall and the results are authorized.
 5. Soil nail facing anchorages are attached or ground anchors are locked off.
- 10 Do not excavate beyond the horizontal limits of the overlying completed wall section. At the end of each excavation lift, maintain temporary slopes flatter than 2:1 (horizontal:vertical) to ensure slope stability.

Counting Paragraphs

Standard Specification

15-5.05C Construction

- 1 The Engineer determines the exact methacrylate resin application rate at time of placement.
- 2 High-molecular-weight methacrylate resin applied by machine must be (1) combined in volumetric streams of promoted resin to initiated resin by static in-line mixers and (2) applied without atomization.
- 3 You may apply resin manually. Mix at most 5 gallons of resin at a time.
- 4 ~~Prepare the deck under sections 15-5.01C(2), 15-5.01C(5), and 15-5.02.~~
- 5 The deck must be dry before applying resin. The concrete surface must be from 50 to 100 degrees F. Relative humidity must be not more than 85 percent during the work shift.
- 6 Thoroughly mix all resin components. Apply resin to the deck within 5 minutes of mixing at an approximate application rate of 90 sq ft/gal. Resin that thickens during application is rejected.
- 7 Spread resin uniformly. Completely cover surfaces to be treated and fill all cracks. Redistribute excess resin using squeegees or brooms within 10 minutes of application. For textured or grooved deck surfaces, excess resin must be removed from the texture indentations.
- 8 Apply the abrasive sand finish no sooner than 20 minutes after applying resin. The sand application rate must at least 2 lb/sq yd or until saturation as determined by the Engineer. Apply absorbent material before opening lane to traffic. Remove excess sand and absorbent material by vacuuming or power sweeping.
- 9 Traffic or equipment is allowed on the overlay after the Engineer has determined:
 1. The treated deck surface is tack free and not oily
 2. The sand cover adheres and resists brushing by hand
 3. Excess sand and absorbent material has been removed
 4. No material will be tracked beyond the limits of treatment by traffic
- 10 Remove resin from the deck surface if the Engineer determines (1) the conditions listed above have not been met and (2) the allowable lane closure time will be exceeded.

RSS

10-19-12

Delete the 4th paragraph of section 15-5.05C.

Counting Paragraphs

Standard Specification

15-5.05C Construction

- 1 The Engineer determines the exact methacrylate resin application rate at time of placement.
- 2 High-molecular-weight methacrylate resin applied by machine must be (1) combined in volumetric streams of promoted resin to initiated resin by static in-line mixers and (2) applied without atomization.
- 3 You may apply resin manually. Mix at most 5 gallons of resin at a time.
- 4 ~~Prepare the deck under sections 15-5.01C(2), 15-5.01C(5), and 15-5.02.~~
- 5 The deck must be dry before applying resin. The concrete surface must be from 50 to 100 degrees F. Relative humidity must be not more than 85 percent during the work shift.
- 6 **Replace the 6th paragraph of section 15-5.05C with:**
Thoroughly mix all resin components. Apply resin to the deck within 5 minutes of mixing. The approximate application rate is 75 sq ft/gal. Resin that thickens during application is rejected.
- 7 Spread resin uniformly. Completely cover surfaces to be treated and fill all cracks. Redistribute excess resin using squeegees or brooms within 10 minutes of application. For textured or grooved deck surfaces, excess resin must be removed from the texture indentations.
- 8 Apply the abrasive sand finish no sooner than 20 minutes after applying resin. The sand application rate must at least 2 lb/sq yd or until saturation as determined by the Engineer. Apply absorbent material before opening lane to traffic. Remove excess sand and absorbent material by vacuuming or power sweeping.
- 9 Traffic or equipment is allowed on the overlay after the Engineer has determined:
 1. The treated deck surface is tack free and not oily
 2. The sand cover adheres and resists brushing by hand
 3. Excess sand and absorbent material has been removed
 4. No material will be tracked beyond the limits of treatment by traffic
- 10 Remove resin from the deck surface if the Engineer determines (1) the conditions listed above have not been met and (2) the allowable lane closure time will be exceeded.

RSS

Replace the 6th paragraph of section 15-5.05C with:

Thoroughly mix all resin components. Apply resin to the deck within 5 minutes of mixing. The approximate application rate is 75 sq ft/gal. Resin that thickens during application is rejected.

Counting Paragraphs

Example with list and embedded table

1 13-7.02B Rock

Type A rock must comply with:

1. Section 72-2.02
2. Sizes shown in the following table:

Square screen size (inch)	Percentage passing	Percentage retained
6	100	0
3	0	100

2

Type B rock must be railway ballast number 25. Do not use blast furnace slag. Railway ballast number 25 must comply with:

1. Description in *AREMA Manual for Railway Engineering*
2. Sizes shown in the following table:

Nominal size square opening	Percentage passing								
	3"	2-1/2"	2"	1-1/2"	1"	3/4"	1/2"	3/8"	No. 4
2-1/2"-3/8"	100	80-100	60-85	50-70	25-50	--	5-20	0-10	0-3

3. Values of the properties shown in the following table:

Easy Classroom Problem

How is thermoplastic traffic stripe payment determined?

840504		4" THERMOPLASTIC TRAFFIC STRIPE	LF
840560		THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)	LF

Answer

1. check Payment Section 9
2. check 84-1.04 Payment of the Standard Specs
3. check 84-2.04 Payment of the Standard Specs
4. check 84-2.04 Payment of the Revised Standard Specs
5. check 84-2.04 of the Special Provisions

Class Problem

Standard Specifications section 9-1.03 (pages 112-113)

Standard Specifications section 84-1.04 (page 882)

84-1.04 PAYMENT

Traffic stripe is measured along the line of the traffic stripe without deductions for gaps in the broken traffic stripe.

Pavement marking is measured by the area covered.

Standard Specifications section 84-2.04 (page 883)

84-2.04 PAYMENT

A double thermoplastic traffic stripe consisting of two 4-inch-wide yellow stripes is measured as 2 traffic stripes.

RSS section 84-2.04

Replace the 1st paragraph in section 84-2.04 with:

01-20-12

A double extruded thermoplastic traffic stripe consisting of two 4-inch wide yellow stripes is measured as 2 traffic stripes.

A double sprayable thermoplastic traffic stripe consisting of two 4-inch wide yellow stripes is measured as 1 traffic stripe.

Special Provision 84-2 doesn't have a section 84-2.04 Payment

Easy Classroom Problem

How is thermoplastic traffic stripe payment determined?

840504		4" THERMOPLASTIC TRAFFIC STRIPE	LF
840560		THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)	LF

Answer

4" Thermoplastic Traffic Stripe

Measured length without deductions for gaps.

Thermoplastic Traffic Stripe (Sprayable)

Measured length without deductions for gaps for both 4" and double traffic stripe.



Thank you.