



# STRUCTURAL DESIGN TECHNICIAN III

**Exam Code:1WRAC**

**Department:** State of California

**Exam Type:** Servicewide, Open

**Final Filing Date:** Continuous

## CLASSIFICATION DETAILS

**STRUCTURAL DESIGN TECHNICIAN III–** \$5,399 - \$6,756 per month

[View the Structural Design Technician III classification specification](#)

## APPLICATION INSTRUCTIONS

Final Filing Date: **January 31, 2024**

Examination Applications (STD. 678) must be postmarked or submitted in person no later than the final filing date. Applications postmarked or submitted after 4:30pm on the final filing date will not be accepted for any reason. Dates printed on Mobile Bar Codes, such as the Quick Response (QR) Codes available at the USPS or equivalent mobile print technology, are not acceptable proof of the date the application and any other required documents or materials were filed/mailed. Faxed or emailed applications will not be accepted.

### **Who Should Apply:**

Applicants who meet the minimum qualifications as stated on this bulletin may apply for and take this examination.

### **How To Apply:**

It is the personal responsibility of each examination candidate to submit their application materials within the timeframe and in the manner specified on this examination bulletin.

Bulletin Date: 1/2/2024

Examination Applications (STD 678) may be mailed or submitted in person by the final filing date to the mailing address below or submitted in person by the final filing date to the address and specific floor listed below. **Applications mailed or submitted in person to any other location shall not be accepted.**

**MAILING ADDRESS:**

Department of Water Resources  
P.O. Box 1079  
Sacramento, CA 95812

**OR**

**SUBMIT IN PERSON:**

Department of Water Resources  
Division of Human Resources  
715 P Street, 7<sup>th</sup> floor  
Sacramento, CA 95814

**DO NOT MAIL OR SUBMIT APPLICATIONS TO THE CALIFORNIA DEPARTMENT OF HUMAN RESOURCES OR DEPARTMENT OF WATER RESOURCES' FIELD OFFICES.**

Examination Applications must be dated and signed with an original signature. Applications must include "to" and "from" dates (month/day/year), job title, time base, and duties performed. Applications received without this information will be rejected. Resumes and other attachments will not be accepted in lieu of a completed application.

**Special Testing Arrangements:**

If you need special testing arrangements, mark the appropriate box in Question 10 of the Examination Application (STD. 678) and submit the Accommodation Request form (STD. 679) with your application. You will then be contacted to make specific arrangements.

**MINIMUM QUALIFICATIONS**

All applicants must meet the minimum qualifications for this examination by the final filing date.

Qualifying experience may be combined on a proportionate basis if the requirements stated below include more than one pattern and are distinguished as "Either" I, "or" II, "or" III, etc. For example, candidates possessing qualifying experience amounting to 50% of the required time of Pattern I, and additional experience amounting to 50% of the required time of Pattern II, may be admitted to an examination as meeting 100% of the overall experience requirement.

**Structural Design Technician III**

**Either I**

Three years of experience in the California state service performing the duties of a Structural Design Technician II.

## Or II

Five years of engineering drafting experience, three years of which must have been in independent structural engineering drafting assignments equivalent in duties and level of responsibility to a Structural Design Technician II in the California state service.

## POSITION DESCRIPTION

### Structural Design Technician III

This is the advanced journey level in the series. Under general direction, incumbents prepare complete sets of contract drawings for the most difficult and complex steel, concrete, masonry, and timber structures; make preliminary and final layouts of various types of structures; plot preliminary site data and prepare as-built plans of structures; calculate and check quantities for preliminary and final estimates of structure costs; check completed drawings for accuracy, completeness of details, and constructability; prepare drafting details and standards from design charts and aids; check drafting and details prepared by others; make engineering calculations for dimensioning and laying out the most complex structures; do structural drafting work of a highly specialized and complex nature requiring superior skill, initiative, and accuracy; use state-of-the-art technology, i.e., CADD and related highly complex computer programs to determine layout, details, and geometric design of the most difficult kind for various types of structures; secure information in the field for the preparation of drawings to modify existing structures; prepare and act in a lead capacity in the preparation of plans and quantity estimates for a wide variety of structures including bridges, buildings, tunnels, walls, drainage systems, and barriers; act in a lead capacity and train a group of drafting aides and technicians; assist in preparing specifications for bridges; prepare specifications for buildings; and prepare cost estimates for bridges and buildings.

## EXAMINATION SCOPE

Applicants who meet the minimum qualifications will be emailed the link to the qualifications assessment. **Be sure to include your current/valid email address on your application.** Failure to provide your current/valid email address will prevent you from taking the examination.

In addition to evaluating applicants' relative knowledge, skills, and ability, as demonstrated by quality and breadth of education and/or experience, emphasis in each exam component will be measuring competitively, relative job demands, each applicant's:

### Knowledge of:

- 1) Details, methods, and layouts used in the preparation of structural design and construction drawings for a variety of structures.
- 2) Engineering mathematics.

- 3) Quantity estimates.
- 4) State-of-the-art technology, i.e., CADD and related computer programs used to determine layout, detail drawings, and create geometric design for various types of structures.
- 5) layout and details of steel, concrete, masonry, and timber structures.
- 6) The preparation and checking of structural design plans, construction drawings, quantity estimates, and as-built drawings.
- 7) Make engineering calculations.
- 8) Codes and specifications governing structural design and construction.
- 9) Drawing methods.
- 10) Methods of directing and scheduling the work of others.
- 11) Leadperson responsibilities.
- 12) Specifications for bridges and buildings.
- 13) Structure costs.

**Ability to:**

- 14) Communicate at a level required for successful job performance.
- 15) Follow written and oral directions.
- 16) Do mechanical and free-hand lettering.
- 17) Draft neat, accurate, and legible plans average difficulty.
- 18) Interpret sketches, drawings, and plans, encountered in the work.
- 19) Prepare and check quantity estimates.
- 20) Use state-of-the-art technology, i.e., CADD and related computer programs.
- 21) Assist in performing geometric design of average difficulty.
- 22) Make basic mathematical calculations.
- 23) Plot data from field notes.
- 24) Prepare graphs and charts.
- 25) Work independently.
- 26) Complete difficult structural drafting assignments.
- 27) Do difficult layout work and structural detail drafting.
- 28) Act in a leadperson capacity on less difficult projects.
- 29) Use highly complex computer programs to determine layout, detail drawings, and create geometric design of the most difficult kind for various types of structures.
- 30) Train drafting aids and technicians.
- 31) Assist in the preparation of specification for bridges.
- 32) Prepare cost estimates for bridges and buildings.
- 33) Analyze situations accurately and adopt an effective course of action.

## EXAMINATION INFORMATION

This examination will consist of a **Training and Experience Evaluation** weighted **100%**. In order to obtain a position on the eligible list, a minimum rating of 70% must be attained. Competitors who do not complete the Training and Experience Evaluation will be disqualified.

Applicants who meet the minimum qualifications will be emailed the link to the qualifications assessment. **Be sure to include your current/valid email address on**

**your application.** Failure to provide your current/valid email address will prevent you from taking the examination.

## ELIGIBLE LIST INFORMATION

A servicewide, open eligible list for the Structural Design Technician III classification will be established for the State of California (all State of California departments, statewide).

The names of successful competitors will be merged onto the eligible list in order of final score regardless of exam date. Eligibility expires **twenty-four (24) months** after it is established. Applicants must then retake the examination to reestablish eligibility.

Veterans' Preference will be granted for this examination. In accordance with Government Codes 18973.1 and 18973.5, whenever any veteran, or widow or widower of a veteran achieves a passing score on an open examination, he or she shall be ranked in the top rank of the resulting eligible list.

Veterans status is verified by the California Department of Human Resources (CalHR). Information on this program and [the Veterans' Preference Application](#) (Std. form 1093) is available online. Additional information on veteran benefits is available at the Department of Veterans Affairs.

## EXAMINATION DATE

It is anticipated that the qualified applicants will receive the Training & Experience Evaluation in the month of February 2024. The qualified applicants will then have 10 business days from the day the link is sent to take the qualifications assessment.

## TESTING DEPARTMENTS

State of California (all State of California departments)

## CONTACT INFORMATION

For information regarding this examination, please contact Jennifer Ainsworth at (916) 902-7178

## EQUAL OPPORTUNITY EMPLOYER

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right of family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding, and related medical conditions), and sexual orientation.

## DRUG-FREE STATEMENT

It is an objective of the State of California to achieve a drug-free State work place. Any applicant for State employment will be expected to behave in accordance with this objective, because the use of illegal drugs is inconsistent with the law of the State, the rules governing civil service, and the special trust placed in public servants.

## GENERAL INFORMATION

Examination and/or Employment Application (STD 678) forms are available at the California Department of Human Resources, local offices of the Employment Development Department, and through your [CalCareer Account](#).

If you meet the requirements stated on this examination bulletin, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described in this bulletin will be rated against a predetermined job-related rating, and all applicants who pass will be ranked according to their score.

The California Department of Human Resources (CalHR) reserves the right to revise the examination plan to better meet the needs of the service, if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all applicants will be notified.

**General Qualifications:** Applicants must possess essential personal qualifications including integrity, initiative, dependability, good judgement, the ability to work cooperatively with others, and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.

**Examination Locations:** When a written or performance test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. Ordinarily, qualifications appraisal interviews are scheduled in Sacramento and Los Angeles. However, locations of interviews may be limited or extended as conditions warrant.

**If a candidate's notice** of oral interview fails to reach him/her prior to the day of the interview due to a verified postal error, he/she will be rescheduled upon written request.

**Eligible Lists:** Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) departmental promotional, 3) multi-departmental promotional, 4) servicewide promotional, 5) departmental open, 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

**TDD** is Telecommunications Device for the Deaf and is reachable only from phones equipped with a TDD Device. **California Relay Telephone Service** for the Deaf or hearing impaired: From TDD phones: 1-800-735-2929; From Voice phones: 1-800-735-2922.

**High School Equivalence:** Equivalence to completion of the 12<sup>th</sup> grade may be demonstrated in any one of the following ways: 1) passing the General Education Development (GED) Test; 2) completion of 12 semester units of college-level work; 3) certification from the State Department of Education, a local school board, or high school authorities that the competitor is considered to have education equivalent to graduation from high school; or 4) for clerical and accounting classes, substitution of business college work in place of high school on a year-for-year basis.