

INITIAL TASK LISTING

CLASSIFICATION: Senior Structural Engineer

NOTE: Each position within this classification may perform some or all of these tasks.

Task Statements	
1.	Examine plans of important public buildings to determine their ability to withstand seismic, wind or gravity and other code required loads (e.g., earth, floods, etc.) to safely carry such loads as may be imposed utilizing the California Building Code (CBC), engineering software, manuals, as required.
2.	Mentor staff with the preparation and reviewing of design documents (e.g., specifications, drawings, calculations, etc.) to provide guidance and assistance utilizing interpersonal skills, professional knowledge, CBC, engineering software, manuals, as needed.
3.	Review specifications, shop drawings and submittals for major buildings and other structures to ensure compliance with construction documents utilizing the CBC, engineering software, manuals, etc., as required.
4.	Observe structures during construction to ensure conformance to plans and specifications utilizing various equipment (e.g., rebar finder, Schmidt hammer, etc.), professional knowledge, CBC, manuals, as necessary.
5.	Provide assistance to architects, engineers, contractors and other design professionals to ensure accurate interpretation of the Design Criteria Guidelines (DCG) set up by the Department, utilizing professional knowledge, as needed.
6.	Review conceptual designs and/or construction documents provided by institution and/or design consultants to ensure compliance with applicable codes and DCG, utilizing professional knowledge, as directed.
7.	Consult with construction personnel to provide information, alternative construction methods, review change orders, respond to request for information (RFI), etc., utilizing professional knowledge, interpersonal skills, CBC, DCG, as necessary.
8.	Consult with institution plant operations personnel to provide technical information, recommendations on structural concerns, etc., utilizing professional knowledge, experience, interpersonal skills, as needed.
9.	Prepare construction documents (e.g., drawings, specifications, calculations, etc.) for major buildings and other structures to provide direction to the unit responsible for construction utilizing engineering software, CBC, DCG, as directed.
10.	Prepare conceptual designs of structures to develop budget estimates utilizing professional knowledge, CBC, DCG, engineering software, manuals, etc., as directed.
11.	Communicate in a professional and effective manner with others in order to provide accurate information and establish and maintain effective working relationships in all situations utilizing tact and interpersonal skills, on a daily basis.
12.	Conduct value engineering (analysis) for various projects to provide possible cost saving alternatives utilizing various resources (e.g., professional knowledge, CBC, DCG, engineering software, manuals, etc.) as directed.
13.	Certify that structures have been built per the design documents utilizing observation, site visits, professional knowledge, etc., as required.
14.	Evaluate existing major buildings and other structures to ensure structural integrity and safety utilizing various resources and equipment (e.g., professional knowledge, CBC, DCG, engineering software, manuals, rebar finder, Schmidt hammer, etc.) as directed.

Tasks highlighted in bold text are not currently on the SPB classification specification

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15.	Provide direction during site observation to construction personnel and/or inspectors to ensure structures are built per design documents utilizing professional knowledge, CBC, DCG, engineering software, manuals, etc., as needed.
16.	Develop written reports of structural assessments to provide recommendations and documentation utilizing departmental computers, professional knowledge, CBC, DCG, engineering software, manuals, etc., as needed.
17.	Manage in-house design projects that are structural in nature with engineering and architectural disciplines to ensure design conforms to the budget, institutional needs, CBC, and DCG utilizing professional knowledge, departmental computer, scheduling, etc., as directed.
18.	Prepare construction bulletins to update design projects as requested by the institution and/or to ensure latest codes are incorporated utilizing CBC, DCG, professional knowledge, departmental computer, as directed.
19.	Coordinate the work of other engineering disciplines, architects, environmentalists, security staff, institutional personnel, Capital Outlay Unit, etc., in order to produce complete and accurate documents and/or correspondence utilizing various resources (e.g., codes, manuals, professional knowledge, interpersonal skills, industry standard techniques) as necessary.
20.	Develop project fees, estimates and schedules for each phase of project development in order to produce or review designs, construction documents, perform construction administration and project close-out utilizing departmental standard forms and procedures, professional knowledge, project scheduling software, etc., as directed.
21.	Prepare project status reports in order to provide information to clients and team members on the progress of projects, utilizing departmental database software, departmental policies and procedures, as needed.
22.	Coordinate document reviews and approvals by applicable jurisdictional authorities (e.g., State Fire Marshal, State Historical Society, etc.) in order to produce approved designs and construction documents utilizing back-check meetings, departmental policies and procedures, as needed.
23.	Participate in training for professional development in order to improve project leadership/management skills, morale, design and technical knowledge utilizing State funded training, departmental training, etc., as mandated.
24.	Interact with manufacturing/industry representatives in order to obtain technical product information utilizing telephone/computer equipment and personal contact in accordance with departmental policies and procedures, as needed.
25.	Interact with Construction Services Branch (CSB), state construction supervisors, institution staff and capital outlay staff to provide information, resolve construction issues, ensure construction quality and maintain design standards utilizing CBC, DCG, manuals, professional knowledge, industry standard techniques, etc., within specified timeframes, on a daily basis.
26.	Train staff to improve their knowledge and skills utilizing various resources (e.g., on-the-job training, mentoring, etc.) as required.

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27.	Participate in the development of policies, procedures and office standards of structural design to ensure consistency, compliance and conformity with departmental and branch policies utilizing Microsoft Word documents, Computer Aided Drafting and Design (AutoCAD), Adobe Pro as required.
28.	Assist Facilities Asset Management Branch (FAMB), Project Management Branch (PMB) and their design professionals in developing comprehensive submittal packages utilizing professional knowledge, CBC, DCG, etc., as needed.
29.	Assist clients with various project documents and reports used to establish scopes, budgets and schedules as required to support the client's funding request with the Department of Finance (DOF) in accordance with applicable regulations, legislative mandates and client requirements, as needed.
30.	Provide support and update of project documentation by identifying information necessary to maintain an accurate and complete historical record in the project folder utilizing departmental policies and procedures, as needed.