

Statement of Work

For

TASK ORDER 006: Support the 2026 Provisions Update Committee, Issue Teams and Functional Recovery Task Committee (Phase IV)

Under

FEMA IDIQ Contract

DEVELOPMENT OF 2026 NEHRP RECOMMENDED SEISMIC PROVISIONS AND EARTHQUAKE RESILIENCE SUPPORT

March 1, 2024

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

DEVELOPMENT of 2026 NEHRP RECOMMENDED PROVISIONS

TASK ORDER 006: Support the 2026 Provisions Update Committee, Issue Teams and Functional Recovery Committee (Phase IV)

I. BACKGROUND

The *NEHRP Recommended Provisions, Commentary and New Resources* embody the state-of-knowledge for improving the design and construction of new buildings subject to earthquake hazards. The *NEHRP Provisions* were developed as a building code resource to minimize losses of life and property from earthquakes for all buildings, to improve the performance of higher risk category structures, and to increase the capability of essential and critical facilities to function during and after an earthquake or rapidly restore functional recovery.

The *NEHRP Recommended Provisions* and the related Commentary have served several equally critical functions. These include:

- A Complete Resource for Future Codes. The present *NEHRP Provisions* remain the only resource document that scrutinizes all areas of the seismic design process and provides state-of-knowledge information to improve the current seismic design procedures in the national seismic design standards and model building codes.
- Education Resource. The *NEHRP Provisions* are widely referenced throughout the United States, and the rest of the world, as a university-level earthquake engineering teaching resource. The *Commentary* bridges the gaps between textbook concepts and the design practice.
- Causative Agent for Change in Practice. Many of the significant changes to the practice of earthquake engineering have been initiated through development and publication within the *NEHRP Provisions*.
- A Venue for Introducing New Concepts and analysis methods. The *NEHRP Provisions* have served as a major channel for bringing new research results into the design practice and building regulatory implementation.
- Referee for Commercial Interests. The *NEHRP Provisions* update process as established by FEMA serves as a nationally accepted mechanism to balance and referee the various commercial interests that are involved in earthquake engineering.
- Fill Gaps/Resolve Conflicts in Seismic Design Guidance and Standards. The *NEHRP Provisions* have become the national resource for identifying and addressing gaps in seismic design guidance, and for hearing and resolving conflicts in seismic design standards and mitigation measures.

In addition, as a leading technical resource for the nation's seismic design community, the *NEHRP Provisions* continue to meet new challenges and explore additional values. The 2026

edition of the *NEHRP Provisions* will need to address several opportunities and challenges. These include but not limited to the following:

- As a new knowledge-based code resource document, the 2026 *NEHRP Provisions* should continue support translating new earthquake knowledge, seismic design concepts, methods, procedures and technologies for improving the national design standards and model building codes. This requires more collaboration between the research and engineering practice communities and the NEHRP agencies.
- Upon the adoption of multi-period response spectra for determining the design ground motion by the national standards and model building codes, the next generation of national seismic design maps should continue to enhance and update the methodology for the entire country based-on the new USGS earthquake hazard models with improved accuracy and new science.
- The development of *NEHRP Provisions* is a consensus process in that each proposed new change to the seismic design requirements is evaluated by a committee of national experts and issues related to the new and traditional approaches are presented and discussed. This process is also a valuable venue for public acceptance of new methodologies and an educational platform for young engineers and professionals understand the thoughts and wisdom built into the current practices. To maximize the benefit of this process, it is necessary to explore new and critical issues facing the seismic engineering community, and to broaden the involvement and participation by young generation of engineers and professionals. One of the areas to be explored is the consideration of resilience design and functional recovery for future new buildings. Some suggested considerations include adapt some performance-based design and performance measures for the *NEHRP Provisions* and future codes and standards to establish some resilience objectives and desired levels of operational performance criteria for buildings under different design risk categories.
- Exploration of possible and effective ways to improve seismic performance of buildings with more accurate modeling of building seismic performances and introducing reliable performance criteria for simplified analysis and design, some possible considerations are the recommendations from FEMA P-2139 Short-Period Building Collapse Performance and Recommendations for Improving Seismic Design.
- Support introducing functional recovery features and guidance for new building design to implement FEMA-NIST report FEMA P-2090 Recommended Options for Improving the Built Environment for Post-Earthquake Reoccupancy and Functional Recovery Time.

The *NEHRP Recommended Provisions* update contract produces a series of products. Most of them are internal to the *Provisions* and are thus automatically updated as part of the process, several are external products that are still automatically updated along with this process, and several are separate products whose update will need to be specifically addressed as part of this and other contracts. The deliverable products from this contract include:

- The *NEHRP Recommended Provisions* themselves, which constitute a consensus approved adoption by reference of the latest edition of ASCE/SEI 7-22, and adding modifications, additions and exceptions to the adopted standard.

- *The NEHRP Recommended Provisions Commentary*, which provides background and explanatory materials for the new changes and various design concepts and procedures in the *Provisions*. The *Commentary* also serves as an educational resource for young professionals and college students.
- *The NEHRP Recommended Provisions New Development*, which includes new knowledge and design information for special projects and trial use.
- *NEHRP Recommended Provisions: Design Examples*, which illustrate how to use the new changes in the *Provisions* for related engineering design applications.
- *NEHRP Recommended Provisions: Training Materials*, which consist of a series of presentation slide files to explain the background, relevant resources and key points in the design examples.
- Introduction to *NEHRP Provisions*, which is a non-technical explanatory document about the basic design concepts and requirements of the *Provisions*.
- Research Needs and Recommended Issues for future investigation, which is a resource document for research and engineering practice communities to consider in the future,
- National Seismic Design Maps, which include all updated maps for the *NEHRP Provisions* and those to be proposed for the next edition of ASCE/SEI7 standard, and national model building codes IBC and IRC.

II. TASK ORDER OBJECTIVE AND SCOPE

This task order falls under the overall objective of the IDIQ contract, which is the investigation, development, publication, distribution, implementation, training and support of FEMA NEHRP technical guidance resources, and support for promotion and implementation of strong seismic design standards and building codes for the nation. Under this objective, the contract shall seek services by the Contractor

- to organize, manage, develop and disseminate the 2026 edition of the *NEHRP Recommended Seismic Provisions, Commentary and New Resources* and other supporting tools and products,
- to strive national and State building codes to maintain essential equivalency to the 2020 *NEHRP Provisions* through trainings, outreach and technical support to the adoption of latest editions of national model building codes and design standards,
- to help review, identify and evaluate issues and needs of the engineering design community and stakeholders, to develop performance criteria, solutions, problem-focused studies and recommendations for implementation by codes and standards, and use by design practitioners,
- to support earthquake and multi-hazard resilience through generating information that helps people to compel decisions to reduce vulnerability in at-risk communities and to implement research results, new technologies and best practices for better performance of future new buildings and lifelines.

Task Order 006 is the fourth of a series of task orders for developing the *2026 NEHRP Provisions*. Under this task order, the Contractor shall support the 2026 Provisions Update Committee, PUC formed Issue Teams and a Functional Recovery Committee. The Contractor shall provide continued support for the *2020 NEHRP Provisions* and its related products.

This task order is for the fourth year of the IDIQ contract. The work and services described herein shall be performed within 12 months upon commencing of the task order.

III. SPECIFIC TASKS:

Task 6.1: Project Work Plan and Management

The Contractor shall confirm the Task Order Project Director in the key personnel clause of the proposal for this task order contract. All key personnel are subject to acceptance by FEMA Contract Officer (CO). Any changes to key personnel must notify the FEMA CO in advance, and are subject to acceptance by the FEMA CO.

The Contractor's Project Director shall prepare and submit to the FEMA Project Officer (PO)/ Contract Officer's Representative (COR) and the Project Monitor (PM) /alternate COR a Project Work Plan (PWP). The PWP shall include detailed description of how each of the tasks described in this SOW will be accomplished and a master schedule with major service activities, milestones, and associated budget for individual tasks. It is recommended that master schedule and budget are prepared with Work Breakdown Structure (WBS) cost categories.

The Contractor's Project Director shall notify FEMA if the Provisions Update Committee (PUC)/ Building Seismic Safety Council (BSSC) consensus Objectives Rules and Procedures (ORP) approved by the PUC and BSSC Board under Task Order 001 have any changes or additions. The BSSC approved Professional Organizations (PO) for participating in the *NEHRP Provisions* development shall include impartial and balanced representation of all building material industries, seismic standard and code organizations, national and regional structural engineer associations and organizations representing earthquake engineering research community. The PUC/BSSC consensus Objectives, Rules and Procedures shall include specific requirements and guidelines for preparation of change proposals for the *2026 NEHRP Provisions* and their consensus ballot.

FEMA will review the PWP and revised ORP to provide comments within two weeks. If there are review comments, the Contractor shall address and revise the PWP and/or the ORP and resubmit a revised PWP and/or the ORP within two weeks upon receipt of the FEMA comments.

The Contractor's Project Director shall manage the project to ensure that progress and expenditures follow the accepted PWP. The Project Director shall convene periodic calls or meetings with the FEMA PO and PM to update project progress by schedule, milestones, and expenditures. The Project Director shall monitor all activities under this task order and work timely with the PUC chair and the FEMA PO and PM to revolve any issue that may impede the project performance, schedule, and budget. The Project Director shall ensure that all materials for publication by FEMA meet FEMA/DHS publication requirements. The Project Director shall support information sharing and

exchange with the FEMA PO, PM, PUC Chair, PUC members, BSSC professional organizations (POs) and the public. All subcontract work will be in consultation with the FEMA COR.

The Project Director shall provide quarterly reports with the following metrics: 1) description of work during the period, 2) task expenditures and total expenditures to date, 3) updated schedule showing planned vs. actual progress, 4) deliverables and work status as required in the following tasks, 5) Contractor's project management time and efforts involved by each manager in relevant tasks of the project during this period. The quarterly reports are required throughout the project and shall be submitted at the end of each quarter.

This task shall be started upon commencing the task order 006. The revised PWP and changes to the PUC ORP shall be submitted to the FEMA PO and PM within one month upon commencing the task order 006.

Task 6.2: Support for the 2026 Provisions Update Committee

The Contractor shall provide support for the 2026 PUC formed in the previous Task Order 001 of this project for development of the 2026 *NEHRP Provisions*. The support shall include organization, administration, coordination, planning, logistics and management of activities for developing the 2026 *NEHRP Provisions*.

The PUC shall work to develop, evaluate, and ballot change proposals for the 2026 *NEHRP Provisions*. All change proposals shall be prepared and evaluated in accordance with the revised and approved PUC Objectives, Rules and Procedures. All change proposals shall be accompanied by appropriate commentary for integrating into corresponding commentary sections in Part 2 of the *Provisions*, or they shall not be considered by the PUC.

The PUC shall provide technical guidance and oversight for its 13 issue teams formed under previous Task Orders 001 and 002 for development of practical solutions to the issues identified and relevant change proposals for PUC evaluation and possible adoption into the 2026 *NEHRP Provisions*. Inactive issue team(s) will be timely reminded and may be dismissed to save resources.

The PUC, through the Joint Correlation Committee (JCC) with ASCE/SEI 7 Seismic Subcommittee (SSC), shall collaborate to send any code language maintenance proposals to SSC for consideration. The PUC shall help evaluate any significant technical changes from ASCE 7 SSC. Based on the PUC's consensus adoption and BSSC's approval of ASCE 7-22 as the baseline document for the 2026 *NEHRP Provisions*, the PUC will keep track of supplements of ASCE 7-22 for additional adoption as baseline of the 2026 *NEHRP Provisions* when available.

PUC shall provide guidance and oversight to its Functional Recovery Committee to develop code proposals and resources related to improving functional recovery time for new building design.

PUC shall follow major lessons-learned information from the recent Turkey-Syria earthquakes and timely consider developing relevant and applicable provisions for improving seismic standards and codes in the US.

The PUC shall consider other recent research results and new information that help fill the gaps or address technical issues unresolved from the 2020 update cycle.

The PUC shall address any request from FEMA that are related to the contents of the NEHRP Provisions, federal requirements, and government policy directives.

The Contractor shall document each PUC meeting in detailed minutes and share them on the project information portal.

The Contractor shall budget to support two in-person PUC meetings during the 12-month period of performance (POP) of the Task Order 006. PUC meetings shall be coordinated with the PUC Chair and in consideration for the most effective means to reach PUC consensus and best use of the project resources. When necessary, the Contractor shall support web conferences or other means of communication to reduce project expenses.

This task shall be started upon commencing the Task Order 006 and described in the PWP under Task 6.1.

Task 6.3: Support for the Issue Teams

The Contractor shall continue to support the 13 ITs formed under the Task Orders 001 and 002

IT #1: Soil-Foundation Design (SSI, Yielding Foundation, Rocking Foundation)

IT #2: Interface Between Structural Elements

IT #3: Ground Motion and Geotech Issues

IT #4: Evaluation of Structures in Very High Seismic Regions

IT #5: Drift Limit Evaluation

IT #6: Two-Stage Analysis Provisions

IT #7: Non-Linear Analysis Update

IT #8: Unification of Diaphragm Design Provisions

IT #9: Building Design as Rocking System

IT #10: Design Provisions for Buried Structures

IT #11: Alignment of Seismic Isolation Provisions with Risk Targets

IT #12: Structural Design for Strength Vs Ductility

IT #13: Nurture Engineer Creativity/Innovation

to develop change proposals for the 2026 *NEHRP Provisions* regarding to specific issues or topics charged by the PUC. If resource permits, the Contractor in consultation with the PUC Chair and FEMA PO and project Monitor (PM) may coordinate to establish additional Issue Teams or Study Groups (SGs) to address prioritized issues as identified by the PUC. Sufficient budget should be planned to cover web conference meetings and other activities for all ITs and SGs.

The Contractor shall monitor IT and SG progress and maintain their schedules. Each IT or SG meeting shall be documented with written minutes. The Contractor shall collect meeting minutes

from the ITs and SGs and share them on the PUC portal. Each IT and SG shall prepare a progress report prior to each scheduled PUC meeting and designate a person to report at the PUC meeting.

The Contractor shall assist the PUC Chair to track IT and SG working progress and status, and report to the FEMA PO and PM. The Project Director, PUC chair, FEMA PO and PM shall review the IT and SG status on a regular basis. Inactive ITs or SGs shall be notified and terminated to allow new ITs or SGs to be established.

This task shall be started after completion of the PWP of Task 6.1. The Contractor shall provide reference site for the progress reports and PUC and IT meeting minutes in the quarterly reports according to Section IV delivery schedule of this SOW.

Task 6.4: Support for the Functional Recovery Task Committee

The Contractor in consultation with FEMA PO and PM shall coordinate with PUC Chair and Functional Recovery Task Committee Chair and the Functional Recovery Steering Committee to ensure that the FRTC and its five topic subcommittees (TSS) follow the scope as recommended by the FR Planning Committee report.

The Contractor shall provide support for the Functional Recovery Task Committee and its five TSS formed in the previous Task Orders 001 and 002

TSC #1: Key Terms and Concepts Related to Functional Recovery

TSC #2: Functional Recovery Categories and Performance Metrics

TSC #3: Functional Recovery Time Targets for Occupancies/Services

TSC #4: Prescriptive Provisions for Each Functional Recovery Category

TSC #5: Hazard Level(S) Applicable for Functional Recovery Objectives

to continue develop and ballot code proposals and resources on improving functional recovery features to new building design. The code proposals and resources are subject to PUC consensus approval for inclusion in the 2026 *NEHRP Recommended Seismic Provisions*. The FR TC shall resolve PUC and PO ballot comments for PUC consensus acceptance. The support shall include organization, administration, coordination, planning, logistics and management of activities for the Functional Recovery Task Committee.

The Contractor shall work with the Functional Recovery Task Committee Chair to incorporate any revisions to the scope and schedule of the Committee into the PUC PWP as described in Task 6.1. To support the Functional Recovery Task Committee to develop relevant recommendations and design guidelines, the Contractor shall budget two in-person meetings for the Committee under the 12-month POP of the Task Order 006. The in-person Functional Recovery Committee meetings may include additional invited subject matter experts for necessary technical inputs, viewpoints, comments, and recommendations. The Functional Recovery Task Committee meetings shall be coordinated with the PUC Chair and in consideration for the most effective means to reach consensus and best use of the project resources. When necessary, the Contractor shall encourage to use web conferences or other means of communication to reduce project expenses.

The Functional Recovery Task Committee shall collaborate with the PUC for any overarching and overlapping issues with ASCE 7 Seismic Subcommittee.

This task shall be started upon commencing Task Order 006 after completion of the PWP of Task 6.1.

Task 6.5: Outreach, Information Dissemination and Education

The Contractor shall develop an outreach, information dissemination and education plan (OIDE plan), which shall include targeted customers, means and activities of outreach, information dissemination and education for this task order. The OIDE plan is part of the work plan described under Task 6.1. FEMA review and acceptance of OIDE plan shall follow the schedule described under Task 6.1.

Web-based Information Forum

The Contractor shall enhance the internet portal for the PUC, ITs and Functional Recovery Committee and relevant outreach, information dissemination and education.

The Contractor shall develop a web information platform for the PUC to disseminate the project information to the public. The web site shall provide open access to the basic information including: 1) frequently asked questions about the *NEHRP Provisions* and the corresponding answers; 2) the current edition of the *Provisions* and its related products; 3) the process and the schedule of the current cycle of the *Provisions* update when available with related proposals and ballot results; 4) announcement of upcoming activities of outreach, education, and information dissemination; 5) user feedback, comments and suggestions for the *Provisions* and related products; 6) online training sessions. The Contractor shall keep the website information up to date. Improvements and updates on the website shall be summarized in the quarterly reports to FEMA.

As part of the web-based outreach effort, the Contractor shall consult with the FEMA to organize web-based short webinars on *NEHRP Provisions* and related products. The Contractor shall also coordinate with FEMA for other related outreach needs as they arise.

All web-based publication and training materials shall meet FEMA/DHS requirements and be 508 compliant for web-based dissemination.

Workshop/ Special Conference Session

The Contractor shall organize a workshop/conference session to disseminate the *Provisions* update information. The topics and scope of the workshop/conference session shall be coordinated with PUC Chair and in consultation with FEMA. The Contractor shall compile the workshop proceedings into an electronic file and shall disseminate the material to broad audience. The Contractor shall submit the proceedings to FEMA within one month upon completion of the workshop.

Support for the 2020 *NEHRP Provisions*

The Contractor shall maintain the website for the 2020 *NEHRP Provisions*, its supporting resources and web-based seismic design map interface for users to acquire seismic design spectra information per 2020 *NEHRP Provisions*. The website shall also include the design examples and training materials for the 2020 *NEHRP Provisions* (FEMA P-2192) and corresponding webinar recordings. The Contractor shall compile a document of the code changes recommended in the 2020 *NEHRP Provisions* and adopted by the ASCE/SEI 7-22. The document, upon reviewed and approved by FEMA, shall be posted on the public website.

Conferences

The Contractor shall, in consultation with FEMA, identify subject matter experts to deliver presentations, short courses or technical sessions at select conferences. The Contractor shall collect presented papers and presentations and track the attendance of the events, and report to FEMA in the quarterly reports. Related files should be made available within one month after participation in the event.

Development of the OIDE plan shall be started upon commencing the Task Order 006; all other activities and services of web-based information forum, webinar, workshop, supporting document and conferences shall be identified or initiated within four months upon commencing of the task order.

Task 6.6: Conduct Ad Hoc Study to Support NEHRP Provisions Update, Develop FEMA Building Code Related Fact Sheets and Provide Publication Support

The Contractor, in consultation with FEMA, will support ad hoc study to support the PUC and FRC work or develop materials to help advance relevant earthquake mitigation and resilience information for at-risk communities to adopt and enforce seismic codes and standards.

The Contractor shall continue to support the 2020 *NEHRP Provisions*, Design Examples, Training Materials and Design Flow Charts, 2024 IBC and IRC maps (FEMA P-2192) and other relevant resources for any errata, editorial modifications or corrections deemed necessary by customers and FEMA. The Contractor shall provide technical and information support for customers of the FEMA publications.

IV. TASK DELIVERABLE SCHEDULE

<u>Task/Deliverable</u>	<u>Quantity</u>	<u>Due Date</u>
TASK ORDER 006: Support the 2026 Provisions Update Committee, Issue Teams and Functional Recovery Committee		
Task 6.1: Draft Project Work Plan w/ Master Schedule	1 copy	1 st month
Final Project Work Plan w/ Master Schedule	1 copy	2 nd month
PUC/BSSC rules and procedures (revised)	1 copy	1 st month
Quarterly Reports	1 copy	quarterly

Task 6.2: Support for the PUC		
Minutes of PUC meetings	1 copy	1 month after
Task 6.3: Support for the Issue Teams	1 copy	1 month after
Minutes of IT meetings	1 copy	1 month after
Task 6.4: Support for the Functional Recovery Committee		
Minute of Committee meetings	1 copy	1 month after
Task 6.5: Outreach, Information dissemination and Education		
OIDE Plan	1 copy	1 st month
Workshop Proceedings	1 copy	1 month after
Conference Papers & Presentations	1 copy	1 month after
Task 6.6: Ad Hoc Study, Fact Sheet and Publication Support		
Report of ad hoc study or information fact sheet	1 copy	12 th month
FEMA Fact Sheet	1 copy	12 th month

Statement of Work

For

**TASK ORDER 006 SUPPLEMENT: Support for workshop on the 2026
NEHRP Provisions**

Under

FEMA IDIQ Contract

**DEVELOPMENT OF 2026 NEHRP RECOMMENDED SEISMIC
PROVISIONS AND EARTHQUAKE RESILIENCE SUPPORT**

May 23, 2024

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

DEVELOPMENT of 2026 NEHRP RECOMMENDED PROVISIONS

TASK ORDER 006 SUPPLEMENT: Support for workshop on the 2026 NEHRP Provisions

TASK ORDER 006 SUPPLEMENT

The following requirements shall be included as supplement and amendment to the TASK ORDER 006 Statement of Work: The 2026 Provisions Update Committee, Issue Teams, and Functional Recovery (Phase IV)

Task 6.5 Supplement: Outreach, Information Dissemination and Education

The Contractor shall include in the outreach, information dissemination and education plan (OIDE plan) the effort for members of the Provisions Update Committee and Functional Recovery Task Committee to prepare for, deliver at and seek feedback from a public workshop on the seismic code changes developed and being vetted through the BSSC consensus for the 2026 NEHRP Recommended Seismic Provisions.

Workshop on the 2026 NEHRP Provisions

The Contractor in consultation with FEMA project officer and project monitor shall engage with the PUC Chair and Vice Chair, Functional Recovery Task Committee Chair and Vice Chair to select members of the committees to prepare for, present at and seek feedback from a public workshop on the major code change proposals developed and being vetted for the 2026 NEHRP Provisions. The topics and scope of the workshop sessions shall be coordinated with PUC, FT TC leadership and in consultation with FEMA. The Contractor shall collect the workshop presentations to share with the PUC, FR TC and broad audience. The Contractor shall submit the collected presentations to FEMA within one month upon completion of the workshop.

General support for the workshop expenses shall be covered under Task Order 006. In support of the presenters at the workshop, the Contractor in consultation with FEMA project officer, will provide honorarium for up to 10 persons of \$1200 each for their technical services and efforts related to the workshop.

IV. TASK DELIVERABLE SCHEDULE

<u>Task/Deliverable</u>	<u>Quantity</u>	<u>Due Date</u>
Task 6.5: Outreach, Information dissemination and Education		

Workshop Presentations

1 copy

1 month after