



INFORMATION SHEET

NO. S-19

DATE : July 23, 2024

CATEGORY : Structural

SUBJECT : **Properties Subject to the Slope and Seismic Hazard Zone Protection Act (SSPA)**

PURPOSE : The purpose of this Information Sheet is to clarify the permitting process for projects subject to the Slope and Seismic Hazard Protection Act (SSPA) per SFBC Section 106A.4.1.4.

REFERENCE : San Francisco Building Code (SFBC), Current Edition

State of California Department of Conservation Division of Mines and Geology (CDMG) Seismic Hazard Zones Map for San Francisco released November 17, 2000.

Ordinance No. 121-18: Slope and Seismic Hazard Protection Zone Act (effective 6/23/2018)

San Francisco Property Information Map (SFPIM), Topographic Map of San Francisco

BACKGROUND:

Steeply sloped areas and certain defined zones in San Francisco are prone to earth movement that can cause severe damage to public and private properties. To protect public health, safety, and welfare, the Slope and Seismic Hazard Zone Protection Act (SSPA) was created to define requirements for heightened design review for structural integrity and effect on hillside or slope stability and to identify projects that would undergo heightened review.

DISCUSSION :

Maps referenced in this document are as follows:

1. Topographic Map of San Francisco:

Projects subject to the SSPA are those located on a property with a local average slope of 25% or greater. These areas are marked in the Topographic Map of San Francisco and may be viewed digitally on the *Topography – Elevation Contours* layer and the *Slopes of 25% or Greater* layer of the SFPIM at:

<https://sfplanninggis.org/pim/map.html?layers=Slope%20of%2025%20percent%20or%20greater>

2. Seismic Hazard Zone Landslide Map:

Seismic hazard zones due to history of or potential for landslides are recorded in the State of California Department of Conservation Division of Mines and Geology (CDMG), released November 17, 2000. This may be viewed digitally on the *Seismic Hazard Zone – Landslide* layer of the SFPIM at:

<https://sfplanninggis.org/pim/map.html?layers=Seismic%20Hazard%20-%20Landslide>

A. Projects Subject to the SSPA:

Projects must follow the SSPA requirements if the project meets both conditions 1 and 2 of this section. Those subject to the SSPA shall submit the SSPA Checklist (IS S-19 Attachment A) along with the permit submittal documents. Projects located within the Edgehill Slope Protection Area and the Northwest Mount Sutro Area, as defined in SFBC Sections 106A.4.1.2 and 106A.4.1.3, respectively, shall follow the process noted therein instead.

1. The project is on a property where:
 - a. Any portion of the property lies within an earthquake-induced landslides zone as shown in the Seismic Hazard Zone Landslide Map, or
 - b. Any portion of the property exceeds an average slope of one unit vertical to four units horizontal (25% slope) as shown in the Topographic Map of San Francisco.
2. The project involves any one of the following:
 - a. Construction of a new building or structure having over 1,000 square feet of new projected roof area.
 - b. Horizontal and/or vertical addition having over 500 square feet of new projected roof area.
 - c. Shoring or underpinning.
 - d. Grading, including excavation or fill, of over 50 cubic yards of earth materials.
 - e. Any other construction activity that, in the opinion of the Building Official, may have a substantial impact on the slope stability of any property.

B. Projects Exempted from SSPA:

Projects without the following construction activities are exempt from the SSPA and do not require submittal of the SSPA Checklist:

1. Grading, excavation, or fill.
2. Earth-retaining work.
3. Structural alterations.
4. Proposed construction where plans are not required.

C. Permit Application Submittal and SSPA Checklist:

1. Permit application submittals subject to the SSPA shall comply with the Department of Building Inspection (DBI) requirements and guidelines for permit submittal and review.
2. The SSPA shall not conflict with or diminish any other submittal or review criteria established in the SFBC, DBI guidelines or any other regulations.
3. Applicants shall complete all sections of the SSPA Checklist and have the SSPA Checklist attached to or embedded into the plans.
4. A DBI plan reviewer shall review submittal documents and verify completeness and accuracy of the SSPA Checklist.

5. Permit application submittals subject to the SSPA do not qualify for priority processing under San Francisco Administrative Bulletin AB-004 or the permitting time limits under the California state government code.

D. Guidelines for Completing the SSPA Checklist (IS S-19 Attachment A):

1. SSPA Checklist Section 1: Property Location

Applicants shall mark the appropriate box in *Section 1: Property Location* to determine whether the subject property falls within the Earthquake-Induced Landslides Zones in San Francisco. Refer to the Seismic Hazard Zone Landslides Map, which can be accessed by web link as noted above.

2. SSPA Checklist Section 2: Average Slope of Property

Applicants shall mark the appropriate box in *Section 2: Average Slope of Property* to identify whether the local slopes of the subject property exceed 25% slope. Refer to the Topographic Map of San Francisco, which can be accessed by web link as noted above. The “YES” box shall be checked if any portion of the subject property exceeds 25% slope per the referenced map.

3. SSPA Checklist Section 3: Proposed Construction

Applicants shall mark all appropriate boxes in *Section 3: Proposed Construction* associated with the proposed construction. If required, a DBI plan reviewer shall mark the box associated with “Others” indicating additional scope of work that may have a substantial impact on the slope stability of the site or create a potential for earthquake induced landslide hazards.

4. SSPA Checklist Section 4: Licensed Design Professional Verification and Signatures

The licensed design professional of record shall complete all information required in *Section 4: Licensed Design Professional Verification and Signatures* and affix their professional stamp and signature in the appropriate box.

E. Additional Reports Required for Properties Subject to SSPA Ordinance:

In addition to filling out the SSPA Checklist, project sponsors for properties subject to the SSPA must conduct a geotechnical investigation in accordance with SFBC Section 1803.2 and submit a report prepared and signed by both a California licensed geotechnical engineer and a California certified engineering geologist or California licensed geologist in accordance with SFBC Section 1803.6. The report shall address the following per SFBC Section 106A.4.1.4.4:

1. Identify areas of potential slope instabilities.
2. Define potential risks of development due to geological and geotechnical factors, including, but not limited to, ground slopes, soil types, geological conditions and history of landslides in the vicinity.
3. Provide recommendations regarding the appropriate slope instability mitigation strategies, including drainage plans if required.
4. Study historic data to identify any history of landslides in the vicinity of the site.

F. Assignment of a Project Review Tier and Establishment of a SSPA Review Committee (SFBC 106A.4.1.4.3 and SFBC 106A.4.1.4.4)

1. After reviewing the SSPA Checklist and submittal documents, a DBI plan review engineer shall assign a review tier to the project or determine that the project is exempt from the SSPA. *Table 1: Requirements for Assigned Tiers or Exemption* shows the requirements for each assignment.

Table 1: Requirements for Assigned Tiers or Exemption

Tier Assignment or Exemption	Requirements		
	¹ Mandatory Reports per Section E of this Information Sheet	Third Party Heightened Design Review	Structural Advisory Committee Heightened Design Review
EXEMPT	Not Required	Not Required	Not Required
TIER I	Required	Not Required	Not Required
TIER II	Required	Required	Not Required
TIER III	Required	Not Applicable	Required

Footnote:

1. A geotechnical report may still be required per DBI Information Sheet S-05 for the proposed construction activities or for certain site conditions.

EXEMPT:

Under the EXEMPT assignment, mandatory reports per Section E of this information sheet and a third party heightened design review are not required by the SSPA. However, depending on the proposed construction activities or certain site conditions, a geotechnical report may still be required per DBI Information Sheet S-05.

Projects are assigned as EXEMPT where Item a. or Item b. of this section are met:

- The box in *Section 1: Property Location* and the box in *Section 2: Mapped Average Local Slope of Property* of the SSPA Checklist are marked “No”.
- All the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked “No”.

TIER I:

Under the Tier I assignment, geotechnical and geological reports are required. Projects assigned to Tier I are not required to undergo a third party heightened design review.

Projects are assigned to Tier I if Item a. and Item b. of this section are met:

- The box in *Section 1: Property Location* of the SSPA Checklist is marked “No” and the property is NOT in the immediate vicinity of an earthquake-induced landslide hazard area.
- The box in *Section 2: Mapped Average Local Slope of Property* and any of the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked “Yes”.

TIER II:

Under the Tier II assignment, geotechnical and geological reports are required. A third party heightened design review of the project is also required.

Projects are assigned to Tier II if Item a. and Item b. of this section are met:

- If the box in *Section 2: Mapped Average Local Slope of Property* and any of the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked “Yes”.
- The box in *Section 1: Property Location* of the SSPA Checklist is marked “Yes” or the property is in the immediate vicinity of an earthquake-induced landslides hazard area.

If a heightened design review finds that there is a history of landslides in the vicinity of the site that were not identified in the geotechnical and geological reports submitted by the applicant, the permit shall be re-assigned to Tier III, requiring the establishment of a Structural Advisory Committee to perform heightened design review.

Also, if the DBI SSPA Internal Review Committee (see Section F Item 2. of this information sheet), at its discretion, determines from the submitted documents that the project has the potential to substantially impact the slope stability of the site or may create the potential for earthquake-induced landslides, DBI may re-assign the project to Tier III.

TIER III:

Under the Tier III assignment, a structural advisory committee shall be established to perform a heightened design review. Geotechnical and geological reports are required.

Projects are assigned to Tier III if Item a. or Item b. of this section are met:

- a. The box in *Section 1: Property Location* and any of the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked "Yes".
 - b. There is a history of landslides in the vicinity of the project. "Vicinity" shall mean any property adjacent to the subject project site that also appears on the current version of the Seismic Hazard Zone Landslide Map.
2. The director shall appoint the members of the SSPA Internal Review Committee, which shall comprise no less than three DBI engineers with the following minimum qualifications:
- a. A plan review engineer licensed as a Structural Engineer in California.
 - b. A plan review engineer licensed as a Civil Engineer in California.
 - c. A plan review engineer licensed as a Geotechnical Engineer in California.

G. Discretionary Third Party Heightened Design Review

1. A heightened design review is required when a project receives a Tier II assignment as described in Section F of this information sheet. The DBI SSPA Internal Review Committee may also determine that a heightened design review is required.
2. Establishment of the Heightened Design Review Team:
 - a. The SSPA Internal Review Committee shall select the members of the Heightened Design Review Team. The Project Sponsor shall then establish service agreements with each team member directly. Although the team members are contracted with and compensated by the project sponsor for their services, the Heightened Design Review Team shall function under the direction of DBI.
 - b. The Heightened Design Review Team members must not have conflicts of interest with the permit applicant, project sponsor, nor the applicant team, and must not be a part of the design team for the project.
 - c. A potential or actual conflict of interest exists when commitments and/or obligations are likely to be compromised or impaired by material interests or relationships that make a team member unable or potentially unable to render impartial and objective assistance, advice, or services.
 - d. The necessary experts comprising the Heightened Design Review Team are determined based on the proposed permit scope of work and submitted reports described in Section E of this information sheet. The team shall comprise a combination of a licensed geotechnical engineer, a certified engineering geologist, a structural engineer, and/or a civil engineer, as applicable. Members of the team shall be licensed in California in their

respective fields, shall be recognized experts in the relevant fields, and shall possess areas of knowledge and experience relevant to the scope of the project.

- e. Before the commencement of work, each Heightened Design Review Team member shall provide to DBI a written copy of the service agreement, including the proposed scope of work and associated fees, for verification of work scope and start-work approval by DBI. Any subsequent changes to the terms of the service agreement shall be provided to DBI for verification and acceptance.
- f. The Heightened Design Review Team shall provide additional and specialized expertise to supplement DBI's review. The team shall assist DBI in ensuring the design complies with the SFBC and shall report their review findings to DBI (DBI plan review engineer and/or the Internal SSPA Review Committee) directly. The Heightened Design Review Team, applicant's project engineering team, and the DBI plan review engineer shall meet and discuss findings as needed throughout the review process. The DBI plan review engineer shall provide the SSPA Internal Review Committee with regular updates, as necessary, of any reports or findings.
- g. Review by the Heightened Design Review Team does not replace the quality assurance measures ordinarily exercised by the Engineer of Record. Responsibility for the design remains solely with the Engineer of Record, and the burden to demonstrate conformance of the design to the intent of the SFBC provisions and DBI guidelines or regulations remains solely with the Engineer of Record. The responsibility for conducting the plan review resides with the DBI plan review engineer, with assistance from the SSPA Internal Review Committee.

H. Structural Advisory Committee Review

1. Establishment of the Structural Advisory Committee:

- a. Besides the mandatory establishment of a Structural Advisory Committee for review of projects located on sites with history of landslides in the vicinity, DBI may call for the establishment of a SAC, as defined by SFBC Section 105A.6, to review the project and advise on matters pertaining to the design and construction of the project that may affect the slope stability of the site and the potential for earthquake-induced landslide hazards.
- b. The project sponsor shall contract with and directly compensate each Structural Advisory Committee member. However, the Structural Advisory Committee members shall function under the direction of DBI and is responsible for reporting the review findings to DBI directly.
- c. The Structural Advisory Committee members must not have conflicts of interest with the permit applicant, project sponsor, nor the applicant team, and must not be a part of the design team for the project.
- d. A potential or actual conflict of interest exists when commitments and/or obligations are likely to be compromised or impaired by material interests or relationships that make a committee member unable or potentially unable to render impartial and objective assistance, advice, or services.
- e. Before the commencement of work, each Structural Advisory Committee member shall provide a written copy of the service agreement, including the proposed scope of work and associated fees, for verification and start-work approval by DBI. Any subsequent changes to the proposed scope of work or terms of the contract shall be provided to DBI for verification and acceptance.
- f. The Structural Advisory Committee review process shall follow a public forum format and is subject to the Sunshine Ordinance and Brown Act. All meetings shall be duly noticed

to the general public and to neighbors within 300-foot radius of the property. Discussions and deliberations on the merits of the engineering and architectural design by the committee members shall be held only in a public forum.

- g. During their review, the Structural Advisory Committee shall verify that the permit application documents (including drawings, calculations, and reports) have identified and addressed relevant geological and geotechnical issues and have proposed appropriate slope instability mitigation strategies, including drainage.
- h. The Structural Advisory Committee shall also consider various factors related to slope stability mitigation. These include, but are not limited to, ground slopes, soil types, geological conditions, history of landslides in the vicinity, nature of construction nature, proximity and type of neighboring construction, impact of construction activity on safety and stability of the subject property and nearby properties, site stability during proposed construction, and construction means and methods.

2. Communication with City Planning, Public Works and the Fire Department:

No permits for properties requiring a Structural Advisory Committee review shall be issued until the following are completed:

- a. DBI consults with and receives written communication from SF Planning, Public Works, and Fire Department, each of whom must have visited the site.
- b. DBI has received a written report from the Structural Advisory Committee (SAC) concerning the safety and integrity of the proposed design and construction.

3. Mandatory Denial by DBI:

In the event that the Structural Advisory Committee determines that there is a reasonable likelihood that the proposed design and construction will result in unsafe conditions or will increase the likelihood of hillside or slope instability, and if such issues can't be mitigated to the satisfaction of the Structural Advisory Committee, then DBI shall deny the permit. DBI's decision to deny the permit is appealable only to the Board of Appeals.



07/23/2024

Patrick O'Riordan, C.B.O.
Director
Department of Building Inspection

Date

Attachment A: Slope and Seismic Hazard Zone Protection Checklist

This Information Sheet is subject to modification at any time. For the most current version, visit our website at sfdbi.org



SLOPE AND SEISMIC HAZARD ZONE PROTECTION (SSPA) CHECKLIST
A COPY OF THIS DOCUMENT SHALL BE SUBMITTED WITH THE PERMIT APPLICATION

JOB ADDRESS _____ APPLICATION NO. _____ ADDENDUM NO. _____
OWNER NAME _____ OWNER E-MAIL & PHONE NO. _____

This checklist is to be completed in accordance with the instructions provided in Information Sheet S-19.

SECTION 1: PROPERTY LOCATION			SECTION 3: PROPOSED CONSTRUCTION		
PROPERTY IS LOCATED IN AN EARTHQUAKE INDUCED LANDSLIDE AREA ON THE STATE OF CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF MINES AND GEOLOGY (CDMG) SEISMIC HAZARD ZONES MAP FOR SAN FRANCISCO, RELEASED NOVEMBER 17, 2000.	YES	NO	CONSTRUCTION OF NEW BUILDING OR STRUCTURE HAVING OVER 1000 SQFT OF NEW PROJECTED ROOF AREA	YES <input type="checkbox"/>	NO <input type="checkbox"/>
			HORIZONTAL OR VERTICAL ADDITIONS HAVING OVER 500 SQFT OF NEW PROJECTED ROOF AREA	YES <input type="checkbox"/>	NO <input type="checkbox"/>
			SHORING	YES <input type="checkbox"/>	NO <input type="checkbox"/>
			UNDERPINNING	YES <input type="checkbox"/>	NO <input type="checkbox"/>
SECTION 2: MAPPED LOCAL AVERAGE SLOPE OF PROPERTY			GRADING, INCLUDING EXCAVATION OR FILL, OF OVER 50 CUBIC YARDS OF EARTH MATERIAL	YES <input type="checkbox"/>	NO <input type="checkbox"/>
PROPERTY EXCEEDS LOCAL AVERAGE SLOPE OF 4H:1V (25%) GRADE	YES	NO	CONSTRUCTION ACTIVITY LISTED BELOW WHICH MAY HAVE A SUBSTANTIAL IMPACT ON THE SLOPE STABILITY AS DETERMINED BY THE BUILDING OFFICIAL:		
			RETAINING WALL:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
			OTHERS: _____	YES <input type="checkbox"/>	NO <input type="checkbox"/>

SECTION 4: LICENSED DESIGN PROFESSIONAL VERIFICATION AND SIGNATURES

Under penalty of perjury, I certify that the information provided on this form is based on my personal review of the building and its records, or review by others acting under my direct supervision, and is correct to the best of my knowledge.

Prepared by: _____
Engineer/Architect of Record

[Architect/Engineer
Stamp Here]

Telephone _____ Email _____

Signature _____ Date _____

FOR DBI USE ONLY

SLOPE AND SEISMIC HAZARD ZONE PROTECTION (SSPA) - TIER ASSIGNMENT

EXEMPTED: Reports per Section E and Third Party Heightened Design Review Not Required

- Projects are assigned as EXEMPT where Item a. or Item b. of this section are met:
 - a. The box in *Section 1: Property Location* and the box in *Section 2: Mapped Average Local Slope of Property* of the SSPA Checklist are marked “No.”
 - b. All the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked “No.”

A geotechnical report may be required per DBI Information Sheet S-05 for proposed construction activities or for sites with certain site conditions.

TIER I: Reports per Section E Required but Third Party Heightened Design Review Not Required

- Projects are assigned to TIER I if Item a. and Item b. of this section are met:
 - a. The box in *Section 1: Property Location* of the SSPA Checklist is marked “No” and the property is NOT in the immediate vicinity of an earthquake-induced landslides hazard area.
 - b. The box in *Section 2: Mapped Average Local Slope of Property* and any of the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked “Yes.”

TIER II: Reports per Section E and Third Party Heightened Design Review Required

- Projects are assigned to TIER II if Item a. and Item b. of this section are met:
 - a. If the box in *Section 2: Mapped Average Local Slope of Property* and any of the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked “Yes.”
 - b. The box in *Section 1: Property Location* of the SSPA Checklist is marked “Yes” or the property is in the immediate vicinity of an earthquake-induced landslides hazard area.

If DBI determines from the submitted documents that the project may substantially impact the slope stability of the site or create a potential for earthquake-induced landslide hazards, DBI may re-assign the project to Tier III and require that the third party heightened design review be carried out by the establishment of a Structural Advisory Committee.

TIER III: Structural Advisory Committee Review

- Projects are assigned to TIER III if Item a. or Item b. of this section are met:
 - a. The box in *Section 1: Property Location* and any of the boxes in *Section 3: Proposed Construction* of the SSPA Checklist are marked “Yes.”
 - b. There is a history of landslides in the vicinity of the project.

DBI shall require mandatory submittal of reports per IS S-19 Section E. If the report indicates a history of landslide in the vicinity of the site, the permit application is subject to review by a Structural Advisory Committee, as defined by SFBC Section 105A.6.

Tier assigned by: _____
DBI Plan Review Engineer

Comment: _____
