1.1 Building Description

Fire District: Walla Walla Fire District 4

Facility Name: Station 41
Latitude: 46.044
Longitude: -118.325

ASCE 41 Bldg Type: W2
Gross Sq. Ft.: 15,190
Year Built: 1996
Number of Stories: 1

S_{XS BSE-1E}: 0.122 S_{X1 BSE-1E}: 0.066

ASCE 41 Level of Seismicity:

Moderate

Site Class: C V_{S30} (m/s): 450 Structural Drawings Yes

Evaluating Firm: Reid Middleton, Inc.





The building is a partial two-story fire station building with one room mechanical mezzanine at the second floor. The building has maintenance bay, apparatus bay, offices and living quarters. The building was constructed around 1996. The structural system consists of wood frame construction built on a relatively flat grade. The roof system consists of plywood sheathing over wood roof trusses. The framings systems for mechanical mezzanine consists of plywood sheathing over 2x12 floor joists. The gravity system of the building consists of prefabricated wood roof trusses spanning between glulam beams, supported by tube steel posts. The lateral force resisting system of the building is wood frame shear walls with plywood diaphragm at mezzanine and the roof level.

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1.1.1 Building Use

The building is use as a fire station to provide fire truck maintenance and the living quarters for the fire district personnel.

1.1.2 Structural System

Table 1.1-1. Structural System Description of Walla Walla Fire Station #41

Structural System	Description		
Structural Roof	The roof system consists of a 5/8-inch-thick plywood over prefabricated metal plate connected wood trusses spanning between glulam beams and steel posts.		
Foundations	Foundations consist of cast-in-place reinforced concrete shallow spread footings supporting steel columns and concrete strip footings supporting wood stud walls.		
Gravity System	The gravity systems of the building is wood roof trusses spanning between glulam beams, supported by tube steel posts.		
Lateral System	The lateral system consists of plywood roof and mechanical mezzanine floor diaphragms, laterally supported by wood frame shear walls. Sliding and overturning forces from lateral loads are resisted by concrete spread footings.		

1.1.3 Structural System Visual Condition

Table 1.1-2. Structural System Condition Description of Walla Walla Fire Station #41

Structural System	Description
Structural Roof	The roof appeared to be in good condition. No visible signs of damage or deterioration was observed.
Structural Floor(s)	The mechanical mezzanine floor appeared to be in a good condition.
Foundations	The foundation elements were not directly visible, as they are buried in the ground. In general, the building appears to be level, with no signs of distress from differential settlement, likely suggesting the foundations appear to be in good condition.
Gravity System	The condition of the gravity system appears to be good condition. No visible signs of damage or deterioration.
Lateral System	The condition of the lateral system appeared to be good condition. No visible signs of damage or deterioration.

1.2 Seismic Evaluation Findings

1.2.1 Structural Seismic Deficiencies

The structural seismic deficiencies identified during the Tier 1 evaluation are summarized below. Commentary for each deficiency is also provided based on this evaluation.

Table 1-3. Identified Structural Seismic Deficiencies for Walla Walla Fire Station #41

Deficiency	Description
Narrow Wood	The wood shear walls along Apparatus Bay overhead door openings have aspect ratio greater than 2-to-1.
Shear Walls	Further investigation should be performed. Lateral system strengthening by providing seismic straps along the
	openings at the shear walls may be appropriate to mitigate seismic risk.
Narrow Wood	The wood shear walls along south and east facades have aspect ratio greater than 1.5-to-1. Further investigation
Shear Walls	should be performed. Lateral system strengthening by providing seismic straps along the openings or additional
	shear walls may be appropriate to mitigate seismic risk.

1.2.2 Structural Checklist Items Marked as 'U'nknown

Where building structural component seismic adequacy was unknown due to lack of available information or limited observation, the structural checklist items were marked as "unknown". These items require further investigation if definitive determination of compliance or noncompliance is desired. The unknown structural checklist items identified during the Tier 1 evaluation are summarized below. Commentary for each unknown item is also provided based on the evaluation.

Table 1-4. Identified Structural Checklist Items Marked as Unknown for Walla Walla Fire Station #41

Unknown Item	Description
Liquefaction	The liquefaction potential of site soils is unknown at this time given available information. High liquefaction potential is identified per the Department of Natural Resources based on state geologic mapping. Requires further investigation by a licensed geotechnical engineer to determine liquefaction potential.
Surface Fault Rupture	Requires further investigation by a licensed geotechnical engineer to determine susceptibility to slope failure. The structure appears to be located on a relatively flat site.

1.3.1 Nonstructural Seismic Deficiencies

The nonstructural seismic deficiencies identified during the Tier 1 evaluation are summarized below. Commentary for each deficiency is also provided based on this evaluation. Some nonstructural deficiencies may be able to be mitigated by school district staff. Other nonstructural components that require more substantial mitigation may be more appropriately included in a long-term mitigation strategy. Some typical conceptual details for the seismic upgrade of nonstructural components can be found in the FEMA E-74 Excerpts appendix.

Table 1-5. Identified Nonstructural Seismic Deficiencies for Walla Walla Fire Station #41

Deficiency	Description
LSS-1 Fire Suppression Piping	No bracing was observed during the site investigation. Bracing for fire suppression piping may be appropriate to mitigate seismic risk.
LSS-2 Flexible Couplings	Flexible couplings do not appear to be provided at fire suppression piping bends. Flexible coupling for fire suppression piping may be appropriate to mitigate seismic risk.
HM-2 Hazardous Material Storage	Cabinets containing flammable materials in the apparatus bay do not appear to be restrained. Cabinet can be anchored to floor to provide overturning base restraint.
HM-3 Hazardous Material Distribution	Pipeline carrying natural gas is not braced. Bracing for natural gas piping may be appropriate to mitigate seismic risk.
HM-4 Hazardous Flexible Coupling	Natural gas piping does not appear to have flexible couplings. Providing flexible couplings at bends and turns of natural gas piping may be appropriate to mitigate seismic risk.
PT-4 Light Partitions Supported by Ceilings	Available record drawings appear to indicate that partition walls are supported by ceiling systems. Bracing the partition wall may be appropriate to mitigate seismic risk.
PT-4 Light Partitions Supported by Ceilings	The partition walls do not appear to have lateral bracing. Bracing the partition wall may be appropriate to mitigate seismic risk.
C-1 Suspended Lath and Plaster	Suspended lath and plaster ceilings have attachments do not comply with the requirement. Providing additional ceiling attachment may be appropriate to mitigate seismic risk.
CG-8 Overhead Glazing	No information available on glazing. However, it is unlikely that the glazing panes are laminated. Laminating overhead glazing may be appropriate to mitigate seismic risk.
ME-1 Fall-Prone Equipment	Hot water heater in mechanical room do not appear to be braced. Proving bracing may be appropriate to mitigate seismic risk.
P-1 Flexible Couplings	Flexible couplings do not appear to be provided natural gas piping bends. Flexible coupling for fire suppression piping may be appropriate to mitigate seismic risk.
P-2 Fluid and Gas Piping	No bracing was observed on natural gas pipeline during the site investigation. Bracing natural gas piping may be appropriate to mitigate seismic risk.
D-1 Duct Bracing	No bracing provided on the ductwork. Bracing to ductwork may be appropriate to mitigate seismic risk.

1.3.2 Nonstructural Checklist Items Marked as 'U'nknown

Where building nonstructural component seismic adequacy was unknown due to lack of available information or limited observation, the nonstructural checklist items were marked as "unknown". These items require further investigation if definitive determination of compliance or noncompliance is desired. The unknown nonstructural checklist items identified during the Tier 1 evaluation are summarized below. Commentary for each unknown item is also provided based on the evaluation.

Some nonstructural deficiencies may be able to be mitigated by school district staff. Other nonstructural components that require more substantial mitigation may be more appropriately included in a long-term mitigation strategy. Some typical conceptual details for the seismic upgrade of nonstructural components can be found in the FEMA E-74 Excerpts appendix.

Table 1-6. Identified Nonstructural Checklist Items Marked as Unknown for Walla Walla Fire Station #41

Unknown Item	Description		
LSS-5 Sprinkler Ceiling Clearance	No available record drawing information on sprinkle head clearance and unable to verify during site investigation. Evaluation of penetrations may be appropriate to mitigate seismic risk.		
C-4 Edge Clearance	The available record drawings do not have information on the integrated ceilings free edges. The condition could not be verified on site.		
C-6 Edge Support	The available record drawings do not have information on the integrated ceilings edge supports. The condition could not be verified on site.		
LF-1 Independent Support	It is unknown how much the light fixtures weigh. Further investigation should be completed. Adding wires for suspending the light fixtures may be appropriate to mitigate seismic risk.		
M-1 Ties	Available record drawings do not have information on masonry veneer ties and could not observed on site. Further investigation should be performed to ensure that the veneer ties are corrosion resistant. Adding connections for the veneer may be appropriate to mitigate seismic risk.		
M-3 Weakened Planes	Available record drawings do not have information on masonry veneer anchorage locations and could not observed on site. Further investigation should be completed to avoid falling hazards. Adding connections for the veneer may be appropriate to mitigate seismic risk.		
M-6 Anchorage	Available record drawings do not have information on masonry veneer anchors and could not observed on site. Further investigation should be performed to ensure that the masonry veneer is positively anchored to the structural framing. Adding connections for the veneer may be appropriate to mitigate seismic risk.		
ME-4 Mechanical Doors	Not able to verify during site investigation. Further investigation should be performed. Bracing for mechanical door supports may be appropriate to mitigate seismic risk.		
P-3 C-Clamps	The use of one-sided C-clamps are unknown. Further investigation should be performed.		
D-2 Duct Support	The duct supports are unobservable. Further investigation should be performed.		

Photos:



Figure 1-1. Walla Walla Station 41, West Facade



Figure 1-2. Walla Walla Station 41, South Facade



Figure 1-3. Walla Walla Station 41, Partial Southeast Facade



Figure 1-4. Walla Walla Station 41, South Facade

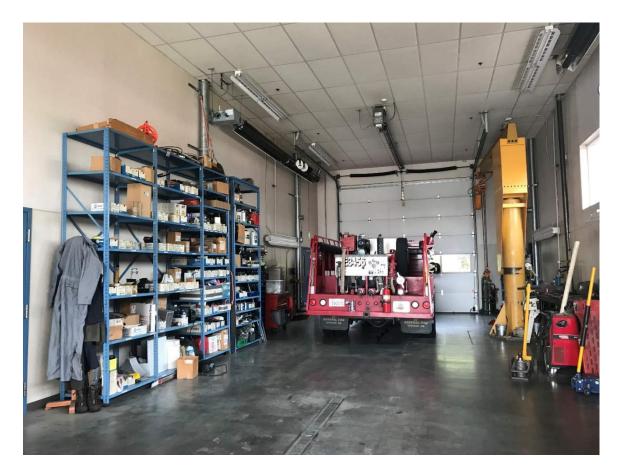


Figure 1-5. Walla Walla Station 41, Apparatus Bay

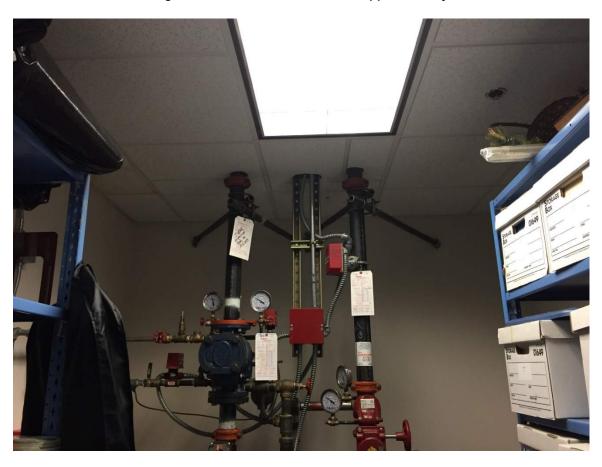


Figure 1-6. Walla Walla Station 41, Mechanical Room



Figure 1-7. Walla Walla Station 41, Overhead Ductwork



Figure 1-8. Walla Walla Station 41, Air Compressor inside Mechanical Room



Figure 1-9. Walla Walla Station 41, Electrical Room

17-3 Immediate Occupancy Basic Configuration Checklist

Building record drawings have been reviewed, when available, and a non-destructive field investigation has been performed for the subject building. Each of the required checklist items are marked Compliant (C), Noncompliant (NC), Not Applicable (N/A), or Unknown (U). Items marked Compliant indicate conditions that satisfy the performance objective, whereas items marked Noncompliant or Unknown indicate conditions that do not. Certain statements might not apply to the building being evaluated.

Very Low Seismicity

Building System - General

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
X				LOAD PATH: The structure contains a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (<i>Tier 2: Sec. 5.4.1.1; Commentary: Sec. A.2.1.1</i>)	
		X		ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 0.5% of the height of the shorter building in low seismicity, 1.0% in moderate seismici ty, and 3.0% in high seismicity. (Tier 2: Sec. 5.4.1.2; Commentary: Sec. A.2.1.2)	No adjacent building.
X				MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure. (<i>Tier 2: Sec. 5.4.1.3; Commentary: Sec. A.2.1.3</i>)	

Building System – Building Configuration

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
		X		WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above. (<i>Tier 2: Sec. 5.4.2.1; Commentary: Sec. A.2.2.2</i>)	1-story building.
		X		SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above. (<i>Tier 2: Sec. 5.4.2.2; Commentary: Sec. A.2.2.3</i>)	
X				VERTICAL IRREGULARITIES: All vertical elements in the seismic-force- resisting system are continuous to the foundation. (<i>Tier 2: Sec. 5.4.2.3; Commentary: Sec. A.2.2.4</i>)	

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
		X		GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines. (<i>Tier 2: Sec. 5.4.2.4; Commentary: Sec. A.2.2.5</i>)	
		X		MASS: There is no change in effective mass of more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered. (<i>Tier 2: Sec. 5.4.2.5; Commentary: Sec. A.2.2.6</i>)	
X				TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension. (<i>Tier 2: Sec. 5.4.2.6; Commentary: Sec. A.2.2.7</i>)	

Low Seismicity

(Complete the Following Items in Addition to the Items for Very Low Seismicity)

Geologic Site Hazards

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
			X	LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance do not exist in the foundation soils at depths within 50 ft (15.2 m) under the building. (<i>Tier 2: Sec. 5.4.3.1; Commentary: Sec. A.6.1.1</i>)	Geotechnical report not available for review.
		X		SLOPE FAILURE: The building site is located away from potential earthquake-induced slope failures or rockfalls so that it is unaffected by such failures or is capable of accommodating any predicted movements without failure. (<i>Tier 2: Sec. 5.4.3.1; Commentary: Sec. A.6.1.2</i>)	Building is founded on flat ground.
			X	SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated. (<i>Tier 2: Sec. 5.4.3.1 ; Commentary: Sec.A.6.1.3</i>)	Geotechnical report not available for review.

Moderate and High Seismicity

(Complete the Following Items in Addition to the Items for Low Seismicity)

Foundation Configuration

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
X				OVERTURNING: The ratio of the least horizontal dimension of the seismic-force- resisting system at the foundation level to the building height (base/height) is greater than 0.6S _a . (<i>Tier 2: Sec. 5.4.3.3; Commentary: Sec. A.6.2.1</i>)	
X				TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C. (<i>Tier 2: Sec. 5.4.3.4; Commentary: Sec. A.6.2.2</i>)	Shallow foundation is tied by concrete slab-on-grade.

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

17-7. Immediate Occupancy Checklist for Building Type W2

Building record drawings have been reviewed, when available, and a non-destructive field investigation has been performed for the subject building. Each of the required checklist items are marked Compliant (C), Noncompliant (NC), Not Applicable (N/A), or Unknown (U). Items marked Compliant indicate conditions that satisfy the performance objective, whereas items marked Noncompliant or Unknown indicate conditions that do not. Certain statements might not apply to the building being evaluated.

Very Low Seismicity

Seismic-Force-Resisting System

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
X				REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (<i>Tier 2: Sec. 5.5.1.1; Commentary: Sec. A.3.2.1.1</i>)	
X				SHEAR STRESS CHECK: The shear stress in the shear walls, calculated using the Quick Check procedure of Section 4.4.3.3, is less than the following values: Structural panel sheathing, 1,000 lb/ft (14.6 kN/m); Diagonal sheathing, 700 lb/ft (10.2 kN/m); Straight sheathing, 100 lb/ft (1.5 kN/m); All other conditions, 100 lb/ft (1.5 kN/m). (<i>Tier 2: Sec. 5.5.3.1.1 ; Commentary: Sec.A.3.2.7.1</i>)	
		X		STUCCO (EXTERIOR PLASTER) SHEAR WALLS: Multistory buildings do not rely on exterior stucco walls as the primary seismic-force-resisting system. (<i>Tier 2: Sec. 5.5.3.6.1; Commentary: Sec. A.3.2.7.2</i>)	No stucco on exterior walls.
		X		GYPSUM WALLBOARD OR PLASTER SHEAR WALLS: Interior plaster or gypsum wallboard is not used for shear walls on buildings more than one story high with the exception of the uppermost level of a multi-story building. (<i>Tier 2: Sec. 5.5.3.6.1; Commentary: Sec. A.3.2.7.3</i>)	Single story building.
	X			NARROW WOOD SHEAR WALLS: Narrow wood shear walls with an aspect ratio greater than 2-to-1 are not used to resist seismic forces. (<i>Tier 2: Sec. 5.5.3.6.1; Commentary: Sec. A.3.2.7.4</i>)	The wood shear walls along apparatus bay overhead doors appear to have aspect ratio greater than 2-to-1.
X				WALLS CONNECTED THROUGH FLOORS: Shear walls have an interconnection between stories to transfer overturning and shear forces through the floor. (<i>Tier 2: Sec. 5.5.3.6.2; Commentary: Sec. A.3.2.7.5</i>)	
		X		HILLSIDE SITE: For structures that are taller on at least one side by more than one-half story because of a sloping site, all shear walls on the downhill slope have an aspect ratio less than 1-to-2. (<i>Tier 2: Sec. 5.5.3.6.3; Commentary: Sec. A.3.2.7.6</i>)	Building is built on flat grade.
		X		CRIPPLE WALLS: Cripple walls below first-floor-level shear walls are braced to the foundation with wood structural panels. (<i>Tier 2: Sec. 5.5.3.6.4; Commentary: Sec. A.3.2.7.7</i>)	No cripple walls.

X		OPENINGS: Walls with openings greater than 80% of the length are braced with wood structural panel shear walls with aspect ratios of not more than 1.5-to-1 or are supported by adjacent construction through positive ties capable of transferring the seismic forces. (<i>Tier 2: Sec. 5.5.3.6.5; Commentary: Sec. A.3.2.7.8</i>)	
X		HOLD-DOWN ANCHORS: All shear walls have hold-down anchors attached to the end studs constructed in accordance with acceptable construction practices. (<i>Tier 2: Sec. 5.5.3.6.6; Commentary: Sec. A.3.2.7.9</i>)	

Connections

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
X				WOOD POSTS: There is a positive connection of wood posts to the foundation. (<i>Tier 2: Sec. 5.7.3.3; Commentary: Sec. A.5.3.3</i>)	
X				WOOD SILLS: All wood sills are bolted to the foundation. (Tier 2: Sec. 5.7.3.3; Commentary: Sec. A.5.3.4)	
X				GIRDER–COLUMN CONNECTION: There is a positive connection using plates, connection hardware, or straps between the girder and the column support. (<i>Tier 2: Sec. 5.7.4.1; Commentary: Sec. A.5.4.1</i>)	

Foundation System

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
		X		DEEP FOUNDATIONS: Piles and piers are capable of transferring the lateral forces between the structure and the soil. (Commentary: Sec. A.6.2.3)	No deep foundation.
		X		SLOPING SITES: The difference in foundation embedment depth from one side of the building to another does not exceed one story. (<i>Commentary: A.6.2.4</i>)	No sloping sites.

Low, Moderate, and High Seismicity

(Complete the Following Items in Addition to the Items for Very Low Seismicity)

Seismic-Force-Resisting System

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
	X				Shear walls along south and east elevations have aspect ratio greater than 1.5-to-1.

Diaphragms

C	NC	N/A	U	EVALUATION STATEMENT	COMMENT
		X		DIAPHRAGM CONTINUITY: The diaphragms are not composed of split-level floors and do not have expansion joints. (<i>Tier 2: Sec. 5.6.1.1; Commentary: Sec. A.4.1.1</i>)	

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
X				ROOF CHORD CONTINUITY: All chord elements are continuous, regardless of changes in roof elevation. (<i>Tier 2: Sec. 5.6.1.1; Commentary: Sec. A.4.1.3</i>)	
X				DIAPHRAGM REINFORCEMENT AT OPENINGS: There is reinforcing around all diaphragm openings larger than 50% of the building width in either major plan dimension. (<i>Tier 2: Sec. 5.6.1.5; Commentary: Sec. A.4.1.8</i>)	
X				STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 1-to-1 in the direction being considered. (<i>Tier 2: Sec. 5.6.2; Commentary: Sec. A.4.2.1</i>)	
X				SPANS: All wood diaphragms with spans greater than 12 ft (3.6 m) consist of wood structural panels or diagonal sheathing. (<i>Tier 2: Sec. 5.6.2; Commentary: Sec. A.4.2.2</i>)	
		X		DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 30 ft (9.1 m) and aspect ratios less than or equal to 3-to-1. (<i>Tier 2: Sec. 5.6.2; Commentary: Sec. A.4.2.3</i>)	
X				OTHER DIAPHRAGMS: The diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (<i>Tier 2: Sec. 5.6.5; Commentary: Sec. A.4.7.1</i>)	Plywood diaphragm.

Connections

С	NC	N/A	U	EVALUATION STATEMENT	COMMENT
X				WOOD SILL BOLTS: Sill bolts are spaced at 4 ft or less with acceptable edge and end distance provided for wood and concrete. (<i>Tier 2: Sec. 5.7.3.3; Commentary: Sec. A.5.3.7</i>)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

17-38. Nonstructural Checklist

Building record drawings have been reviewed, when available, and a non-destructive field investigation has been performed for the subject building. Each of the required checklist items are marked Compliant (C), Noncompliant (NC), Not Applicable (N/A), or Unknown (U). Items marked Compliant indicate conditions that satisfy the performance objective, whereas items marked Noncompliant or Unknown indicate conditions that do not. Certain statements might not apply to the building being evaluated.

Life Safety Systems

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
	X			HR—not required; LS—LMH; PR—LMH. FIRE SUPPRESSION PIPING: Fire suppression piping is anchored and braced in accordance with NFPA-13. (<i>Tier 2: Sec. 13.7.4; Commentary: Sec. A.7.13.1</i>)	Bracing at sprinkler piping is nonexistent.
	X			HR—not required; LS—LMH; PR—LMH. FLEXIBLE COUPLINGS: Fire suppression piping has flexible couplings in accordance with NFPA-13. (<i>Tier 2: Sec. 13.7.4; Commentary: Sec. A.7.13.2</i>)	
X				HR—not required; LS—LMH; PR—LMH. EMERGENCY POWER: Equipment used to power or control Life Safety systems is anchored or braced. (<i>Tier 2: Sec. 13.7.7; Commentary: Sec.</i> A.7.12.1)	Emergency power generator in mechanical room.
		X		HR—not required; LS—LMH; PR—LMH. STAIR AND SMOKE DUCTS: Stair pressurization and smoke control ducts are braced and have flexible connections at seismic joints. (<i>Tier 2: Sec. 13.7.6; Commentary: Sec. A.7.14.1</i>)	
			X	HR—not required; LS—MH; PR—MH. SPRINKLER CEILING CLEARANCE: Penetrations through panelized ceilings for fire suppression devices provide clearances in accordance with NFPA-13. (<i>Tier 2: Sec. 13.7.4; Commentary: Sec. A.7.13.3</i>)	Ceiling clearance unknown.
X				HR—not required; LS—not required; PR—LMH. EMERGENCY LIGHTING: Emergency and egress lighting equipment is anchored or braced. (<i>Tier 2: Sec. 13.7.9;</i> Commentary: Sec. A.7.3.1)	

Hazardous Materials

C	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—LMH; LS—LMH; PR—LMH. HAZARDOUS MATERIAL EQUIPMENT: Equipment mounted on vibration isolators and containing hazardous material is equipped with restraints or snubbers. (<i>Tier 2: Sec. 13.7.1; Commentary: Sec. A.7.12.2</i>)	No hazardous material equipment on vibration isolator.
	X			HR—LMH; LS—LMH; PR—LMH. HAZARDOUS MATERIAL STORAGE: Breakable containers that hold hazardous material, including gas cylinders, are restrained by latched doors, shelf lips, wires, or other methods. (<i>Tier 2: Sec. 13.8.3; Commentary: Sec. A.7.15.1</i>)	Cabinets containing flammable materials are not retrained or anchored.

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
	X			HR—MH; LS—MH; PR—MH. HAZARDOUS MATERIAL DISTRIBUTION: Piping or ductwork conveying hazardous materials is braced or otherwise protected from damage that would allow hazardous material release. (<i>Tier 2: Sec. 13.7.3</i> , 13.7.5; Commentary: Sec. A.7.13.4)	Natural gas piping not braced.
X				HR—MH; LS—MH; PR—MH. SHUTOFF VALVES: Piping containing hazardous material, including natural gas, has shutoff valves or other devices to limit spills or leaks. (<i>Tier 2: Sec. 13.7.3, 13.7.5; Commentary: Sec. A.7.13.3</i>)	Natural gas shutoff valve in kitchen
	X			HR—LMH; LS—LMH; PR—LMH. FLEXIBLE COUPLINGS: Hazardous material ductwork and piping, including natural gas piping, have flexible couplings. (<i>Tier 2: Sec. 13.7.3, 13.7.5; Commentary: Sec. A.7.15.4</i>)	Natural gas piping does not appear to have flexible coupling at some location.
		X		HR—MH; LS—MH; PR—MH. PIPING OR DUCTS CROSSING SEISMIC JOINTS: Piping or ductwork carrying hazardous material that either crosses seismic joints or isolation planes or is connected to independent structures has couplings or other details to accommodate the relative seismic displacements. (<i>Tier 2: Sec. 13.7.3, 13.7.5, 13.7.6; Commentary: Sec.</i> A.7.13.6)	No seismic joint exists.

Partitions

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—LMH; LS—LMH; PR—LMH. UNREINFORCED MASONRY: Unreinforced masonry or hollow-clay tile partitions are braced at a spacing of at most 10 ft (3.0 m) in Low or Moderate Seismicity, or at most 6 ft (1.8 m) in High Seismicity. (<i>Tier 2: Sec. 13.6.2; Commentary: Sec. A.7.1.1</i>)	No URM partition walls.
		X		HR—LMH; LS—LMH; PR—LMH. HEAVY PARTITIONS SUPPORTED BY CEILINGS: The tops of masonry or hollow-clay tile partitions are not laterally supported by an integrated ceiling system. (<i>Tier 2: Sec. 13.6.2; Commentary: Sec. A.7.2.1</i>)	
		X		HR—not required; LS—MH; PR—MH. DRIFT: Rigid cementitious partitions are detailed to accommodate the following drift ratios: in steel moment frame, concrete moment frame, and wood frame buildings, 0.02; in other buildings, 0.005. (<i>Tier 2: Sec. 13.6.2; Commentary: Sec. A.7.1.2</i>)	
	X			HR—not required; LS—not required; PR—MH. LIGHT PARTITIONS SUPPORTED BY CEILINGS: The tops of gypsum board partitions are not laterally supported by an integrated ceiling system. (<i>Tier 2: Sec. 13.6.2; Commentary: Sec. A.7.2.1</i>)	Partition walls appear to be supported by ceiling systems per record drawing Detail 18/A9.
		X		HR—not required; LS—not required; PR—MH. STRUCTURAL SEPARATIONS: Partitions that cross structural separations have seismic or control joints. (<i>Tier 2: Sec. 13.6.2; Commentary: Sec. A.7.1.3</i>)	No structural separation exist.
	X			HR—not required; LS—not required; PR—MH. TOPS: The tops of ceiling-high framed or panelized partitions have lateral bracing to the structure at a spacing equal to or less than 6 ft (1.8 m). (<i>Tier 2: Sec. 13.6.2; Commentary: Sec. A.7.1.4</i>)	No lateral bracings at partition walls.

Ceilings

C	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
	X			HR—H; LS—MH; PR—LMH. SUSPENDED LATH AND PLASTER: Suspended lath and plaster ceilings have attachments that resist seismic forces for every 12 ft ² (1.1 m ²) of area. (<i>Tier 2: Sec. 13.6.4; Commentary: Sec. A.7.2.3</i>)	Ceiling bracing at 4-feet spacing per Detail 16/A9.
	X			HR—not required; LS—MH; PR—LMH. SUSPENDED GYPSUM BOARD: Suspended gypsum board ceilings have attachments that resist seismic forces for every 12 ft ² (1.1 m ²) of area. (<i>Tier 2: Sec. 13.6.4; Commentary: Sec. A.7.2.3</i>)	
X				HR—not required; LS—not required; PR—MH. INTEGRATED CEILINGS: Integrated suspended ceilings with continuous areas greater than 144 ft² (13.4 m²) and ceilings of smaller areas that are not surrounded by restraining partitions are laterally restrained at a spacing no greater than 12 ft (3.6 m) with members attached to the structure above. Each restraint location has a minimum of four diagonal wires and compression struts, or diagonal members capable of resisting compression. (<i>Tier 2: Sec. 13.6.4; Commentary: Sec. A.7.2.2</i>)	
			X	HR—not required; LS—not required; PR—MH. EDGE CLEARANCE: The free edges of integrated suspended ceilings with continuous areas greater than 144 ft² (13.4 m²) have clearances from the enclosing wall or partition of at least the following: in Moderate Seismicity, 1/2 in. (13 mm); in High Seismicity, 3/4 in. (19 mm). (<i>Tier 2: Sec. 13.6.4; Commentary: Sec. A.7.2.4</i>)	
		X		HR—not required; LS—not required; PR—MH. CONTINUITY ACROSS STRUCTURE JOINTS: The ceiling system does not cross any seismic joint and is not attached to multiple independent structures. (<i>Tier 2: Sec. 13.6.4; Commentary: Sec. A.7.2.5</i>)	No seismic joint exists.
			X	HR—not required; LS—not required; PR—H. EDGE SUPPORT: The free edges of integrated suspended ceilings with continuous areas greater than 144 ft² (13.4 m²) are supported by closure angles or channels not less than 2 in. (51 mm) wide. (<i>Tier 2: Sec. 13.6.4 ; Commentary: Sec. A.7.2.6</i>)	
		X		HR—not required; LS—not required; PR—H. SEISMIC JOINTS: Acoustical tile or lay-in panel ceilings have seismic separation joints such that each continuous portion of the ceiling is no more than 2,500 ft² (232.3 m²) and has a ratio of long-to-short dimension no more than 4-to-1. (<i>Tier 2: Sec. 13.6.4; Commentary: Sec. A.7.2.7</i>)	

Light Fixtures

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
			X	HR—not required; LS—MH; PR—MH. INDEPENDENT SUPPORT: Light fixtures that weigh more per square foot than the ceiling they penetrate are supported independent of the grid ceiling suspension system by a minimum of two wires at diagonally opposite corners of each fixture. (<i>Tier 2: Sec. 13.6.4</i> , 13.7.9; Commentary: Sec. A.7.3.2)	

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
X				HR—not required; LS—not required; PR—H. PENDANT SUPPORTS: Light fixtures on pendant supports are attached at a spacing equal to or less than 6 ft. Unbraced suspended fixtures are free to allow a 360-degree range of motion at an angle not less than 45 degrees from horizontal without contacting adjacent components. Alternatively, if rigidly supported and/or braced, they are free to move with the structure to which they are attached without damaging adjoining components. Additionally, the connection to the structure is capable of accommodating the movement without failure. (<i>Tier 2: Sec. 13.7.9; Commentary: Sec. A.7.3.3</i>)	
X				HR—not required; LS—not required; PR—H. LENS COVERS: Lens covers on light fixtures are attached with safety devices. (<i>Tier 2: Sec. 13.7.9; Commentary: Sec. A.7.3.4</i>)	

Cladding and Glazing

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—MH; LS—MH; PR—MH. CLADDING ANCHORS: Cladding components weighing more than 10 lb/ft² (0.48 kN/m²) are mechanically anchored to the structure at a spacing equal to or less than the following: for Life Safety in Moderate Seismicity, 6 ft (1.8 m); for Life Safety in High Seismicity and for Position Retention in any seismicity, 4 ft (1.2 m) (<i>Tier 2: Sec. 13.6.1; Commentary: Sec. A.7.4.1</i>)	No cladding in the building.
		X		HR—not required; LS—MH; PR—MH. CLADDING ISOLATION: For steel or concrete moment-frame buildings, panel connections are detailed to accommodate a story drift ratio by the use of rods attached to framing with oversize holes or slotted holes of at least the following: for Life Safety in Moderate Seismicity, 0.01; for Life Safety in High Seismicity and for Position Retention in any seismicity, 0.02, and the rods have a length-to-diameter ratio of 4.0 or less. (<i>Tier 2: Sec. 13.6.1; Commentary: Sec. A.7.4.3</i>)	
		X		HR—MH; LS—MH; PR—MH. MULTI-STORY PANELS: For multi-story panels attached at more than one floor level, panel connections are detailed to accommodate a story drift ratio by the use of rods attached to framing with oversize holes or slotted holes of at least the following: for Life Safety in Moderate Seismicity, 0.01; for Life Safety in High Seismicity and for Position Retention in any seismicity, 0.02, and the rods have a length-to-diameter ratio of 4.0 or less. (<i>Tier 2: Sec. 13.6.1; Commentary: Sec. A.7.4.4</i>)	
		X		HR—not required; LS—MH; PR—MH. THREADED RODS: Threaded rods for panel connections detailed to accommodate drift by bending of the rod have a length-to-diameter ratio greater than 0.06 times the story height in inches for Life Safety in Moderate Seismicity and 0.12 times the story height in inches for Life Safety in High Seismicity and Position Retention in any seismicity. (<i>Tier 2: Sec. 13.6.1; Commentary: Sec. A.7.4.9</i>)	

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—MH; LS—MH; PR—MH. PANEL CONNECTIONS: Cladding panels are anchored out of plane with a minimum number of connections for each wall panel, as follows: for Life Safety in Moderate Seismicity, 2 connections; for Life Safety in High Seismicity and for Position Retention in any seismicity, 4 connections. (Tier 2: Sec. 13.6.1.4; Commentary: Sec. A.7.4.5)	
		X		HR—MH; LS—MH; PR—MH. BEARING CONNECTIONS: Where bearing connections are used, there is a minimum of two bearing connections for each cladding panel. (<i>Tier 2: Sec. 13.6.1.4; Commentary: Sec. A.7.4.6</i>)	
		X		HR—MH; LS—MH; PR—MH. INSERTS: Where concrete cladding components use inserts, the inserts have positive anchorage or are anchored to reinforcing steel. (<i>Tier 2: Sec. 13.6.1.4; Commentary: Sec. A.7.4.7</i>)	
	X			HR—not required; LS—MH; PR—MH. OVERHEAD GLAZING: Glazing panes of any size in curtain walls and individual interior or exterior panes more than 16 ft ² (1.5 m ²) in area are laminated annealed or laminated heat-strengthened glass and are detailed to remain in the frame when cracked. (<i>Tier 2: Sec. 13.6.1.5; Commentary: Sec. A.7.4.8</i>)	No information available on glazing. However, it is unlikely that the glazing panes are laminated.

Masonry Veneer

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
			X	HR—not required; LS—LMH; PR—LMH. TIES: Masonry veneer is connected to the backup with corrosion-resistant ties. There is a minimum of one tie for every 2-2/3 ft² (0.25 m²), and the ties have spacing no greater than the following: for Life Safety in Low or Moderate Seismicity, 36 in. (914 mm); for Life Safety in High Seismicity and for Position Retention in any seismicity, 24 in. (610 mm). (<i>Tier 2: Sec. 13.6.1.2; Commentary: Sec. A.7.5.1</i>)	
X				HR—not required; LS—LMH; PR—LMH. SHELF ANGLES: Masonry veneer is supported by shelf angles or other elements at each floor above the ground floor. (<i>Tier 2: Sec. 13.6.1.2; Commentary: Sec. A.7.5.2</i>)	
			X	HR—not required; LS—LMH; PR—LMH. WEAKENED PLANES: Masonry veneer is anchored to the backup adjacent to weakened planes, such as at the locations of flashing. (<i>Tier 2: Sec. 13.6.1.2; Commentary: Sec. A.7.5.3</i>)	Information not provided on available record drawings.
		X		HR—LMH; LS—LMH; PR—LMH. UNREINFORCED MASONRY BACKUP: There is no unreinforced masonry backup. (<i>Tier 2: Sec. 13.6.1.1, 13.6.1.2; Commentary: Sec. A.7.7.2</i>)	No URM walls.
		X		HR—not required; LS—MH; PR—MH. STUD TRACKS: For veneer with coldformed steel stud backup, stud tracks are fastened to the structure at a spacing equal to or less than 24 in. (610 mm) on center. (<i>Tier 2: Sec. 13.6.1.1, 13.6.1.2; Commentary: Sec. A.7.6.</i>)	No metal stud walls.

		X	HR—not required; LS—MH; PR—MH. ANCHORAGE: For veneer with concrete block or masonry backup, the backup is positively anchored to the structure at a horizontal spacing equal to or less than 4 ft along the floors and roof. (<i>Tier 2: Sec. 13.6.1.1, 13.6.1.2; Commentary: Sec. A.7.7.1</i>)	Information not provided on available record drawings.
X			HR—not required; LS—not required; PR—MH. WEEP HOLES: In veneer anchored to stud walls, the veneer has functioning weep holes and base flashing. (<i>Tier 2: Sec. 13.6.1.2; Commentary: Sec. A.7.5.6</i>)	
			HR—not required; LS—not required; PR—MH. OPENINGS: For veneer with cold-formed-steel stud backup, steel studs frame window and door openings. (<i>Tier 2: Sec. 13.6.1.1, 13.6.1.2; Commentary: Sec. A.7.6.2</i>)	

Parapets, Cornices, Ornamentation, and Appendages

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—LMH; LS—LMH; PR—LMH. URM PARAPETS OR CORNICES: Laterally unsupported unreinforced masonry parapets or cornices have height-tothickness ratios no greater than the following: for Life Safety in Low or Moderate Seismicity, 2.5; for Life Safety in High Seismicity and for Position Retention in any seismicity, 1.5. (<i>Tier 2: Sec. 13.6.5; Commentary: Sec. A.7.8.1</i>)	
X				HR—not required; LS—LMH; PR—LMH. CANOPIES: Canopies at building exits are anchored to the structure at a spacing no greater than the following: for Life Safety in Low or Moderate Seismicity, 10 ft (3.0 m); for Life Safety in High Seismicity and for Position Retention in any seismicity, 6 ft (1.8 m). (<i>Tier 2: Sec. 13.6.6; Commentary: Sec. A.7.8.2</i>)	
		X		HR—H; LS—MH; PR—LMH. CONCRETE PARAPETS: Concrete parapets with height-to-thickness ratios greater than 2.5 have vertical reinforcement. (<i>Tier 2: Sec. 13.6.5;</i> <i>Commentary: Sec. A.7.8.3</i>)	
X				HR—MH; LS—MH; PR—LMH. APPENDAGES: Cornices, parapets, signs, and other ornamentation or appendages that extend above the highest point of anchorage to the structure or cantilever from components are reinforced and anchored to the structural system at a spacing equal to or less than 6 ft (1.8 m). This evaluation statement item does not apply to parapets or cornices covered by other evaluation statements. (<i>Tier 2: Sec. 13.6.6; Commentary: Sec. A.7.8.4</i>)	

Masonry Chimneys

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—LMH; LS—LMH; PR—LMH. URM CHIMNEYS: Unreinforced masonry chimneys extend above the roof surface no more than the following: for Life Safety in Low or Moderate Seismicity, 3 times the least dimension of the chimney; for Life Safety in High Seismicity and for Position Retention in any seismicity, 2 times the least dimension of the chimney. (<i>Tier 2: Sec. 13.6.7; Commentary: Sec. A.7.9.1</i>)	No masonry chimney in the building.

		HR—LMH; LS—LMH; PR—LMH. ANCHORAGE: Masonry chimneys are anchored at each floor level, at the topmost ceiling level, and at the roof. (<i>Tier 2: Sec. 13.6.7; Commentary: Sec. A.7.9.2</i>)	
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Stairs

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—not required; LS—LMH; PR—LMH. STAIR ENCLOSURES: Hollow-clay tile or unreinforced masonry walls around stair enclosures are restrained out of plane and have height-to-thickness ratios not greater than the following: for Life Safety in Low or Moderate Seismicity, 15-to-1; for Life Safety in High Seismicity and for Position Retention in any seismicity, 12-to-1. (<i>Tier 2: Sec. 13.6.2, 13.6.8; Commentary: Sec. A.7.10.1</i>)	
		X		HR—not required; LS—LMH; PR—LMH. STAIR DETAILS: The connection between the stairs and the structure does not rely on post-installed anchors in concrete or masonry, and the stair details are capable of accommodating the drift calculated using the Quick Check procedure of Section 4.4.3.1 for moment-frame structures or 0.5 in. for all other structures without including any lateral stiffness contribution from the stairs. (<i>Tier 2: Sec. 13.6.8; Commentary: Sec. A.7.10.2</i>)	

Contents and Furnishings

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—LMH; LS—MH; PR—MH. INDUSTRIAL STORAGE RACKS: Industrial storage racks or pallet racks more than 12 ft high meet the requirements of ANSI/RMI MH 16.1 as modified by ASCE 7, Chapter 15. (<i>Tier 2: Sec. 13.8.1; Commentary: Sec. A.7.11.1</i>)	No industrial storage racks.
		X		HR—not required; LS—H; PR—MH. TALL NARROW CONTENTS: Contents more than 6 ft (1.8 m) high with a height-to-depth or height-to-width ratio greater than 3-to-1 are anchored to the structure or to each other. (<i>Tier 2: Sec. 13.8.2; Commentary: Sec. A.7.11.2</i>)	
		X		HR—not required; LS—H; PR—H. FALL-PRONE CONTENTS: Equipment, stored items, or other contents weighing more than 20 lb (9.1 kg) whose center of mass is more than 4 ft (1.2 m) above the adjacent floor level are braced or otherwise restrained. (<i>Tier 2: Sec. 13.8.2; Commentary: Sec. A.7.11.3</i>)	
		X		HR—not required; LS—not required; PR—MH. ACCESS FLOORS: Access floors more than 9 in. (229 mm) high are braced. (<i>Tier 2: Sec. 13.6.10; Commentary: Sec. A.7.11.4</i>)	No access floor.
		X		HR—not required; LS—not required; PR—MH. EQUIPMENT ON ACCESS FLOORS: Equipment and other contents supported by access floor systems are anchored or braced to the structure independent of the access floor. (<i>Tier 2: Sec. 13.7.7 13.6.10; Commentary: Sec. A.7.11.5</i>)	No access floor.
		X		HR—not required; LS—not required; PR—H. SUSPENDED CONTENTS: Items suspended without lateral bracing are free to swing from or move with the structure from which they are suspended without damaging themselves or adjoining components. (Tier 2: Sec. 13.8.2; Commentary: Sec. A.7.11.6)	

Mechanical and Electrical Equipment

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
	X			HR—not required; LS—H; PR—H. FALL-PRONE EQUIPMENT: Equipment weighing more than 20 lb (9.1 kg) whose center of mass is more than 4 ft (1.2 m) above the adjacent floor level, and which is not in-line equipment, is braced. (<i>Tier 2: Sec. 13.7.1 13.7.7; Commentary: Sec. A.7.12.4</i>)	Hot water heater in mechanical room do not appear to be braced.
		X		HR—not required; LS—H; PR—H. IN-LINE EQUIPMENT: Equipment installed in line with a duct or piping system, with an operating weight more than 75 lb (34.0 kg), is supported and laterally braced independent of the duct or piping system. (<i>Tier 2: Sec. 13.7.1; Commentary: Sec. A.7.12.5</i>)	
X				HR—not required; LS—H; PR—MH. TALL NARROW EQUIPMENT: Equipment more than 6 ft (1.8 m) high with a height-to-depth or height-to-width ratio greater than 3-to-1 is anchored to the floor slab or adjacent structural walls. (<i>Tier 2: Sec. 13.7.1 13.7.7; Commentary: Sec. A.7.12.6</i>)	
			X	HR—not required; LS—not required; PR—MH. MECHANICAL DOORS: Mechanically operated doors are detailed to operate at a story drift ratio of 0.01. (<i>Tier 2: Sec.</i> 13.6.9; Commentary: Sec. A.7.12.7)	
		X		HR—not required; LS—not required; PR—H. SUSPENDED EQUIPMENT: Equipment suspended without lateral bracing is free to swing from or move with the structure from which it is suspended without damaging itself or adjoining components. (<i>Tier 2: Sec. 13.7.1, 13.7.7; Commentary: Sec. A.7.12.8</i>)	
X				HR—not required; LS—not required; PR—H. VIBRATION ISOLATORS: Equipment mounted on vibration isolators is equipped with horizontal restraints or snubbers and with vertical restraints to resist overturning. (<i>Tier 2: Sec. 13.7.1; Commentary: Sec. A.7.12.9</i>)	
X				HR—not required; LS—not required; PR—H. HEAVY EQUIPMENT: Floor supported or platform-supported equipment weighing more than 400 lb (181.4 kg) is anchored to the structure. (<i>Tier 2: Sec. 13.7.1, 13.7.7; Commentary: Sec. A.7.12.10</i>)	Equipment in mechanical room and apparatus bay area appear to be anchored to the floor.
X				HR—not required; LS—not required; PR—H. ELECTRICAL EQUIPMENT: Electrical equipment is laterally braced to the structure. (<i>Tier 2: Sec. 13.7.7; Commentary: Sec. A.7.12.11</i>)	Electrical equipment appears to be mounted on wall or floor.
	X			HR—not required; LS—not required; PR—H. CONDUIT COUPLINGS: Conduit greater than 2.5 in. (64 mm) trade size that is attached to panels, cabinets, or other equipment and is subject to relative seismic displacement has flexible couplings or connections. (Tier 2: Sec. 13.7.8; Commentary: Sec. A.7.12.12)	Conduits do not appear to have flexible couplings.

Piping

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
	X			HR—not required; LS—not required; PR—H. FLEXIBLE COUPLINGS: Fluid and gas piping has flexible couplings. (<i>Tier 2: Sec. 13.7.3, 13.7.5; Commentary: Sec. A.7.13.2</i>)	Piping does not appear to have flexible coupling.

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
	X			HR—not required; LS—not required; PR—H. FLUID AND GAS PIPING: Fluid and gas piping is anchored and braced to the structure to limit spills or leaks. (<i>Tier 2: Sec. 13.7.3, 13.7.5; Commentary: Sec. A.7.13.4</i>)	No bracing at pipes.
			X	HR—not required; LS—not required; PR—H. C-CLAMPS: One-sided C-clamps that support piping larger than 2.5 in. (64 mm) in diameter are restrained. (<i>Tier 2: Sec. 13.7.3, 13.7.5; Commentary: Sec. A.7.13.5</i>)	Not observable during site visit.
		X		HR—not required; LS—not required; PR—H. PIPING CROSSING SEISMIC JOINTS: Piping that crosses seismic joints or isolation planes or is connected to independent structures has couplings or other details to accommodate the relative seismic displacements. (<i>Tier 2: Sec. 13.7.3, 13.7.5; Commentary: Sec. A.7.13.6</i>)	No seismic joints.

Ducts

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
	X			HR—not required; LS—not required; PR—H. DUCT BRACING: Rectangular ductwork larger than 6 ft² (0.56 m²) in cross-sectional area and round ducts larger than 28 in. (711 mm) in diameter are braced. The maximum spacing of transverse bracing does not exceed 30 ft (9.2 m). The maximum spacing of longitudinal bracing does not exceed 60 ft (18.3 m). (<i>Tier 2: Sec. 13.7.6; Commentary: Sec. A.7.14.2</i>)	No duct bracing present.
			X	HR—not required; LS—not required; PR—H. DUCT SUPPORT: Ducts are not supported by piping or electrical conduit. (<i>Tier 2: Sec. 13.7.6; Commentary: Sec. A.7.14.3</i>)	Not observable during site visit.
				HR—not required; LS—not required; PR—H. DUCTS CROSSING SEISMIC JOINTS: Ducts that cross seismic joints or isolation planes or are connected to independent structures have couplings or other details to accommodate the relative seismic displacements. (<i>Tier 2: Sec. 13.7.6; Commentary: Sec. A.7.14.4</i>)	No seismic joints.

Elevators

C	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—not required; LS—H; PR—H. RETAINER GUARDS: Sheaves and drums have cable retainer guards. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.1</i>)	No elevator in the building.
		X		HR—not required; LS—H; PR—H. RETAINER PLATE: A retainer plate is present at the top and bottom of both car and counterweight. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.2</i>)	
		X		HR—not required; LS—not required; PR—H. ELEVATOR EQUIPMENT: Equipment, piping, and other components that are part of the elevator system are anchored. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.3</i>)	

С	NC	N/A	U	EVALUATION STATEMENT ^{a,b}	COMMENT
		X		HR—not required; LS—not required; PR—H. SEISMIC SWITCH: Elevators capable of operating at speeds of 150 ft/min (0.30 m/min) or faster are equipped with seismic switches that meet the requirements of ASME A17.1 or have trigger levels set to 20% of the acceleration of gravity at the base of the structure and 50% of the acceleration of gravity in other locations. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.4</i>)	
		X		HR—not required; LS—not required; PR—H. SHAFT WALLS: Elevator shaft walls are anchored and reinforced to prevent toppling into the shaft during strong shaking. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.5</i>)	
		X		HR—not required; LS—not required; PR—H. COUNTERWEIGHT RAILS: All counterweight rails and divider beams are sized in accordance with ASME A17.1. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.6</i>)	
		X		HR—not required; LS—not required; PR—H. BRACKETS: The brackets that tie the car rails and the counterweight rail to the structure are sized in accordance with ASME A17.1. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.7</i>)	
		X		HR—not required; LS—not required; PR—H. SPREADER BRACKET: Spreader brackets are not used to resist seismic forces. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.8</i>)	
		X		HR—not required; LS—not required; PR—H. GO-SLOW ELEVATORS: The building has a go-slow elevator system. (<i>Tier 2: Sec. 13.7.11; Commentary: Sec. A.7.16.9</i>)	

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

^a Performance Level: HR = Hazards Reduced, LS = Life Safety, and PR = Position Retention.

^b Level of Seismicity: L = Low, M = Moderate, and H = High