



LAKE HAVASU CITY

Development Services Department ♦ 2330 McCulloch Blvd. North ♦ Lake Havasu City, AZ 86403 ♦ 928-453-4148

SPECIAL INSPECTION CERTIFICATE
(Based on International Building Code)

PROJECT NAME

TRACT: _____ **BLOCK:** _____ **LOT:** _____

**THIS DOCUMENT MUST
REMAIN AT THE CONSTRUCTION SITE
VISIBLE TO ALL INSPECTORS**

**POST ADJACENT TO
THE BUILDING INSPECTION RECORD CARD**

SPECIAL INSPECTION CERTIFICATE

The International Building Code, Section 1704, Appendix J104.3 and the Development Services Department require that certain portions of the building construction be inspected by an approved agency in addition to the required inspections performed by the City inspectors. The code stipulates that the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more special inspectors to provide inspections during construction on the types of work listed under Section 1704.

The permit applicant shall submit a statement of special inspections prepared by the registered design professional in responsible charge in accordance with Section 106.1 as a condition of permit issuance. This statement shall include a complete list of materials and work requiring special inspection by Section 1704, the inspection to be performed and a list of the individuals, approved agencies or firms intended to be retained for conducting such inspections.

An approved agency shall provide all information as necessary for the building official to determine that the agency meets the applicable requirements. The approved agency shall be objective and competent and shall disclose possible conflicts of interest so that objectivity can be confirmed. The approved agency shall have adequate equipment to perform required tests and such equipment shall be periodically calibrated. The approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and/or inspections.

Special inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the building official, and to the registered design professional in responsible charge. Reports shall indicate that work inspected was done in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report documenting required special inspections and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the permit applicant and the building official prior to the start of work.

2. CONCRETE CONSTRUCTION (see IBC Table 1704.4 for all required inspections)		
a. Footings / Foundation	Yes [] N/A []	
b. Walls	Yes [] N/A []	
c. Bolts installed in concrete	Yes [] N/A []	
d. Shotcrete placement	Yes [] N/A []	
e. Precast erection	Yes [] N/A []	
f. Post tensioned concrete	Yes [] N/A []	
g. Prestressed concrete	Yes [] N/A []	
3. MASONRY CONSTRUCTION		
a. Structural masonry	Yes [] N/A []	
1) IBC Table 1704.5.1 (Nonessential facilities)	Yes [] N/A []	
2) IBC Table 1704.5.3 (Essential facilities)	Yes [] N/A []	
4. WOOD CONSTRUCTION		
a. Fabrication of high-load diaphragms	Yes [] N/A []	
5. SOILS (IBC Table 1704.7) Required if specified by registrant or when grading involves 5000 cubic yards or more	Yes [] N/A []	
6. PILE FOUNDATIONS	Yes [] N/A []	
7. SPRAYED FIRE-RESISTANT MATERIALS	Yes [] N/A []	
8. EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)	Yes [] N/A []	
9. SMOKE CONTROL SYSTEMS	Yes [] N/A []	
10. SPECIAL CASES: (IBC Section 1704.13)	Yes [] N/A []	
11. Mechanical and Electrical Component (IBC Section 1707.8)	Yes [] N/A []	
ADDITIONAL LAKE HAVASU REQUIREMENTS	Required	
1. BUILDING PLACEMENT SURVEY Required on all multi-family and commercial projects	Yes [] N/A []	
2. COMPACTION REPORT Minimum compaction 90% <u>or</u> as specified by registrant	Yes []	

- Note:**
1. See IBC Table 1604.5 for list of essential facilities.
 2. Soils report and special inspection is required for essential facilities.

**TABLE 1704.3
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION**

VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD ^a	IBC REFERENCE
1. Material verification of high-strength bolts, nuts and washers:				
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	—	X	Applicable ASTM Material specifications; AISC 360, Section A3.3	—
b. Manufacturer's certificate of compliance required.	—	X	—	—
2. Inspection of high-strength bolting:				
a. Bearing-type connections.	—	X	AISC 360 Section M2.5	1704.3.3
b. Slip-critical connections.	X	X		
3. Material verification of structural steel:				
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	—	—	ASTM A 6 or ASTM A 568	1708.4
b. Manufacturers' certified mill test reports.	—	—	ASTM A 6 or ASTM A 568	
4. Material verification of weld filler materials:				
a. Identification markings to conform to AWS specification in the approved construction documents.	—	—	AISC 360, Section A3.5;	—
b. Manufacturer's certificate of compliance required.	—	—	—	—
5. Inspection of welding:	—	—		
a. Structural steel:				
1) Complete and partial penetration groove welds.	X	—	AWS D1.1	1704.3.1
2) Multi-pass fillet welds.	X	—		
3) Single-pass fillet welds > 5/16"	X	—		
4) Single-pass fillet welds ≤ 5/16"	—	X		
5) Floor and deck welds.	—	X	AWS D 1.3	—
b. Reinforcing Steel:	—	—		
1) Verification of weldability of reinforcing steel other than ASTM A 706.	—	X	AWS D1.4 ACI 318: 3.5.2	
2) Reinforcing steel-resisting flexural and axial forces intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement.	X	—		
3) Shear reinforcement.	X	—		
4) Other reinforcing steel.	—	X		
6. Inspection of steel frame joint details for compliance with approved construction documents:		X		
a. Details such as bracing and stiffening.	—	—	—	1704.3.2
b. Member locations.	—	—		
c. Application of joint details at each connection.	—	—		

For SI: 1 inch = 25.4 mm.

a. Where applicable, see also Section 1707.1, Special Inspection for seismic resistance.

**TABLE 1704.4
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION**

VERIFICATION & INSPECTION	CONTINUOUS	PERIODI C	REFERENCED STANDARD ^a	IBC REFERENCE
1. Inspection of reinforcing steel, including prestressing tendons, and placement.	—	X	ACI 318: 3.5, 7.1-7.7	1913.4
2. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5B.	—	—	AWS D1.4 ACI 318: 3.5.2	—
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased.	X	—	—	1911.5
4. Verifying use of required design mix.	—	X	ACI 318: Ch.4, 5.2-5.4	1904.2.2, 1913.2, 1913.3
5. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	—	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.10
6. Inspection of concrete and shotcrete placement for proper application techniques.	X	—	ACI 318: 5.9, 5.10	1913.6, 1913.7, 1913.8
7. Inspection for maintenance of specified curing temperature and techniques.	—	X	ACI 318: 5.11-5.13	1913.9
8. Inspection of prestressed concrete: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.	X X	—	ACI 318: 18.20 ACI 318: 18.18.4	—
9. Erection of precise concrete members.	—	X	ACI 318: Ch. 16	—
10. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	—	X	ACI 318: 6.2	—
11. Inspect form work for shape, location, and dimensions of concrete member being formed.	—	X	ACI 318:6.1.1	—

For SI: 1 inch – 25.4mm.

a. Where applicable, see also Section 1707.1, Special Inspection for seismic resistance.

**TABLE 1704.5.1
LEVEL 1 SPECIAL INSPECTION (Masonry)**

INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA			
	Continuous during task listed	Periodically during task listed	IBC Section	ACI 530/ASCE 5/TMS 402 ^a	ACI 530.1/ASCE 6/TMS 602 ^a	
1. As masonry construction begins, the following shall be verified to ensure compliance:						
a. Proportions of site-prepared mortar.	—	X	—	—	Art. 2.6A	
b. Construction of mortar joints.		X			Art. 3.3B	
c. Location of reinforcement and connectors.		X			Art. 3.4, 3.6A	
d. Prestressing technique.	—	X	—	—	Art. 3.6B	
e. Grade and size of prestressing tendons and anchorages.	—	X	—	—	Art. 2.4B, 2.4H	
2. The inspection program shall verify:						
a. Size and location of structural elements.	—	X	—	—	Art. 3.3G	
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction..	—	X	—	Sec. 1.2.2(e), 2.1.4, 3.1.6	—	
c. Specified size, grade and type of reinforcement.	—	X	—	Sec. 1.13	Art. 2.4, 3.4	
d. Welding of reinforcing bars.	X	—	—	Sec. 2.1.10.7.2, 3.3.3.4(b)	—	
e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).	—	X	Sec. 2104.3, 2104.4	—	Art. 1.8C, 1.8D	
f. Application and measurement of prestressing force.	—	X	—	—	Art. 3.6B	
3. Prior to grouting, the following shall be verified to ensure compliance:						
a. Grout space is clean.	—	X	—	—	Art. 3.2D	
b. Placement of reinforcement, connectors, prestressing tendons, and anchorages.		X			Sec. 1.13	Art. 3.4
c. Proportions of site-prepared grout and prestressing grout for bonded tendons.		X			Art. 2.6B	
d. Construction of mortar joints.		X			Art. 3.3B	
4. Grout placement shall be verified to ensure compliance with code and construction document provisions.	X	—	—	—	Art. 3.5	
a. Grouting of prestressing bonded tendons.	X	—	—	—	Art. 3.6C	
5. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.	X	—	Sec. 2105.2.2, 2105.3	—	Art. 1.4	
6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.	—	X	—	—	Art. 1.5	

For SI: °C = (°F – 32)/1.8.

a. The specific standards referenced are those listed in Chapter 35.

**TABLE 1704.5.3
LEVEL 2 SPECIAL INSPECTIONS (Masonry)**

INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA		
	Continuous during task listed	Periodically during task listed	IBC Section	ACI 530/ASCE 5/TMS 402 ^a	ACI 530.1/ASCE 6/TMS 602 ^a
1 From the beginning of masonry construction, the following shall be verified to ensure compliance:					
a. Proportions of site-prepared mortar, grout and prestressing grout for bonded tendons.	—	X	—	—	Art. 2.6A
b. Placement of masonry units and construction of mortar joints..	—	X	—	—	Art.3.3B
c. Placement of reinforcement, connectors and prestressing tendons and anchorages.	—	X	—	Sec. 1.13	Art. 3.4, 3.6A
d. Grout space prior to grouting..	X	—	—	—	Art. 3.2D
e. Placement of grout.	X	—	—	—	Art. 3.5
f. Placement of prestressing grout.	X	—	—	—	Art. 3.6C
2. The inspection program shall verify:					
a. Size and location of structural elements.	—	X	—	—	Art. 3.3G
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.	X	—	—	Sec. 1.2.2(e), 2.1.4, 3.1.6	—
c. Specified size, grade and type of reinforcement.		X	—	Sec. 1.13	Art. 2.4, 3.4
d. Welding of reinforcement.	X	—	—	Sec. 2.1.10.7.2, 3.3.3.4(b)	—
e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).	—	X	Sec. 2104.3, 2104.4	—	Art. 1.8C, 1.8D
f. Application and measurement of prestressing force.	X	—	—	—	Art. 3.6B
3. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.	X	—	Sec. 2105.2.2, 2105.3	—	Art. 1.4
4. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.	—	X	—	—	Art. 1.5

For SI: °C = (°F – 32)/1.8.

a. The specific standards referenced are those listed in Chapter 35.