DSA

# 103-22

## LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

☑ Project has a geotechnical report or construction documents require special inspection by a geotechnical engineer.
☐ Project does NOT have and does NOT require a geotechnical report.

| | TYPE | BY |
|---|---|---|
| **S1 \| SOILS - GENERAL** | | |
| ☑ S1a: Site Preparation | Periodic | GE |
| **S2 \| COMPACTION AND FILL** | | |
| ☑ S2a: Fill Materials | Test | LOR* |
| ☑ S2b: Fill Placement | Continuous | GE* |
| ☑ S2c: Compaction | Test | LOR* |
| **S3 \| DRIVEN DEEP FOUNDATIONS (PILES)** | | |
| ☐ S3a: Materials and Members | Continuous | GE* |
| ☐ S3b: Pile Capacity | Test | LOR* |
| ☐ S3c: Driving Operations | Continuous | GE* |
| ☐ S3d: Pile Installation | Continuous | GE* |
| ☐ S3e: Specialty Piles | * | * |
| **S4 \| CAST-IN-PLACE DEEP FOUNDATIONS (PIERS)** | | |
| ☐ S4a: Drilling Operations | Continuous | GE* |
| ☐ S4b: Pier Construction | Continuous | GE* |
| ☐ S4c: Bearing Strata | Continuous | GE* |
| **S5 \| RETAINING WALLS** | | |
| ☑ S5a: Backfill Placement | Continuous | GE* |
| ☐ S5b: Soil Reinf. and Drainage | Continuous | GE* |
| ☐ S5c: Segmental Retaining Walls | Continuous | GE* |
| **S6 \| OTHER SOILS** | | |
| ☐ S6a: Soil Improvement Test | Test | GE* |
| ☐ S6b: Soil Improvement Inspection | Continuous | GE* |
| ☐ S6c: Not used. | N/A | N/A |
| ☐ S6d: Not used. | N/A | N/A |
| ☐ S6e: Not used. | N/A | N/A |
| ☐ S6f: Not used. | N/A | N/A |
| ☐ S6g: Not used. | N/A | N/A |
| ☐ S6h: Not used. | N/A | N/A |
| ☐ S6i: Not used. | N/A | N/A |
| ☐ S6j: Not used. | N/A | N/A |
| ☐ S6k: Not used. | N/A | N/A |
| ☐ S6l: Not used. | N/A | N/A |
| ☐ S6m: Not used. | N/A | N/A |
| ☐ S6n: Not used. | N/A | N/A |

* See Appendix for additional information.

| | TYPE | BY |
|---|---|---|
| **C1 \| CAST-IN-PLACE CONCRETE** | | |
| ☑ C1a: Mix Design | Continuous | SI |
| ☑ C1b: Reinforcing Steel | Test | LOR |
| ☑ C1c: Concrete Material | Test | LOR |
| ☑ C1d: Strength Test | Test | LOR |
| ☑ C1e: Batch Plant Inspection | Continuous | SI |
| **C2 \| PRESTRESSED CONCRETE** | | |
| ☐ C2a: Tendons and Anchorage | Test | LOR |
| ☐ C2b: Tendon Placement | Periodic | SI |
| ☐ C2c: Concrete Strength | Periodic | SI |
| ☐ C2d: Stressing Operations | Continuous | SI |
| **C3 \| PRECAST CONCRETE** | | |
| ☐ C3a: General Fabrication | Continuous | SI |
| ☐ C3b: General Erection | Periodic | SI* |
| ☐ C3c: Diaphragm Connections | Continuous | SI |
| ☐ C3d: Diaphragm Tolerances | Periodic | SI |
| **C4 \| SHOTCRETE** | | |
| ☐ C4a: Placement | Continuous | SI |
| ☐ C4b: Shotcrete Material | Test | LOR |
| **C5 \| POST-INSTALLED ANCHORS** | | |
| ☑ C5a: Inspection | See notes | SI* |
| ☑ C5b: Test | Test | LOR |
| **C6 \| OTHER CONCRETE** | | |
| ☐ C6a: Not used. | N/A | N/A |
| ☐ C6b: Not used. | N/A | N/A |
| ☐ C6c: Not used. | N/A | N/A |
| ☐ C6d: Not used. | N/A | N/A |
| ☐ C6e: Not used. | N/A | N/A |
| ☐ C6f: Not used. | N/A | N/A |
| ☐ C6g: Not used. | N/A | N/A |
| ☐ C6h: Not used. | N/A | N/A |
| ☐ C6i: Not used. | N/A | N/A |
| ☐ C6k: Not used. | N/A | N/A |
| ☐ C6l: Not used. | | |
| Not used. | | |

* See Appendix for additional information.

Project Name: **Arroyo High School**
School District: **El Monte Union High School District**

Application No.: **03-123641** Increment:
File No.: **19-H10**

# LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

| | TYPE | BY |
|---|---|---|
| **M1 \| STRUCTURAL MASONRY f'm PSI:** | | |
| ☐ M1a: Mill Certificates - Reinf. | Periodic | SI* |
| ☐ M1b: Material Certificates | Test | LOR |
| ☐ M1c: Strength Test | Test | LOR |
| ☐ M1d: Mortar Proportions | Periodic | SI |
| ☐ M1e: Grout Proportions | Periodic | SI |
| ☐ M1f: Batch Plant Inspection | | SI |
| ☐ M1g: Core Tests | Test | LOR |
| ☐ M1h: Prisms | Continuous | SI |
| ☐ M1i: Dowels and Supports | Periodic | SI |
| ☐ M1j: Reinforcement and Members | Periodic | SI |
| ☐ M1k: Reinforcement Placement | Continuous | SI |
| ☐ M1l: Grout Placement | Continsuous | SI |
| ☐ M1m: Unit Layup and Joints | Periodic | SI* |
| ☐ M1n: Cold/Hot Weather Work | Periodic | SI |
| ☐ M1o: Anchors and Embeds | Continuous | SI |
| ☐ M1p: Grout Cavity | Continuous | SI |
| **M2 \| VENEER OR GLASS BLOCK PARTITIONS** | | |
| ☑ M2a: Mortar and Grout | Periodic | SI |
| ☐ M2b: Unit Layup and Joints | Periodic | SI |
| ☐ M2c: Wires and Connector | Periodic | SI |
| ☐ M2d: Anchors and Embeds | Periodic | SI |
| ☐ M2e: Cold/Hot Weather Work | Periodic | SI* |
| ☑ M2f: Adhered Veneer Bond | Test | LOR |
| **M3 \| POST-INSTALLED ANCHORS** | | |
| ☐ M3a: Inspection | Varies* | SI* |
| ☐ M3b: Test | Test | LOR |
| **M4 \| OTHER MASONRY** | | |
| ☐ M4a: Not used. | N/A | N/A |
| ☐ M4b: Not used. | N/A | N/A |
| ☐ M4c: Not used. | N/A | N/A |
| ☐ M4d: Not used. | N/A | N/A |
| ☐ M4e: Not used. | N/A | N/A |
| ☐ M4f: Not used. | N/A | N/A |
| ☐ M4g: Not used. | N/A | N/A |
| ☐ M4h: Not used. | N/A | N/A |
| ☐ M4i: Not used. | N/A | N/A |
| ☐ M4j: Not used. | N/A | N/A |
| ☐ M4k: Not used. | | |
| ☐ M4l: Not used. | | |
| ☐ M4m: Not used. | | |
| * See Appendix for additional information. | | |

| | TYPE | BY |
|---|---|---|
| **S/A1 \| STEEL AND ALUMINUM** | | |
| ☑ S/A1a: Material Identification | Periodic | * |
| ☑ S/A1b: Unidentified Material | Test | LOR |
| ☑ S/A1c: Steel Fabrication | Periodic | SI |
| ☑ S/A1d: Buckling Restrained Brace | Test* | LOR |
| **S/A2 \| HIGH-STRENGTH BOLTS** | | |
| ☑ S/A2a: Product Verification | Periodic | SI |
| ☑ S/A2b: Bolts, Nuts, and Washers | Test | LOR |
| ☑ S/A2c: Snug Tight | Periodic | SI |
| ☑ S/A2d: Pretensioned / Slip-Critical | * | SI |
| **S/A3 \| WELDING** | | |
| ☑ S/A3a: Weld Material | Periodic | SI |
| ☑ S/A3b: Certificate of Compliance | Periodic | SI |
| ☑ S/A3c: WPS and Qualifications | Periodic | SI |
| **S/A4 \| SHOP WELDING** | | |
| ☑ S/A4a: Weld Category A | Continuous | SI |
| ☑ S/A4b: Weld Category B | Periodic | SI |
| ☑ S/A4c: Stairs and Railing | Periodic | SI |
| ☑ S/A4d: Reinf. Steel Weldability | Periodic | SI |
| ☑ S/A4e: Reinforcing Steel | Continuous | SI |
| **S/A5 \| FIELD WELDING** | | |
| ☑ S/A5a: Weld Category A | Continuous | SI |
| ☑ S/A5b: Weld Category B | Periodic | SI |
| ☑ S/A5c: End Welded Studs | Periodic | SI |
| ☑ S/A5d: Deck Welds | Periodic | SI |
| ☑ S/A5e: Cold-Formed Steel | Periodic | SI |
| ☑ S/A5f: Stairs and Railing | Periodic | SI |
| ☑ S/A5g: Reinf. Steel Weldability | Periodic | SI |
| ☑ S/A5h: Reinforcing Steel | Continuous | SI |
| **S/A6 \| NONDESTRUCTIVE TESTING** | | |
| ☑ S/A6a: Ultrasonic | Test | LOR |
| ☑ S/A6b: Magnetic Particle | Test | LOR |
| ☐ S/A6c:Not used. | N/A | N/A |
| ☐ S/A6d:Not used. | N/A | N/A |
| ☐ S/A6e:Not used. | N/A | N/A |
| **S/A7 \| STEEL JOISTS AND TRUSSES** | | |
| ☐ S/A7a: Fabrication | Continuous | SI |
| **S/A8 \| SPRAYED FIRE-RESISTANT MATERIALS** | | |
| ☐ S/A8a: Surface and Installation | Periodic | SI |
| ☐ S/A8b: Density | Test | LOR |
| ☐ S/A8c: Bond: Adhesion/Cohesion | Test | LOR |
| * See Appendix for additional information. | | |

Project Name: **Arroyo High School** Application No.: **03-123641** Increment:

School District: **El Monte Union High School District** File No.: **19-H10**

# LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

| | TYPE | BY |
|---|---|---|
| **S/A9 \| ANCHOR BOLTS AND ANCHOR RODS** | | |
| ☑ S/A9a: Anchor Rods and Bolts | Test | LOR |
| ☑ S/A9b: Other Threaded Rods | Test | LOR |
| **S/A10 \| STORAGE RACK SYSTEMS** | | |
| ☐ S/A10a: Material Verification | Periodic | SI |
| ☐ S/A10b: Fabrication | Periodic | SI |
| ☐ S/A10c: Anchorage | Periodic | SI |
| ☐ S/A10d: Completed System | Periodic | SI* |
| **S/A11 \| OTHER STEEL AND ALUMINUM** | | |
| ☐ S/A11a: Not used. | N/A | N/A |
| ☐ S/A11b: Not used. | N/A | N/A |
| ☐ S/A11c: Not used. | N/A | N/A |
| ☐ S/A11d: Not used. | N/A | N/A |
| ☐ S/A11e: Not used. | N/A | N/A |
| ☐ S/A11f: Not used. | N/A | N/A |
| ☐ S/A11g: Not used. | N/A | N/A |
| ☐ S/A11h: Not used. | N/A | N/A |
| ☐ S/A11i: Not used. | N/A | N/A |
| ☐ S/A11j: Not used. | N/A | N/A |
| **W1 \| PREFABRICATED WOOD TRUSSES** | | |
| ☐ W1a: Open Web Truss Fabrication | Continuous | SI |
| ☐ W1b: Metal Plate Truss Fabrication | Continuous | SI |
| **W2 \| MANUFACTURED WOOD ELEMENTS** | | |
| ☐ W2a: GL Timber Fabrication | Continuous | SI |
| ☐ W2b: CLT Fabrication | Continuous | SI |
| ☐ W2c: Mass Timber Erection | Periodic | SI |
| ☐ W2d: Connections Type A | Periodic | SI |
| ☐ W2e: Connections Type B | Continuous | SI |
| ☐ W2f: Sealants | Periodic | SI |
| **W3 \| OTHER WOOD** | | |
| ☐ W3a: Not used. | N/A | N/A |
| ☐ W3b: Not used. | N/A | N/A |
| ☐ W3c: Not used. | N/A | N/A |
| ☐ W3d: Not used. | N/A | N/A |
| ☐ W3e: Not used. | N/A | N/A |
| ☐ W3f: Not used. | N/A | N/A |
| ☐ W3g: Not used. | N/A | N/A |
| ☐ W3h: Not used. | N/A | N/A |

* See Appendix for additional information.

| | TYPE | BY |
|---|---|---|
| **X \| OTHER** | | |
| ☐ X01: Product Load Test* | Test | LOR |
| ☐ X02: Non-HSB Installation Torque | Continuous | SI* |
| ☑ X03: Solar Panel | Continuous | LOR |
| ☑ X04: Solar Panel | Test | LOR |
| ☐ X05: Not used. | N/A | N/A |
| ☐ X06: Not used. | N/A | N/A |
| ☐ X07: Not used. | N/A | N/A |
| ☐ X08: Not used. | N/A | N/A |
| ☐ X09: Not used. | N/A | N/A |
| ☐ X10: Not used. | N/A | N/A |

**EXEMPTIONS**

Those items identified on the DSA-approved construction documents with a note indicating they are not part of the DSA approval or those items checked below are exempt from test and special inspection requirements. The project inspector shall verify all construction complies with the approved construction documents.

- ☐ Soils: Eligible shallow foundation elements**.
- ☐ Soils: Eligible deep foundation elements - type 1**.
- ☐ Soils: Eligible deep foundation elements - type 2**.
- ☑ Concrete/Masonry: Eligible post-installed anchors**.
- ☐ Concrete: Batch plant inspection for items listed in and complying with CBC Section 1705A.3.3.2.
- ☐ Concrete: Epoxy shear dowels in nonstructural slab-on-grade per CBC Section 1910A.5.4, Exception #4.
- ☐ Concrete/Masonry: Reinforcing bar testing for items listed in and complying with CBC Section 1910A.2.
- ☐ Masonry: Freestanding site walls and retaining walls per DSA IR 21-1.
- ☐ Concrete: Eligible precast elements**.
- ☑ Welding: Eligible fences and gates**.
- ☑ Welding: Eligible railing and ramps**.
- ☑ Welding: Eligible interior cold-formed steel framing**.
- ☑ Welding: Eligible equipment curbs**.
- ☑ Welding: Eligible components supporting MEP distribution systems**.
- ☑ Welding: Eligible mounts and recreational equipment**.
- ☑ Welding: Eligible nonstructural components**.

** See Appendix for eligibility requirements.

Project Name: **Arroyo High School** Application No.: **03-123641** Increment:

School District: **El Monte Union High School District** File No.: **19-H10**

# LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

**IMPORTANT:** This form is only a summary list of structural tests and some of the special inspections required for the project. Any items indicated on the approved construction documents with a note stating that the items are not part of the DSA approval are not considered in this form. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The exemption appendix at the end of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of nonstructural components, etc., per Title 24, Part 2, Chapter 17A.

**Legend to TYPE and BY Columns:**

**Continuous** - Indicates continuous special inspection is required.

**Periodic** - Indicates periodic special inspection is required.

**Test** - Indicates a test is required.

**GE** – Indicates special inspection shall be performed by a registered geotechnical engineer or his/her authorized representative, usually associated with the Laboratory of Record.

**LOR** – Indicates test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program (i.e., the Laboratory of Record for the project). See CAC Section 4-335.

**PI** - Indicates special inspection may be performed by a project inspector when specifically approved by DSA.

**SI** - Indicates special inspection shall be performed by an appropriately qualified/approved special inspector.

**Required Verified Reports:**

1. Soils Testing and Inspection: Form DSA 293
2. Structural Testing and Inspection: Form DSA 291
3. Concrete Batch Plant Inspection: Form DSA 291
4. Post-installed Anchors: Form DSA 291 or DSA 292
5. Masonry Inspection: Form DSA 291 or DSA 292
6. Shop Welding Inspection: Form DSA 291 or DSA 292
7. Field Welding Inspection: Form DSA 291 or Form DSA 292
8. High-Strength Bolting Inspection: Form DSA 291 or DSA 292

Verified reports are required on the following DSA forms:

DSA 291: Laboratory of Record Verified Report

DSA 292: Special Inspectors Employed Directly by the District Verified Report

DSA 293: Geotechnical Verified Report




Note: To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends against using secured electronic or digital signatures.

**Name of Design Professional in General Responsible Charge:**

Virginia E. Marquardt

**Name of Structural Engineer of Record (when applicable):**

Robert Randall, S.E.

**Signature of Architect or Structural Engineer:** **Date:**

Virginia E Marquardt

**DSA STAMP**

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123641 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 10/15/2025

Project Name: **Arroyo High School**

School District: **El Monte Union High School District**

Application No.: **03-123641** Increment:

File No.: **19-H10**

# Appendix: LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

**NOTE:** Undefined sections and table references found in this appendix are from the CBC, or California Building Code

| **S1. GENERAL:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S1a: Site Preparation** \| Verify that:<br>• Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations.<br>• Foundation excavations are extended to proper depth and have reached proper material.<br>• Materials below footings are adequate to achieve the design bearing capacity. | * By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.) |

| **S2. SOIL COMPACTION AND FILL:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S2a: Fill Materials** \| Perform classification and testing of fill materials. | * Under the supervision of the geotechnical engineer. |
| **S2b: Fill Placement** \| Verify use of proper materials, densities and inspect lift thicknesses, placement and compaction during placement of fill. | * By geotechnical engineer or his or her qualified representative. (Refer to specific items identified in the Appendix (end of this form) form for exemptions where soils SI and testing may be conducted under the supervision of a geotechnical engineer or LOR's engineering manager. In such cases, the LOR's form DSA 291 shall satisfy the soil SI and test reporting requirements for the exempt items.) |
| **S2c: Compaction** \| Compaction testing. | * Under the supervision of the geotechnical engineer. (Refer to specific items identified in the Appendix (end of this form) for exemptions where soils testing may be conducted under the supervision of a geotechnical engineer or LOR's engineering manager. In such cases, the LOR's form DSA 291 shall satisfy the soil test reporting requirements for the exempt items.) |

| **S3. DRIVEN DEEP FOUNDATIONS (PILES):** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S3a: Materials and Members** \| Verify pile materials, sizes and lengths comply with the requirements. | * By geotechnical engineer or his or her qualified representative. |
| **S3b: Pile Capacity** \| Determine capacities of test piles and conduct additional load tests as required. | * Under the supervision of the geotechnical engineer. |
| **S3c: Driving Operations** \| Inspect driving operations and maintain complete and accurate records for each pile. | * By geotechnical engineer or his or her qualified representative. |

| | |
|---|---|
| **S3d: Pile Installation** \| Verify locations of piles and their plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and record any pile damage. | * By geotechnical engineer or his or her qualified representative. |
| **S3e: Specialty Piles** \| For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge. | * As defined on drawings or specifications. |

| **S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):** | |
|---|---|
| **Test or Special Inspection** | **Code References and Note** |
| **S4a: Drilling Operations** \| Inspect drilling operations and maintain complete and accurate records for each pier. | * By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.) |
| **S4b: Pier Construction** \| Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable); record concrete or grout volumes. | * By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.) |
| **S4c: Bearing Strata** \| Confirm adequate end strata bearing capacity. | * By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.) |

| **S5. RETAINING WALLS:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S5a: Backfill Placement** \| Placement, compaction and inspection of backfill. | 1705A.6.1. * By geotechnical engineer or his or her qualified representative. (See section S2 above). |
| **S5b: Soil Reinf. and Drainage** \| Placement of soil reinforcement and/or drainage devices. | * By geotechnical engineer or his or her qualified representative. |
| **S5c: Segmental Retaining Walls** \| Segmental retaining walls; inspect placement of units, dowels, connectors, etc. | * By geotechnical engineer or his or her qualified representative. See DSA IR 18-2. |

| **S6 \| OTHER SOILS** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S6a** \| Soil Improvements | Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the confirmation testing and analysis to CGS (California Geological Survey) for final acceptance.<br>* By geotechnical engineer or his or her qualified representative. |
| **S6b** \| Inspection of Soil Improvements | * By geotechnical engineer or his or her qualified representative. |
| **S6c.** \| Not used. | N/A |
| **S6d.** \| Not used. | N/A |
| **S6e.** \| Not used. | N/A |
| **S6f.** \| Not used. | N/A |
| **S6g.** \| Not used. | N/A |
| **S6h.** \| Not used. | N/A |
| **S6i.** \| Not used. | N/A |
| **S6j.** \| Not used. | N/A |
| **S6k.** \| Not used. | N/A |
| **S6l.** \| Not used. | N/A |
| **S6m.** \| Not used. | N/A |
| **S6n.** \| Not used. | N/A |

| **C1. CAST-IN-PLACE CONCRETE** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **C1a: Mix Design** \| Verify use of required design mix. | **Table 1705A.3 Item 5, 1903A.5, 1903A.7, 1904A.1, 1904A.2, 1910A.1 ; ACI 318 Ch. 19, 26.4, 26.13.3.2.** |
| **C1b: Reinforcing Steel** \| Identify, sample, and test reinforcing steel. | **Table 1705A.3 Item 1, 1705A.3.9, 1908A.1, 1910A.2; ACI 318 Ch. 20 and Sections 25.2, 25.3, 25.5.1, 26.6.1; DSA IR 17-10 and BU 24-02. (See Appendix (end of this form) for exemptions.)** |
| **C1c: Concrete Material** \| During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete. | **Table 1705A.3 Item 6, 1705A.3.9, 1905A.1.17; ASTM C31, ASTM C172; ACI 318 Sections 26.4, 26.5 & 26.12.** |
| **C1d: Strength Test** \| Test concrete (f'c). | **1905A.1.17; ACI 318 Section 26.12.** |
| **C1e: Batch Plant Inspection** \| Batch plant inspection: Continuous | **Default of "Continuous" per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to "Periodic" subject to requirements in Section 1705A.3.3.1, or not required per 1705A.3.3.2. See IR 17-13. (See Appendix (end of this form) for exemptions.)** |

| **C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **C2a: Tendons and Anchorage** \| Sample and test prestressing tendons and anchorages. | **1705A.3.4 Table 1705A.3 Item 1, 1910A.3; ACI 318 Ch. 20 and Sections 25.2, 26.6.1.** |
| **C2b: Tendon Placement** \| Inspect placement of prestressing tendons. | **1705A.3.4, Table 1705A.3 Items 1 & 9; ACI 318 Ch. 20 and Sections 25.2, 26.6.1-26.6.3.** |
| **C2c: Concrete Strength** \| Verify in-situ concrete strength prior to stressing of post-tensioning tendons. | **Table 1705A.3 Item 13; ACI 318 Sections 26.10.2, 26.11.2, 26.13.3.3. Special inspector to verify specified concrete strength test prior to stressing.** |
| **C2d: Stressing Operations** \| Inspect application of post-tensioning or prestressing forces and grouting of bonded prestressing tendons. | **1705A.3.4, Table 1705A.3 Item 9; ACI 318 Sections 26.10.2, 26.13.1, 26.13.3.2.** |

| **C3. PRECAST CONCRETE (IN ADDITION TO SECTION C1):** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **C3a: General Fabrication** \| 1. Inspect fabrication of precast concrete members. *<br>2. Inspect reinforcement of the following precast concrete elements or system(s):<br>a. special moment frames.<br>b. boundary elements of special structural walls.<br>c. coupling beams. | **1705A.3 Item 1, 7.** See Appendix for exemptions. *May be periodic where fabrication occurs in a PCI-certified plant. For underground structures, NPCA plant certification is acceptable. PCI MNL-116-21; PCI MNL-117-13; NPCA Quality Control Manual (QCM) 17th Edition. See IR A-15. |

| | |
|---|---|
| **C3b: General Erection** \| Inspect erection of precast concrete members. | **Table 1705A.3 Item 10**. |
| **C3c: Diaphragm Connections** \| For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category D, E or F, inspect such connections and reinforcement in the field for:<br><br>1. Installation of the embedded parts.<br>2. Completion of the continuity of reinforcement across joints.<br>3. Completion of connections in the field. | **Table 1705A.3 Item 11**. |
| **C3d: Diaphragm Tolerances** \| Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5. | **Table 1705A.3 Item 12** |

| **C4. SHOTCRETE (IN ADDITION TO SECTION C1):** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **C4a: Placement** \| Inspect shotcrete placement for proper application techniques. | **1705A.3.9, Table 1705A.3 Item 7, 1908A.1, 1908A.2, 1908A.3. See ACI 506.2 Section 3.4, and ACI 506R.** |
| **C4b: Shotcrete Material** \| Sample and test shotcrete ($f'_c$). | **1908A.2 and 1705A.3.9.** |

| **C5. POST-INSTALLED ANCHORS:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **C5a: Inspection** \| Inspect installation of post-installed anchors | **1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318 Sections 26.7.2, 26.13.1, 26.13.3.2, 26.13.3.3. * May be performed by the project inspector when specifically approved by DSA. |
| **C5b: Test** \| Test post-installed anchors. | **1910A.5.** (See Appendix (end of this form) for exemptions.) |

| **C6. OTHER CONCRETE:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **C6a.** \| Not used. | N/A |
| **C6b.** \| Not used. | N/A |
| **C6c**. \| Not used. | N/A |
| **C6d**. \| Not used. | N/A |
| **C6e**. \| Not used. | N/A |
| **C6f**. \| Not used. | N/A |
| **C6g**. \| Not used. | N/A |
| **C6h**. \| Not used. | N/A |
| **C6i**. \| Not used. | N/A |
| **C6j**. \| Not used. | N/A |
| **C6k**. \| Not used. | Not used. |
| **C6l**. \| Not used. | Not used. |

## Appendix: LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

| **M1. STRUCTURAL MASONRY:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **M1a: Mill Certificates - Reinf.** \| Mill certificate indicates compliance with requirements for reinforcement, anchors, ties, fasteners and metal accessories. See item C1(b) for identification, sampling and testing of reinforcing steel. | **2103A.4**; TMS 602-16 Article 1.5B.2 & 2.4. * To be performed by qualified LOR representative. Applicable testing by LOR. See IR 17-10 for unidentified reinforcing steel. |
| **M1b: Material Certificates** \| Producer's certificate of compliance for masonry units, mortar and grout materials. | **1705A.4, 2103A.2, 2103A.3, 2103A.5;** TMS 602 Articles 1.5B.2, 2.1, 2.2, 2.6A and 2.6B, and Table 6 footnote 3. |
| **M1c: Strength Test** \| Test masonry (f'm). | **1705A.4. For Unit Strength: 2105A.3**; TMS 602 Articles 1.4B.2 ,1.5B.1 & 1.5B.2. **For Prism (required when $f'_m$ > 2000 psi):2105A.2;** TMS 602 Articles 1.4B.3, 1.4B.4, 1.5B.1 & 1.5B.2. |
| **M1d: Mortar Proportions** \| Verify proportions or properties of site-prepared, premixed or preblended mortar. | TMS 602, Table 3 (row 5), Table 4 Item 1a. DSA PR 20-01. (See Appendix (end of this form) for exemptions.) |
| **M1e: Grout Proportions** \| Verify proportions or properties of site-prepared, premixed or preblended grout. | TMS 602, Table 3 (row 5), Table 4 Item 2d. (See Appendix (end of this form) for exemptions.) |
| **M1f: Batch Plant Inspection** \| Batch plant inspection: Periodic | Default of **'Continuous'** per **1705A.3.3**. If approved by DSA, batch plant inspection may be reduced to **'Periodic'** subject to requirements in Section **1705A.3.3.1,** or not required per **1705A.3.3.2.** See IR 17-13. Refer to TMS 602 Table 3 and Table 4, Item #3a. (See Appendix (end of this form) for exemptions.) |
| **M1g: Core Tests** \| Test core-drilled samples. | **2105A.4**. (See Appendix (end of this form) for exemptions.) |
| **M1h: Prisms** \| Inspect preparation of prisms. | TMS 602 Articles 1.4.B.3 & 1.4.B.4 & Table 4 Item 4. |
| **M1i: Dowels and Supports** \| Verify size, location and condition of all dowels, construction supporting masonry, etc. | |
| **M1j: Reinforcement and Members** \| Verify size, grade and type of reinforcement, connectors, and anchor bolts. Verify size and location of structural members. | TMS 602 Table 4, Items 1c & 3c. |
| **M1k: Reinforcement Placement** \| Inspect placement of reinforcement, anchor bolts, and connectors. | TMS 602 Table 4 Item 2c. |
| **M1l: Grout Placement** \| Placement, consolidation, and reconsolidation of grout. | TMS 602 Table 4 Item 3h. |
| **M1m: Unit Layup and Joints** \| Inspect placement of masonry units and construction of mortar joints. | TMS 602 Table 4 Item 3b. |
| **M1n: Cold/Hot Weather Work** \| Verify preparation, construction and protection of masonry during cold weather (temperature below 40º F) or hot weather (temperature above 90º F). | TMS 602 Table 4 Item 3f. * May be performed by the project inspector when specifically approved by DSA. |
| **M1o: Anchors and Embeds** \| Inspect type, size and location of anchors and all other items to be embedded in masonry including other details of anchorage of masonry | TMS 602 Table 4 Item 3d. |

| | |
|---|---|
| to structural members, frames and other construction. | |
| **M1p: Grout Cavity** \| Inspect grout space, including mortar protrusions, prior to placement of grout. | TMS 602 Table 4 Item 2a. |

| **M2. VENEER OR GLASS BLOCK PARTITIONS:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **M2a: Mortar and Grout** \| Verify proportions of site prepared mortar and grout and/or verify certification of premixed mortar. | TMS 602 Table 3 (row 5) and Table 4 Items 1a & 2d. |
| **M2b: Unit Layup and Joints** \| Inspect placement of units and construction of mortar joints. | TMS 602 Table 4 Item 3b. |
| **M2c: Wires and Connector** \| Inspect placement of wire, connectors and anchors | TMS 602 Table 4 Item 2c. |
| **M2d: Anchors and Embeds** \| Inspect type, size and location of anchors and all other items to be embedded in masonry veneer including details of anchorage of masonry to veneer backing, frames and other construction. | TMS 602 Table 4 Item 3d. |
| **M2e: Cold/Hot Weather Work** \| Verify preparation, construction and protection of masonry during cold weather (temperature below 40º F) or hot weather (above 90º F). | TMS 602 Table 4 Item 3f. * May be performed by the project inspector when specifically approved by DSA. |
| **M2f: Adhered Veneer Bond** \| Test adhered veneer bond strength. | **1410.2.1 (Field-constructed mock-up using specified unit, mortar, and substrate, laboratory tested in accordance with ASTM C1823).** |

| **M3. POST-INSTALLED ANCHORS IN MASONRY:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **M3a: Inspection** \| Inspect installation of post-installed anchors | **1617A.1.19, 1705A.4, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic);** ACI 318 Section 26.13. * May be performed by the project inspector when specifically approved by DSA. (See Appendix (end of this form) for exemptions.) |
| **M3b: Test** \| Test post-installed anchors. | **1705A.4, 1910A.5.** (See Appendix (end of this form) for exemptions.) |

| **M4. OTHER MASONRY:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **M4a.** \| Not used. | N/A |
| **M4b.** \| Not used. | N/A |
| **M4c.** \| Not used. | N/A |
| **M4d.** \| Not used. | N/A |
| **M4e.** \| Not used. | N/A |
| **M4f.** \| Not used. | N/A |
| **M4g.** \| Not used. | N/A |
| **M4h.** \| Not used. | N/A |
| **M4i.** \| Not used. | N/A |
| **M4j.** \| Not used. | N/A |
| **M4k.** \| Not used. | Not used. |
| **M4l.** \| Not used. | Not used. |

## Appendix: LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

| S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A1a: Material Identification** \| Verify identification of all materials and:<br>• Mill certificates indicate material properties that comply with requirements.<br>• Material sizes, types and grades comply with requirements. | **Table 1705A.2.1 Item 3a–3c.** 2202A.1**;** AISI S100 Section A3.1 & A3.2, AISI S240 Section A3 & A5, AISI S220 Sections A4 & A6. *By special inspector or qualified technician when performed off-site. |
| **S/A1b: Unidentified Material** \| Test unidentified materials | **2202A.1.** |
| **S/A1c: Steel Fabrication** \| Verify and document steel fabrication per DSA- approved construction documents. | Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**). |
| **S/A1d: Buckling Restrained Brace** \| Verify and document steel fabrication per DSA-approved construction documents. | Testing and special inspections in accordance with IR 22-4. For DSA accepted fabrication shops, BRB manufacturer's Certificate of Compliance in lieu of testing and special inspections. See IR 22-4. |

| S/A2. HIGH-STRENGTH BOLTS: | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A2a: Product Verification** \| Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents. | **Table 1705A.2.1 Items 1a & 1b, 2202A.1;** AISC 360 Section A3.3, J3.1, and N3.2; RCSC Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9. |
| **S/A2b: Bolts, Nuts, and Washers** \| Test high-strength bolts, nuts and washers. | **Table 1705A.2.1 Item 1c, 2213A.1**; RCSC Section 7.2; DSA IR 17-8. |
| **S/A2c: Snug Tight** \| Bearing-type ("snug tight") connections. | **Table 1705A.2.1 Item 2a, 1705A.2.6, 2204A.2**; AISC 360 J3.1, J3.2, M2.5 & N5.6; RCSC Section 9.1; DSA IR 17-9. |
| **S/A2d: Pretensioned / Slip-Critical** \| Pretensioned and slip-critical connections. | **Table 1705A.2.1 Items 2b & 2c, 1705A.2.6, 2204A.2;** AISC 360 J3.1, J3.2, M2.5 & N5.6; RCSC Sections 9.2 & 9.3; DSA IR 17-9<br>*"Continuous" or "Periodic" depends on the tightening method used. |

| S/A3. WELDING: | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A3a: Weld Material** \| Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS. | **1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3. |
| **S/A3b: Certificate of Compliance** \| Verify weld filler material manufacturer's certificate of compliance. | DSA IR 17-3. |
| **S/A3c: WPS and Qualifications** \| Verify WPS, welder qualifications and equipment. | DSA IR 17-3. |

| **S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A4a: Weld Category A** \| Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds. | **Table 1705A.2.1 Items 5a.1–4;** AISC 360 (and AISC 341 as applicable); DSA IR 17-3. |
| **S/A4b: Weld Category** B \| Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds. | **1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** AISC 360 (and AISC 341 as applicable); DSA IR 17-3. |
| **S/A4c: Stairs and Railing** \| Inspect welding of stairs and railing systems. | **1705A.2.1**; AISC 360 (and AISC 341 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. |
| **S/A4d: Reinf. Steel Weldability** \| Verification of reinforcing steel weldability other than ASTM A706. | **1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates. |
| **S/A4e: Reinforcing Steel** \| Inspect welding of reinforcing steel. | **Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3. |

| **S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A5a: Weld Category A** \| Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds. | **Table 1705A.2.1 Items 5a.1–4;** AISC 360 (AISC 341 as applicable); DSA IR 17-3. |
| **S/A5b: Weld Category B** \| Inspect single-pass fillet welds ≤ 5/16". | **Table 1705A.2.1 Item 5a.5;** AISC 360 (AISC 341 as applicable); DSA IR 17-3. |
| **S/A5c: End Welded Studs** \| Inspect end-welded studs (ASTM A-108) installation (including bend test). | **2213A.2**; AISC 360 (AISC 341 as applicable); AWS D1.1; DSA IR 17-3. |
| **S/A5d: Deck Welds** \| Inspect floor and roof deck welds. | **1705A.2.2, Table 1705A.2.1 Item 5a.6;** AISC 360 (AISC 341 as applicable); AWS D1.3; DSA IR 17-3. |
| **S/A5e: Cold-Formed Steel** \| Inspect welding of structural cold-formed steel. | **1705A.2.5;** AWS D1.3; DSA IR 17-3. The quality control provisions of AISI S240 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA. |
| **S/A5f: Stairs and Railing** \| Inspect welding of stairs and railing systems. | **1705A.2.1;** AISC 360 (AISC 341 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA. |
| **S/A5g: Reinf. Steel Weldability** \| Verification of reinforcing steel weldability. | **1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates. |
| **S/A5h: Reinforcing Steel** \| Inspect welding of reinforcing steel. | **Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3. |

| **S/A6. NONDESTRUCTIVE TESTING:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A6a: Ultrasonic** \| Ultrasonic | **1705A.2.1, Table 1705A.2.1 Item 4c, 1705A.2.5;** AISC 341 J6.2, AISC 360 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2. |
| **S/A6b: Magnetic Particle** \| Magnetic Particle | **1705A.2.1, Table 1705A.2.1 Item 4c, 1705A.2.5;** AISC 341 J6.2, AISC 360 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2. |
| **S/A6c:** Not used. | N/A |
| **S/A6d:** Not used. | N/A |
| **S/A6e:** Not used. | N/A |

| **S/A7. STEEL JOISTS AND TRUSSES:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A7a: Fabrication** \| Verify size, type and grade for all chord and web members as well as connectors and weld filler material; verify joist profile, dimensions and camber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist. | **1705A.2.3, Table 1705A.2.3;** AWS D1.1; DSA IR 22-3 for steel joists only. **1705A.2.4;** AWS D1.3 for cold-formed steel trusses. |

| **S/A8. SPRAYED FIRE-RESISTANT MATERIALS:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A8a: Surface and Installation** \| Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA-approved documents. | **1705A.15, 1705A.15.1, 1705A.15.2, 1705A.15.3, 1705A.15.4, 1705A.15.5, 1705A.15.6.** |
| **S/A8b: Density** \| Test density. | **1705A.15.1, 1705A.15.5, ASTM E605** |
| **S/A8c: Bond: Adhesion/Cohesion** \| Bond strength adhesion/cohesion. | **1705A.15.1, 1705A.15.6, ASTM E736** |

| **S/A9. ANCHOR BOLTS AND ANCHOR RODS:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A9a: Anchor Rods and Bolts** \| Anchor Bolts and Anchor Rods | Identify, sample and test anchor bolts and anchor rods **not** meeting exemptions identified in Section 1 of IR 17-11. |
| **S/A9b: Other Threaded Rods** \| Threaded rod not used for foundation anchorage. | Identify, sample and test threaded rods **not** meeting exemptions identified in Section 1 of IR 17-11. |

| **S/A10. STORAGE RACK SYSTEMS:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A10a: Material Verification** \| Materials used, to verify compliance with one or more of the material test reports in accordance with the approved construction documents. | Table 1705A.13.7 |
| **S/A10b: Fabrication** \| Fabricated storage rack elements. | 1704A.2.5; Table 1705A.13.7 |
| **S/A10c: Anchorage** \| Storage rack anchorage installation. | ANSI/MH16.1 Section 7.3.2; Table 1705A.13.7 |
| **S/A10d: Completed System** \| Completed storage rack system to indicate compliance with the approved construction documents. | Table 1705A.13.7; * May be preformed by the project inspector when specifically approved by DSA. |

| **S/A11. Other Steel** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **S/A11a.** \| Not used. | N/A |
| **S/A11b.** \| Not used. | N/A |
| **S/A11c.** \| Not used. | N/A |
| **S/A11d.** \| Not used. | N/A |
| **S/A11e.** \| Not used. | N/A |
| **S/A11f.** \| Not used. | N/A |
| **S/A11g.** \| Not used. | N/A |
| **S/A11h.** \| Not used. | N/A |
| **S/A11i.** \| Not used. | N/A |
| **S/A11j.** \| Not used. | N/A |
| **S/A11k.** \| Not used. | Not used. |
| **S/A11l.** \| Not used. | Not used. |

| **W1. PREFABRICATED WOOD TRUSSES:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **W1a: Open Web Truss Fabrication** \| Inspect fabrication of manufactured open-web trusses. | **1705A.5.6;** DSA IR 23-8. |
| **W1b: Metal Plate Truss Fabrication** \| Inspect fabrication of manufactured metal-plate- connected trusses. | **1705A.5.6, 1705A.5.7;** DSA IR 23-4. |

| **W2. MANUFACTURED WOOD STRUCTURAL ELEMENTS:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **W2a: GLS Timber Fabrication** \| Inspect fabrication of structural glued-laminated timber.* | * See **1705A.5.5** for exceptions |
| **W2b: CLT Fabrication** \| Inspect fabrication of cross-laminated timber. | **1705A.5.5** |
| **W2c: Mass Timber Erection** \| Inspect erection of mass timber. | **Table 1705A.5.3**, Item 2 |
| **W2d: Connections Type A** \| Inspect mass timber connections with threaded fasteners, bolts, and/or adhesive anchors other than described in item e below. Inspect concealed mass timber connections. | **Table 1705A.5.3**, Items 3.1, 3.3, 3.4, 3.5. For threaded fasteners: Verify use of proper installation equipment. Verify use of pre-drilled holes where required. Inspect screws, including diameter, length, head type, spacing, installation angle, and depth. |
| **W2e: Connections Type B** \| Inspect mass timber connections with adhesive anchors installed in a horizontal or upward orientation. | **Table 1705A.5.3**, Item 3.2 |
| **W2f: Sealants** \| Inspect application of sealants or adhesives applied to mass timber elements. | **1705A.20** |

| **W3. OTHER Wood:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **W3a.** \| Not used. | N/A |
| **W3b.** \| Not used. | N/A |
| **W3c.** \| Not used. | N/A |
| **W3d.** \| Not used. | N/A |
| **W3e.** \| Not used. | N/A |
| **W3f.** \| Not used. | N/A |
| **W3g.** \| Not used. | N/A |
| **W3h.** \| Not used. | N/A |
| **W3i.** \| Not used. | N/A |
| **W3j.** \| Not used. | N/A |
| **W3k.** \| Not used. | Not used. |
| **W3l.** \| Not used. | Not used. |

| **X1. OTHER:** | |
|---|---|
| **Test or Special Inspection** | **Code References and Notes** |
| **X01.** \| Load test for identified product(s): | 1709A.2, 1709A.3. Testing is not required for: 1) a product with a valid evaluation service report per DSA IR A-5, or 2) a product that can be justified by structural calculation. |
| **X02.** \| Installation torque for non-HS bolts on communication tower identified as essential service facility projects (ESFP). | Calibrated wrench use required, verified by SI during installation. DSA Policy PL 18-01: Communication Towers, Poles and Buildings Utilized by State Agencies for Essential Services Communications. *EXCEPTION: Non-ESFP may use PI without need for notification to DSA. |
| **X03.** \| Solar Panel Attachment | Pre-tension bolt connections and calibration of test equipment. |
| **X04.** \| Solar Panel Attach Bolts | Bolts shall be identified, sampled, and tested in accordance with DSA IR 17-8.19. |
| **X05.** \| Not used. | N/A |
| **X06.** \| Not used. | N/A |
| **X07.** \| Not used. | N/A |
| **X08.** \| Not used. | N/A |
| **X09.** \| Not used. | N/A |
| **X10.** \| Not used. | N/A |

# EXEMPTIONS

| **SOILS - EXEMPTIONS:** |
|---|
| **Soils: Eligible shallow foundation elements** \| Shallow foundations, are exempt from special inspections and testing by a Geotechnical Engineer for the following cases: A) buildings without a geotechnical report and meeting the exception Item #1 criteria in CBC Section 1803A.2 supported by native soil (any excavation depth) or fill soil (not exceeding 12" depth per CBC, Section 1804A.6), B) soil scarification/recompaction not exceeding 12" depth, C) native or fill soil supporting exterior non-structural flatwork (e.g., sidewalks, site concrete ramps, site stairs, parking lots, driveways, etc.), D) unpaved landscaping and playground areas, or E) utility trench backfill with depth not exceeding 12". These exempt structures shall be identified on the approved construction documents. |
| **Soils: Eligible deep foundation elements, Type 1** \| Deep foundation acting as cantilever footing with a design based on minimum allowable pressures per CBC Table 1806A.2 and without a geotechnical report are exempt from special inspection and testing by a Geotechnical Engineer for the following cases: A) free standing sign or scoreboard, B) cell or antenna towers and poles less than 35'-0" tall (e.g., lighting poles, flag poles, poles supporting open mesh fences, etc.). These exempt structures shall be identified on the approved construction documents. |
| **Soils: Eligible deep foundation elements Type 2** \| Deep foundation acting as cantilever footing with a design based on minimum allowable pressures per CBC Table 1806A.2 and without a geotechnical report are exempt from special inspection and testing by a Geotechnical Engineer for the following cases: A) single-story open fabric shade structure, or B) covered walkway structure with an apex height less than 10'-0" above adjacent grade. These exempt structures shall be identified on the approved construction documents. |

| **CONCRETE/MASONRY - EXEMPTIONS:** |
|---|
| **Concrete/Masonry: Eligible post-installed anchors** \| Post-installed anchors for the following: A) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment – see item 7 for "Welding" in the Appendix below) given in CBC Section 1617A.1.18 or B) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding" in the Appendix below. |
| **Concrete: Batch plant inspection for items listed in and complying with CBC Section 1705A.3.3.2.** \| Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section. |
| **Concrete: Epoxy shear dowels in nonstructural slab-on-grade per CBC Section 1910A.5.4, Exception #4.** \| Epoxy shear dowels in site flatwork and/or other nonstructural concrete. |
| **Concrete/Masonry: Reinforcing bar testing for items listed in and complying with CBC Section 1910A.2.** \| Testing of reinforcing bars is not required for items given in CBC Section 1910A.2 subject to the requirements and limitations in that section. These exempt structures shall be identified on the approved construction documents. |
| **Masonry: Freestanding site walls and retaining walls per DSA IR 21-1.** \| Freestanding and site retaining masonry walls may be exempt from certain DSA masonry testing and special inspection items as allowed per DSA IR 21-1. |
| **Eligible precast elements** \| Structural tests and special inspections are not required for the following concrete precast elements. Provide a certificate of compliance at delivery. Exemptions shall be identified on the approved construction documents.<br>1. Underground vaults no greater than 5 feet x 5 feet x unlimited height and pipe manufactured to an ASTM standard, 5 foot or less in diameter.<br>2. Elements manufactured in a PCI or NPCA certified manufacturing plant: |

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| A. Underground vaults no greater than 16 feet in both length and width, of unlimited height, not subject to loading greater than HS 20-44.<br>B. Pipe.<br>C. Stair treads, landing planks. |

| **WELDING - EXEMPTIONS:** |
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| **Welding: Eligible fences and gates** \| Fences, gates with maximum leaf span of 10', and gates with a maximum rolling section of 10' all having an apex height less than 8'-0" above lowest adjacent grade. |
| **Welding: Eligible railing and ramps** \| Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade; fillet welds shall not be ground flush. |
| **Welding: Eligible interior cold-formed steel framing** \| Non-bearing non-shearwall interior cold-formed steel framing spanning less than 15'-0" in height and header less than 10'-0" in opening width, such as in interior partitions, interior soffits, etc. |
| **Welding: Eligible equipment curbs** \| Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection.) |
| **Welding: Eligible components supporting MEP distribution systems** \| Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection.) |
| **Welding: Eligible mounts and recreational equipment** \| TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection.) |
| **Welding: Eligible nonstructural components** \| Any support for exempt non-structural components given in CBC Section 1617A.1.18 meeting the following: A) when supported on a floor/roof, <400# or resulting composite center of mass (including component's center of mass) ≤4' above supporting floor/roof, B) when hung from a wall or roof/floor, and <20# for discrete units or <5 plf for distributed systems. |