

**Code Analysis FORM – 2018 International building code**

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| **BUILDING IDENTIFICATION:**  |  |
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| **CODE ANALYSIS COMPLETION DATE:**  |  |

**PART 1**

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| --- | --- | --- | --- |
| **APPLICABLE CODE** | **YEAR** | **APPLICABLE CODE** | **YEAR** |
| International Building Code (IBC) | 2018 | ADA (ADAAG) | 2010 |
| International Existing Building Code | 2018 | ICC/ANSI A117.1 | 2017 |
| International Fire Code (IFC) | 2018 | NFPA 101 Life Safety Code (State) | 2018 |
| International Mechanical Code (IMC) | 2018 | NFPA 101 Life Safety Code (Federal) | 2015 |
| International Energy Conservation Code (IECC) | 2018 | NFPA 99 Health Care Facilities Code | 2018 |
| International Plumbing Code (IBC) | 2018 | FGI Health Care Guidelines | 2018 |
| National Electric Code | 2017 |  |  |

**PART 2**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Occupancy Group(Chapter 3) | (T601) Const. Type (\*1) |  | Area(506)\*5 | Height(T504.3) \*6 | Stories(T504.4) \*6 | (508) Mixed Use Type (\*3) | (508.4.2)\*4 Area Ratio |
| Floor | Name | Group | Tabular NS(T506.2) | Tabular SM or S1 (T506.2) | Aa (\*2) | Actualft2 | Tabular T504.3ft | Actualft | Tabular (T504.4) | Actual |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Basement - Floor Total: |  |  |  |  |  |  |  |  |  |  |  |  |
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| 1st - Floor Total: |  |  |  |  |  |  |  |  |  |  |  |  |
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| 2nd Floor Total: |  |  |  |  |  |  |  |  |  |  |  |  |
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| 3rd Floor Total: |  |  |  |  |  |  |  |  |  |  |  |  |
| Building Total (\*2) |  |  |  |  |  |  |  |  |  |  |  |

*(\*1) Construction Type shall be the most restrictive occupancy requirement for the entire building (508.3 & 508.4) (\*2) Area- Total building Area dependent on Single or Mixed Occupancy Building (506.2.1 through 506.2.4) & Frontage Increase (506.3) (\*3) Mixed Use - IAO=Incidental Accessory Occupancy / AO=Accessory Occupancy / SO=Separated Occupancies / NSO=Nonseparated Occupancies; gsf= gross square feet; nsf= net square feet; (E) = Existing*

*(\*4) IBC Section 508.4.2: In each story, the building area shall be such that the sum of the ratios of the actual building area of each separated occupancy divided by the allowable building area of each separated occupancy shall not exceed 1.*

*(\*5) 506.2.4 Mixed-occupancy, multistory buildings more than 3 stories above grade plan: Total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories shall not exceed three for NS and four for S.*

*(\*6) IBC 504.2 Mixed occupancy: In a building containing mixed occupancies in accordance with Section 508, no individual occupancy shall exceed the height and number of story limits specified in this section for the applicable occupancies.*

**PART 3 - Allowable Area Determination (506.2.1 through 506.2.4 & 506.3)**

**FRONTAGE INCREASE:** If = [F/P- 0.25]W/30 = (Provide Analysis)

**SINGLE-OCCUPANCY, ONE STORY BUILDINGS (506.2.1)**:

Allowable Area: Aa = At + (NS × If) = (Provide Analysis)

Level X, X Occupancy: Aa = At + (NS × If) = SF

**MIXED-OCCUPANCY, ONE-STORY BUILDINGS (506.2.2):**

Allowable Area: Aa = At + (NS× If) and provisions of Section 508.1 = (Provide Analysis)

Level X, X Occupancy: Aa = At + (NS × If) = SF

**SINGLE-OCCUPANCY, MULTISTORY BUILDINGS (506.2.3):**

Allowable Area: Aa = [At + (NS× If)] × Sa = (Provide Analysis)

Level X, X Occupancy: Aa = [At + (NS × If)] x Sa = SF

Sa = Actual number of building stories above grade plane, not to exceed three. For buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2, use the actual number of building stories above grade plane, not to exceed four.

**MIXED-OCCUPANCY, MULTISTORY BUILDINGS (506.2.4):**

Allowable Area: Aa = [At+(NS× If)] = (Provide Analysis)

Level X, X Occupancy: Aa = [Af + (NS × If)] = SF

>3 Story Bldgs: Total Bldg Area = Aggregate SUM of the Ratios (Actual Floor Area / Allowable Floor Area) = <3 for NS and <4 for S:

Aggregate Sum of the Ratios: = X

 **UNLIMITED AREA (507)** =

 **SPECIAL PROVISIONS (510)** =

**PART 4 - GRADE PLANE ELEVATION & HEIGHT & STORIES (504)**

|  |  |  |
| --- | --- | --- |
| **BUILDING WALL** | **AVERAGE ELEVATION** | **GRADE PLANE ELEVATION** |
| NORTH |  |  |
| SOUTH |  |  |
| EAST |  |  |
| WEST |  |  |
| **TOTAL BUILDING G.P.E.** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **STORY** | **FINISHED FLOOR ELEVATION** | **STORY ABOVE G.P.E.** | **HEIGHT** |
| BASEMENT |  |  |  |
| 1ST FLOOR |  |  |  |
| 2ND FLOOR |  |  |  |
| 3RD FLOOR |  |  |  |
| **TOTAL BUILDING** | **X-STORIES** | **X’-X”** |

**PART 5 - AUTOMATIC FIRE SPRINKLER (903 & T903.2.11.6)**

|  |  |  |
| --- | --- | --- |
| **ITEM** | **REFERENCE** | **COMMENTS** |
| Required |  |  |

**PART 6 - OCCUPANCY SEPARATIONS (T508.4)**

|  |  |  |
| --- | --- | --- |
| **OCCUPANCY/OCCUPANCY** | **RATING** | **IBC/UL DESIGN #** |
|  |  |  |
|  |  |  |
|  |  |  |

**PART 7 - OTHER BUILDING ELEMENTS (T601 and T602)**

|  |  |  |  |
| --- | --- | --- | --- |
| **ELEMENT** | **MATERIAL** | **RATING** | **IBC/UL DESIGN #** |
| Interior Bearing Wall |  |  |  |
| Interior Non-Bearing Wall |  |  |  |
| Structural Frame |  |  |  |
| Exterior Structural Frame |  |  |  |
| Shaft Enclosure a,b |  |  |  |
| Floor / Ceiling Assembly |  |  |  |
| Roof / Ceiling Assembly |  |  |  |
| Vertical Exit Enclosure a,b |  |  |  |

*a. Fire-resistance rating not less than the floor assembly penetrated (713.4) (1023.2).*

*b. 2 hours where connecting four stories or more and 1 hour where connecting less than four stories, including basements. (713.4) (1023.2).*

**PART 8 - EXTERIOR WALL & OPENING PROTECTION (T705.8)**

|  |  |  |  |
| --- | --- | --- | --- |
| **WALL LOCATION** | **PROTECTED** | **UNPROTECTED** | **PARAPET REQ’D (705.11)** |
| NORTH |  |  |  |
| SOUTH |  |  |  |
| EAST |  |  |  |
| WEST |  |  |  |

**PART 9 - EXIT REQUIREMENTS**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FLOOR LEVEL** | **ROOM OCCUPANCY GROUPS** | **AREA** | **OCCUPANT LOAD FACTOR (T1004.5)** | **# OF OCCUPANTS (1004)** | **# OF EXITS (1006)** | **REQ’D EGRESS WIDTH (1005)** | **REQ’D STAIR WIDTH (1005.3)** | **REQ’D AISLE WIDTH (1018)** | **COMMON PATH OF TRAVEL DISTANCE (T1006.2.1) (Worst case)** | **TOTAL TRAVEL DISTANCE (1017) (Worst case)** |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Level A Total: |  |  |  |  |  |  |  |  |  |
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| Level 1 Total: |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |
| Level 2 Total: |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |
| Level 3 Total: |  |  |  |  |  |  |  |  |  |
| Building Total: |  |  |  |  |  |  |  |  |  |

**PART 10 - ADDITIONAL REQUIREMENTS**

|  |  |
| --- | --- |
| ACCESSIBLE MEANS OF EGRESS (1009): |  |
| ACCESSIBLE ROUTE (1104 & INTERNATIONAL EXISTING BUILDING CODE): |  |
| SPECIAL OCCUPANCY REQUIREMENTS (CHAPTER 4): |  |
|  |  |

**PLUMBING FIXTURES (T 2902.1)**



**PART 11 – BUILDING PERFORMANCE PARAMETERS:**

Include a summary of building performance parameters (design temperatures for spaces, humidity control set-points, special ventilation requirements, lighting levels for spaces, etc.) with the Code Summary. Also, include structural calculations and energy calculations.

**PART 12 – DEFERRED SUBMITTALS, NONSTRUCTURAL COMPONENTS CHECKLIST, & SPECIAL INSPECTIONS LIST:**

Provide the following information in the Code Analysis, deleting non-applicable sections.

**LIST OF DEFERRED SUBMITTALS**

|  |  |  |
| --- | --- | --- |
| **ITEM** | **DRAWING REFERENCE** | **SPECIFICATION REFERENCE** |
| FIRE SPRINKLER & ALARM DRAWINGS |  |  |
| SEISMIC RESTRAINT DESIGNS OF NON-STRUCTURAL COMPONENTS FOR ALL SYSTEMS LISTED |  |  |
|  |  |  |
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**GUIDELINES FOR SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS & DEFERRED SUBMITTALS**

1. General Comments:
	1. These guidelines shall apply to all nonstructural components as required by the IBC 1613.1. Nonstructural components consist of architectural, mechanical and electrical components that are permanently attached to the primary structure.
	2. When a change in occupancy occurs that causes an existing building to be reclassified to a higher Occupancy Category per IBC Table 1604.5, all existing nonstructural components shall be confirmed to meet the seismic restraint requirements of Chapter 13 in ASCE 7.
	3. These guidelines define the minimum submittal requirements to obtain University of Utah approval for seismic restraint of nonstructural components. The guidelines noted herein shall not cancel or set aside more conservative requirements specified by the design professional in responsible charge.
	4. All references made to the IBC or ASCE 7 latest editions adopted by the State of Utah.
2. Checklist Requirements:
	1. All University of Utah projects shall have the “Nonstructural Component Checklist” (attached below) clearly shown on the front of the construction plans.
	2. Each item within the checklists shall have the appropriate box checked and comments shall be provided noting the particular component(s) that require seismic restraint.
	3. The “Not Required” box should only be checked if the component is exempt from requiring seismic restraint by Section 13.1.4 of ASCE 7, or if the component in question will not be provided as part of the project.
	4. If the “Deferred Submittal” box is checked, the additional requirements of Section 6 included in this handout must be met.
3. Submittal Requirements:
	1. The seismic restraint requirements for nonstructural components may be provided with the original construction documents submitted to University of Utah or may be submitted later as a deferred submittal. Whether provided with the original plans or later, the requirements of this section must be met.
	2. Seismic restraint submittals shall include construction documents meeting the requirements of Section 4 of this handout as well as supporting design information discussed in Section 5 of this handout.
4. Construction Documents:
	1. The construction documents must include seismic restraint details providing specific information relating to the materials, type, size, and locations of anchorages; materials used for bracing; attachment requirements of bracing to structure and component; and locations of transverse and longitudinal sway bracing and rod stiffeners.
	2. The construction documents must note the special inspection and testing requirements for the seismic restraint of nonstructural components per Section 13.2.7 of ASCE 7.
	3. University of Utah will accept products that have been tested and listed under the ICC Evaluation Service Program, as long as they are installed in accordance with the provisions and limitations of the ICC Listing Report.
	4. The requirements for anchorage/bracing of nonstructural components cannot be satisfied by a general reference to Design Manuals. Design professional may utilize these manuals as a basis of their design, but must provide all supporting documentation to ensure that the design conforms to the requirements of the IBC.
	5. Rod hangers shall not be used as seismic supports unless the length of the hanger from the supporting structure is 12 in. or less. Rod hangers shall not be constructed in a manner that subjects the rod to bending moments.
5. Seismic Restraint Design Requirements:
	1. Per IBC 1613.1, the seismic restraint of nonstructural components shall meet the requirements of ASCE 7. If the component in question is exempt by Section 13.1.4 of ASCE 7, a submittal noting the seismic restraint of that particular component is not required.
	2. The seismic restraint design must meet the requirements listed in Table 13.2-1 of ASCE 7. These requirements may be met by providing either a project-specific design prepared by a registered design professional, or a manufacturer’s certification that the component is seismically qualified.
	3. A certificate of seismic qualification by the manufacturer must be accompanied by one of the following items:
		1. An engineered analysis conforming to the requirements of Chapter 13 of ASCE 7.
		2. Testing by a nationally recognized testing standard procedure such as ICC-ES AC 156. The substantiated seismic design capacities shall exceed the seismic demands determined by Section 13.3 of ASCE 7.
		3. Experience data conforming to a nationally recognized procedure. The substantiated seismic design capacities shall exceed the seismic demands determined by Section 13.3 of ASCE 7.
	4. The following seismic restraint publications shall be considered “Accepted Engineering Practice”:
		1. Seismic Restraint Manual, Guidelines for Mechanical Systems (3rd Edition, published by SMACNA)
		2. Guidelines and details that have been evaluated and reported under the International Code Council Evaluation Service Program (ICC-ES).
		3. Seismic restraint manuals, guidelines and details that have been approved by the California Office of Statewide Health Planning and Development (OSHPD) under their pre-approval program for seismic restraint systems. Approval by the University of Utah Building Official to use this reference is required prior to proceeding with design.
6. Deferred Submittals:
	1. Deferred submittals of seismic restraint of nonstructural components must be submitted to the UNIVERSITY OF UTAH Building Official a minimum of two weeks prior to the planned installation in order to allow for plan review and forwarding to inspectors. In the event that the submittal is deficient, additional time may become necessary.
	2. Deferred submittals shall be clearly noted on the construction plans as required by IBC in Chapter 1. Prior to submitting to the UNIVERSITY OF UTAH Building Official, the deferred submittal must follow the protocol outlined in the section entitled “Deferred Submittals” in the IBC Chapter 1. Please note on the plans that no deferred submittal elements shall be installed until University of Utah approval has been received.
	3. If seismic restraints of nonstructural components are installed prior to receiving University of Utah approval, they shall not be covered or concealed until plan review and inspection approval. Further, installers are proceeding at their own risk until plan review and inspection approval occurs.

**NONSTRUCTURAL COMPONENT CHECKLIST**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ITEM****DESCRIPTION** | **NOT REQUIRED** | **ON CONST DOCUMENTS** | **DEFERRED SUBMITTAL** | **COMMENTS** |
| **Architectural Components** |  |  |  |  |
| Interior nonstructural walls and partitions |[ ] [ ] [ ]   |
| Cantilever elements (i.e. parapets, etc) |[ ] [ ] [ ]   |
| Exterior nonstructural wall elements |[ ] [ ] [ ]   |
| Veneer |[ ] [ ] [ ]   |
| Penthouses |[ ] [ ] [ ]   |
| Ceilings (i.e. suspended grid or hard-lid) |[ ] [ ] [ ]   |
| Cabinets (i.e. storage cabinets, equip, etc) |[ ] [ ] [ ]   |
| Access floors |[ ] [ ] [ ]   |
| Storage racks |[ ] [ ] [ ]   |
| Appendages & ornamentations |[ ] [ ] [ ]   |
| Signs & billboards |[ ] [ ] [ ]   |
| Other: |[ ] [ ] [ ]   |
| Other:  |[ ] [ ] [ ]   |
| **MEP Components** |  |  |[ ]   |
| Fire sprinklers |[ ] [ ] [ ]   |
| Mechanical equipment (i.e. HVAC, fans, air handler, boilers, furnaces, tanks, chillers, water heaters, evaporators, engines, turbines, pumps, compressors, MFR equipment, etc.) |[ ] [ ] [ ]   |
| Electrical equipment (i.e. generators, batteries, inverters, transformers, MCC, panel Boards, switch gears, cabinets, etc.) |[ ] [ ] [ ]   |
| Elevator & escalator components |[ ] [ ] [ ]   |
| Communication equipment, computers, instrumentation, and controls |[ ] [ ] [ ]   |
| Roof-mounted chimneys stacks, cooling & electrical towers |[ ] [ ] [ ]   |
| Lighting fixtures |[ ] [ ] [ ]   |
| Vibration isolated components |[ ] [ ] [ ]   |
| Piping & conduit systems |[ ] [ ] [ ]   |
| Ductwork including in-line components |[ ] [ ] [ ]   |
| Conveyors |[ ] [ ] [ ]   |
| Cable trays |[ ] [ ] [ ]   |
| Seismic restraint design of nonstructural mechanical, electrical, plumbing components |[ ] [ ] [ ]   |
| Other:  |[ ] [ ] [ ]   |
| Other:  |[ ] [ ] [ ]   |

**SPECIAL INSPECTIONS LIST**

Special Inspections for the project must be listed below in accordance with the provisions of IBC 1704 and for miscellaneous areas. Indicate required Special inspections for project by checking the appropriate boxes and provide specific instructions as to the inspection requirements and the expectations of the architect, engineer, and owner:

**FABRICATORS (IBC 1704.2.5)**

|  |  |
| --- | --- |
| Approved Fabricator | Fabricators Name:  |
| Unapproved Fabricator | Fabricators Name:  |
| In-plant inspections |
| Steel Construction [ ]  | Welding [ ]  | Details [ ]  |

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| **STEEL (IBC 1705.2)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| **Structural Steel (1705.2.1)** |[ ] [ ]  AISC 360 |
|  |
| **Cold-formed Steel Deck (1705.2.2)** |[ ] [ ]  SDI QA/QC |
|  |  |  |  |
| **Open-web Steel Joists & Joist Girders (1705.2.3)** |  |  |  |
| 1. Installation of open-web steel joists and joist girders. |  |  |  |
|  a. End connections – welding or bolted. |  |[ ]  SJI specifications, Section 2207.1. |
|  b. Bridging – horizontal or diagonal.  |  |  |  |
|  1. Standard bridging. |  |[ ]  SJI specifications Section 2207.1. |
|  2. Bridging that differs from the SJI Specifications listed in Section 2207.1. |  |[ ]   |
|  |  |  |  |
| **Cold-formed Steel Trusses Spanning 60ft or Greater (1705.2.4)** |[ ] [ ]   |
|  |
| **CONCRETE CONSTRUCTION (1705.3 & T1705.3)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| **Materials (1705.3.2)** |  |
| Inspect reinforcement, including prestressing tendons, and verify placement. |  |[ ]  ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3 (IBC 1908.4) |
| Reinforcing bar welding:Verify weldability of reinforcing bars other than ASTM A 706; |  |[ ]  AWS D1.4ACI 318: 26.6.4 |
| Inspect single-pass fillet welds, maximum 5/16”; and  |  |[ ]   |
| Inspect all other welds. |[ ]   |  |
| Inspection of anchors cast in concrete. |  |[ ]  ACI 318: 17.8.2 |
| Inspection of anchors post-installed in hardened concrete members.Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.Mechanical anchors and adhesive anchors not defined in 4.a | [ ]   | ☐ | ACI 318: 17.8.2.4ACI 318: 17.8.2 |
| Verifying use of required design mix. |  |[ ]  ACI 318: Ch. 19, 26.4.3, 26.4.4(IBC 1904.1, 1904.2,1908.2, 1908.3) |
| Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete. |[ ]   | ASTM C 172 ASTM C 31 ACI 318: 26.5, 26.12 (IBC 1908.10) |
| 1. Inspect concrete and shotcrete placement for proper application techniques.
 |[ ]   | ACI 318: 26.5 (IBC 1908.6, 1908.7, 1908.8) |
| 1. Verify maintenance of specified curing temperature and techniques.
 |  |[ ]  ACI 318: 26.5.3-26.5.5 (IBC 1908.9) |
| 1. Inspection of prestressed concrete:
	1. Application of prestressing forces.
	2. Grouting of bonded prestressing tendons in the seismic force-resisting system.
 |[ ]   | ACI 318: 26.10 |
| 1. Inspect erection of precast concrete members.
 |  |[ ]  ACI 318: Ch. 26.9 |
| 11. Verify 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. |  |[ ]  ACI 318: 26.11.2 |
| 12. Inspect formwork for shape, location and dimensions of the concrete member being formed. |  |[ ]  ACI 318: 26.11.1.2(b) |
|  |
| **MASONRY CONSTRUCTION (1705.4)** |
| **ITEM (IBC REFERENCE)** | **INSPECTION REQ’D** |  | **REFERENCED STANDARD** |
| Masonry Construction |  |  | TMS 402/ACI 530ASCE 5TMS 602ACI 530.1/ASCE 6 |
| Empirical masonry – Cat. IV (1705.4.1) |[ ]   |  |
| Vertical masonry foundation elements (1705.4.2) |[ ]   |  |
|  |
| **WOOD CONSTRUCTION (1705.5)** |
| **ITEM (IBC REFERENCE)** | **INSPECTION REQ’D** |  | **REFERENCED STANDARD** |
| High-load diaphragms (1705.5.1) |[ ]   |  |
| Metal-plate-connected wood trusses spanning 60 feet or greater (1705.5.2) |[ ]   |  |
|  |
| **SOILS CONSTRUCTION (1705.6)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Verify materials below shallow foundations are adequate to achieve the design bearing capacity. |  |[ ]   |
| Verify excavations are extended to proper depth and have reached proper material. |  |[ ]   |
| Perform classification and testing of compacted fill materials. |  |[ ]   |
| Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill. |[ ]   |  |
| Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly. |  |[ ]   |
|  |
| **DRIVEN DEEP FOUNDATIONS (1705.7)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Verify element materials, sizes and lengths comply with the requirements. |[ ]   |  |
| Determine capacities of test elements and conduct additional load tests, as required. |[ ]   |  |
| Inspect driving operations and maintain complete and accurate records for each element. |[ ]   |  |
| Verify placement locations and plumbness, confirm types 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 document any damage to foundation element. |[ ]   |  |
| For steel elements, perform additional inspections in accordance with Section 1705.2. |  |[ ]   |
| For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1705.3. |  |[ ]   |
| For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge. |  |[ ]   |
|  |
| **CAST-IN-PLACE DEEP FOUNDATIONS (1705.8)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Inspect drilling operations and maintain complete and accurate records for each element. |[ ]   |  |
| Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes. |[ ]   |  |
| For concrete elements, perform additional inspections in accordance with section 1705.3. |[ ]   |  |
|  |
| **HELICAL PILE FOUNDATIONS (1705.9)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Installation |[ ]   |  |
| Verify records of: Installation equipment used, pile dimensions, tip elevations, final depth, final installation torque and other pertinent installation data as required by the *registered design professional in responsible charge*. | ☐ |  |  |

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| **SPECIAL INSPECTIONS FOR WIND REQUIREMENTS (1705.11)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Structural wood (1705.11.1) |[ ]   |  |
| Cold-formed steel framing (1705.11.2) |  |[ ]   |
| Wind-resisting components (1705.11.3)  |  |[ ]   |
|  |
| **SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE (1705.12)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Structural steel (1705.12.1) |[ ] [ ]  AISC 341 |
| Structural wood (1705.12.2)a. Continuous special inspection shall be required during field gluing operations of elements of the seismic force-resisting system.b. Periodic special inspection shall be required for nailing, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold-downs. | [ ]  | [ ]  |  |
| Cold-formed steel framing (1705.12.3) |[ ] [ ]   |
| Designated seismic systems (1705.12.4) |[ ] [ ]   |
| Architectural components (1705.12.5) |  |[ ]   |
| Access floors (1705.12.5.1) |  |[ ]   |
| Plumbing, Mechanical & electrical (1705.12.6) |  |[ ]   |
| Storage racks (1705.12.7) |  |[ ]   |
| Seismic isolation systems (1705.12.8) |  |[ ]   |
| Cold-formed steel special bolted moment frames (1705.12.9). |  |[ ]   |
|  |
| **TESTING FOR SEISMIC RESISTANCE (1705.13)** |
| **ITEM (IBC REFERENCE)** | **TESTING REQ’D** |  | **REFERENCED STANDARD** |
| Structural steel (1705.13.1) |[ ]   |  |
| 1705.13.2 Nonstructural components (1705.13.2) |[ ]   |  |
| Seismic isolation systems (1705.13.4) |[ ]   |  |
|  |
| **SPRAYED FIRE-RESISTANT MATERIALS (1705.14)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Physical & visual tests (1705.14.1) |  |[ ]   |
| Structural member surface conditions (1705.14.2) |  |[ ]   |
| Material application (1705.14.3) |  |[ ]   |
| Material thickness (1705.14.4) |  |[ ]   |
| Material density (1705.14.5) |  |[ ]   |
| Bonding strength (1705.14.6) |  |[ ]   |
|  |
| **MASTIC & INTUMESCENT FIRE-RESISTANT COATINGS (1705.15)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Material & Installation |[ ] [ ]   |
|  |
| **EXTERIOR INSULATION & FINISH SYSTEM (EIFS) (1705.16)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Material & Installation |  |[ ]   |
|  |
| **FIRE-RESISTANT PENETRATIONS & JOINTS (1705.17)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Penetration firestops (1705.17.1) |  |[ ]   |
| Fire-resistant joint systems (1705.17.2) |  |[ ]   |

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| **SMOKE CONTROL (1705.18)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Material & Installation |  |[ ]   |
|  |
| **MISCELLANEOUS AREAS****(These areas are recommended by Architect/Engineer and approved by University of Utah Building Official)** |
| **ITEM (IBC REFERENCE)** | **CONTINUOUS** | **PERIODIC** | **REFERENCED STANDARD** |
| Suspended ceiling grid clips |[ ] [ ]   |
| Suspended ceiling wire spacing (seismic) |[ ] [ ]   |
| Soils backfill (specify locations and frequency) |[ ] [ ]   |
| Soils for curb and gutter (specify locations and frequency) |[ ] [ ]   |
| Soils for parking lots (specify locations and frequency) |[ ] [ ]   |
| Soils for utility trench backfill |[ ] [ ]   |
| Reinforcement for slab on grade sidewalks and drive approaches (specify locations and frequency) |[ ] [ ]   |
| Reinforcement for interior slab on grade (specify locations and frequency) |[ ] [ ]   |
| Concrete testing for slab on grade sidewalks and drive approaches (specify locations and frequency) |[ ] [ ]   |
| Concrete testing for interior slab on grade (specify locations and frequency) |[ ] [ ]   |
| Masonry veneer (specify locations and frequency) |[ ] [ ]   |
| Asphalt inspection (specify locations and frequency) |[ ] [ ]   |
| Asphalt testing (specify locations and frequency) |[ ] [ ]   |
| Inspection of seismic resistance (specify locations and frequency) |[ ] [ ]   |
| Steam and water line welding (specify locations and frequency) |[ ] [ ]   |
| Seismic supports for duct work and sealing of joints for duct work |[ ] [ ]   |
| Seismic supports for electrical raceways, cable trays and lights |[ ] [ ]   |
| Seismic supports for plumbing lines including gas, water, steam and condensation |[ ] [ ]   |
| Seismic bracing for mechanical units both on slab and suspended |[ ] [ ]   |

**SPECIAL INSPECTORS SHALL:**

* Be approved by the Building Official prior to performing any duties;
* Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;
* Inspection reports are to meet the requirements of IBC 1704.2.4 and University of Utah standards;
* Inspection reports are to be submitted to the code consultant, architect, project manager, and the University of Utah Building Official within 48 hrs. of inspections;
* A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the drawings, specifications and applicable codes. IBC 1704.2.4