

1. GENERAL REQUIREMENTS FOR SPECIAL BUILDING INSPECTIONS

- GENERAL REQUIREMENTS FOR SPECIAL BUILDINGS INSPECTIONS
- a. BACKGROUND:**
- i. SPECIAL BUILDING INSPECTION SERVICES SHALL BE PROVIDED FOR THIS BUILDING IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE BY STATE LICENSED BUILDING INSPECTOR OR THEIR AUTHORIZED REPRESENTATIVE. THE PURPOSE OF SPECIAL BUILDING INSPECTIONS IS TO OBSERVE THE STRUCTURAL PORTION OF THE CONSTRUCTION WORK TO VERIFY THAT SUCH WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THIS SPECIAL BUILDING INSPECTION PLAN. SPECIAL BUILDING INSPECTION SERVICES ARE NOT PART OF THE DESIGN SCOPE AND THESE SERVICES SHALL BE UNDER A SEPARATE CONTRACT.
- b. DEFINITIONS:**
- i. CONSTRUCTION DOCUMENTS: PERMITTED PLANS, PROJECT SPECIFICATIONS, ASSOCIATED ADDENDA, SUPPLEMENTS, REQUESTS FOR INFORMATION AND ANY DOCUMENTED REVISIONS TO THE STRUCTURAL DRAWINGS AS THEY MAY OCCUR FROM TIME TO TIME.
- ii. STRUCTURAL INSPECTION PLAN: THE PLAN FILLED FOR PUBLIC RECORD BY THE ENGINEER OF RECORD TO THE ENFORCING AGENCY TO PROVIDE SPECIAL INSPECTION PROCEDURES AND SCHEDULES.
- iii. SPECIAL BUILDING INSPECTOR: A REGISTERED PROFESSIONAL ENGINEER WHO MEETS THE QUALIFICATIONS AND STANDARDS AS ESTABLISHED BY THE BOARD OF ENGINEERS AND AS SPECIFIED IN THIS SPECIAL INSPECTION PLAN QUALIFICATION SECTION.
- iv. AUTHORIZED REPRESENTATIVE: A REPRESENTATIVE OF THE SPECIAL BUILDING INSPECTOR WHO REPRESENTS THE SPECIAL BUILDING INSPECTOR'S INTERESTS AND IS AUTHORIZED TO SIGN FOR THE BUILDING INSPECTOR, AND WHO MEETS THE REQUIREMENTS AND STANDARDS OF THE BOARD OF ENGINEERS AND AS SPECIFIED IN THIS INSPECTION PLAN. THE REPRESENTATIVE SHALL HAVE A MINIMUM OF THREE YEARS OF EXPERIENCE IN INSPECTION OF SIMILAR STRUCTURES AND SHALL HOLD AN EIT CERTIFICATION.
- c. QUALIFICATIONS:**
- i. SPECIAL BUILDING INSPECTOR: SHALL BE AN ACTIVE STATE REGISTERED PROFESSIONAL ENGINEER, THE SPECIAL BUILDING INSPECTOR SHALL BE CURRENTLY CERTIFIED AS A BUILDING INSPECTOR BY THE STATE IN WHICH THE STRUCTURE IS LOCATED. THE BUILDING INSPECTOR SHALL POSSESS A MINIMUM OF TEN (10) YEARS OF VERIFIABLE EXPERIENCE IN THE INSPECTION OF THE STRUCTURAL SYSTEM BEING USED FOR THE PROJECT. DOCUMENTATION OF THE ABOVE REQUIRED QUALIFICATIONS SHALL BE SUBMITTED TO THE LOCAL RELEVANT AGENCY FOR APPROVAL PRIOR TO COMMENCING WORK.
- d. RESPONSIBILITIES**
- i. RESPONSIBILITIES OF SPECIAL BUILDING INSPECTOR: THE SPECIAL BUILDING INSPECTOR SHALL NOT ACCEPT ANY DUTIES OR RESPONSIBILITIES THAT ARE NORMALLY THOSE OF THE CONTRACTOR. FURTHERMORE, THE INSPECTOR SHALL NOT BE RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE. THE SPECIAL BUILDING INSPECTOR SHALL OBSERVE THE STRUCTURAL PORTION OF THE WORK ONLY, AND TO REPORT WHETHER THE STRUCTURE IS BEING BUILT IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS, AND IF NOT, THE DEFICIENCIES AND DEVIATIONS. THE SPECIAL BUILDING INSPECTOR SHALL NOT BE RESPONSIBLE FOR THE CORRECTIVE ACTION TO BE TAKEN BY THE CONTRACTOR. THE SPECIAL BUILDING INSPECTOR SHALL REPORT THE USE OF MATERIALS, EQUIPMENT, OR WORKSMANSHIP WHICH DOES NOT CONFORM TO THE CONSTRUCTION DOCUMENTS OR WHICH MAY CAUSE IMPROPER CONSTRUCTION, AS WELL AS ANY REQUESTS FOR INTERPRETATION FROM THE ARCHITECT OR ENGINEER OF RECORD. THE SPECIAL BUILDING INSPECTOR SHALL ALSO REPORT RECOMMENDED REMOVALS FOR CONSTRUCTION WHICH IS PERFORMED WITHOUT INSPECTION AND NOT CAPABLE OF BEING INSPECTED OR TESTED IN PLACE. THE SPECIAL BUILDING INSPECTOR SHALL BE RESPONSIBLE TO THE OWNER AND ENFORCING AGENCY HAVING JURISDICTION FOR THIS PROJECT. SHALL COOPERATE WITH THE CONTRACTOR AND SHALL REFRAIN FROM DIRECTING CONSTRUCTION PERSONNEL.
- ii. RESPONSIBILITIES OF THE CONTRACTOR: THE CONTRACTORS CONTRACTUAL AND STATUTORY OBLIGATIONS SHALL REMAIN UNCHANGED. THE SPECIAL BUILDING INSPECTOR, THE CONTRACTOR SHALL BE STRICTLY LIABLE FOR ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS AND FOR ANY REQUIRED CORRECTIVE ACTIONS THAT ARISE THEREFROM. THE CONTRACTOR SHALL ADVISE THE SPECIAL BUILDING INSPECTOR IN ADVANCE OF CONSTRUCTION OF ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS IN ORDER TO ASSURE TIMELY AND APPROPRIATE OBSERVATIONS. A MINIMUM OF TWENTY-FOUR (24) HOURS NOTICE SHALL BE PROVIDED FOR ALL REQUESTED INSPECTIONS. THE CONTRACTOR SHALL COOPERATE WITH AND ASSIST THE SPECIAL BUILDING INSPECTOR, OR HIS AUTHORIZED REPRESENTATIVE, IN PERFORMING HIS INSPECTION DUTIES. THE SPECIAL BUILDING INSPECTOR SHALL HAVE FREE ACCESS TO THE PROJECT AT ALL TIMES. THE CONTRACTOR SHALL, UPON BEING INFORMED BY THE SPECIAL BUILDING INSPECTOR, IMMEDIATELY CAUSE TO ELIMINATE REPORTED DEFICIENCIES AND DEVIATIONS.
- iii. RESPONSIBILITIES OF THE OWNER: THE OWNER SHALL ARRANGE FOR ALL NECESSARY CONSTRUCTION PERMITS TO BE PROVIDED TO THE SPECIAL BUILDING INSPECTOR IN A TIMELY FASHION. THESE CONSTRUCTION RECORDS, AS A MINIMUM, SHALL CONSIST OF THE CONSTRUCTION DOCUMENTS, RELEVANT SHOP DRAWINGS, APPLICABLE SUBMITTALS, ENGINEERING CONSULTANT REPORTS AND OTHER RELATED ITEMS.
- e. PROCEDURES**
- i. FREQUENCY OF INSPECTIONS: THE SPECIAL BUILDING INSPECTOR SHALL PERFORM SITE VISITS AT A FREQUENCY AS REQUIRED TO CONFIRM THAT INSPECTIONS ARE BEING PERFORMED BY HIMSELF AND/OR HIS AUTHORIZED REPRESENTATIVE(S) IN ACCORDANCE WITH THIS INSPECTION PLAN. THE SPECIAL BUILDING INSPECTOR SHALL PERSONALLY PERFORM A MINIMUM OF NO LESS THAN IS PERCENT OF THE TOTAL NUMBER OF INSPECTIONS.
- ii. REPORTING REQUIREMENTS: THE SPECIAL BUILDING INSPECTOR SHALL MAINTAIN A RECORD OF THE PROGRESS, WORKING CONDITIONS, AND ANY OBSERVATIONS OF DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. EACH REPORT SHALL CONTAIN, AS A MINIMUM, THE PROJECT NAME AND LOCATION, BUILDING NUMBER, DRAWING NUMBER, DATE AND TIME OF INSPECTION, SPECIAL INSPECTOR'S NAME, PROJECT NAME, THE NAME OF THE INDIVIDUAL PREPARING THE REPORT, OBSERVATIONS, DEVIATIONS, PRESCRIBED CORRECTIVE ACTIONS, AND ANY COMMENTS. THE SPECIAL INSPECTOR FOR HIS USE, THE INSPECTIONS OF THE STRUCTURE DEFICIENCY LOG WITH A REQUIRED CORRECTIVE ACTION COLUMN FOR EACH DEFICIENT ITEM ON A CONTINUING BASIS FOR FOLLOW-UP AND UPDATE IT AS EXCEPTIONS ARE RECTIFIED. AT THE CONCLUSION OF EACH INSPECTION, THE SPECIAL BUILDING INSPECTOR OR AUTHORIZED REPRESENTATIVE SHALL IMMEDIATELY INFORM THE CONTRACTOR OF ALL OBSERVED DEFICIENCIES REQUIRING CORRECTION, AND OF SPECIFIC CORRECTIVE ACTIONS THAT ARE REQUIRED. A WRITTEN SIGNED AND SEALED CITY BUILDING DEPARTMENT SHALL BE SUBMITTED AT LEAST ONCE A MONTH TO THE FOLLOWING PERSONS/ AGENCIES: CITY BUILDING DEPARTMENT, ARCHITECT, ENGINEER OF RECORD, CONTRACTOR AND OWNER.
- f. SUBMISSIONS:**
- i. SUBMISSIONS FOR APPROVAL BY RECORDS REVISIONS (I.E. CONCRETE MIX DESIGNS, REINFORCING, PRECAST ELEMENTS, STRUCTURAL JOINTS, BRACING, RESHORING, MASONRY TIES, ENGINEERS, METALS, WOOD TRUSSES, ETC.) SHALL BE REVIEWED AND APPROVED BY THE CONTRACTOR, ARCHITECT AND ENGINEER OF RECORD AND SHALL BEAR THE SEAL, DATE, AND SIGNATURE OF THE SPECIALITY ENGINEER WHEN APPLICABLE. THE SPECIAL INSPECTOR SHALL TRANSMIT THE SPECIAL INSPECTION REPORT TO THE SPECIAL INSPECTOR. THE REVIEW OF SUBMISSIONS BY THE SPECIAL INSPECTOR DOES NOT RELIEVE THE CONTRACTOR OR SUBCONTRACTORS OF THEIR OBLIGATIONS OR PERFORMANCE.
- ii. ALTERNATES: SUBMISSIONS FOR ALTERNATES AS PROVIDED BY THE CONTRACTOR OR DESIGN PROFESSIONALS AND/OR ENGINEERS SUBJECT TO THIS PARTICULAR PROJECT. SPECIAL BUILDING INSPECTIONS ARE NOT APPLIED TO THE SPECIAL INSPECTION REPORTS. THE DENIAL OF ALTERNATES SHALL BE PROVIDED TO THE SPECIAL INSPECTOR AS THEY BECOME AVAILABLE.
- h. LIMITATIONS:**
- i. THIS STRUCTURAL INSPECTION PLAN SPECIAL SERVICES MINIMUM REQUIREMENTS ONLY AND MAY BE SUPPLEMENTED BY SPECIAL REQUIREMENTS AS THEY ARE DETERMINED NECESSARY DURING THE COURSE OF THE WORK. THE FOLLOWING SECTIONS OUTLINE THE INDIVIDUAL COMPONENTS OF THE STRUCTURAL INSPECTION PLAN AND ANY SPECIAL SUBMISSION REQUIREMENTS UNIQUE TO THIS PARTICULAR PROJECT. SPECIAL BUILDING INSPECTIONS ARE LIMITED TO STRUCTURAL COMPONENTS ONLY, AND SHALL NOT INCLUDE INSPECTION OF ANY SAFETY PROVISIONS AS REQUIRED BY OSHA OR OTHER SAFETY STANDARDS WHICH APPLY DURING THE CONSTRUCTION OF THE SPECIAL BUILDING INSPECTION. THE SPECIAL BUILDING INSPECTOR SHALL MAINTAIN RECORDS OF ALL OBSERVED DEFICIENCIES REQUIRING CORRECTION, AND OF SPECIFIC CORRECTIVE ACTIONS THAT ARE REQUIRED. A WRITTEN SIGNED AND SEALED CITY BUILDING DEPARTMENT SHALL BE SUBMITTED AT LEAST ONCE A MONTH TO THE FOLLOWING PERSONS/ AGENCIES: CITY BUILDING DEPARTMENT, ARCHITECT, ENGINEER OF RECORD, CONTRACTOR AND OWNER.
- 2. SPECIAL INSPECTION PLAN - GENERAL INFORMATION**
- a. SHALLOW FOUNDATION: ISOLATED AND CONTINUOUS FOOTINGS**
- i. GROUND FLOOR: CONCRETE SLAB ON GRADE
- ii. NAME: GROUND FLOOR: ISOLATED OR CONTINUOUS FOOTING OR STRUCTURAL STEEL BEAMS/ COLUMN SUPPORTING FLOOR JOIST. ROOF IS TRUSS WITH WOOD PARAPET WALLS ATTACHED TO IT.
- iii. CONSTRUCTION AND INSPECTION INFORMATION TO BE SUBMITTED TO THE BUILDING DEPARTMENT: STRUCTURAL DRAWINGS AND THE APPLICABLE SPECIFICATIONS THAT GOVERN THE REQUIREMENTS OF THIS PROJECT.
- b. SUBSURFACE AND FOUNDATIONS:**
- a. SOILS INVESTIGATION:**
- i. THIS BUILDING SHALL HAVE A SOILS INVESTIGATION COMPLETED BY A QUALIFIED TESTING LABORATORY PRIOR TO THE COMMENCEMENT OF FOUNDATION INSTALLATION. OBTAIN A COPY OF A SOILS REPORT, INCLUDING OBSERVATIONS AND RECOMMENDATIONS TO BE MADE TO THE FOUNDATION DESIGNER. THE SOILS REPORT SHALL BE MAINTAINED AND A COPY OF THE SOILS REPORT SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT. THE SPECIAL INSPECTOR SHALL CONFIRM THAT NOTES REGARDING FOUNDATION PREPARATION AND INSTALLATION CONTAINED WITHIN SUCH SOILS REPORT AND/OR CONTRACT DOCUMENTS PRIOR TO INITIATION OF FOUNDATION OPERATIONS.
- ii. SPECIAL INSPECTIONS FOR EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT AND LOAD-BEARING CAPACITY OF EXISTING FOUNDATIONS SHALL BE COMPLETED BY A QUALIFIED GEOTECHNICAL REPORT, AND THE CONSTRUCTION DOCUMENTS PREPARED BY THE REGISTERED DESIGN PROFESSIONALS SHALL BE USED TO DETERMINE COMPLIANCE. DURING FILL PLACEMENT, THE SPECIAL INSPECTOR SHALL DETERMINE THAT PREPARATION METHODS AND PROCEDURES ARE USED IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT.
- b. BACKFILL, COMPACTION AND SURCHARGE PROGRAM:**
- i. A QUALIFIED GEOTECHNICAL CONSULTANT SHALL BE RETAINED TO MONITOR THE SHALLOW FOUNDATIONS, SLAB-ON-GRADE BASE BACKFILL AND COMPACTION OPERATIONS. STATE REGISTERED P.E. SIGNED AND SEALED REPORTS SHALL BE SUBMITTED TO THE SPECIAL INSPECTOR.
- ii. A SIGNED AND SEALED REPORT FROM THE GEOTECHNICAL ENGINEER OF RECORD STATING THAT THE SURCHARGE PROGRAM IS IN ACCORDANCE WITH THE REQUIREMENTS SHALL BE SUBMITTED TO THE SPECIAL INSPECTOR PRIOR TO INITIATION OF FOUNDATION OPERATIONS.

- c. SHALLOW FOUNDATIONS:
 - i. FOUNDATIONS SHALL BE REVIEWED PRIOR TO AND DURING THE PLACEMENT OF CONCRETE TO CONFIRM COMPLIANCE WITH THE STRUCTURAL DOCUMENTS.
 - ii. VERIFY DOWELS FOR VERTICAL REINFORCING ARE IN PLACE AND ARE IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS.
 - iii. OBSERVE CONCRETE PLACING TO ASSURE THAT METHODS AND MATERIALS BEING USED ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
- d. SLAB ON GRADE:
 - i. SUBGRADE PREPARATION (BACKFILL, COMPACTION AND OBSERVATION AND VERIFICATION OF COMPACTION TESTING) SHALL BE OBSERVED.
 - ii. OBSERVE PLACEMENT OF SPORES TO OBTAIN PROPER LEVEL AND THICKNESS OF SLAB. VERIFY SLAB STEP DOWNS AND DEPRESSIONS TO COMPLY WITH PLAN.
 - iii. VERIFY SIZE, TYPE AND LOCATION OF ALL SLAB REINFORCING INCLUDING LAP AND PROPER PLACEMENT.
 - iv. CHECK AND VERIFY LOCATION AND TIME OF INSTALLATION OF CONTROL AND CONSTRUCTION JOINTS.

4. CONCRETE FORMWORK

- a. OBTAINED DETAIL DRAWINGS AND DESIGN CALCULATIONS (SIGNED) AND SEALED BY A STATE REGISTERED PROFESSIONAL ENGINEER WITH 3 YEARS EXPERIENCE IN THE DESIGN OF SHORING AND RE-SHORING FOR SIMILAR STRUCTURES FOR A SHORING AND RESHORING REQUIRED.
- b. VERIFY FORMWORK IS FREE OF FOREIGN MATERIAL AND LOCATIONS, ALIGNMENT AND DIMENSIONS CONFORM TO ALL APPLICABLE DRAWINGS PRIOR TO CASTING. PERIODICALLY INSPECT SHORING AND RESHORING TO NOTE ANY POTENTIALLY DANGEROUS CONDITIONS. REVIEW SEQUENCE AND REMOVAL PROCEDURES WITH THE APPROVED SHOP DRAWINGS.
- c. VERIFY LOCATION AND TYPES OF JOINTS AS INDICATED ON THE STRUCTURAL DRAWINGS.
- d. OBSERVE EXPANSION JOINTS AND EMBEDDED ITEMS FOR TYPE, QUALITY OF FABRICATION AND GENERAL PLACEMENT
- e. OBSERVE IN-PLACE CONDITION OF CAST-IN-PLACE CONCRETE (CRACKING, SPLITTING, HONEYCOMBING, ETC.) AND RECORD ANY SIGNIFICANT DEFICIENCIES.
- f. VERIFY PROPER USAGE OF EXPANSION ANCHORS. CHEMICAL ADHESIVE PRODUCTS FOR ANCHORAGE AND POWDER ACTUATED FASTENERS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. OBSERVATION OF ANCHOR EMBEDMENT TO ENSURE SPECIFICATION COMPLIANCE FOR ANCHOR EMBEDMENT DEPTH, SPACING AND EDGE DISTANCE.

5. CONCRETE PLACEMENT

- a. ENSURE THAT THE TESTING LABORATORY TECHNICIANS ARE AWARE OF SCHEDULING CONCRETE PLACEMENT AND TESTING REQUIREMENTS
- b. IN THE ABSENCE OF SUFFICIENT DATA OR DOCUMENTATION PROVIDING EVIDENCE OF CONFORMANCE TO QUALITY STANDARDS FOR MATERIALS IN CHAPTER 3 OF ACI 318, THE TESTING OFFICIAL SHALL REQUIRE TESTING OF MATERIALS IN COMPLIANCE WITH THE APPROPRIATE STANDARDS AND CRITERIA FOR THE MATERIAL IN CHAPTER 3 OF ACI 318
- c. INSPECTING ALL TRANSIT MIX DELIVERY SLIPS TO VERIFY CORRECT MIX DESIGNS AS WELL AS ELAPSED TIME BETWEEN PLAN AND DEPOSIT OF CONCRETE.
- d. VERIFY SLUMP IS WITHIN THE LIMITS OF THE PROJECT DOCUMENTS
- e. VERIFY THAT THE CONCRETE TEST CYLINDERS ARE TAKEN IN ACCORDANCE WITH THE CONTRACT DOCUMENTS
I OBSERVE CONVEYING AND DEPOSITING OF CONCRETE TO ENSURE PROPER PLACEMENT TECHNIQUES FOR ALL CONTRACT POURS INCLUDING THE SHORING AND FORMWORK.
- g. OBSERVE IN PLACE CONDITION OF CAST-IN-PLACE PLACEMENT CONCRETE (CRACKING, SPALLING, HONEYCOMBING, ETC.) AND RECORD ANY SIGNIFICANT DEFICIENCIES.
- h. OBSERVE AND VERIFY PROPER CURING AND POST PLACEMENT PROTECTION PROVISIONS
- i. OBSERVE AND VERIFY PROPER IMPLEMENTATION AND USE OF CORROSION INHIBITING ADMIXTURES.
- j. OBSERVE PLACEMENT OF LIGHTWEIGHT CONCRETE FOR COMPLIANCE WITH PROJECT SPECIFICATIONS.
- k. REVIEW RESULTS OF FIELD TESTED CONCRETE TEST CYLINDERS WITH THE TESTING LABORATORY TO CHECK COMPLIANCE.

6. REINFORCING STEEL

- a. VERIFY GRADE, SIZE AND QUANTITY OF SPACING OF REINFORCING BARS FOR COMPLIANCE WITH CONTRACT DOCUMENTS AS WELL AS APPROVED SHOP DRAWINGS. WELDABILITY OF REINFORCEMENT, EXCEPT THAT WHICH CONFORMS TO ASTM A 706, SHALL BE DETERMINED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 3.5.2 OF ACI 318.
- b. VERIFY ALL STEEL PLACEMENT IS IN ACCORDANCE WITH ACI FOR CLEAR COVER AND THAT IT IS ADEQUATELY SUPPORTED TO RESIST MOVEMENT DURING CONCRETE POUR
- c. MILD STEEL REINFORCING SHALL BE FREE OF RUST SCALE, OIL OR MATERIAL THAT MAY INHIBIT CONCRETE BOND AND SHOULD BE CHECKED FOR SIZE, BENDING, GRADE AND SPICE LENGTH.
- d. OBSERVE REINFORCING STEEL SIZE, NUMBER, PLACEMENT AND SUPPORT.

7. MASONRY

- a. REINFORCED MASONRY

- i. MASONRY CONSTRUCTION SHALL BE INSPECTED AND VERIFIED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 1704.5.1 THROUGH 1704.5.3, DEPENDING ON THE OCCUPANCY CATEGORY OF THE BUILDING OR STRUCTURE.
- ii. i. PERFORM ALL INSPECTIONS AS REQUIRED BY ACI 530. VERIFY ALL JOINTING IS IN STRICT ACCORDANCE WITH SECTION 1704.5.1.
- ii. ii. VERIFY FILLED CELLS ARE CLEAN AND FREE OF EXCESS MORTAR FINS OR DROPPING PRIOR TO GROUTING OF CELLS.
- iii. iii. VERIFY DOWEL AND VERTICAL REINFORCING ARE IN THE SAME CELL.
- iv. iv. VERIFY REINFORCING GRADE, SIZE AND LAP LENGTH.
- v. v. VERIFY SPECIFIED GRADE IS BEING PLACED IN LIFTS PER CODE AND TEST CYLINDERS ARE CAST IN ACCORDANCE WITH STRUCTURAL DOCUMENTS.
- vi. vi. VERIFY MASONRY FILLED CELL SPACING, CELLS ADJACENT TO OPENINGS, CORNERS OR THOSE SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS ARE REINFORCED AND GROUTED.
- vii. vii. VERIFY TYPE OF MASONRY UNITS, MORTAR, HORIZONTAL REINFORCING INSERTS AND CONNECTIONS WITH COLUMNS OR BEAMS.
- viii. viii. VERIFY PROPER PLACEMENT OF CMU UNITS AT DOORS AND WINDOWS. VERIFY ALL JAMBS ARE REINFORCED AND GROUTED SOLID.
- ix. ix. VERIFY LOCATION OF CONTROL JOISTS AS SPECIFIED.
- x. x. CHECK FOR CRACKER OR WEAKENED MASONRY.
- xi. xi. VERIFY (via HAMMER SOUNDING) THAT ALL FILLED CELLS HAVE BEEN FILLED ADEQUATELY PER ACI 530.

8. ENGINEER

8. ENGINEERED LIGHT GAUGE METAL FRAMING TRUSSES

- a. WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED BY THIS SECTION AND AS REQUIRED ELSEWHERE IN THIS CODE.

- AND THE FABRICATOR'S ABILITY

- a. CHECK THAT THE SPACING, FRAMING/TRUSSES CONFORMS TO THE STRUCTURAL AND APPROVED SHOP DRAWINGS INCLUDING SIZE, TYPE, GRADE, ETC.
 d. CHECK THAT THE PERMANENT BRACING CONFORMS TO THE APPROVED/ENGINEERED SHOP DRAWINGS.
 e. CHECK THAT THE TRUSS TIE-DOWN TYPES ARE AS SPECIFIED, THE ATTACHMENTS ARE COMPLETE AND CONFORM TO THE APPROVED/ENGINEERED SHOP DRAWINGS.
 f. VERIFY TRUSS TO TRUSS CONNECTIONS WITH THE APPROVED/ENGINEERED SHOP DRAWINGS.
 g. VERIFY THAT THE ROOF DECKING GAUGE AND ATTACHMENTS CONFORM TO THE APPROVED/ENGINEERED SHOP DRAWINGS.
 h. WELDING INSPECTION AND WELDING SPECIALIST QUALIFICATION FOR COLD-FORMED STEEL FLOOR AND ROOF DECKING SHALL BE IN ACCORDANCE WITH AWS D1.3.

8. ENGINEERED LIGHT GAGE METAL FRAMING, TRUSSES

- a. WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED AT THIS SECTION AND AS REQUIRED ELSEWHERE IN THIS CODE.
- b. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKSMANSHIP AND THE FABRICATORS ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND ADEQUACY OF THE FABRICATION PROCESS. THE SPECIAL INSPECTOR SHALL EVALUATE THE COMPLETENESS AND REFERENCE RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
- c. CHECK THAT THE SPACING OF FRAMING/TRUSSING CONFORMS TO THE STRUCTURAL AND APPROVED SHOP DRAWINGS INCLUDING SIZE, TYPE, GRADE, ETC.
- d. CHECK THAT THE PERMANENT BRACING CONFORMS TO THE APPROVED ENGINEERED SHOP DRAWINGS.
- e. CHECK THAT THE TRUSS TIE-DOWN TYPES ARE AS SPECIFIED, THE ATTACHMENTS ARE COMPLETE AND CONFORM TO THE APPROVED ENGINEERED SHOP DRAWINGS.
- f. VERIFY TRUSS TIE TRUSS CONNECTIONS CONFORM WITH THE APPROVED ENGINEERED SHOP DRAWINGS.
- g. VERIFY THAT THE ROOF DECKING GAUGE AND ATTACHMENTS CONFORM TO THE APPROVED ENGINEERED SHOP DRAWINGS.
- h. WELDING INSPECTION AND WELDING INSPECTOR QUALIFICATION FOR COLD-FORMED STEEL FLOOR AND ROOF DECKS SHALL BE IN ACCORDANCE WITH AWS D1.3.

9. OPENINGS

- a. GENERAL OPENING LOCATIONS SHALL BE VERIFIED FOR SIZE, LOCATION, AND REINFORCED AS INDICATED ON THE STRUCTURAL DRAWINGS.
- b. OPENINGS SHALL NOT INTERFERE WITH OR INTERRUPT SCHEDULED REINFORCING WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

10. EMBEDDED FIXTURES

- a. VERIFY EMBEDDED ITEMS ARE IN PLACE AND GENERALLY LOCATED DIMENSIONALLY AS INDICATED ON THE APPROVED SHOP DRAWINGS. ANCHOR BOLTS, INSERTS, SLEEVES, CONDUITS, OR OTHER EMBEDDED FIXTURES ARE CONSIDERED SECONDARY ELEMENTS AND SHALL NOT INTERFERE OR INTERRUPT PRIMARY SCHEDULED REINFORCING UNLESS APPROVED BY THE STRUCTURAL ENGINEER.

11. STRUCTURAL STEEL

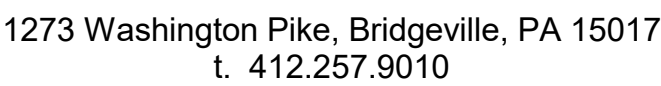
- a. THE SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1704.3
- b. ENSURE PROPER USE OF APPROVED STRUCTURAL STEEL MATERIALS AND PRODUCTS BY VERIFYING ASTM IDENTIFICATION MARKINGS AND INSPECTING MANUFACTURER'S CERTIFICATE OF COMPLIANCE.
- c. CHECK THE INSTALLATION OF ALL COLUMN BASE PLATES FOR PROPER LEVELING, GROUT TYPE AND GROUT PLACEMENT
- d. VISUALLY CHECK PLUMBNESS AND ALIGNMENT (USING ADEQUATE TOOLS FOR VERIFICATION) AS ERECTION PROGRESSES
- e. CHECK ALL REQUIRED CAMBER AGAINST APPROVED SHOP DRAWINGS AND CONTRACT DOCUMENTS
- f. VISUALLY INSPECT 100% OF THE STEEL CONNECTIONS TO VERIFY COMPLIANCE WITH APPROVED SHOP DRAWINGS AND CONTRACT DOCUMENTS.
- g. INSPECT HIGH STRENGTH BOLTED CONNECTIONS FOR COMPLIANCE WITH CONTRACT DOCUMENTS.
- h. INSPECT WELDED CONNECTIONS USING THE APPLICABLE NON-DESTRUCTIVE TECHNIQUES NECESSARY TO ENSURE PROJECT COMPLIANCE. VERIFY WELDER CERTIFICATIONS.
- i. INSPECT METAL DECK WELDS AND ROOF DECK WELDS.
- j. INSPECT STEEL FRAME JOINT DETAILS SUCH AS BRACING AND STIFFENING, MEMBER LOCATIONS AND APPLICATION OF JOINT DETAILS AT CONNECTIONS FOR COMPLIANCE WITH PROJECT REQUIREMENTS.

12. BOLTING

- b. INSTALLATION OF HIGH-STRENGTH BOLTS SHALL BE INSPECTED IN ACCORDANCE WITH AISC 360.
- c. WHILE THE WORK IS IN PROGRESS, THE SPECIAL INSPECTOR SHALL DETERMINE THAT THE REQUIREMENTS FOR BOLTS, NUTS, WASHERS AND PAINT: BOLTED PARTS AND INSTALLATION AND TIGHTENING IN SUCH STANDARD ARE MET. FOR BOLTS REQUIRING PRE TENSIONING, THE SPECIAL INSPECTOR SHALL OBSERVE THE PRE TENSIONING OPERATION. WHEN THE PRE TENSIONING PROCEDURE IS NOT REQUIRED BY THE INSTALLATION METHOD OR BY PROJECT PLANS OR SPECIFICATIONS, DETERMINE THAT ALL PILES OF CONNECTED MEMBERS ARE TIGHTENED TO THE CORRECT TIGHTENING TORQUE. WHEN THE PRE TENSIONING PROCEDURE IS REQUIRED BY THE PROJECT PLANS OR SPECIFICATIONS, DETERMINE THAT ALL PILES OF CONNECTED MEMBERS ARE TIGHTENED TO THE CORRECT TIGHTENING TORQUE. FOR BOLTS TO BE VERIFIED THAT THE SELECTED PROCEDURE FOR INSTALLATION IS PROPERLY USED TO TIGHTEN BOLTS, FOR THOSE REQUIRED TO BE TIGHTENED ONLY TO THE SNUG-TIGHT CONDITION, THE SPECIAL INSPECTOR NEED ONLY VISUALLY INSPECT THE TIGHTENING OPERATION. FOR THOSE REQUIRED TO BE TIGHTENED TO A PRE-DETERMINED TIGHTENING TORQUE, THE SPECIAL INSPECTOR NEED ONLY VISUALLY INSPECT THE TIGHTENING OPERATION.
- d. MONITORING OF BOLT INSTALLATION FOR PRE TENSIONING IS PERMITTED TO BE PERFORMED ON A PERIODIC BASIS WHEN USING THE TURN-OF-NUT METHOD WITH MATCH MARKING TECHNIQUES. THE DIRECT TENSION INDICATOR METHOD OR THE ALTERNATE DESIGN FASTER (TWIST-OFF) BOLT METHOD. THOSE DESIGNATED AS MONITORING OF BOLT INSTALLATION FOR PRE TENSIONING USING THE TURN-OF-NUT METHOD OR THE DIRECT TENSION INDICATOR METHOD OR THE ALTERNATE DESIGN FASTER (TWIST-OFF) BOLT METHOD ON A CONTINUING BASIS SHALL BE TIGHTENED AS INSTRUCTED ON A PERIODIC BASIS.

13. WELDING

- a. WELDING INSPECTION AND WELDING INSPECTOR QUALIFICATION SHALL BE IN ACCORDANCE WITH THIS SECTION.



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OWNER

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THESE DRAWINGS ARE FOR REVIEW OF DESIGN AND
SIGHT DESCRIPTION ONLY. NO REPRESENTATION IS
MADE TO THE ACCURACY OF THE DRAWINGS WITH
RESPECT TO EXISTING DIMENSIONS OR CONDITIONS. ALL
CONSULTANTS AND CONTRACTORS MUST VERIFY ANY AND
ALL DIMENSIONS AND CONDITIONS WHICH ARE CRITICAL
TO THEIR WORK. THESE DRAWINGS ARE INSTRUMENTS
OF SERVICE AND ARE THE INTELLECTUAL PROPERTY OF
JUMAC ARCHITECTS. ANY UNAUTHORIZED USE OR
REPRODUCTION IS PROHIBITED.

No.	Issue Date	Project Status

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