STRUCTURAL QUALITY ASSURANCE PLAN

The Structural Quality Assurance Plan identifies the responsibilities of the Architect, Contractor, Structural Engineer, and the Special Inspector to ensure the structural integrity of the building. It is an integral part of the construction documents and is to be followed throughout the construction process.

**Planning**

**P H O N E   6 1 5   3 7 7 - 9 7 7 3**

**STRUCTURAL DESIGN GROUP**

**T   H   O   M   A   S, P. MURRAY**

**ISAIAH 53:5**

**A02108.00**

**S C H E M A T I C D E S I G N - N O T F O R C O N S T R U C T I O N - 02-06-2009**

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### Special Inspector

Special Inspector shall perform the following:

1. **Inspection of steel framing to verify compliance with details shown on the structural drawings.**
   - Ensure that the steel framing is in accordance with the approved shop drawings and the code requirements.

2. **Establish concrete mix design proportions per ACI 318, Chapter 5. Submit fresh unit weight.**
   - Verify the mix design proportions as provided by the Contractor and ensure they meet the requirements of ACI 318.

3. **Submit certified mill test reports for structural steel.**
   - Inspect the mill test reports of the structural steel to ensure they meet the specified ASTM standards.

4. **Perform one 7-day and two 28-day compressive strength tests. (Use one as a spare to be broken as directed by the Structural Engineer if compressive strengths do not appear adequate.)**
   - Conduct compressive strength tests in accordance with ASTM C109 to verify the strength of the concrete.

5. **Monitor placement of structural lightweight concrete placed by pumping.**
   - Ensure the placement of lightweight concrete is in accordance with the construction documents and meets the requirements of the specified ASTM and ACI standards.

6. **Verify stud shear connector spacing and location. Visually inspect welding.**
   - Confirm the placement and alignment of stud shear connectors and verify the welding quality.

7. **Grout materials: Portland cement and aggregates.**
   - Verify that the grout materials meet the requirements of the specified ASTM and ACI standards.

8. **Review and comment on the fabricator’s quality control procedures.**
   - Ensure that the fabricator maintains detailed fabrication and quality control procedures.

9. **Attendance at Job Site for field shop drawing problems, etc.**
   - Be available on the job site to address any field shop drawing problems or issues.

10. **Regular visual inspection of the work performed.**
    - Conduct regular visual inspections to ensure the work is in compliance with the plans and specifications.

11. **Submit a certification from each manufacturer or supplier stating that the products meet the requirements of the specified ASTM and ACI standards.**
    - Ensure that all materials supplied by the Contractor meet the required standards.

12. **Submit a written statement to the Building Official, Architect, and Structural Engineer on a weekly basis.**
    - Provide a weekly summary of the inspections performed and any discrepancies noted.

**Contractor**

Contractor shall perform the following:

1. **Establish concrete mix design proportions per ACI 318, Chapter 5. Submit fresh unit weight.**
   - Ensure the mix design proportions meet the requirements of ACI 318.

2. **Observe proofrolling.**
   - Observe proofrolling to ensure the quality of the concrete placement.

3. **Perform a slump test as deemed necessary for each concrete load. Record if additional slump tests after job site adjustments.**
   - Conduct slump tests to verify the consistency of the concrete.

4. **Verify grade, quantity, location, and placement of reinforcing steel prior approval by the Structural Engineer.**
   - Ensure the reinforcing steel is properly placed and aligned.

5. **Submit a certification from each manufacturer or supplier stating that the products meet the requirements of the specified ASTM and ACI standards.**
   - Ensure that all materials meet the required standards.

6. **Perform one 7-day and two 28-day compressive strength tests. (Use one as a spare to be broken as directed by the Structural Engineer if compressive strengths do not appear adequate.)**
   - Conduct compressive strength tests as required.

7. **Verify drilled piers bearing surface. Record bearing elevation and pier conditions.**
   - Confirm the quality of the drilled piers and record any discrepancies.

8. **Compressive strength tests per ASTM C109.**
   - Conduct compressive strength tests in accordance with ASTM C109.

9. **Submit a written statement to the Building Official to perform required work without special inspections.**
   - Provide a written statement to the Building Official to perform the required work as per the construction documents.

10. **Perform a slump test as deemed necessary for each concrete load. Record if additional slump tests after job site adjustments.**
    - Conduct slump tests as necessary.

11. **Verify stud shear connector spacing and location. Visually inspect welding.**
    - Confirm the spacing and location of stud shear connectors and verify the welding quality.

12. **Grout materials: Portland cement and aggregates.**
    - Ensure the grout materials meet the specifications.

13. **Review and comment on the fabricator’s quality control procedures.**
    - Review the fabricator’s quality control procedures and provide comments.

14. **Submit a certification from each manufacturer or supplier stating that the products meet the requirements of the specified ASTM and ACI standards.**
    - Ensure that all materials meet the required standards.

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**CAMPBELL COUNTY MEMORIAL HOSPITAL**

**ARCHITECTURAL PRECAST CONCRETE**

**S O I L S**

1. **Verify compressive strength of concrete masonry units, mortar, and coarse aggregate.**
   - Conduct compressive strength tests on the concrete masonry units and mortar.

2. **Mold four specimens per set for compressive strength testing; one set for additional slump tests after job site adjustments.**
   - Mold specimens for compressive strength testing and additional slump tests.

3. **Verify that precast member bearing locations and details are in accordance with the structural drawings.**
   - Confirm the alignment and location of precast members.

4. **Material verification of high-strength bolts, nuts, and washers.**
   - Verify the quality of the high-strength bolts, nuts, and washers.

5. **Perform one 7-day and two 28-day compressive strength tests. (Use one as a spare to be broken as directed by the Structural Engineer if compressive strengths do not appear adequate.)**
   - Conduct compressive strength tests as required.

6. **Verify stud shear connector spacing and location. Visually inspect welding.**
   - Confirm the spacing and location of stud shear connectors and verify the welding quality.

7. **Grout materials: Portland cement and aggregates.**
   - Ensure the grout materials meet the specifications.

8. **Review and comment on the fabricator’s quality control procedures.**
   - Review the fabricator’s quality control procedures and provide comments.

9. **Submit a certification from each manufacturer or supplier stating that the products meet the requirements of the specified ASTM and ACI standards.**
   - Ensure that all materials meet the required standards.

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**SOILS**

1. **Verify compressive strength of concrete masonry units, mortar, and coarse aggregate.**
   - Conduct compressive strength tests on the concrete masonry units and mortar.

2. **Mold four specimens per set for compressive strength testing; one set for additional slump tests after job site adjustments.**
   - Mold specimens for compressive strength testing and additional slump tests.

3. **Verify that precast member bearing locations and details are in accordance with the structural drawings.**
   - Confirm the alignment and location of precast members.

4. **Material verification of high-strength bolts, nuts, and washers.**
   - Verify the quality of the high-strength bolts, nuts, and washers.

5. **Perform one 7-day and two 28-day compressive strength tests. (Use one as a spare to be broken as directed by the Structural Engineer if compressive strengths do not appear adequate.)**
   - Conduct compressive strength tests as required.

6. **Verify stud shear connector spacing and location. Visually inspect welding.**
   - Confirm the spacing and location of stud shear connectors and verify the welding quality.

7. **Grout materials: Portland cement and aggregates.**
   - Ensure the grout materials meet the specifications.

8. **Review and comment on the fabricator’s quality control procedures.**
   - Review the fabricator’s quality control procedures and provide comments.

9. **Submit a certification from each manufacturer or supplier stating that the products meet the requirements of the specified ASTM and ACI standards.**
   - Ensure that all materials meet the required standards.

**CAPTURING INNOVATION FOR CONSTRUCTION - 02-06-2009**

**THOMAS, MILLER & PARTNERS, PLLC**

**SCHEMATIC DESIGN - NOT FOR CONSTRUCTION - 02-06-2009**