### Structural Engineer

WSP Cantor Seinuk

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#### CONSTRUCTION

1. **Structural Steel** has been designed in accordance with the A.C.I. Building Code and the current New York City Building Code.

2. Concrete strength shall be as follows, unless otherwise noted:
   - **WAS** taken from existing DWGs and shall be verified on-site. Discrepancies shall be addressed through written consent of the structural engineer.

3. Temporary shoring is required at all locations where partial removal of beams and/or columns is taking place.

4. No footing or mat to be placed until bottom of mat & footing bearing material is verified.

5. All underpinning, sheeting, shoring or other construction required for the foundation system presented on the FO-100, FO-200 & FO-300 series DWG's relies on a S.P. (PSF) - EXCAVATION - SHEETING, SHORING.

6. Geotechnical report dated September 7, 2011. See footing schedule on drawing 204-02-12 issued to DOB.

7. Cutting and punching of structural members, where required by the DWG.

8. All steel reinforcement (stirrups and ties in inclusive) shall have an ultimate tensile strength of 90,000 PSI as per A.S.T.M. A615 Grade 60. The contractor shall furnish and install all the steel reinforcement as specified.

9. All steel reinforcement shall have an ultimate tensile strength of 90,000 PSI as per A.S.T.M. A615 Grade 60. The contractor shall furnish and install all the steel reinforcement as specified.

10. Grout shall have a minimum compressive strength of 2,000 PSI. Grout shall be mixed and applied in strict accordance with the concrete mix proportions.

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12. The contractor shall ensure that the shop drawings have been approved by the engineer.

13. All welders shall be licensed by the State of New York Building Dept.

14. Structural steel shall receive one coat of paint, zinc or bituminous coating or equivalent metal protection before erection as specified.

15. All testing shall be in conformance with the latest ASTM and N.Y. City Code and to A.C.I. 530/ASCE-5 as referenced by the NYC Code.

16. All unit strength tests for each compressive strength masonry to be passed after the supporting columns and walls are placed.

17. Fortified concrete shall be used as specified.

18. The contractor must submit reinforcing shop drawings to the structural engineer of record for approval.

19. Structural steel shall receive one coat of paint, zinc or bituminous coating or equivalent metal protection before erection as specified.

20. Structural steel shall be designed in accordance with the New York City Building Code and the current New York City Building Code.

21. Details, sections, schedules, etc. and these notes, represent the minimum requirements agreed upon by the contractor and architect.

22. Footing and foundation design has been prepared in accordance with the latest New York City Building Code.

23. All testing shall be in conformance with the latest ASTM and N.Y. City Code.

24. Shear wall reinforcement details have been prepared in accordance with the latest New York City Building Code.

25. Foundation reinforcement details have been prepared in accordance with the latest New York City Building Code.
1. STRUCTURAL STEEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE NEW YORK, NY 10013 ACI AMERICAN CONCRETE INSTITUTE K KIP (1000 POUNDS)

2. CONCRETE STRENGTH SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
   - 6000psi 15TH - TOP

3. DESIGN AND CONSTRUCTION OF FORMWORK IS TO COMPLY WITH THE A.C.I. 318 BUILDING CODE AND THE NEW YORK CITY BUILDING CODE AS AMENDED.

4. CONTRACTOR SHALL VERIFY LOCATIONS AND DIMENSIONS OF ALL SLOTS, PIPE SLEEVES, PROVIDE THE NECESSARY DESIGN AND THE REQUIRED INSPECTION. THE CONTRACTOR'S BASIS FOR WHICH INFORMATION IS FURNISHED PRIOR TO FABRICATION.

5. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 3/4" FOR INTERIOR SLABS AND INTERIOR LOAD BEARING CAPACITY OF 60 TONS PER SQ. FT. AS RECOMMENDED IN LANGAN ENGINEERINGS FOUNDATION SYSTEM PRESENTED ON THE FO-100, FO-200 & FO-300 SERIES DWG'S RELIES ON A NON-STRUCTURAL ITEMS SHOWN ON THE

6. NO PIPES OR CONDUITS EXCEEDING 1/3 SLAB THICKNESS IN OUTSIDE DIAMETER NOR OVER 1ST & 4TH LAYERS NOMINAL 2" INSIDE DIAMETER SHALL BE EMBEDDED NOR SHOULD BE PLACED CLOSER THAN 3 1/2"x4 1/2"x3 1/2" IN DEPTH AND SHALL BE SEPARATED FROM OTHER JUNCTION BOXES BY 4-#6 VERTICAL AND #4@6   TIES

7. IN NO CASE SHALL TRUCKS, BULLDOZERS, OR OTHER HEAVY EQUIPMENT BE PERMITTED BETWEEN THE EXISTING AND NEW CONCRETE. IN ADDITION, THE CONTRACTOR MUST TAKE ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS.

8. ALL ENDS OF COLUMNS AT SPLICES AND ALL OTHER BEARING CONNECTIONS SHALL INDICATES ORDER OF BAR PLACEMENT AS SHOWN ON PLAN

9. ALL STEEL REINFORCEMENT (STIRRUPS AND TIES INCLUSIVE) SHALL HAVE AN ULTIMATE TENSILE STRENGTH OF 90,000 PSI AS PER A.S.T.M. A615 GRADE 60. THE CONTRACTOR SHALL FOR TIES SEE COLUMN DETAILS ON S-950 SERIES DRAWINGS.

10. PROVISIONS SHALL BE MADE FOR CONNECTIONS OF OTHER TRADES INCLUDING SUPPORT OF ADJACENT PROPERTIES, BUILDINGS, SIDEWALKS, UTILITIES, ETC., SHALL BE SUBJECT TO THE REQUIRED DESIGN STRENGTHS NOTED ON THE STRUCTURAL DRAWINGS.

11. ALL ENDS OF COLUMNS AT SPLICES AND ALL OTHER BEARING CONNECTIONS SHALL INDICATES COLUMN NUMBER

12. PROVISIONS SHALL BE MADE FOR CONNECTIONS OF OTHER TRADES INCLUDING SUPPORT OF ADJACENT PROPERTIES, BUILDINGS, SIDEWALKS, UTILITIES, ETC., SHALL BE SUBJECT TO THE REQUIRED DESIGN STRENGTHS NOTED ON THE STRUCTURAL DRAWINGS.

13. PROVISIONS SHALL BE MADE FOR CONNECTIONS OF OTHER TRADES INCLUDING SUPPORT OF ADJACENT PROPERTIES, BUILDINGS, SIDEWALKS, UTILITIES, ETC., SHALL BE SUBJECT TO THE REQUIRED DESIGN STRENGTHS NOTED ON THE STRUCTURAL DRAWINGS.