SCHEDULE OF SPECIAL INSPECTIONS

IBC Code Section	Item	Inspection/Test/Certification	C or P	Extent/Comments
	1000.00	General Conditions		
	1000.01	Review of Structural Documents and Shop Drawings to determine differences not approved by Architect or Engineer of Record	Continuous	Structural Documents should take precedence over any shop drawings. Special Inspector should use the Architectural and Structural Documents as the primary documents for review of construction. Shop drawing should be used as secondary document to review details not shown on the Architectural and Structural Documents. Any discrepancy between the two documents should be resolved by the Architect or Engineer of Record before proceeding with construction.
	1000.02	The Special Inspector duties for missing details, conflicting details or coordination issues.	Continuous	Reasonable attempts have been made on the part of the design team to properly coordinate drawings. However in the event that a question arises on the project the Special Inspector shall obtain clarification from the Architect on all items. No changes shall be made to the drawings or construction without written conformation.
	1400.00	Fabricators		
1704.02.01	1400.01	Review the quality control procedures of the following fabricators for completeness and adequacy relative to the fabricator's scope of work: steel fabricator, lightgage truss fabricator, wood truss fabricator.	Periodic	
1704.02.02	1400.02	The following fabricators, if registered and approved by the building official, may submit "Certificates of Compliance" at the completion of their scope of work that their fabricated items were constructed in accordance with the approved construction documents: steel fabricator, lightgage truss fabricator, wood truss fabricator. Fabricators having successfully completed no fewer than 5 similar projects may also submit for approval with documentation of similar projects.	Periodic	
	2300.00	Soils and Deep Foundations		
1704.07	2300.01	Verify bearing capacities of soils beneath footings.	Periodic	As recommended in approved soils report and specified in earthwork specifications.
1704.07	2300.02	Verify assumed bearing capacities and determine settlements of soils beneath footings and building pad.	Periodic	As noted on the drawings, recommended by the geotechnical engineer, and specified in earthwork specifications.
1704.07.01	2300.03	Verify site preparation prior to beginning fill placement. Verify fill material type, placement method, lift thickness, and compaction of fill material. Verify in-place density of compacted fill.	Periodic	As recommended in approved soils report and specified in earthwork specifications.
1704.08	2300.04	Inspect installation of pile foundations including installation of test piles.	Continuous	As recommended in approved soils report and specified in pile specifications.
1704.09	2300.05	Inspect installation of drilled pier foundations and installation of test piers. Inspect reinforcing in each pier and test concrete.	Continuous	As recommended in approved soils report and specified in pile specifications.
1705.9	2300.06	Inspect helical pile installation.	Continuous	Record installation equipment used, pile dimensions, tip elevations, final depth, final installation torque.
	3300.00	Concrete Construction		
None	3300.06	Inspect concrete formwork except as noted above for proper dimensions. Verify that construction joints are properly keyed. Verify that slab recesses, if any, have been installed.	Periodic	Prior to each pour.
1704.04	3300.07	Inspect reinforcing steel except as noted above for installation including size, spacing and bar clearances. Verify that lap splices and embedment lengths are per the construction documents. Verify that dowels for work above are properly aligned and spaced to match other work.	Periodic	Prior to each pour.
None	3300.13	Inspect bolts	Periodic	
1704.04	3300.15	Verify each proposed concrete mix for the project.	Periodic	For each proposed mix
1704.04	3300.16	Sample all concrete for strength tests and test concrete for slump, air content, temperature, and other tests.	Continuous	During placement operations. Reference concrete specifications for specific tests and frequencies.
1704.04	3300.17	Inspect concrete placement except as noted above.	Continuous	
1704.04	3300.18	Inspect all concrete curing operations as noted in the extents column.	Periodic	Monitor during hot, cold and windy conditions. Reference concrete specifications.
	3300.25	Verify sawed joints in slabs on grade are comleted within 4 hours of the final set of the concrete	Continuous	
	4810.00	Masonry Construction		
1704.05.01 and .02	4810.03	Inspect proportions of site prepared mortar and grout. Inspect construction of mortar joints. Inspect reinforcement for correct size and spacing. Inspect work for correct location and type of embeds and anchor bolts. Inspect work for size and location of structural elements.	Periodic	At beginning of masonry construction and every _____ square feet of masonry thereafter.
1704.05.01 and .02	4810.05	Inspect masonry cells and cleanouts prior to placement of grout. Inspect grout proportions. Inspect placement of reinforcement.	Periodic	Prior to grouting of masonry.
1704.05.01 and .02	4810.06	Inspect grouting operations to ensure compliance with code and construction documents.	Continuous	During grouting.
1704.05.01, .02 and 03	4810.12	Inspect protection of masonry during cold weather and hot weather.	Periodic	During periods with temperatures below 40 degrees or above 90 degrees.
1704.05.01 and .02	4810.13	Inspect preparation of grout specimens, mortar specimens and / or prisms.	Continuous	During preparation of all specimens
1704.05.01, .02 and 03	4810.14	Verify compliance with all required inspection provisions of the construction documents and approved submittals.	Periodic	As required for duration of project.
	5120.00	Steel Construction		
1704.03	5120.01	Inspection of the steel pieces		
1704.03.02	5120.02	Inspection of frame		
1704.03.03	5120.03			
1704.03	5120.04	Inspect high-strength bolts, nuts and washers: a. Identify markings to conform to ASTM standards specified in the construction documents. b. Inspect manufacturer's certificate of compliance.	Periodic	Reference project specifications for ASTM material specifications; AISC 335 Select ASD or LRFD (Select ASD).
1704.03	5120.05	Inspect high-strength bolting: Bearing-type connections.	Periodic	
1704.03	5120.07	Inspect and verify structural steel material: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturers' certified mill test reports.	Periodic	Confirm that materials meet applicable ASTM specifications noted in construction documents.
1704.03	5120.08	Inspect and verify weld filler materials: a. Identification markings to conform to AWS specification in the approved construction documents. b. Manufacturer's certificate of compliance required.	Periodic	Confirm that materials meet applicable ASTM specifications noted in construction documents.
1704.03	5120.09	"Inspect welding: Structural Steel: 1) Complete and partial penetration groove 2) Multipass fillet welds. 3) Single-pass fillet welds > 5/16 " "	Continuous	Per specifications and AWS D1.1
1704.03	5120.10	"Inspect welding: Structural Steel: 1) Single-pass fillet welds ≤ 5/16 " 2) Floor and deck welds. "	Periodic	Per specifications and AWS D1.1
1704.03	5120.11			
1704.03	5120.12	"6. Inspect steel frame joint details for compliance with approved construction documents: a. Details such as bracing and stiffening. b. Member locations. c. Application of joint details at each connection."	Periodic	Inspect complete frame.
	5301.03	Verify deck support angles are provided for all openings greater than 100 square inches.	Periodic	
	5310.00	Metal Deck		
	5310.01	Verify depth and gauge of all deck elements	Periodic	
	5310.02	Verify adequate bearing of ends of decking	Periodic	
	6000.00	Wood		
1704.06	6000.01	Inspect fabricated wood trusses and shop built components.	Periodic	Inspect truss production in shop unless fabricator is approved by building official and submits certification of compliance at end of scope of work. Inspect ____% of trusses. Inspect 100% of trusses if discrepancies are observed.
1704.06	6000.02	Inspect site built assemblies including site built trusses. Inspect erected trusses including bridging and attachments.	Periodic	Inspect all site-built trusses. Inspect erected trusses and installation of bridging.
1706.01	8000.00	Special Inspections for Wind Resistance		
1706.01.02	8000.01	Roof Cladding and Roof Framing Connections	Periodic	
1706.01.02	8000.02	Wall Connections to Roof and Floor Diaphragms and Framing	Periodic	
1706.01.02	8000.03	Roof and Floor Diaphragm Systems, including Collectors, Drag Struts, and Boundary Elements.	Periodic	
1706.01.02	8000.04	Vertical Windforce-Resisting Systems, including Braced Frames, Moment Frames, and Shearwalls	Periodic	
1706.01.02	8000.05	Windforce-Resisting System Connections to the Foundation.	Periodic	
1706.01.02	8000.06	Fabrication and installation of components and assemblies required to meet the impact-resistance requirements of Section 1609.1.4.	Periodic	

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John Jones, PE, SE
Structural Engineer
Pell City, AL 205.884.5334

GEORGIA REGISTERED No 030782 PROFESSIONAL JOHN ENGINEER JONES

04.06.17

AHO ARCHITECTS, LLC
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GENERAL NOTES

1. Contractor shall compare structural drawings and architectural drawings. Any omissions or discrepancies between plans, details, and specifications shall be brought to the attention of the Architect or Engineer before bidding. In all cases, more stringent requirement governs. Architectural dimensions and elevations will control.
2. Structural drawings or parts of the structural drawings may not be used as shop drawings without prior written approval.
3. All or parts of these drawings were produced with computer aided drafting. Drawings are available from the Engineer in DWG format on request.
4. Contractor proposed changes to details must be clearly noted on the first sheet of all shop drawings.
5. Construction shown is stable after the building is complete including interior and exterior finishes. The Contractor is responsible for temporary bracing of the structure during construction.
6. Review of submittal information shall be for general compliance with the contract documents and shall not include checking of detailed dimensions or detailed quantities.

DESIGN LOADS

1. Reference code for loading 2012 IBC.
   a. Building Classification II
   b. Wind Load
      1) Basic Wind Speed (3 sec gust) 115 mph
      2) Wind Exposure C
      3) Internal Pressure Coefficient +/- 0.18
      4) Velocity Pressure (qz) 27.3 psf
   c. Roof Snow Load
      1) Flat Roof Snow Load (Pf) 5 psf
      2) Snow Exposure (Ce) 1.0
      3) Importance Factor 1.0
      4) Thermal Factor (Ct) 1.0
   d. Seismic Load
      1) Importance Factor 1.0
      2) Mapped Spectral Response Accelerations
         a) Ss 0.298
         b) S1 0.114
      3) Site Class D
      4) Spectral Response Coefficients
         a) Sds 0.310
         b) Sd1 0.178
      5) Seismic Design Category B
      6) Base Seismic Force-Resisting System(s) and Response Modification Factor
         a. Ordinary Reinforced Masonry Shear Walls R = 2
      7) Design Base Shear 25 kips
      8) Seismic Response Coefficient (Cs) 0.156
      9) Analysis Procedure = Equivalent Lateral Force
   Live Loads
      1) Roof Load 20 psf
      2) Storage Bay and Slabs on grade 100 psf
      3) Machine 50 psf

FOUNDATIONS

1. Foundation design for this project was based on assumed soil conditions. Information for design of foundations has not been provided by the Owner. Design to be verified once a Geotechnical Report is supplied. Any changes in foundation design as a result of the supplied Geotechnical Report will be the responsibility of the Owner
2. Assumed bearing capacity---------- 2500 psf
3. All footings are to bear on engineered fill.
4. Install corner bars at all footing intersections and corners (Provide lap length e.w.)
5. All footing elevations are given to the top of the footings.
6. Footing steps shown on the plans are furnished as a guide for estimating quantities. Final elevations are to be set in the field. Bearing elevations must be approved by a Soils Engineer before any concrete is placed.
7. Coordinate foundation elevations with plumbing requirements. Step footings as required to clear plumbing lines.
8. Provide drainage for all retaining walls, see architectural for notes and details.

MASONRY

1. All masonry work to be in accordance with "Building Code Requirements for Concrete Masonry Structures" ACI 530-11 and "Specifications for Masonry Structures" ACI 530.1-11
2. Fill all concrete masonry units with concrete or grout from the top of the footing to the finish floor or to 8" above finish grade whichever is higher.
3. Use ladder type joint reinforcement (Dur-O-Wall SW DA3100 or better) at 16" on center in all cavity walls where brick is used for one or more of the wythes.
4. Use truss type joint reinforcement (Dur-O-Wall SW DA3100 or better) at 16" o/c. in all other masonry walls.
5. Provide joint reinforcement at 8" o/c. for all walls constructed with stack bond.
6. Use Type "M" or Type "S" mortar in accordance with IBC Table 2103.7(1).
7. Minimum compressive strength of concrete masonry f'm = 2500 psi. Submit for review test data on strength of units before starting any masonry work.
8. Minimum compressive strength of grout f'm = 2500 psi. Use 3/8" max size aggregate. See Special Inspection Schedule for any testing requirements. Grout slump shall be 8" to 11".
9. Use "Fine" grout for all reinforced piers and reinforced wall in accordance with ASTM C 476.
10. Each grout lift shall not exceed 5'-0" unless cleanouts are provided in the bottom course.
11. Fill cells under all lintels with grout.
12. Provide lintels over all openings through wall. See lintel details for reinforcement.
13. Unless otherwise noted provide control joints in all walls 4'-0" from wall intersections or corners and at 20'-0"
14. Extend all horizontal steel and bond beams thru control joints.
15. Vertical Reinforcement shall extend into the bond beam.
16. Unless noted, all bars are to be located at the center of cell. Where bars are specified at each face, provide minimum ½" clear space between reinforcement and CMU face shell.
17. Anchor bolt into grouted cell locations only, unless noted otherwise.

REINFORCING STEEL AND CONCRETE

1. All concrete work is to be in accordance with the "Building Code Requirements for Reinforced Concrete" (ACI 318-11).
2. All detailing is to be in accordance with "ACI Detailing Manual".
3. Use of Calcium Chloride, Chloride Ions, or other salts in concrete are prohibited.
4. Concrete Properties: See Schedule
   a. All concrete must obtain 7 day strength of 65% of design strength.
   b. Concrete mixes may contain up to 25% of cementitious weight of fly ash.
   c. Concrete mixes may use water reducers, accelerators or retarders with prior approval.
   d. Do not provide air entrainment in concrete mixes for interior slabs.
5. All steel reinforcement shall be deformed bars of billet steel conforming to ASTM A615, Grade 60 in all concrete.
6. Welded wire fabric shall be ASTM A185 and shall have 2 cross wires or 6" whichever is greater on all sides. All laps shall be tied together.
   Provide (2) #4 bars x 4'-0" at re-entrant corner locations Typical. Locate 3" away from corner and space 1'-0" apart.
8. All slabs on grade are 5", unless noted. Slabs are to be placed on 10 Mil, PVC vapor barrier over 4" of porous fill. Reinforce slabs with 6x6-W2.9 x W2.9 WWF placed 1" from top of slab. Unless otherwise noted slabs shall have joints placed a 12'-0" on centers. Joints may be control joints or construction joints. See Architectural Plans for floor types and recesses for hard tile.
   Minimum concrete cover for reinforcement:
   a) Footings3"
   b) Cast-In-Place Walls
      Surfaces exposed to weather or soil 2" - #6 and greater, 1-1/2" - #5 and smaller
      Other surfaces 3/4"
10. Provide corner bars at all wall and footing intersections.
11. No openings shall be allowed to penetrate any concrete work, unless it is shown on the structural framing plans without prior written approval. Contractor shall submit for review locations of proposed openings not shown 30 days prior to pouring any concrete.
12. Provide a continuous water bar at all wall construction joints below ground level.
13. Use 3/4" chamfer for all exposed corners unless noted.

STRUCTURAL STEEL

1. All detailing, fabricating, and erection of structural steel shall be in accordance with the AISC 360-10 "Specifications for Structural Steel Buildings". All reactions shown are ASD loads.
2. All connections are to be detailed as Type 2 "simple frame connections".
3. All structural steel W shapes shall be ASTM A992.
4. All structural steel Tube sections shall be ASTM A500 Grade B.
5. All structural steel Pipe sections shall be ASTM A501.
6. All structural steel channels, angles and other sections shall be ASTM A36, unless noted.
7. Headed Studs shall be Type B Shear Connectors.
8. Shop and field connections shall be welded with E-70XX electrodes or bolted with 3/4" dia. A-325N or A-325F bolts, unless noted.
9. Use 3/4" cap and bearing plates, unless noted.
10. Use 3/4" dia x 1'-0" long ASTM 1554 Grade 36 anchor bolts, unless noted. In lieu of cast bolts, 3/4"x1'-0" long HAS rods epoxied with Hilti HVA epoxy, or equal, may be used with prior approval.
11. Grout under baseplates with ASTM C 1107 cementitious 6000 psi Non-Shrink Grout.
12. Structural steel shall be shop primed per SSPC paint system No. 7. Primer shall be SSPC paint with a minimum thickness of 2.0 MILS. Omit Paint at surfaces to be fireproofed.
13. Provide L 3"x3"x1/4" frames around all roof opening through metal decking.

WOOD (STRUCTURAL)

1. All floor framing and roof framing shall be #2KD SYP or approved equal.
2. All floor framing shall be horizontally braced/blocked at midspan unless noted otherwise.
3. All vertical framing shall be Spurce-Pine-Fir, #2.
4. All wood exposed to weather or in contact with CMU or concrete shall be pressure treated in accordance with American Wood Preservers Association Manual of Recommended Practice.
5. All Fasteners and Nails in contact with pressure treated lumber shall be stainless steel Type 304. Submit all alternates for approval.
6. Furnish design calculations sealed by a Professional Engineer licensed in the State of Project for all truss members.
7. Truss connections to walls and framing shall be Designed and Specified by Truss Supplier.
8. Field Modification or Fabrication of trusses is not allowed unless written approval is provided by Truss Supplier.
9. Provide (4) studs at all beam and girder truss bearing locations.
10. Roof decking shall be 5/8" APA rated sheathing, Exposure 1 with 32/16 span rating. Provide plyclips at all roof sheathing connections, unless noted otherwise.
11. Floor and roof sheathing shall be nailed with 8d rinkshank nails at 6" o.c.
12. All bolts connecting continuous horizontal sill plates to concrete, masonry, or steel shall have 3" flat washers.

CONCRETE SCHEDULE

Concrete Use	Design Strength	Max W/C Ratio	Slump Limits	Entrained Air Range	Weight	Notes
Basement Walls	4000 psi	n/a	6" to 8"	3% to 5%	150 pcf	Use HRWR
Footings	3000 psi	n/a	3" to 5"	3% to 5%	150 pcf	-
Slabs on Composite Metal Deck	4000 psi	n/a	6" to 8"	---	150 pcf	Use HRWR
Slabs on Grade	4000 psi	n/a	6" to 8"	---	150 pcf	Use HRWR

Express Oil Change & Tire Engineers

Single Building - Right Hand Oil Change

Augusta, Georgia

FINAL

No.	Description	Date

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General Notes

Project number	16031
Date	04.03.17
Drawn by	jcj
Checked by	jd

S0.1

Scale 3/4" = 1'-0"

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