GENERAL NOTES:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.

3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURE AND PERSONNEL DURING ERECTION. THIS INCLUDES THE ADDITION OF THE NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.

4. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

5. IT IS THE OWNER'S SOLE RESPONSIBILITY TO EMPLOY ONE OR MORE SPECIAL INSPECTORS (IF REQUIRED) TO PROVIDE INSPECTIONS IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF IBC 2003.

STRUCTURAL DESIGN CRITERIA:

1. BUILDING CODE: IBC 2003 INTERNATIONAL BUILDING CODE

2. DESIGN WIND LOADS - MAIN WIND FORCE RESISTING SYSTEM:
   - DESIGN WIND SPEED = 100 MPH
   - BUILDING USE IMPORTANCE FACTOR (WIND) = 1.0
   - BUILDING EXPOSURE CATEGORY = B

3. SNOW:
   - GROUND SNOW LOAD = 60 PSF
   - IMPORTANCE FACTOR, I = 1.0
   - EXPOSURE FACTOR, Ce = 0.7
   - FLAT ROOF SNOW LOAD = 42 PSF

4. ROOF DEAD LOAD
   - TOP CHORD = 10.0 PSF
   - BOTTOM CHORD = 10.0 PSF

5. LIVE LOADS
   - FLOOR LIVE = 50.0 PSF
   - PARTITION LOAD = 20.0 PSF

6. DESIGN SEISMIC CRITERIA:
   EQUIVALENT LATERAL FORCE PROCEDURE
   - USE GROUP (CATEGORY) = I
   - SDs = 0.328
   - SDI = 0.124
   - SEISMIC DESIGN CATEGORY = C
   - SITE CLASS = D
   - R = 7.0
   - Cd = 4.5
   - SEISMIC RESISTING SYSTEM = LIGHT FRAMED WALLS WITH SHEAR PANELS
   - SEISMIC BASE SHEAR, V = 0.047 x W

FOUNDATION NOTES:

1. FOUNDATION DESIGNED BASED ON AN ASSUMED MAXIMUM ALLOWABLE BEARING PRESSURE OF 2500 PSF. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE SOIL BEARING CAPACITY. NOTIFY THE ENGINEER AND STOP WORK IF CLAY, WET SOILS, FILL, OR OTHER DELETERIOUS MATERIALS ARE ENCOUNTERED.

2. DESIGN OF EXTERIOR FOUNDATIONS IS BASED ON A FROST DEPTH OF 4'-6" BELOW FINISHED GRADE.

3. NO HORIZONTAL JOINT WILL BE PERMITTED IN THE WALLS UNLESS NOTED OTHERWISE.

4. FOUNDATION CONTRACTOR SHALL SET COLUMN ANCHOR RODS AND LEVELING PLATES, INCLUDING GROUTING, AS PER THE STRUCTURAL STEEL CONTRACTOR'S DRAWINGS.

5. EXCAVATING AND BACK FILLING AT NEW FOUNDATION WALLS SHALL BE DONE SUCH THAT SYMMETRICAL LOADING SHALL BE MAINTAINED ON BOTH SIDES. WHERE DESIGN CONDITIONS REQUIRE DIFFERENT BACK FILL HEIGHTS, WALLS SHALL BE FIRMLY SHORED IN POSITION, AND SHORES SHALL REMAIN UNTIL FLOORS ARE PLACED AND PROPERLY SET, TO PROVIDE FULL SUPPORT.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN, INSTALLATION, AND FINAL CLEARANCE OF ANY NEEDLING, SHORING, OR BRACING OF EXISTING STRUCTURES.

7. VAPOR BARRIER BENEATH SLAB SHALL BE "STEGO WRAP" OR APPROVED EQUAL.
   POLYETHYLENE "IS NOT" AN ALTERNATE PRODUCT.

CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL CONFORM TO ACI-318.

2. ALL CONCRETE EXCEPT INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 3000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". ALL INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 4000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". MAXIMUM SIZE AGGREGATE SHALL BE ¾" (WALL/FOOTINGS) AND 1½" (SLABS ON GROUND).

3. CONCRETE TO REMAIN EXPOSED TO WEATHER SHALL BE AIR ENTRAINED. NO AIR ENTRAINMENT IN INTERIOR CONCRETE SLABS.

4. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.

5. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. DEFORMED BARS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE TO ACI-315 LATEST EDITION, AND PLACED IN ACCORDANCE WITH ACI-318.

6. SPLICES OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH ACI-318.

7. ANCHOR RODS SHALL CONFORM TO ASTM F1554-36.

8. HOOKS NOT DIMENSIONED SHALL BE ACI STANDARD HOOKS.

9. CONCRETE COVER OVER REINFORCEMENT SHALL BE AS FOLLOWS:
   - CONCRETE CAST AGAINST EARTH = 3"
   - CONCRETE EXPOSED TO EARTH OR WEATHER = 1½"
   - CONCRETE NOT EXPOSED TO EARTH OR WEATHER = ¾"

STRUCTURAL STEEL NOTES - GENERAL

1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL" 9th EDITION.

2. ALL STEEL SHAPES AND PLATES TO BE ASTM A36 UNLESS NOTED OTHERWISE. ALL WF SHAPES TO BE ASTM A992 GR 50

3. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. STEEL PIPES SHALL BE A53, GRADE B

4. THE DESIGN OF CONNECTIONS NOT SHOWN ON THE DRAWINGS SHALL BE PROVIDED BY THE FABRICATOR. CONNECTIONS SHALL BE DESIGNED FOR THE FORCES SHOWN, OR IF NOT SHOWN, EACH CONNECTION SHALL BE CAPABLE OF SUPPORTING ONE HALF THE TOTAL ALLOWABLE UNIFORM LOAD CAPACITY OF THE MEMBER, PER AISC MANUAL OF STEEL CONSTRUCTION. FABRICATOR SHALL PROVIDE CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF MAINE FOR ALL CONNECTIONS.

5. ALL BOLTED CONNECTIONS SHALL BE MADE WITH ⅝"ϕ ASTM A325 HIGH STRENGTH BOLTS.

6. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 - LATEST EDITION. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES.

7. STEEL BEAMS AND COLUMNS SHALL BE CUT FROM FULL LENGTH STOCK. UNAUTHORIZED SPLICES WILL BE CAUSE FOR REJECTION.

8. STRUCTURAL STEEL SHALL BE PAINTED WITH A SHOP APPLIED COAT OF THE FABRICATOR'S RUST INHIBITIVE PRIMER.

9. PROVIDE ½"ϕ THRU BOLTS STAGGERED @ 24" O.C. FOR ATTACHEMENT OF 2x NAILER AT TOP & BOTTOM OF WF BEAM (COORDINATE w/ PLANS)

WOOD FRAMING NOTES:

1. STRUCTURAL LUMBER: SPRUCE PINE FIR NO1/NO2 OR BETTER
   Fb = 875 PSI Fv = 70 PSI
   Fc = 1150 PSI E = 1400000 PSI

2. DESIGN CODE: IBC 2003 / NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.

3. NAILING REQUIREMENTS FOR PLYWOOD SHEATHING:
   PROVIDE 8d NAILS AS FOLLOWS UNLESS SHOWN OTHERWISE;
   8d NAILS @ 6" o.c. ALONG PANEL EDGES
   8d NAILS @ 8" o.c. ALONG INTERMEDIATE MEMBERS
   PROVIDE BLOCKING AT ALL PANEL EDGES

4. SPIKE TOGETHER ALL FRAMING MEMBERS WHICH ARE BUILT-UP USING MULTIPLE 2x LUMBER.

5. PROVIDE GALVANIZED METAL TIES EQUAL TO SIMPSON H2.5 HURRICANE TIES BETWEEN ROOF RAFTERS OR TRUSSES AND SUPPORTING WALL MEMBERS, UNLESS SHOWN OTHERWISE. PROVIDE GALVANIZED METAL CONNECTORS EQUAL TO SIMPSON TC26 TRUSS CONNECTOR BETWEEN ALL ROOF SCISSOR TRUSSES AND SUPPORTING WALL MEMBERS, UNLESS SHOWN OTHERWISE.

6. PROVIDE PRESSURE TREATED LUMBER FOR ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE.

7. ROOF SHEATHING: 5/8" APA RATED SHEATHING, EXTERIOR OR STRUCTURAL I OR II RATED SHEATHING, SPAN RATING 32/16 (TRUSSES), 24/12 (JOISTS). INSTALL SHEETS WITH FACE GRAIN DIRECTION PERPENDICULAR TO SUPPORTING MEMBERS.

8. PROVIDE ½"ϕ THRU BOLTS STAGGERED @ 24" O.C. FOR ATTACHEMENT OF 2x NAILER AT TOP OR BOTTOM OF WF BEAM (COORDINATE w/ PLANS)

9. WALL CONSTRUCTION - FIRST FLOOR:
   STUD HEIGHT UP TO 10'-6" FRAMING AS SHOWN ON PLANS
   P.T. 2x SILL PLATE
   (2) 2x TOP PLATES
   ½" CDX SHEATHING

10. ROOF CONSTRUCTION
    FRAMING AS SHOWN ON PLANS
    ⅝" APA RATED PLYWOOD SHEATHING (REFER TO NOTE #7)
    PROVIDE 8d NAILS @ 12"o.c. ALONG FRAMING MEMBERS.

11. ALL NAILS, SPIKES, BOLTS ETC. FASTENING MEMBERS TO PRESSURE TREATED LUMBER SHALL BE EITHER STAINLESS STEEL OR HEAVY GALVANIZED.

WOOD TRUSS NOTES:

1. DESIGN CRITERIA FOR ROOF SYSTEM:
   A. LIVE LOAD (SNOW) PER STRUCTURAL DESIGN CRITERIA
   B. DEAD LOAD
      TOP CHORD PER STRUCTURAL DESIGN CRITERIA
   C. WIND LOAD
      PER STRUCTURAL DESIGN CRITERIA
   D. LOAD COMBINATIONS
      PER IBC 2003 INTERNATIONAL BUILDING CODE
   E. ALLOWABLE DEFLECTION = L/360
   F. PROVIDE BOTTOM CHORD CAMBER EQUAL TO THE TRUSS DEAD LOAD DEFLECTION.

2. MATERIALS:
   A. STRESS GRADED LUMBER, METAL PLATE CONNECTORS

3. APPLICABLE SPECIFICATIONS:
   A. NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENING (NDS).
   B. MOST RECENT AITC STANDARDS.
   C. DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES. TPI LATEST EDITION.

4. BRACING:
   A. TRUSS MANUFACTURER SHALL SPECIFY ALL BRACING FOR BOTH TEMPORARY CONSTRUCTION LOADING AND FOR PERMANENT LATERAL SUPPORT OF GABLE END TRUSS AND COMPRESSION MEMBERS, AS WELL AS ERECTION PROCEDURES.
   B. MINIMUM BRACING REQUIREMENTS AND INSTRUCTIONS FURNISHED BY TRUSS MANUFACTURER SHALL INCLUDE AND CONFORM TO HIB-91.
   C. ALL TEMPORARY AND PERMANENT BRACING SHALL BE MINIMUM 2X4 SPF No. 2 MATERIAL CONNECTED WITH MINIMUM 2-16d NAILS AT ALL CONNECTIONS, UNLESS OTHERWISE SPECIFIED BY TRUSS MANUFACTURER OR HIB-91.
   D. THE CONTRACTOR SHALL COMPLY WITH THE "COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING, AND BRACING METAL PLATE CONNECTED WOOD TRUSSES, HIB-91." IT IS THE RESPONSIBILITY OF THE INSTALLER/CONTRACTOR TO PROPERLY RECEIVE, UNLOAD, STORE, HANDLE, INSTALL, AND BRACE TRUSSES TO PROTECT LIFE AND PROPERTY.

5. ALL FABRICATED TRUSSES SHALL RECEIVE THE TPI MARK OF APPROVAL IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE PROCEDURES.

6. SUBMIT TRUSS SHOP DRAWINGS FOR REVIEW PRIOR TO TRUSS MANUFACTURE.

7. ANY VARIATIONS BY THE TRUSS MANUFACTURER FROM THESE DRAWINGS INCLUDING BUT NOT LIMITED TO THE NEED FOR BIRD MOUTHS SHALL BE CLEARLY NOTED ON THE TRUSS DRAWINGS. APPROPRIATE DETAILS SHALL BE PROVIDED, WHICH SHOW SUCH VARIATIONS. ALL VARIATIONS SHALL BE APPROVED BY THE ENGINEER.

CURRENT REVISION

#	DATE	DESCRIPTION

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NY License 81302 NJ License GE45035

THIS DRAWING IS ISSUED

☐ SUBMITTED FOR PERMIT
DATE: 2/11/08

This Drawing Shall Be Considered A "Contract Document" ONLY When It Possesses The Engineer's Seal & Signature. Otherwise It Shall Be Considered A "Progress Print - Not For Construction"

DRN BY:	DMB
CHK'D BY:	BWM
DATE:	10/17/07
SCALE:	As Noted
PROJ. NO:	2007-276

SHEET TITLE:

STRUCTURAL NOTES

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