

# STRUCTURAL GENERAL NOTES

## BUILDING CODES AND SPECIFICATIONS:

- All work shall conform to International Building Code 2012
- Building Code Requirements for Reinforced Concrete ACI 318-11
- Wind loads are based on ASCE Standard (ASCE 7-10)
- National Design Specification for Wood Construction, ANSI/AF&PA NDS-2009.

## DESIGN LOADS:

- Live Loads
 

Roof.....	25 PSF
Rooms.....	40
Corridors.....	80
Balcony.....	80
Stair & Exit.....	100
Snow Load.....	15
- Wind Load  
Design Wind Speed, 115 MPH
- Dead Loads
  - Floor System
 

Floor (1" Gypcrete on 3/4" plywood).....	9 PSF
Mechanical/Electrical/Plumbing.....	4
Ceiling & Misc.....	6
Partition.....	8
Insulation.....	1
  - Roof System
 

Roofing Shingles & felt & plywood.....	5 PSF
Flat Roof & Insulation & plywood.....	20
Mechanical/Electrical/Plumbing.....	4
Ceiling & Misc.....	5
Insulation.....	1
  - Balcony/Breezeway System
 

Light Weight Concrete.....	35 PSF
Membrane.....	2
Sheathing.....	3
Ceiling.....	6
- Other Loads  
Contractor shall submit cut sheets for all equipment including but not limited to hvac package units, air handlers, generators and chillers. Information shall include weight and any special support requirements. See architectural and mechanical drawings for details relating to roof mounted equipment curbs.

## DRAWINGS AND SPECIFICATIONS:

- Do not scale these drawings for dimensions not given.
- Advise Architect of dimensional discrepancies between architectural and structural drawings prior to commencing construction of affected elements.
- Verify all existing field conditions and dimensions prior to commencing construction.
- These drawings are intended to be used in conjunction with those of other trades including but not limited to architectural, mechanical, civil, etc. Refer to drawings of other trades for details relating to the structural components.
- The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Engineer any error, inconsistency or omission he may discover. Bring any conflicts to the attention of the Architect for resolution prior to commencing work on items affected.
- The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the work. The Contract Documents are complementary, and what is required by any one shall be as binding as that required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferable therefrom as being necessary to produce the intended results.
- In the case of conflicting information, the Contractor shall assume the more costly alternate, unless directed otherwise in writing.
- In the case of ambiguous or missing information, the Contractor shall, for pricing purposes only, assume a member size, quantity or quality consistent with similar areas in the project, unless directed otherwise in writing.
- The Contractor shall not be compensated for the addition of structural components when the omission, mis-labeling or other deficiency should have been noted during the Bidding phase, and brought to the Architect's attention.
- The Contractor shall perform no portion of the work at any time without Contract Documents or, where required, approved shop drawings, product data or samples for such portion of the work.

## FIELD MODIFICATIONS:

- Any changes to the structure shall have been reviewed and approved in writing by the Engineer prior to commencing work on items affected.
- Any changes made without prior approval are subject to review by the Engineer. Contractor shall provide sketches, photographs and written description of each deviation from the plans for the Engineer's review.

## SHOP DRAWING NOTE

1. COMPLETE SHOP DRAWINGS FOR CONSTRUCTION OF EACH BUILDING COMPONENT NOT DESIGNED BY THE DESIGNER SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL. THE DESIGNER'S REVIEW AND SIGNATURE ON THE PROJECT CONSTRUCTION DOCUMENTS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF KENTUCKY AND SHALL BE AVAILABLE AT THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.

## NOTES FOR POST-TENSION ENGINEERS

- |   |  |   |  |
|---|--|---|--|
| A | The foundation plans are only schematic and for information only. (NOT FOR CONSTRUCTION) | H | Post-tension engineer must design this project as per soil report prepared by: GEM Engineering, Inc. dated: November 30, 2017. |
| B | These drawings indicate bearing and non-bearing wall foundation layout.                  | I | Post-tension engineer may use these foundation plans for bearing and non-bearing wall layouts.                                 |
| C | All ext. wood cols. are pressure treated and maximum load is not exceeding P=32.5kips.   | J | Post-tension engineer to provide calculations & shop drawings for the engineer of record for their review.                     |
| D | Exterior four story bearing load=4.50k/ft maximum  | K | NALIN H. JOSHI, P.E. IS NOT RESPONSIBLE FOR POST-TENSION DESIGN.   |
| E | Interior four story bearing load=6.35k/ft maximum  | L | Post-tension designer to overlay load bearing walls on their design documents and shop drawings.                               |
| F | All non-bearing wall load P=2.75 k/ft  |   |  |
| G | All shearwall located on bearing and non-bearing walls. See layout on foundation plans.  |   |  |

## FOUNDATIONS:

- Maximum net assumed soil bearing pressure used for design 2,500 P.S.F.
- Notify Engineer if footing excavation reveals unsuitable or unstable soils, or materials or conditions not previously anticipated.
- Consider the possible impact of groundwater on construction techniques, using the Report, seasonal variations, any other site indicators and your own judgment.
- Prepare soils for construction in accordance with Geotechnical Report prepared by GEM Engineering, Inc (Dated November 30, 2017)
- Site preparation of this project must meet special notes for site preparation.

## CONSTRUCTION SAFETY:

- These drawings do not include provisions to satisfy safety requirements. Contractor is solely responsible for ensuring safety during construction, and for conformance to all applicable OSHA Standards. Jobsite visits by Engineer shall not constitute approval, awareness or liability for any hazardous conditions.
- Do not overload one segment or span of a beam continuous over several supports. Beams should be loaded as gradually and evenly as possible until the full load is in place.
- Erection sequence shall be determined by the Contractor, and shall not cause overstress or excessive deformation of structural members.

## PORTLAND CEMENT CONCRETE:

- Concrete Quality and Placement
 

Foundations, 3000 psi, 3" to 5" slump  
Balcony, Stair Landing, Breezeways, 2,000 psi, 90 PCF  
Filled cells in block, 3000 psi, 8" to 11" slump, 3/8" pea gravel  
Slabs on Grade, 3000 psi, 3" to 5" slump  
Concrete Beams, 3000 psi

  - Fly ash shall not be used.
  - Slump limits shall be strictly adhered to. Use superplasticizer to increase workability, at contractors option.
  - Maximum mixing time (from batching to placement)  
Air temp less than 85 F, 90 minutes  
Air temp 85 F to 90 F, 75 minutes  
Air temp over 90 F, 60 minutes
- Minimum Cover
  - Footings, 3 in. to bottom and unformed sides, 2 in. to formed sides
  - Other, 2 in. to main reinforcing, 1-1/2 in. to ties and stirrups
- Coordinate drawings of all trades for required embeds, openings and accessories not shown herein.
- All reinforcement shall be securely held in place by standard accessories during concrete placement.
- Bars shall be Grade 60 conforming to ASTM A615
- Welded Wire Fabric shall conform to ASTM A185.
- Detail and fabricate reinforcement in accordance with "Manual of Standard Practice for Detailing Reinforced Concrete Structures," ACI 318.
- Provide minimum lap splice of 30 bar diameters, but not less than 24 inches, for all reinforcing bars, unless noted otherwise. Stagger splices adjacent bars at least 24 inches, except in beams or columns.
- In wall footings, grade beams and bond beams, provide stirrups at corners and intersections of the same number and size of straight bars.
- Exposed edges of beams and columns shall be chamfered 3/8 in. u.n.o.

## CONCRETE SLAB ON GRADE:

- Intended usage is for pedestrian traffic only.
- Compressive Strength at 28 Days..... 3000 psi
- Minimum thickness..... 4 in.
- Maximum slump at point of delivery..... 3-5 in.
- Maximum aggregate size..... 1 1/2 in.
- Entrained air content..... 5 %
- Fill sawcuts with elastomeric sealant after cleaning with compressed air.
- Welded Wire Fabric shall be W1.4 X6 X W1.4 X W1.4, (flat sheets only) unless otherwise noted conforming to ASTM A185. (or Fiber Mesh)
- Place Welded Wire fabric centered in depth of slab-on-grade unless noted otherwise. Lap all mesh joints two full meshes.
- Interrupt typical slab reinforcement at all construction and expansion joints. See specific details for any dowels required for shear transfer.
- Cover every other wire along the line of sawcut control joints prior to placing concrete. Make sawcuts within 12 hours of concrete placement, or as cuts can be made without raveling.
- Provide 1/2 in. preformed expansion joint material where slab abuts vertical surfaces such as walls and columns.
- See architectural drawings for exact locations of depressed areas in slabs which are not shown or dimensioned on structural drawings.
- Provide 10 mil vapor barrier under all slab-on-grade in enclosed space.
- Apply curing compound to slab within two hours of completion of finishing operations. Use liquid membrane forming compound complying with ASTM C309 Type 1 Class A. Follow manufacturers instructions.
- Confirm that curing compound will not interfere with bonding of any applied floor surface. If so, use wet burlap and trickle hoses.
- It is recommended that the slabs be cast in long strips, and sawcut transversely, in order to minimize shrinkage cracking.
- Post-tension slab & foundation design by others.
- Results for all concrete compressive strength tests shall be available on the jobsite for review by the inspector.

## PRE-FABRICATED WOOD TRUSSES

- GENERAL CONTRACTOR SHALL ENGAGE A CERTIFIED TESTING AGENCY TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS OF (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEERS.
- WOOD TRUSSES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE SAME STATE AS PROJECT LOCATION AND FABRICATED IN CONFORMANCE WITH THE "QUALITY CONTROL MANUAL" BY TRUSS PLATE INSTITUTE (TPI)
- HANDLING, ERECTION AND BRACING OF WOOD TRUSSES SHALL BE IN ACCORDANCE WITH HANDLING AND ERECTING WOOD TRUSSES (HETBO) AND BRACING WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS (BWT-76) BY THE TRUSS PLATE INSTITUTE.
- PERMANENT BRACING SHALL BE INDICATED IN THE TRUSS LAYOUT DRAWINGS AND SHALL BE SUPPLIED AND INSTALLED BY FRAMING CONTRACTOR.
- TRUSSES SHALL BE DESIGNED FOR THE LOADS AS INDICATED ON THE PLANS.
- PRE-FABRICATED WOOD TRUSSES SHALL BE FABRICATED FROM SOUTHERN PINE (SPI) KLN DRIED #2 GRADE OR BETTER, FOR CHORDS, AND #3 GRADE OR BETTER FOR WEBS.
- TRUSS BEARING SHALL BE 3/2" UNLESS NOTED OTHERWISE, BEARING LOCATION MUST BE MARKED ON TRUSS BY FABRICATOR TO INSURE PROPER INSTALLATION.
- SHOP DRAWING SHALL BE SUBMITTED WHICH INDICATE DESIGN LOADS, DURATION FACTOR, TRUSS LAYOUT, TRUSS CONFIGURATION AND TRUSS TO TRUSS CONNECTIONS. SHOP DRAWINGS SHALL SHOW PIECE MARKS, MEMBER SIZE AND GRADE AND CONNECTION DETAILS SHOP DRAWINGS SHALL BE SIGNED AND SEALED.
- NO WANE, KNOTS, SKIPS OR OTHER DEFECTS SHALL OCCUR IN THE PLATE CONTACT AREA OR SCARF AREA OF WEB MEMBERS. PLATES SHALL BE CENTERED WITH ONE REQUIRED EACH SIDE OF TRUSS.
- DESIGN OF METAL CONNECTED WOOD ROOF TRUSSES TO COMPLY WITH STANDARD BUILDING CODE, NFPA'S NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADED LUMBER AND ITS FASTENINGS, AND TRUSS PLATE INSTITUTES DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES.
- MINIMUM BEARING WIDTH OF JOISTS AND GRIDDERS SHALL BE 3 1/2".
- DESIGN IN ACCORDANCE WITH TPI SPECIFICATIONS FOR METAL PLATE CONNECTED WOOD TRUSSES.
- SUBMITTAL SHALL INDICATE DESIGN WIND SPEEDS, HEIGHT ABOVE GROUND, AND AMOUNT OF UPLIFT AT BEARING.
- MAXIMUM TRUSS SPACING IS 24' O.C.
- TOP CHORDS SHALL BE GROUP II SPECIES LUMBER.
- ALL TRUSS TO TRUSS AND TRUSS TO GIRDER CONNECTIONS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER.
- SUBMITTALS SHALL INCLUDE STRUCTURAL CALCULATIONS SIGNED AND SEALED BY A REGISTERED STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS BEING CONSTRUCTED. CALCULATIONS SHALL INCLUDE CONNECTIONS, WIND, SEVERITY LOADS, AND OTHERS AS MAY BE REQUIRED. EACH TRUSS TYPE SHALL BE FULLY IDENTIFIED AND LOCATED ON A FRAMING PLAN AT EACH TRUSS LOCATION.
- PRE-ENGINEERED METAL PLATE CONNECTED WOOD TRUSSES SHALL BE BRACED IN ACCORDANCE WITH BCSP 1-08, "THE GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES" AND RELATED SUMMARY SHEETS.
- ALL PRE-ENGINEERED TRUSS SHOP DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE DURING THE INSPECTION AND SHOP DRAWING REVIEW. IF ANY CHANGES HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT STRUCTURAL ENGINEER OF RECORD.
- DEFLECTION LIMITS FOR WOOD TRUSSES:  
FLOOR TRUSS LIVE LOAD L/240, TOTAL LOAD L/180 (NOT TO EXCEED 7/8")  
ROOF TRUSS LIVE LOAD L/180, TOTAL LOAD L/120 (NOT TO EXCEED 7/8")

## WOOD FRAMING

- WOOD FRAMING SHALL BE GRADE II SPECIES LUMBER, NO. 1 WITHIN PINE OR SOUTHERN PINE, INCLUDING BEARING STUD WALLS, PLATES, AND PARTITIONS.
- ROOF JOISTS AND RAFTERS SHALL NOT EXCEED 24" O.C.
- ANCHOR BOLTS SHALL HAVE A MINIMUM EMBEDMENT OF 7" IN CONCRETE WITH 3" MINIMUM HOOK, UNLESS OTHERWISE INDICATED. ALL ANCHOR BOLTS SHALL BE INSTALLED WITH PLATE WASHERS. ALL ANCHOR BOLTS SHALL BE 2" X 2" X 1/8" OR 2" DIA. X 1/8" THICK ROUND WASHERS. BOLTS SHALL BE ASTM A307, WASHERS SHALL BE 660 GALVANIZED. HOLES IN WOOD PLATES AND WASHERS SHALL BE 9/16" OR 1/2" BOLT SIZES. INSTALL ANCHOR BOLTS A MINIMUM OF 4" AND A MAX. OF 12" FROM THE END OF ANY PLATE, AND WITHIN 6" EACH SIDE OF PLATE SPLICES. MIN OF (2) ANCHOR BOLTS PER PLATE.
- ALL FASTENERS EXPOSED TO WEATHER OR IN CONTACT WITH TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED BOX NAILS.
- WOOD THAT IS EMBEDDED IN EARTH OR CONCRETE, OR PLACED ON CONCRETE IN DIRECT CONTACT WITH EARTH, OR DIRECTLY EXPOSED TO THE WEATHER SHALL BE PRESERVATIVE TREATED INCLUDING BUT NOT LIMITED TO POSTS, BEAMS, COLUMNS, JOISTS, SLEEPERS, SILLS, AND SOLE PLATES.
- REQUIRED DESIGN STRESSES FOR GRADE 2.0E LVL BEAMS AS FOLLOWS:  
Fb = 2600 psi  
Ft = 1955 psi  
Fc perp = 750 psi  
Fc parallel = 2510 psi  
Fv = 285 psi  
Sx = 0.5
- 19% MAXIMUM MOISTURE CONTENT ALLOWED FOR SYP OR SPF WOOD MEMBERS.
- ALL WOOD FRAMING SIZES AND CONNECTIONS NOT SHOWN IN THE DRAWINGS SHALL MEET THE MINIMUM REQUIREMENTS OF IBC 2012 CHAPTER 23.
- MATERIAL DESIGN VALUES FOR WOOD FRAMING MEMBERS AS FOLLOWS:

WOOD FRAMING MEMBER SIZE	Fb	Fv	E	GRADE
2X4 OR 2X6	1,000 psi	175 psi	1.4 ksi	NO.2 SYP OR SPF
2X8	925 psi	175 psi	1.4 ksi	NO.2 SYP OR SPF
2X10	835 psi	175 psi	1.4 ksi	NO.2 SYP OR SPF
2X12	750 psi	175 psi	1.4 ksi	NO.2 SYP OR SPF

- ALL NON-LOAD BEARING WALLS TO BE HELD OFF THE BOTTOM CHORD OF FLOOR OR ROOF TRUSSES ABOVE 3/4". PROVIDE (1) SIMPSON STIC CONNECTOR WHERE UNBRACED WALL LENGTH EXCEEDS 12'-0".

## ROOF SHEATHING:

- BUILT UP FLAT ROOF SECTION USE (2) LAYERS 3/4" EXPOSURE 1 PLYWOOD. PLACED IN ZIG-ZAG PATTERN.
- INSTALL ROOF SHEATHING AS PER DETAILS.
- STAGGER ALL END JOINTS 1/2 PANEL LENGTH IN ALTERNATE ROWS.
- FASTEN ROOF SHEATHING TO ROOF FRAMING AS FOLLOWS FOR 115 M.P.H. WIND AND GROUP II SPECIES LUMBER:
  - FASTENERS SHALL BE SPACED PER SCHEDULE ON SHEET SDT-4.
- AT SLOPED ROOF USE (1) LAYER 1/2" OSB SHEATHING.

## FLOOR SHEATHING:

- FLOOR SHEATHING SHALL BE 3/4" T&G STRUCTURAL SHEATHING FASTENED W/ 8d NAILS SPACED 6" O.C. AT SUPPORTED EDGES AND INTERMEDIATE SUPPORTS.

## WALL SHEATHING:

- WALL SHEATHING SHALL BE 1/2" EXPOSURE 1, C-D SHEATHING GRADE PLYWOOD OR 7/16" O.S.B. AT EXTERIOR SHEARWALLS.
- INSTALL WALL SHEATHING AS PER LAYOUT ON DETAILS INSTALL 2x BLOCKING AT ALL PANEL JOINTS.
- INSTALL 2x WOOD BLOCKING AT ALL PANEL JOINTS INSTALL NAILS FOR ALL EDGE CONDITIONS.
- FASTEN WALL SHEATHING TO FRAMING AS FOLLOWS:
  - SEE NAILING SCHEDULE ON SDT-5
- TYPICAL SHEAR WALLS:
  - 7/16" O.S.B. AT EXTERIOR SHEARWALLS
  - 5/8" GYP. BOARD. AT INTERIOR SHEARWALLS

## TYPICAL SHEATHING:

- ALL WOOD SHEATHING SHALL BE APA RATED CONFORMING TO STANDARD PS-108 W/ THE FOLLOWING THICKNESS AND SPAN INDEX RATIO UNLESS NOTED OTHERWISE:  
ROOF - (2) LAYERS 3/4" - 48/24 SPAN RATIO  
SHEAR WALL - (1) LAYER 7/16" - 24/16 SPAN RATIO  
FLOOR - (1) LAYERS 3/4" T&G - 48/24 SPAN RATIO

## MASONRY

- MASONRY CONSTRUCTION SHALL CONFORM TO ACI STANDARD BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (ACI 530-11/ASCE 5-11) AND SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-11/ASCE 6-11)
- CONCRETE BLOCKS SHALL CONFORM TO ASTM C-90 (f'm = 1500 PSI) 2000 PSI ON NET AREA.
- MORTAR SHALL COMPLY WITH ASTM C270, TYPE M OR S.
- BLOCK SHALL BE MOISTENED BEFORE GROUTING.
- ALL MASONRY CROSS WEBS SHALL BE FULLY BEDDED IN MORTAR AROUND CELLS TO BE GROUTED.
- THE MINIMUM CONTINUOUS UNGROUTED CELL AREA IN CELL TO RECEIVE GROUT MUST NOT BE LESS THAN 2"x3". MORTAR FINIS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS. MORTAR DROPPINGS MUST BE KEPT OUT OF CELL WHICH ARE TO BE GROUTED.
- REINFORCE WALL WITH LADDER TYPE ASTM A-82, #9 GAGE WIRE REINFORCEMENT EQUAL TO DURO-WALL IN BED JOINTS @ 16" O.C. UNO, MEASURED VERTICALLY PLACE PER MFR INSTR. LAP ALL HORIZONTAL JOINT REINFORCING 8" MIN.
- WHERE SHOWN, CORES OF BLOCK MASONRY SHALL BE FILLED WITH GROUT WITH COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. GROUT SHALL BE AS INDICATED IN THE PROJECTED SPECIFICATIONS.
- GROUT FOR FILLED CELLS SHALL BE PLACED IN LIFTS NOT TO EXCEED EIGHT (8) FEET IN HEIGHT, AND SHALL BE CONSOLIDATED AT TIME OF POURING BY RODDING OR VIBRATION.
- PROVIDE KNOCK-OUT CMU AT EACH FILLER CELL TO ALLOW VISUAL VERIFICATION OF COMPLETE GROUT PENETRATION.
- VERTICAL REINFORCING MUST HAVE A MINIMUM CLEARANCE OF 1 1/2" TO INSIDE FACE. VERTICAL BAR LAP = 40 x BAR DIAMETER. VERTICAL REINFORCEMENT IN WALLS SHALL BE SEALED AND LATERALLY SUPPORTED AGAINST DISPLACEMENT AT INTERSECTIONS NOT EXCEEDING 192 x BAR DIAMETER NOR 10FT.
- DO NOT PLACE STOPPED FOR (1) HOUR OR MORE SHOULD BE STOPPED (1 1/2") BELOW THE TOP OF THE MASONRY UNIT TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.
- SEE FOUNDATION PLAN FOR ALL VERTICAL REINFORCING. ALL VERTICAL REINFORCING TO EXTEND INTO UPPER MOST BEAM OR PARAPET TOP BLOCK.
- TEMPORARY BRACING AND SHORING OF WALLS TO PROVIDE STABILITY DURING CONSTRUCTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- MASONRY CONSTRUCTION MATERIALS AND INSPECTIONS SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI-ASCE 530.1)" EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THESE DOCUMENTS.
- PROVIDE FILLED PRE-CAST U-LINTELS W/ (1) #5 CONT AT ALL OPENINGS WHERE CONCRETE BEAMS ARE NOT SHOWN OR NOTED.
- STOPPING AND RESUMING WORK: RACK BACK 1/2 UNIT LENGTH IN EACH COURSE. DO NOT TOOTH. CLEAN EXPOSED SURFACES OF SET MASONRY WET UNITS LIGHTLY (IF REQUIRED) AND REMOVE LOOSE MAS UNITS AND MORTAR PRIOR TO LAYING FRESH MASONRY.
- REINFORCE MASONRY OPENINGS GREATER THAN 1'-0" WIDE, WITH HORIZ JT REIN PLACED IN 2 HORIZ JTS APPROXIMATELY 8" APART, IMMEDIATELY ABOVE THE LINTEL AND IMMEDIATELY BELOW THE SILL. EXTEND REINFORCING A MINIMUM OF 2'-0" BEYOND JAMBS OF THE OPNG EXCEPT AT CONTROL JOINTS. SEE PLAN FOR ADDITIONAL REQUIREMENTS.
- DO NOT APPLY UNIFORM LOADS TO MASONRY WALLS FOR (3) DAYS.
- DO NOT APPLY CONCENTRATED LOADS TO MASONRY WALLS FOR (7) DAYS.
- EXTEND ALL VERTICAL WALL REINFORCEMENT TO WITHIN 2" OF TOP OF WALL OR BEAM UNLESS OTHERWISE NOTED.  
PIPE COLUMNS ASTM A53, GRADE B  
ANCHOR BOLTS ASTM A307 OR A36
- ANCHOR BRICK VENEER TO WOOD FRAME WALL WITH 22GA. GALV. STEEL CORRUGATED TIES (7/8" WDC). ANCHORS SPACED 18" O.C. VERTICALLY AND 32" O.C. HORIZONTALLY.
- ANCHOR BRICK VENEER TO CONCRETE BLOCK WALL WITH RECTANGULAR SHAPE WIRE TIES (1/8" DIA) HOT DIP GALVANIZED STEEL WIRE. ANCHORS SPACED 18" O.C. VERTICALLY AND 32" O.C. HORIZONTALLY.

## STEEL CONSTRUCTION

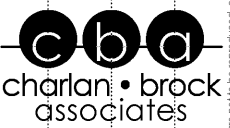
- STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATIONS FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
- WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY, AWS D1.1.
- BOLTS AND BOLTED CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS" AS APPROVED BY THE COUNCIL ON RIVETED AND BOLTED JOINTS. USE BEARING TYPE BOLTS WITH THREADS ALLOWED ACROSS THE SHEAR PLANE. ANCHOR BOLTS SHALL CONFORM TO ASTM A-307.
- ALL BEAM CONNECTIONS SHALL BE STANDARD DOUBLE ANGLE TYPE UNLESS DETAILED OTHERWISE. FOR DESIGN OF STANDARD CONNECTIONS USE 55% OF THE TOTAL LOAD OF THE TOTAL LOAD CAPACITY DERIVED FROM THE UNIFORM LOAD CONSTANT TABLES, PART 2, EIGHTH EDITION OF THE AISC CODE. IN NO CASE SHALL THE ANGLE SIZE AND THE MIN. NUMBER OF ROWS OF BOLTS FOR THE GIVEN BEAM SIZE BE LESS THAN THAT SHOWN IN TABLE 1, PART 4 OF THE SEVENTH EDITION OF THE AISC CODE.
- STRUCTURAL STEEL SHIFTERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992 UNLESS NOTED OTHERWISE. STEEL TUBES SHALL BE 48 KSI STEEL CONFORMING TO ASTM A-500.
- IN GENERAL, IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT ALL SHOP CONNECTIONS BE WELDED OR BOLTED AND ALL FIELD CONNECTIONS BE BOLTED EXCEPT WHERE NOTED OTHERWISE.
- VERIFY THE EXACT LOCATION AND SIZE OF ALL ROOF AND FLOOR OPENINGS FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION OF MATERIALS. SEE TYPICAL DETAIL FOR FRAMING AROUND OPENINGS.
- STEEL SHAPES, PLATES, ECT. WHICH ARE EXPOSED TO WEATHER SHALL BE GALVANIZED.
- PROVIDE ONE COAT OF STANDARD SHOP PAINT ON ALL UNGALVANIZED PIECES EXCEPT AT AREAS TO BE FIELD WELDED.
- TOUGH UP FIELD WELDS AND ANY DAMAGED AREAS OF PAINT IN FIELD AFTER WELDING. (USE GALVANIZING PAINT FOR TOUCH UP OF GALVANIZED STEEL).
- HEADED STUDS SHALL BE NELSON TYPE OR EQUAL WELD HEADED STUDS TO EMBEDDED PLATES TO DEVELOP THE FULL TENSION CAPACITY OF THE STUDS.
- ALL WELDS SHALL BE VISUALLY INSPECTED BY AN APPROVED LICENSED TESTING COMPANY. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
- ASTM A992 STEEL FOR BEAMS.
- ASTM A500 GRADE B STEEL FOR STRUCTURAL TUBES.
- BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC-2009 (SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS).
- STRUCTURAL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1-10. STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY AND THAT THE PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.
- STRUCTURAL STEEL ANGLES AND PLATES TO COMPLY WITH ASTM A36.

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STRUCTURAL  
GENERAL NOTES

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