FRAMING CONSTRUCTION NOTES

REVISED AUGUST 21, 2008

1. CRAWL, GIRDERS AND BAND WITH 4" CURB MAY BALL AND PIER CONSTRUCTION SHALL BE 2-2x10 SOUTHERN YELLOW PINE "2 UNLESS NOTED OTHERWISE, MAXIMUM CLEAR SPAN TO BE 8'-6" O.C. SPACING OF PIERS.

TO AVOID OBJECTIONABLE CREAKING IN FINISHED HARDWOOD FLOORS OVER ANY GIRDERS, USE THE FOLLOWING PROCEDURE:

A. NAILING

i. ALL FLOOR JOISTS MUST BE TOENAILED TO THEIR SUPPORT GIRDERS WITH A MINIMUM OF 3-8d NAILS AT EACH END. LUMBER NAILS WILL SPLIT AND RENDER THE TOENAIL INEFFECTIVE IF NO END NAILING THROUGH THE GIRDER OR BAND IS PERMITTED.

ii. 3" DROPPED GIRDERS ARE USED, END LAP ALL JOISTS AND SIDE NAIL EACH WITH A MINIMUM OF 3-16d NAILS AT EACH END OF EACH JOINT. LEDGER STRIPS NAILED WITH 3-16d NAILS AT EACH JOINT END, SPACED 3' APART.

iii. NAIL MULTIPLE MEMBER BUILT UP GIRDERS WITH TWO ROWS OF 16d NAILS STAGGERED AT 16" O.C., 2" DOWN FROM THE TOP AND 2" UP FROM THE BOTTOM WITH 3-16d NAILS AT EACH END OF EACH PIECE IN THE JOINT THROUGH THE MEMBERS MAKING UP THE MULTIPLE GIRDER.

iv. THIS NAILING PATTERN WILL ENSURE A TIGHT FLOOR FROM OUTSIDE OF HOUSE TO OUTSIDE SO THAT WHEN THE HEATING SHRINKS DURING THE FIRST HEATING SEASON, THE SHRINKAGE WILL BE UNIFORMLY DISTRIBUTED OVER THE ENTIRE FLOOR. IF THE GIRDER NAILING PATTERN IS OMITTED, THEN THE SHRINKAGE WILL ACCUMULATE OVER THE GIRDERS AND AN OBJECTIONABLE CREAK WILL DEVELOP IN THE FINISHED HARDWOOD FLOOR OVER THE GIRDER LINE.

B. AT ALL GIRDERS WHERE THE JOISTS CHANGE DIRECTION, NAIL ALL BRIDGING AT 6" O.C. FOR A MINIMUM OF BOX JOIST SPACING BEYOND ANY JOIST DIRECTION CHANGE. THIS WILL SHARE SHRINKAGE DISTRIBUTION OVER THE FLOOR AND NOT LET IT ACCUMULATE AT THE GIRDER.

C. THERE MUST BE WOOD BLOCKING THRU SOLIDLY TO THE STEEL BEAM WITH JOISTS TOENAILED OR ATTACHED TO THE BEAM WITH METAL HANGERS UNDER ANY HARDWOOD FLOORS THAT RUN OVER A STEEL BEAM SUPPORTING FLOOR JOISTS. THIS CONDITION often exists SUNKEN AREAS.

2. ALL OTHER LUMBER MAY BE SPRUCE "2 UNLESS NOTED OTHERWISE.

3. STEEL BEAMS MUST HAVE 3-2x4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.

4. LVL BEAMS MUST HAVE 3-2x4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.

5. MASONRY LINTELS

A. FOR SPANS UP TO 6'-1 USE 3 1/2" x 3 1/2" x 1/4" STEEL ANGLES.

B. FOR SPANS FROM 6' TO 10' USE 5" x 3 1/2" x 5/16" STEEL ANGLES.

C. FOR SPANS FROM 6' TO 9', USE A PAIR OF 5 GAUGE WIRES IN EACH OF THE FIRST 3 COURSES OF BRICK ON A 5" x 3 1/2" x 5/16" STEEL ANGLE LAP ALL 6 GAUGE WIRE SUPPLIED 12" MINIMUM AND EXTEND WIRES 12" MINIMUM INTO JAMBS. THE PROPERLY SUPPORTS STEEL ANGLE BRIDGING LATHING MASONRY. SHORING MAY BE REMOVED FIVE DAYS FOLLOWING INSTALLATION OF MASONRY.

D. WHEN STRUCTURAL STEEL BEARS WITH BOTTOM PLATES ARE USED TO SUPPORT MASONRY, THE BOTTOM PLATE MUST EXTEND THE FULL LENGTH OF STEEL BEAM THAT PROVIDES SUPPORT TO THE ENDS OF THE PLATE BY BEARING ON THE ADJACENT MASONRY JAMBS. THE BEAM SHOULD BE TEMPORARILY SHORED PRIOR TO LAYING THE MASONRY. THE SHORING MAY BE REMOVED FIVE DAYS AFTER LAYING THE MASONRY.

6. ALL BRICK VENEER OVER LOWER ROOFS (BRICK OUTER) MUST HAVE A STRUCTURAL ANGLE LAG SCREWED TO ADJACENT END WALL IN ACCORDANCE WITH DETAIL WITH STEP, BRICK STOPS TO PREVENT SLIDING OF BRICK.

7. ALL RAFTER BRACES MUST HAVE 2 STUDS FROM PLATE THROUGH ALL FLOORS TO FOUNDATION OR SUPPORTING BEAM (BELOW) NO BRACING SHALL BE ATTACHED TO TOP WALL PLATE UNLESS STUDS DIRECTLY UNDER THEM.

8. MARK PARTITIONS WALLS BETWEEN FLOOR JOISTS OR TRUSSES, 2"x4" LADDERS 4'-16" O.C. MUST BE PLACED PERPENDICULAR TO THE TRUSSES TO SUPPORT THE PLYWOOD DECKING.

9. ALL WOOD POSTS AND OPEN JOISTS THAT BE BRACED IN ACCORDANCE WITH MANUFACTURERS DIRECTIONS PLUS DETAILS SHOWN ON PLANS LOAD BEARING PARTITIONS, JACKS, BEAMS AND COLUMN SUPPORTS MUST BE SOLID BLOCKED THROUGH FLOOR TO JOISTS, TRUSSES AND PLYWOOD CANNOT CARRY CONCENTRATED POINT LOADS. ALL POINT LOADS MUST BE CARRIED TO FOUNDATIONS WITH BLOCKING AND/OR BEAMS.

10. ALL STEEL COLUMNS SHALL BEAR ON CONCRETE, MASONRY, OR STEEL ONLY, AN ADEQUATELY SIZED BASE PLATE SHALL BE USED TO SPREAD THE COLUMN LOAD ACROSS THE BEARING SURFACE AREAS BUT AS NOT TO EXCEED 75% ALLOWABLE COMPRESSIVE STRESS. BEAMS THAT BEAR ON TOP OF STEEL COLUMNS SHALL BE WELDED TO THE COLUMN. BASE PLATES SHALL BE BOLTED WITH FOUR 1/2" DIAMETER ANCHOR BOLTS OR EXPANSION BOLTS TO CONCRETE OR MASONRY.

11. UNLESS NOTED OTHERWISE ON THE PLANS ALL EXTERIOR FACING STUD WALLS TALLER THAN 10' SHALL BE CONSTRUCTED AS FOLLOWS:

A. WALLS 10' TO 12' HIGH BALLOON FRAME 2X4 STUDS @ 16" O.C. WITH 1/2" CDX SHEATHING AND 2 ROWS STUDS ON EACH SIDE OF EACH OPENING NAILED SECURELY TO THE HEADER.

B. WALLS 0" TO 20' HIGH BALLOON FRAME 2X6 STUDS @ 16" O.C. (10') CDX SHEATHING REQUIRED FOR SHEAR WALL MEMBRANE (1) PROVIDE 2-1 3/4" x 9 1/4" LVL KING STUDS ON EACH SIDE OF OPENINGS 3' TO 6' WIDE AND 3-2X6 STUDS FOR OPENINGS LESS THAN 3' WIDE. EASTERN KING STUDS SECURELY TO ALL HEADERS WITH A MINIMUM OF 3-16d NAILS OR 4 1/2" DIAMETER LAG SCREWS STAGGERED A MINIMUM OF 6" INTO THE HEADER.

C. GABLE END WALLS OF RIDGES WITH VAULTED CEILING JOISTS, BALLOON FRAME WALL AND PROVIDE TRIMMER KING STUD ON EACH SIDE OF OPENINGS NAILED SECURELY TO THE HEADER.

D. TWO STORY HIGH ROTTER WALLS LESS THAN 9' WIDE, EXTEND 2 1/2" X 12" PARTIAL LVL MEMBER WITH 2-2X4 FLAT PLATES ACROSS THE ENTIRE WALL. LOCATE THE GEAR NEAR MIDDLE OF THE WALL AT ONE HEAD FIRST FLOOR TOP PLATE.

SEE SPECIAL DESIGN OR ENGINEER FOR WALLS TALLER THAN 20' WHEN OPENINGS IN HIGH WALLS EXCEED 6' IN WIDTH, OR IF THE WALL CANNOT BE CONSTRUCTED USING ANY OF THE METHODS PERFORMED.

12. CONTINUOUS 2x6 BRIDGING SHALL BE NAILED TO DIAGONAL OR VERTICAL SIDE MEMBERS OF ALL OPEN WEB FLOOR TRUSSES OVER 16' LONG. THEY SHALL BE INSTALLED NEAR THE MIDPOINT AS A LOAD DISTRIBUTION MEMBER. IF THE 2x6 BRIDGING IS NOT CONTINUOUS, LAP ENDS OF BRIDGING ONE TRUSS SPACE.

13. LOWER STUD WALLS FOR BUILDINGS OVER TWO STORIES, BUT NOT MORE THAN THREE STORIES:

A. INTERIOR WALLS
- 1. LOAD BEARING ——— 2x4 x 6" O.C.
- 2. NON LOAD BEARING ——— 2x4 x 16" O.C.

B. EXTERIOR WALLS
USE 2x6 x 16" O.C. WITH 1/2" X 4' X 8' PLYWOOD SHEATHING AT ALL CORNERS AND EVERY 28'-0" OR USE 2x4 x 6" O.C. WITH 1/2" PLYWOOD SHEATHING BOLT ON WALLS.

14. HEADERS SHALL BE AS SHOWN UNLESS NOTED DIFFERENTLY ON PLANS:

A. INTERIOR
- i. 36"-0 UP TO 2'-6" ——— 3-2x6'S
- ii. 36"-0 2'-6" TO 3'-6" ——— 2-2x10'S
- iii. 36"-0 3'-6" TO 5'-0" ——— 2-2x12'S
- iv. 36"-0 5'-1" OR HIGHER ——— SEE PLAN

B. EXTERIOR
- i. 36"-0 UP TO 2'-6" ——— 3-2x6'S
- ii. 36"-0 2'-6" TO 3'-6" ——— 2-2x8'S
- iii. 36"-0 3'-6" TO 5'-0" ——— 2-2x10'S
- iv. 36"-0 5'-1" OR HIGHER ——— SEE PLAN

HEADERS MORE THAN 8' SHALL HAVE A MINIMUM OF 3-2x4 KING STUDS ON EACH SIDE UNO.

15. WHEN CEILING JOISTS ARE PARALLEL TO AN EXTERIOR WALL AND RAFTERS BEAR ON THIS EXTERIOR STUD WALL TOP PLATE, TIE THE RAFTERS NEAR THE TOP PLATE TO CEILING JOISTS WITH 2x6 HOSE A MINIMUM OF 8 LONG AT 4'-0" ON CENTER ACROSS THE TOP OF THE CEILING JOISTS.

16. AT ALL BAY WINDOWS, EACH PANEL SHALL BE NAILED TO EACH ADJACENT PANEL WITH 8-16d NAILS OR TIED TOGETHER WITH METAL STRAPPING NAILED AT FOUR LOCATIONS BETWEEN FLOORS WITH A MINIMUM OF 3-16d NAILS INTO EACH PANEL AT EACH STRAP. THIS WILL AVOID VERTICAL CRACKING IN PANEL JOISTS DUE TO HORIZONTAL OSCILLATING PANELS.

17. AT ALL STAIRS, EVERY STUD AT EACH STRINGER MUST BE NAILED TO EACH STRINGER WITH A MINIMUM OF 3-16d NAILS. THIS WILL AVOID CRACKING BETWEEN BALUSTRADE AND TOP OF BASE MOLDING DUE TO VERTICAL OSCILLATION OF STAIR STRINGERS.

18. STEEL PIPE COLUMNS MUST BE IN CONTACT WITH THE UPPORTED MEMBER AND CONTINUED SOLID TO THE SUPPORTING MASONRY. ON CONCRETE ROUND ATOP NO INTERMEDIATE WOOD BLOCKING SHOULD BE USED AS IT WILL CRUSH.

ADDITIONAL NOTES

1. ALL PARTS OF THESE PLANS ARE COPYRIGHTED WITH THE REGISTER OF COPYRIGHTS, LIBRARY OF CONGRESS WASHINGTON D.C. AND MAY NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT CONSENT OF CROWE DESIGN OR LANDMARQ CUSTOM HOMES.

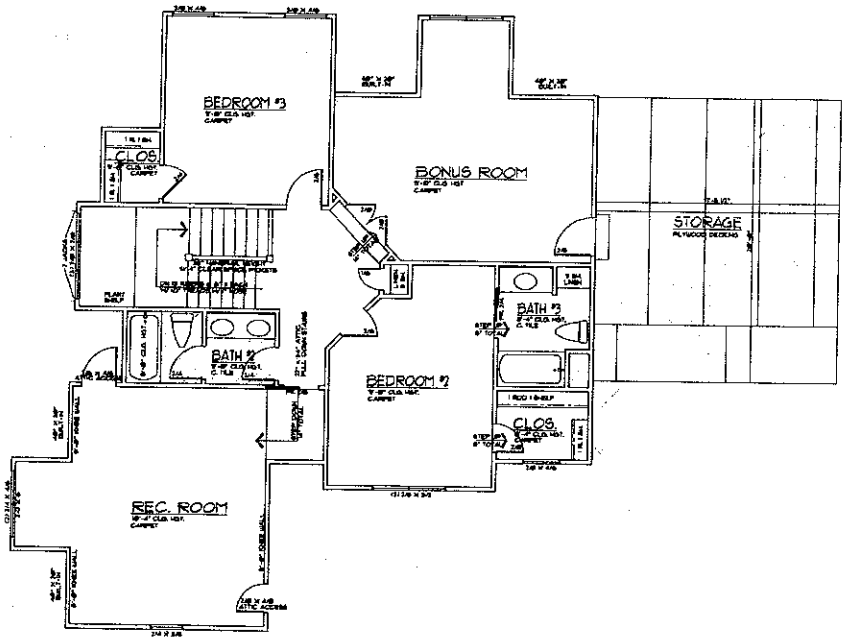
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3. ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATION SHALL BE CONSIDERED AS PART OF THESE DRAWINGS AND DETAILS FOR THIS BUILDING AND SHALL TAKE PREFERENCE OVER ANYTHING SHOWN, DESCRIBED OR IMPLIED WHERE VARIANCES OCCUR.

4. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND COORDINATE ANY CORRECTIONS OR REVISIONS WITH THE OWNER AND DESIGNER. CROWE DESIGN WILL ASSUME NO LIABILITY FOR DIMENSIONAL ERRORS ONCE CONSTRUCTION BEGINS.

Acknowledgement Of
Plans Submittal ONLY!
Date 8-20-12
Date 8-28-12

PRELIMINARY
NOT FOR CONSTRUCTION
FOR PRICING ONLY



1 / A5 SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

Crowe Design & Associates

LOT #144, ANNISTON
Tinnell Residence
DAVIDSON, NORTH CAROLINA

LANDMARQ CUSTOM HOMES

⚠ JULY 31, 2012

SECOND LEVEL FLOOR PLAN

A5.0

Acknowledgement Of
Plans Submittal ONLY

Date 8-20-12

Date 8.28.12

PRELIMINARY

NOT FOR CONSTRUCTION
FOR PRICING ONLY

FRAMING CONSTRUCTION NOTES

1. GIRDER, GIRDERING AND BEAMS WITH 4" CERTAIN SHALL AND WHEN CONSTRUCTION SHALL BE 2 DARK SOUTHERN YELLOW PINE #1 UNLESS NOTED OTHERWISE, HOWEVER CLEAR SPAN TO BE 4'-8" (6'-8" O.C. SPACING OF PIERS)

   TO AVOID OBJECTIONABLE CRACKING IN FINISHED HARDWOOD FLOORS OVER ANY GIRDERS, USE THE FOLLOWING PROCEDURE:

   A. NAILING
      i. ALL FLOOR JOISTS MUST BE TOENAILED TO THEIR SUPPORT GIRDERS WITH A TRIPLEX OF 3-8d NAILS AT EACH END. LARGER NAILS WILL SPLIT AND WEAKEN THE WOOD. HOWEVER, NO END NAILING THROUGH THE GIRDER OR BAND IS PERMITTED.
      ii. IF DROPPED GIRDERS ARE USED END LAP ALL JOISTS AND TOE NAIL EACH WITH A TRIPLEX OF 3-8d NAILS AT EACH END OF EACH JOINT. LEDGERS STRIPS NAILED WITH 3-8d NAILS AT EACH JOINT SPACED 3" APART.
      iii. NAIL MULTIPLE PIERRED SUB 1 UP GIRDERS WITH TWO ROWS OF 16d NAILS STAGGERED AT 16" O.C. 2" DOWN FROM THE TOP AND 2" UP FROM THE BOTTOM WITH 5-16d NAILS AT EACH END OF EACH PIECE IN THE JOINT THROUGH THE PIERRING NAILING UP THE MULTIPLE GIRDER.
      iv. THIS NAILING PATTERN WILL REQUIRE A TOUT FLOOR FROM OUTSIDE OF HOUSE TO OUTSIDE SO THAT WHEN THE FRAMING SHRINKS DURING THE FIRST HEATING SEASON THE SHRINKAGE WILL BE UNIFORMLY DISTRIBUTED OVER THE ENTIRE FLOOR. IF THE GIRDER NAILING PATTERN IS OMITTED, THEN THE SHRINKAGE WILL ACCUMULATE OVER THE GIRDERS AND AN OBJECTIONABLE CRACK WILL DEVELOP IN THE FINISHED HARDWOOD FLOOR OVER THE GIRDER LINE.
   B. AT ALL GIRDERS WHERE THE JOISTS CHANGE DIRECTION, INSTALL BRIDGING AT 8' O.C. FOR A DISTANCE OF SIX JOIST SPACINGS BEYOND ANY JOINT DIRECTION CHANGE. THIS WILL REDUCE SHRINKAGE DISTRIBUTION OVER THE FLOOR AND NOT LET IT ACCUMULATE AT THE GIRDER.
   C. THERE MAY BE WOOD BLOCKING THRU SOLTED TO THE STEEL BEAM WITH JOISTS TOENAILED OR ATTACHED TO THE BEAM WITH METAL HANGERS UNDER ANY HARDWOOD FLOORS THAT RUNS OVER A STEEL BEAM SUPPORTING FLOOR JOISTS. THIS CONDITION OFTEN EXISTS BASEMENT AREAS.
2. ALL OTHER LUMBER MUST BE SPRUCE #1 UNLESS NOTED OTHERWISE.
3. STEEL BEAMS MUST HAVE 3-2x4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.
4. LVL BEAMS MUST HAVE 3-2x4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.
5. MASONRY LINTELS:
   A. FOR SPANS UP TO 6'-: USE 3 1/2" x 3 1/2" x 1/4" STEEL ANGLES.
   B. FOR SPANS FROM 6' TO 9': USE 5" x 3 1/2" x 5/16" STEEL ANGLES.
   C. FOR SPANS FROM 9' TO 21': USE A PAIR OF 6 GAUGE LINTELS IN EACH OF THE FIRST 2 COURSES OF BRICK, ON A 5" x 3 1/2" x 5/16" STEEL ANGLE. LAP ALL 6 GAUGE LINTELS 8" MINIMUM AND EXTEND LINTELS 12" MINIMUM INTO JAMBS. TEMPORARILY SUPPORT STEEL ANGLE BEFORE LAYING MASONRY. SHORING MAY BE REMOVED FIVE DAYS FOLLOWING THE INSTALLATION OF MASONRY.
   D. WHEN STRUCTURAL STEEL BEAMS WITH BOTTOM PLATES ARE USED TO SUPPORT MASONRY, THE BOTTOM PLATE MUST EXTEND THE FULL LENGTH OF STEEL BEAM. THIS PROVIDES SUPPORT TO THE BRICK ON THE SIDE OF THE PLATE BY BEARING ON THE ADJACENT MASONRY JAMBS. THE BEAM SHOULD BE TEMPORARILY SHORED PRIOR TO LAYING THE MASONRY. THE SHORING MUST BE REMOVED FIVE DAYS AFTER LAYING THE MASONRY.
6. ALL BRICK VENEER OVER LOWER WOOD (BRICK CLOSE) MUST HAVE A STRUCTURAL ANGLE LAG SCREWED TO ADJACENT STUD WALL IN ACCORDANCE WITH DETAIL, WITH STEEL BRICK SHIMS TO PREVENT SLIDING OF BRICK.
7. ALL RAFTER BRACES MUST HAVE 2 STUDS FROM PLATE THROUGH ALL FLOORS TO FOUNDATION OR SUPPORTING BEAM AND USE NO BRACES SHALL BE ATTACHED TO TOP SHELL PLATE WITHOUT STUDS DIRECTLY UNDER THEM.
8. SHEAR PARTITIONS WALLS BETWEEN FLOOR JOISTS OR TRUSSES, 2"x4" LADDERS 8 16" O.C. MUST BE PLACED PERPENDICULAR TO THE TRUSSES TO SUPPORT THE PLYWOOD CEILING.
9. ALL WOOD HEADERS AND OPEN JOISTS MUST BE SHORED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS PLUS DOUBLE SHOR OF PLATE LOAD BEARING PARTITIONS, JACKS, BEAMS AND COLUMN SUPPORTS MUST BE SOLID BLOCKED THROUGH FLOOR TO JOISTS, TRUSSES, AND PLYWOOD CANNOT CARRY CONCENTRATED POINT LOADS. ALL POINT LOADS MUST BE CARRIED TO FOUNDATIONS WITH BLOCKING AND/OR BEAMS.
10. ALL STEEL COLUMNS SHALL BEAR ON CONCRETE, MASONRY, OR STEEL ONLY, AN ADEQUATELY SIZED BASE PLATE SHALL BE USED TO SPREAD THE COLUMN LOAD ACROSS THE BEARING SURFACE AREAS SO AS NOT TO EXCEED ITS ALLOWABLE COMPRESSIVE STRESS. BEAMS THAT ARE ON TOP OF STEEL COLUMNS SHALL BE WELDED TO THE COLUMN. BASE PLATE SHALL BE BOLTED WITH FOUR 1/2" DIAMETER ANCHOR BOLTS OR EXPANSION BOLTS TO CONCRETE OR MASONRY.
11. UNLESS NOTED OTHERWISE ON THE PLANS, ALL EXTERIOR FACING STUD WALLS TALLER THAN 10' SHALL BE CONSTRUCTED AS FOLLOWS:
   A. WALLS 10' TO 11' HIGH BALLOON FRAME 2x4 STUDS @ 8" O.C. WITH 10" CDX SHEATHING AND 3 KING STUDS ON EACH SIDE OF EACH OPENING NAILED SECURELY TO THE HEADER.
   B. WALLS 11' TO 26' HIGH BALLOON FRAME ONE STUDS @ 16" O.C. FOR CDX SHEATHING REQUIRED FOR WALL HEIGHTS 11'1 PROVIDE 3-2x4 STUDS @ 12" LVL KING STUDS ON EACH SIDE OF OPENINGS 3'10" TO 8' WIDE AND 4-2x4 KING STUDS FOR OPENINGS OVER 8' WIDE. MASTER KING STUDS SECURELY TO ALL HEADERS WITH A TRIPLEX OF 3-8d NAILS OR A 5/8" DIAMETER LAG SCREWS STAGGERED IN A TRIPLEX OF 4" INTO THE HEADER.
   C. GABLE END WALLS OF ROOFS WITH VAULTED CEILING JOISTS, BALLOON FRAME WALL AND PROVIDE TRIPLE KING STUD ON EACH SIDE OF OPENINGS, NAILED SECURELY TO THE HEADER.
   D. TWO-STORY HIGH FOYER WALLS LESS THAN 9' WIDE, ENTERED 3 1/2" X 5 1/4" PARALLEL LAM. MEMBER WITH 3-2X4 FLAT PLATES ACROSS THE ENTIRE SHELL LOCATE THE BEAM NEAR MID HEIGHT OF THE WALL AT OR NEAR FIRST FLOOR TOP PLATE.

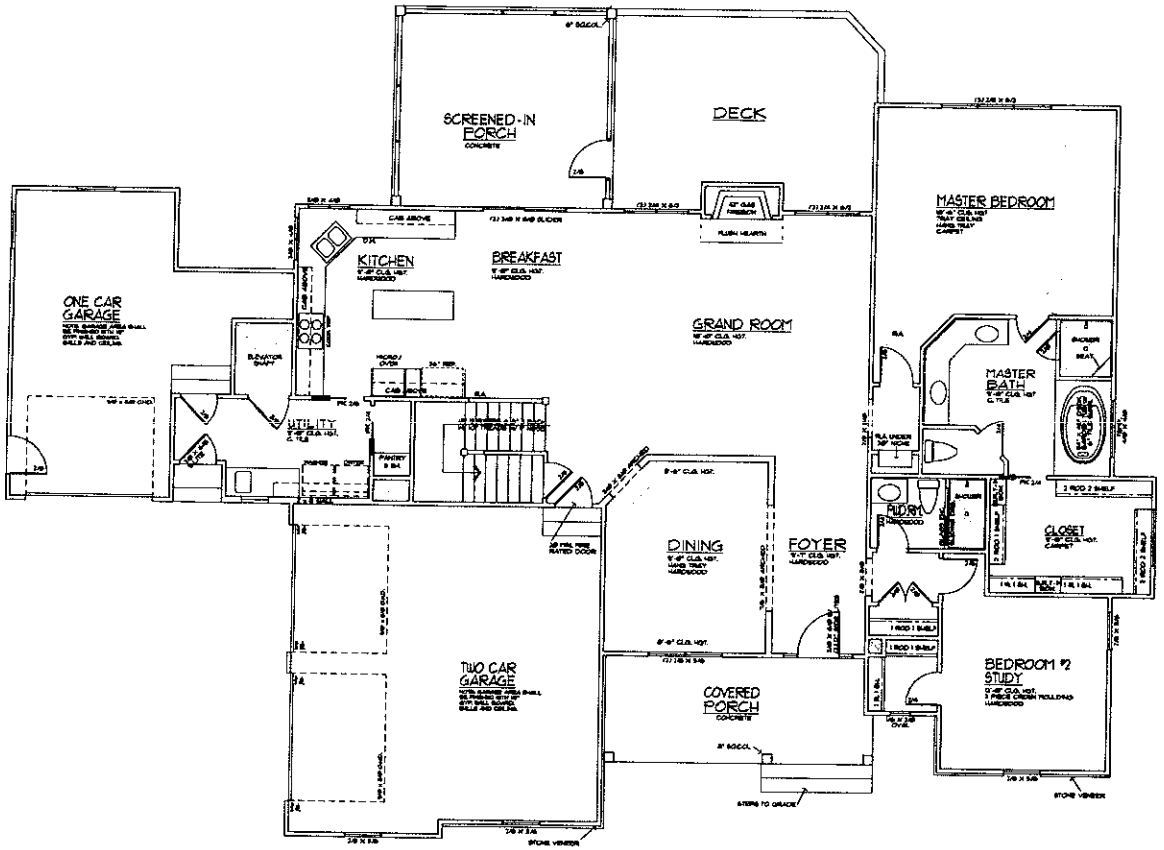
   SEE SPECIAL DESIGN OR ENGINEER FOR WALLS TALLER THAN 26', GABLE OPENINGS IN HIGH WALLS EXCEED 9' IN WIDTH, OR IF THE WALL CANNOT BE CONSTRUCTED USING ANY OF THE METHODS PRESCRIBED.
12. CONTINUOUS 2x6 BRIDGING SHALL BE INSTALLED TO DIAGONAL OR VERTICAL WEB MEMBERS OF ALL OPEN WEB FLOOR TRUSSES OVER 24' LONG. THEY SHALL BE INSTALLED NEAR MID-SPAN OF A LOAD DISTRIBUTION MEMBER. IF THE 2x6 BRIDGING IS NOT CONTINUOUS, LAY ENDS OF BRIDGING ONE TRUSS SPACE.
13. LOWER STUD WALLS FOR BUILDINGS OVER TWO STORIES, BUT NOT MORE THAN THREE STORIES.
   A. INTERIOR WALLS
      i. LOAD BEARING ——— 2x4 @ 12" O.C.
      ii. NON LOAD BEARING ——— 2x4 @ 16" O.C.
   B. EXTERIOR WALLS
      SEE 2x6 @ 16" O.C. WITH 1/2" X 4' X 8' PLYWOOD SHEATHING AT ALL CORNERS AND EVERY 30'-: OR USE 2x4 @ 8" O.C. WITH 1/2" PLYWOOD SHEATING BOLD ON WALLS.
14. HEADERS SHALL BE AS SHOWN UNLESS NOTED DIFFERENTLY ON PLANS.
   A. INTERIOR
      i. SPANS UP TO 2'-9" ——— 2-2x6 S
      ii. SPANS 2'-6" TO 3'-6" ——— 2-2x8 S
      iii. SPANS 3'-6" TO 5'-0" ——— 2-2x10 S
      iv. SPANS 4'-9" OR MORE ——— SEE PLAN
   B. EXTERIOR
      i. SPANS UP TO 2'-6" ——— 2-2x6 S
      ii. SPANS 2'-6" TO 3'-6" ——— 2-2x8 S
      iii. SPANS 3'-6" TO 5'-0" ——— 2-2x10 S
      iv. SPANS 5'-0" OR MORE ——— SEE PLAN

   HEADERS WIDER THAN 6" SHALL HAVE A TRIPLEX OF 3-2x4 KING STUDS ON EACH SIDE U.N.O.
15. WHEN CEILING JOISTS ARE PARALLEL TO AN EXTERIOR WALL AND RAFTERS BEAR ON THE EXTERIOR STUD WALL TOP PLATE, TIE THE RAFTERS NEAR THE TOP PLATE TO CEILING JOISTS WITH 2x6 NOSE A TRIPLEX OF 6" LONG AT 4' ON CENTER ACROSS THE TOP OF THE CEILING JOISTS.
16. AT ALL BAY BRACES, EACH PANEL SHALL BE NAILED TO EACH ADJACENT PANEL WITH 3-16d NAILS OR TIED TOGETHER WITH METAL STRAPPING NAILED AT FOUR LOCATIONS BETWEEN FLOORS WITH A TRIPLEX OF 3-16d NAILS BTO EACH PANEL AT EACH STRAP. THIS WILL AVOID VERTICAL CRACKING IN PANEL JOINTS DUE TO HORIZONTAL OSCILLATING PANELS.
17. AT ALL STAIRS, EVERY STUD AT EACH STRINGER MUST BE NAILED TO EACH STRINGER WITH A TRIPLEX OF 3-16d NAILS. THIS WILL AVOID CRACKING BETWEEN BALUSTRADE AND TOP OF STAIR HOLDING DUE TO VERTICAL OSCILLATION OF STAIR STRINGERS.
18. STEEL PIPE COLUMNS MUST BE IN CONTACT WITH THE UPPORTED MEMBER AND CONTINUED SOLID TO THE SUPPORTING MASONRY OR CONCRETE FOUNDATION. NO INTERMEDIATE WOOD BLOCKING SHOULD BE USED AS IT WILL CRUSH.

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EXTERIOR WALL HGT. (U)	STUD SIZE/SPACING
[illegible]	2 X 4 @ 16" O.C.
[illegible]	2 X 4 @ 8" O.C.
[illegible]	2 X 6 @ 16" O.C.
[illegible]	CONSULT ENGINEER



1/A4 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

BASEMENT SQUARE FOOTAGE	
FINISHED HEATED	1931
UTILITY/STORAGE	844
TOTAL BASEMENT AREA	2315

FRAMED SQUARE FOOTAGE	
1ST FLOOR HEATED	2838
2ND FLOOR HEATED	678
BASEMENT HEATED	591
BONUS RM. HEATED	262
REC. RM. HEATED	368
TOTAL HEATED	4151
ONE-CAR GARAGE	311
TWO-CAR GARAGE	524
COVERED PORCH	143
SCREEN PORCH	324
DECK	245
LOWER COVERED PATIO	419
TOTAL UNDER ROOF	1288

Crowe Design & Associates
P.O. Box 2346 Concord, NC 28027 (704) 782-4663

LOT #144, ANNISTON
Tinnell Residence
DAVIDSON, NORTH CAROLINA

LANDMARQ
CUSTOM HOMES

JULY 31, 2012

FIRST LEVEL FLOOR PLAN

A4.0

Acknowledgement Of
Plans Submittal ONLY

Date 8-20-12

Date 8-28-12

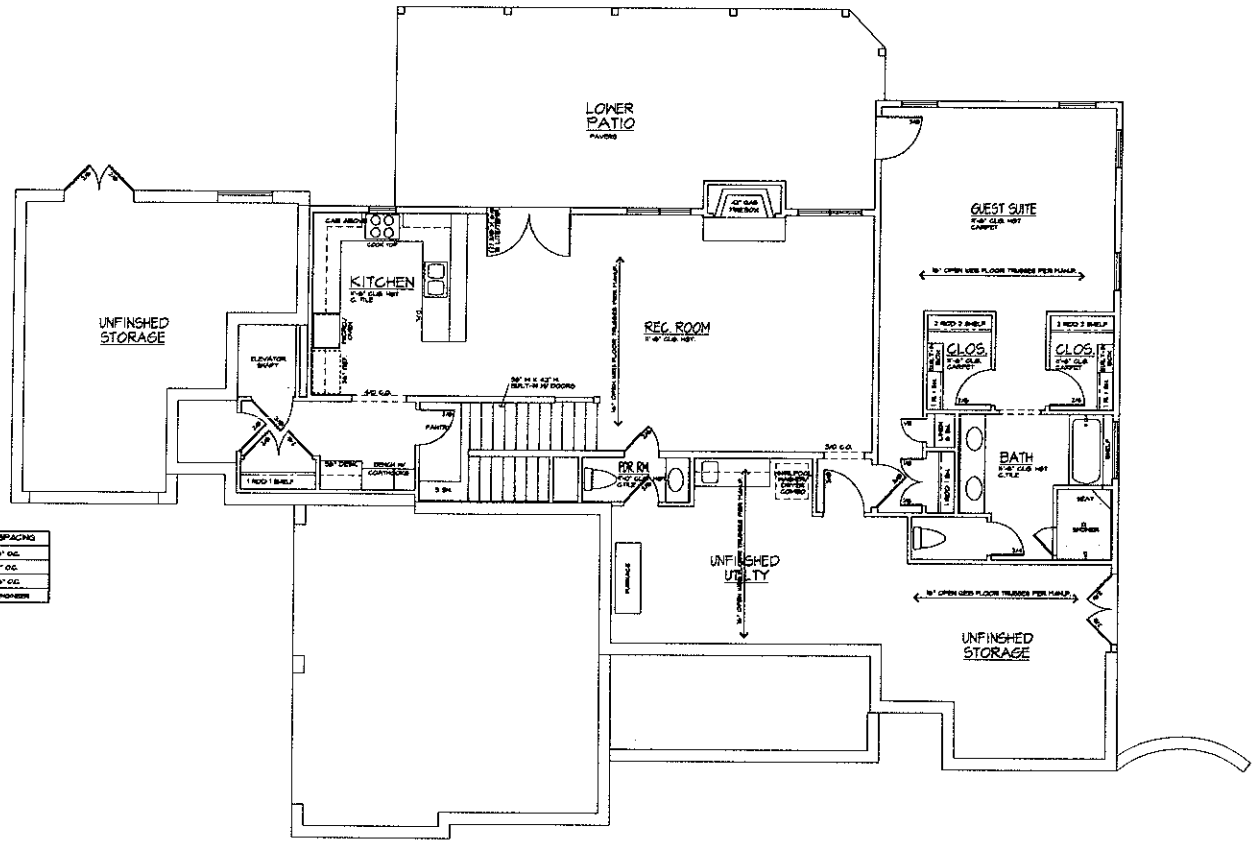
RESIDENTIAL FOUNDATION NOTES

REVISED AUGUST 21, 2008

1. SOIL BEARING CAPACITY ASSUMED AS 2000 PSF UNLESS NOTED OTHERWISE OR AS DETERMINED BY ENGINEERED SOILS TESTING REPORT.
2. ALL CONTINUOUS WALL FOOTINGS FOR ONE AND TWO-STORY HOUSES AREA 8" THICK X 24" WIDE, REINFORCED IN FOOTING SHALL BE (2) 1/2 REBAR (2 #5) NOTED ON PLANS. REINFORCEMENT NOT REQUIRED BY CODE.
3. ALL INTERIOR PIERS ARE 24" X 24" (2'-0" X 2'-0") WITH (4) #5 VERTICAL REBAR TO 24" ALL PIERS OVER 48" HIGH (MEASURED FROM TOP OF PIER TO BOTTOM OF FOOTING) TO BE 8" X 16" FILLED PIER W/ (4) #5 VERTICAL REBAR AND #3 @ 48" O.C. HORIZONTAL TIES UNLESS NOTED ON PLANS. PIER CAP BLOCKS SHALL BE 8" CMP SOLID MASONRY UNITS.
4. TOOTHING FOR 8" X 24" CMU PIERS ARE 2 1/2" X 2 1/2" UNLESS NOTED OTHERWISE. REINFORCING TO BE #5 NOTED ON PLANS.
5. CONCRETE SHALL BE 3000# PSI IN 28 DAYS UNLESS NOTED OTHERWISE AND CONCRETE SHALL BE POURED TO REPRESENTATIVE SAMPLES AS DESCRIBED IN ASTM SPECIFICATIONS. NO WATER SHALL BE ADDED DURING POURING AND FOR TWO DAYS, THE BOTTOM OF ALL FOOTINGS PLACED 24" BELOW GRADE.
6. ALL REBAR SPLICES SHALL BE A MINIMUM OF 2'-0" UNLESS OTHERWISE NOTED.
7. ANY SPECIAL FOUNDATIONS FOR STRUCTURES SHALL BE DESIGNED BY LICENSED PROFESSIONAL ENGINEER UPON RECEIPT OF SOIL CAPACITY SPECIFICATIONS FOR ALL SOIL CONSIDERED TO AFFECT THE STRUCTURE.
8. EXPANSION JOINTS ARE SHOWN IN THE STRUCTURAL DESIGN DRAWINGS.
9. FOUNDATION WALLS BACK-FILLED WITH DIRT AND SUPPORTING STRUCTURAL FRAMING SHALL BE CONSTRUCTED AS SHOWN ON DETAIL SHEET.
10. SPECIAL RETAINING WALL DESIGNS TO BE SHOWN ON DETAIL SHEETS.
11. ALL FULL HEIGHT FOUNDATION WALLS ARE SHOWN ON STRUCTURAL DETAIL SHEET.
12. ALL MASONRY SUBMITTED SHALL CONSTRUCTION THAT BE INSPECTED BY THE COUNTY BUILDING OFFICIAL, ARCHITECT, OR ENGINEER FOR COMPLIANCE WITH STRUCTURAL SPECIFICATIONS.
13. WHERE FULL HEIGHT FOUNDATION OR BASEMENT WALLS RUN PARALLEL TO FLOOR FRAMING, BLOCKING MUST BE PROVIDED BETWEEN JOISTS AT 3'-0" O/C NOR NOT LESS THAN 2X4 JOIST SPACINGS OUT FROM WALL.
14. DETAILS OF ANY SUNKEN RETAINING STRUCTURES NOT ATTACHED TO THE HOUSE STRUCTURE WILL BE SHOWN ON REMOVABLE DETAIL SHEETS.

NOTE: ALL JOINT LOADS MUST BOOT BRACED, AND STATE SELECT SUPPORTS - 2400 LBS (GOOD CONDITION) - CONNECT OR CLIP BRACING ALONG BUILDING LINES. TO BE BEFORE FLOOR AND JOINT LOAD SUPPORT GRADE MAY BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION.

PRELIMINARY
NOT FOR CONSTRUCTION
FOR PRICING ONLY



EXTERIOR WALL HGT. (N)	STUD SIZE/SPACING
H ≤ 10'-0"	2 X 4 @ 16" O.C.
10'-1" ≤ H ≤ 11'-0"	2 X 4 @ 12" O.C.
11'-1" ≤ H ≤ 12'-0"	2 X 6 @ 16" O.C.
H > 12'-0"	CONSULT ENGINEER

ADDITIONAL NOTES

1. ALL PARTS OF THESE PLANS ARE COPYRIGHTED WITH THE REGISTER OF COPYRIGHTS, LIBRARY OF CONGRESS WASHINGTON D.C. AND MAY NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT CONCENT OF CROWE DESIGN OR LANDMARQ CUSTOM HOMES
2. CROWE DESIGN IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM LOCATED IN CONCORD, NORTH CAROLINA. BECAUSE SITE CONDITIONS MAY VARY, CROWE DESIGN CANNOT WARRANT THE SUITABILITY OF THESE PLANS FOR USE ON YOUR SPECIFIC SITE. CONSTRUCTION FROM THESE PLANS SHOULD NOT BE UNDERTAKEN WITHOUT THE ASSISTANCE OF A PROFESSIONAL CONTRACTOR.
3. ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATION SHALL BE CONSIDERED AS PART OF THESE DRAWINGS AND DETAILS FOR THIS BUILDING AND SHALL TAKE PREFERENCE OVER ANYTHING SHOWN, DESCRIBED OR IMPLIED WHERE VARIANCES OCCUR.
4. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND COORDINATE ANY CORRECTIONS OR REVISIONS WITH THE OWNER AND DESIGNER. CROWE DESIGN WILL ASSUME NO LIABILITY FOR DIMENSIONAL ERRORS ONCE CONSTRUCTION BEGINS.

1/A3 **LOWER LEVEL FLOOR PLAN**
SCALE: 1/4" = 1'-0"
DOUBLE JOIST UNDER ALL LOAD BEARING PARALLEL WALLS AS SPECIFIED BY ENGINEER
ALL GIRDERS ARE 3-2 X 10 @ 8'-0" O.C. UNO.
ALL FLOOR JOISTS ARE 2 X 10 @ 16" O.C. UNO.

FOOTING SCHEDULE

① 36" X 36" X 16" CONC. FTG. W/ 4 #5 EACH WAY

② 48" X 48" X 16" CONC. FTG. W/ 4 #5 EACH WAY

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LOT #144, ANNISTON
Tinnell Residence
DAVIDSON, NORTH CAROLINA

LANDMARQ CUSTOM HOMES

⚠ JULY 31, 2012

LOWER LEVEL FOUNDATION PLAN

A3.0