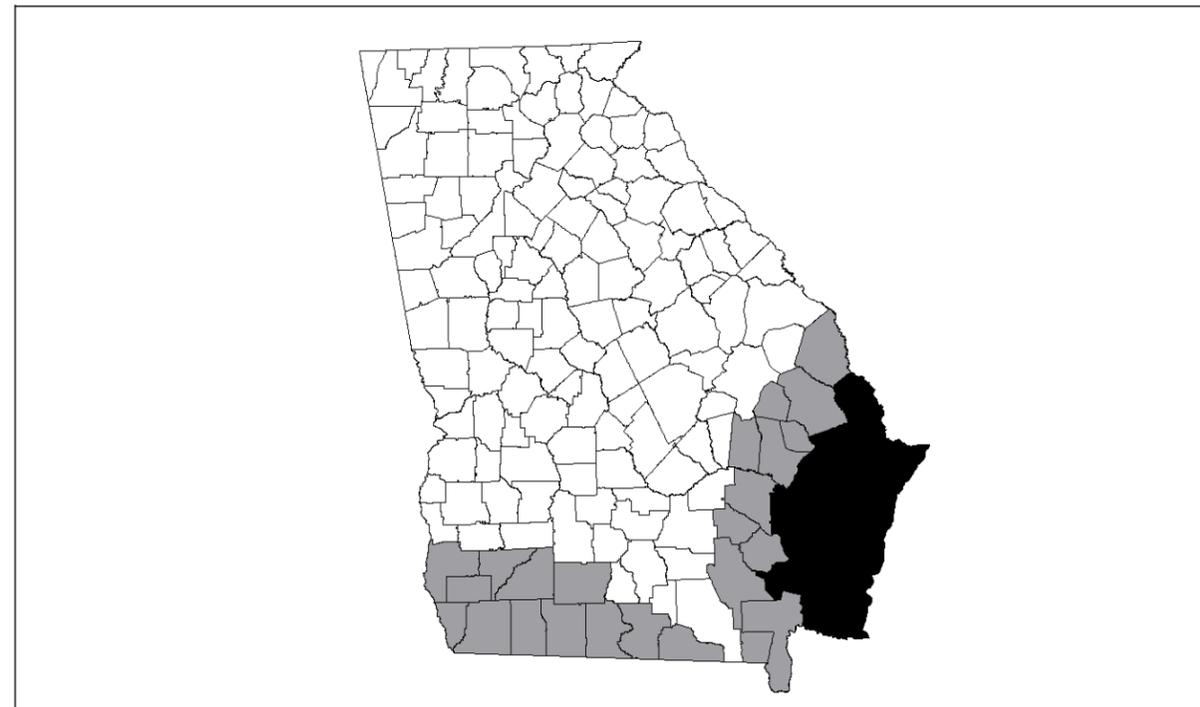


**UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE**

**GEORGIA STANDARD DRAWINGS FOR HURRICANE REGIONS - POULTRY LITTER  
DRY STACK FACILITY CONSTRUCTED WITH 6" X 8" POSTS AND ENGINEERED  
TRUSSES SPACED 5' O.C.**

1. THE FOLLOWING DRAWINGS WERE PREPARED IN ACCORDANCE WITH PRACTICE CODE 313 - WASTE STORAGE FACILITY AND GEORGIA BUILDING CODE (INTERNATIONAL BUILDING CODE 2006).
2. DESIGN DATA REQUIRED BY IBC 2006:
  - A) ROOF LIVE LOAD - 19 PSF.
  - B) BASIC WIND SPEED OF 120 MPH AND NO SNOW LOAD.
  - C) IMPORTANCE FACTOR, I=0.77.
  - D) WIND EXPOSURE CATEGORY C, PARTIALLY ENCLOSED STRUCTURE.
  - E) INTERNAL PRESSURE COEFFICIENT = 0.55.
3. THIS BUILDING IS INTENDED FOR CONSTRUCTION IN HURRICANE REGIONS OF THE STATE AS SHOWN IN THE MAP BELOW AND IS DESIGNED TO SUSTAIN WIND LOADS UP TO 120 MPH WITH NO SNOW LOAD.
4. ENGINEERED TRUSSES SHALL BE DESIGNED TO SUSTAIN THE ABOVE LISTED CONDITIONS. ONE COPY OF THESE DRAWINGS AND FORM GA-ENG-313E SHALL BE SUBMITTED TO THE TRUSS DESIGNER. THE TRUSS DESIGN DRAWING FROM THE TRUSS COMPANY MUST BE REVIEWED AND APPROVED BY NRCS.
5. A 16-FOOT SIDESHED COMPOSTING FACILITY MAY BE ATTACHED (SEE GA-ENG-317-C3.PDF).
6. THIS DESIGN IS NOT INTENDED FOR CONSTRUCTION ON AN ISOLATED HILL, RIDGE, OR ESCARPMENT IN ANY REGION OF THE STATE.
7. ANY CHANGES TO THESE DRAWINGS MUST BE APPROVED BY AN ENGINEER WITH JOB APPROVAL LEVEL IV OR GREATER.
8. NO SIDESHEDS OR ADDITIONS SHOULD BE MADE TO STRUCTURE WITHOUT APPROVAL FROM NRCS. APPROVED DESIGNS FROM NRCS MAY BE USED OR DESIGNS APPROVED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER.



THIS DESIGN IS NOT INTENDED FOR USE IN COUNTIES SUBJECT TO HURRICANE WIND LOADS SHADED BLACK ABOVE. THIS DESIGN MAY ALSO BE USED IN AREAS SHADED GRAY WHERE 14' WALLS ARE REQUIRED AND A SIDESHED COMPOSTING FACILITY (GA-ENG-317-C3) IS TO BE ATTACHED TO THIS STRUCTURE).

**THE NATURAL RESOURCES CONSERVATION SERVICE  
HELPING PEOPLE HELP THE LAND**

**POULTRY LITTER STACK FACILITY**

**COUNTY, GEORGIA**

PRE-CONSTRUCTION CERTIFICATION:

THE \_\_\_\_\_ POULTRY LITTER STACK FACILITY WILL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING DRAWINGS AND PRACTICE CODE 313. ALL CHANGES HAVE BEEN APPROVED BY AN ENGINEER WITH JOB APPROVAL AUTHORITY LEVEL IV OR GREATER. ALL ADDITIONS HAVE BEEN APPROVED BY NRCS.

OWNER	DATE	NRCS REPRESENTATIVE	DATE	ENGINEER (IF REQUIRED)	DATE
-------	------	---------------------	------	------------------------	------

AS-BUILT CERTIFICATION:

THIS PRACTICE HAS BEEN CONSTRUCTED IN ACCORDANCE TO THESE PLANS AND MEETS NRCS STANDARDS AND SPECIFICATIONS.

NRCS REPRESENTATIVE	DATE	ENGINEER (IF REQUIRED)	DATE
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INDEX TO DRAWINGS:

- SHEET 1 - COVER SHEET
- SHEET 2 - ISOMETRIC VIEW  
GENERAL NOTES
- SHEET 3 - PLAN VIEW
- SHEET 4 - ELEVATION VIEW OF ENDWALL
- SHEET 5 - SIDE WALL DETAIL  
CONCRETE POST FOOTING DETAIL  
MECHANICAL POST ANCHOR CONCRETE FOOTING DETAIL
- SHEET 6 - TRUSS TO GIRDER CONNECTION DETAIL  
HURRICANE STRAP DETAILS  
FIBER REINFORCED CONTRACTION JOINT DETAIL  
WOOD TREATMENT TABLE
- SHEET 7 - ENDWALL VERTICAL BRACE DETAILS  
ENDWALL HORIZONTAL BRACE DETAILS
- SHEET 8 - TRUSS BRACING DETAILS

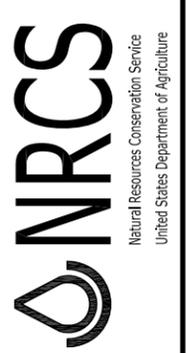
WASTE STORAGE FACILITY:

JOB CLASS: \_\_\_\_\_

REVISIONS			
DATE	APPROVED	TITLE	
08/05	H McFARLAND	STATE ENGINEER	
01/06	H McFARLAND	STATE ENGINEER	
07/07	H McFARLAND	STATE ENGINEER	
06/11	J HOLLOWAY	STATE ENGINEER	

Date \_\_\_\_\_ 07/07  
 Designed \_\_\_\_\_ W. Brown  
 Drawn \_\_\_\_\_ D. Drewry, S. Rogers  
 \_\_\_\_\_ H. McFarland  
 Checked \_\_\_\_\_ J. Holloway  
 \_\_\_\_\_ 07/07  
 Approved \_\_\_\_\_ H. McFarland  
 \_\_\_\_\_ 07/07

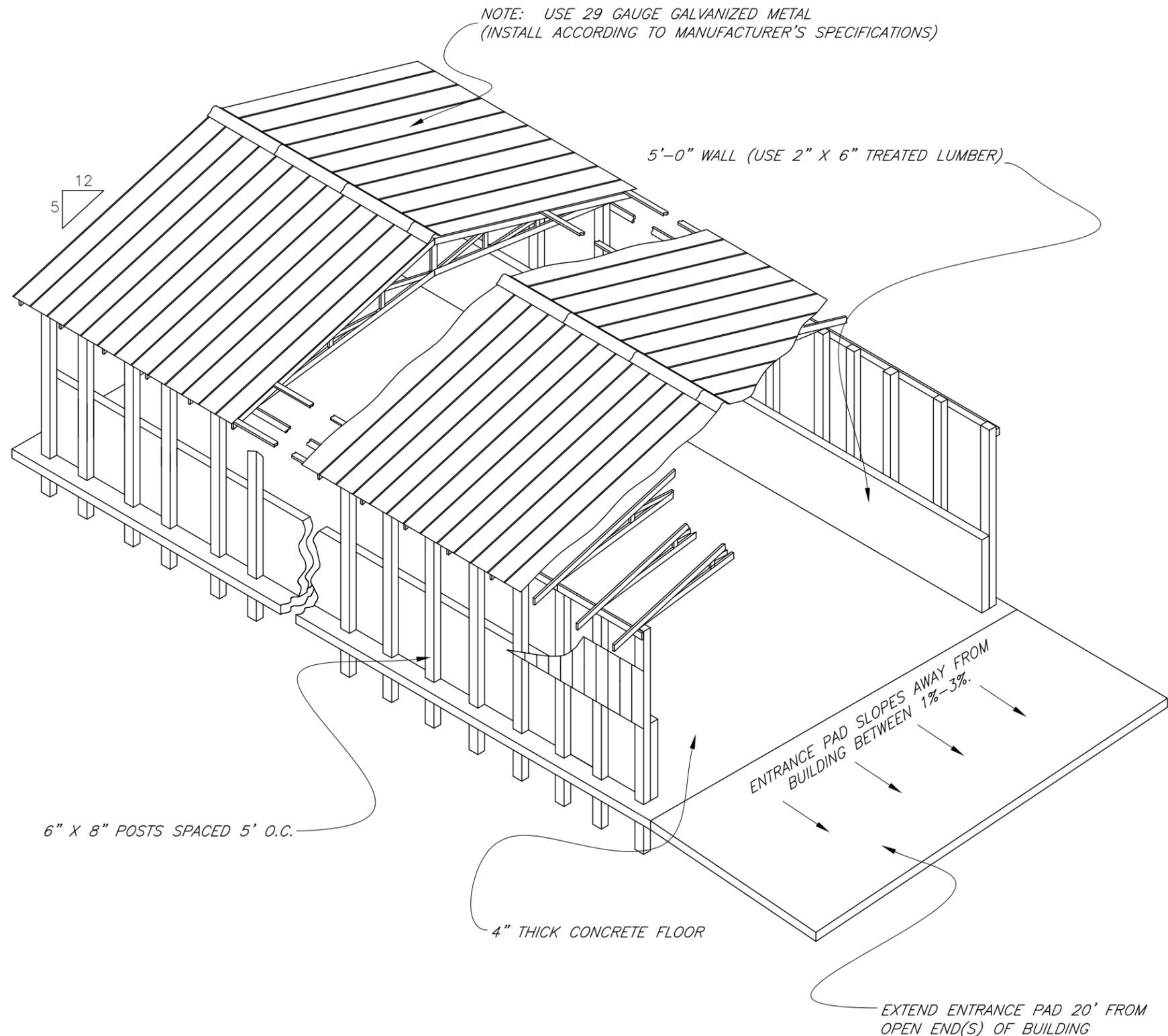
GEORGIA POULTRY LITTER DRY STACK  
 FACILITY FOR HURRICANE REGIONS  
 (12' or 14' Walls, 6" x 8" Posts Spaced 5'o.c.)  
 County, GA



File No.  
ga-eng-313-ps3.pdf

Drawing No.  
Cover

06/17/2011 8:57 AM  
Sheet 1 of 8



**ISOMETRIC VIEW**  
Not to scale

**NOTES:**

1. ENCLOSE TWO SIDES AND BOTH GABLE ENDS.
2. ENDWALL OPENING IS OPTIONAL.
3. A 2' 0" OPENING WILL BE INSTALLED BETWEEN THE SIDING AND ROOF OVERHANG ON THE SIDEWALL (SEE SIDEWALL DETAIL ON SHEET 5).
4. DRY STACK FACILITY IS DESIGNED TO STORE DRY POULTRY LITTER. WET LITTER MAY CREATE A FIRE HAZARD. LITTER SHALL BE STACKED NO HIGHER THAN 7' TO REDUCE FIRE HAZARD.
5. ALL ENTRANCE AREAS SHALL BE STABILIZED USING PRACTICE STANDARD 561 - HEAVY USE AREA.
6. ALL POSTS SHALL BE SET IN CONCRETE WITH CONCRETE OR GRAVEL FOOTING PAD (SEE CONCRETE POST FOOTING DETAIL ON SHEET 5).
7. THE BUILDING SITE SHALL BE CLEARED AND GRUBBED AS REQUIRED. PROPER DRAINAGE SHALL BE PROVIDED AROUND THE ENTIRE BUILDING SO THAT RUNOFF WATER DOES NOT ENTER OR POND NEAR BUILDING. DESIGN FOR ROOF RUNOFF IN ACCORDANCE WITH PRACTICE CODE 558 - ROOF RUNOFF MANAGEMENT OR STABILIZE SOIL AROUND BUILDING USING PRACTICE CODE 342 - CRITICAL AREA PLANTING.
8. CONCRETE FLOORS AND FOOTINGS SHALL BE PLACED ON FIRM SOIL. ALL LOOSE SOIL SHALL BE REMOVED. IF FILL MATERIAL IS USED, PLACE IN 9" THICK LAYERS AND COMPACT WITH SHEEPSFOOT ROLLER OR OTHER EQUIVALENT COMPACTION METHOD.
9. TRUSSES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN GEORGIA AND WILL BE INSTALLED AS DESIGNED. DESIGNS STAMPED BY A PROFESSIONAL ENGINEER SHALL BE PROVIDED TO NRCS FOR REVIEW.
10. ALL LUMBER, INCLUDING THE POSTS, IN CONTACT WITH LITTER OR CONCRETE SHALL BE PRESSURE TREATED (SEE WOOD TREATMENT TABLE ON SHEET 6).
11. ALL DIMENSION LUMBER EXCEPT TRUSS BRACING SHALL BE SOUTHERN PINE NO. 2 OR BETTER. SEE SHEET 8 FOR TRUSS BRACING REQUIREMENTS.
12. ALL NAILS, BOLTS, AND OTHER CONNECTORS SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER. NAILS SHALL HAVE SPIRALED OR RINGED (ANNULAR) SHANKS. ALL REFERENCES TO "GALVANIZED" IN THIS SET OF DRAWINGS REFERS TO THE ABOVE LISTED COATINGS.
13. POWER SUPPLY TO THE BUILDING IS RECOMMENDED FOR NIGHT OPERATIONS AND REPAIR WORK.
14. ALL DISTURBED AREAS SHALL BE VEGETATED USING PRACTICE CODE 342 - CRITICAL AREA PLANNING.
15. CALL BEFORE YOU DIG:  
1-800-282-7411 OR 770-623-4344.

Date	07/07
Designed	W. Brown
Drawn	D. Drewry, S. Rogers H. McFarland
Checked	J. Holloway
Approved	H. McFarland

GEORGIA POULTRY LITTER DRY STACK  
FACILITY FOR HURRICANE REGIONS  
(12' or 14' Walls, 6"x8" Posts Spaced 5'o.c.)  
County, GA

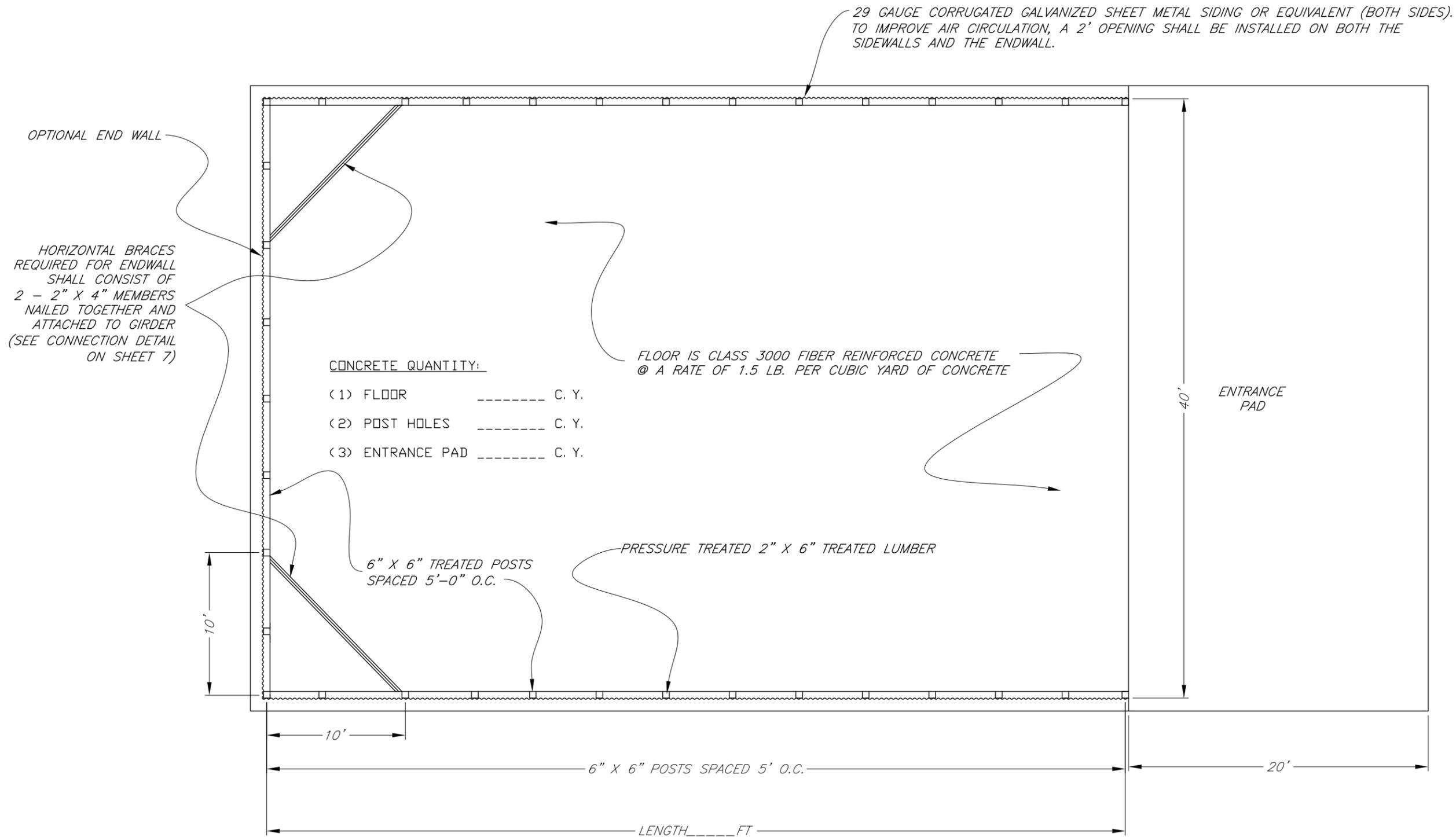


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Drawing No.  
Isometric

REVISIONS		
DATE	APPROVED	TITLE
09/05	H. McFarland	State Engineer
01/06	H. McFarland	State Engineer
07/07	H. McFarland	State Engineer

8/8/11 2:17 PM  
Sheet 2 of 8



CONCRETE QUANTITY:

(1) FLOOR \_\_\_\_\_ C. Y.

(2) POST HOLES \_\_\_\_\_ C. Y.

(3) ENTRANCE PAD \_\_\_\_\_ C. Y.

FLOOR IS CLASS 3000 FIBER REINFORCED CONCRETE @ A RATE OF 1.5 LB. PER CUBIC YARD OF CONCRETE

29 GAUGE CORRUGATED GALVANIZED SHEET METAL SIDING OR EQUIVALENT (BOTH SIDES). TO IMPROVE AIR CIRCULATION, A 2' OPENING SHALL BE INSTALLED ON BOTH THE SIDEWALLS AND THE ENDWALL.

OPTIONAL END WALL

HORIZONTAL BRACES REQUIRED FOR ENDWALL SHALL CONSIST OF 2 - 2" X 4" MEMBERS NAILED TOGETHER AND ATTACHED TO GIRDER (SEE CONNECTION DETAIL ON SHEET 7)

6" X 6" TREATED POSTS SPACED 5'-0" O.C.

PRESSURE TREATED 2" X 6" TREATED LUMBER

ENTRANCE PAD

LENGTH \_\_\_\_\_ FT

NOTES:

1. CONCRETE AND POST QUANTITIES WILL VARY WITH LENGTH OF FACILITY.
2. ALL POSTS WILL EXTEND INTO THE GROUND A MINIMUM OF 3'-9" AS SHOWN IN THE CONCRETE POST FOOTING DETAIL ON SHEET 5.
3. USE WASTE STORAGE FACILITY COMPUTATION WORKSHEET TO CALCULATE REQUIRED LENGTH. AN ADDITIONAL HORIZONTAL FREEBOARD IS REQUIRED IF NO ENDWALL IS CONSTRUCTED.
4. FOR HORIZONTAL BRACE DETAILS SEE SHEET 7.

PLAN VIEW  
Not to scale

Date	07/07
Designed	W. Brown
Drawn	D. Drewry, S. Rogers, H. McFarland
Checked	J. Holloway
Approved	H. McFarland

GEORGIA POULTRY LITTER DRY STACK FACILITY FOR HURRICANE REGIONS (12' or 14' Walls, 6"x8" Posts Spaced 5'o.c.)  
County, GA

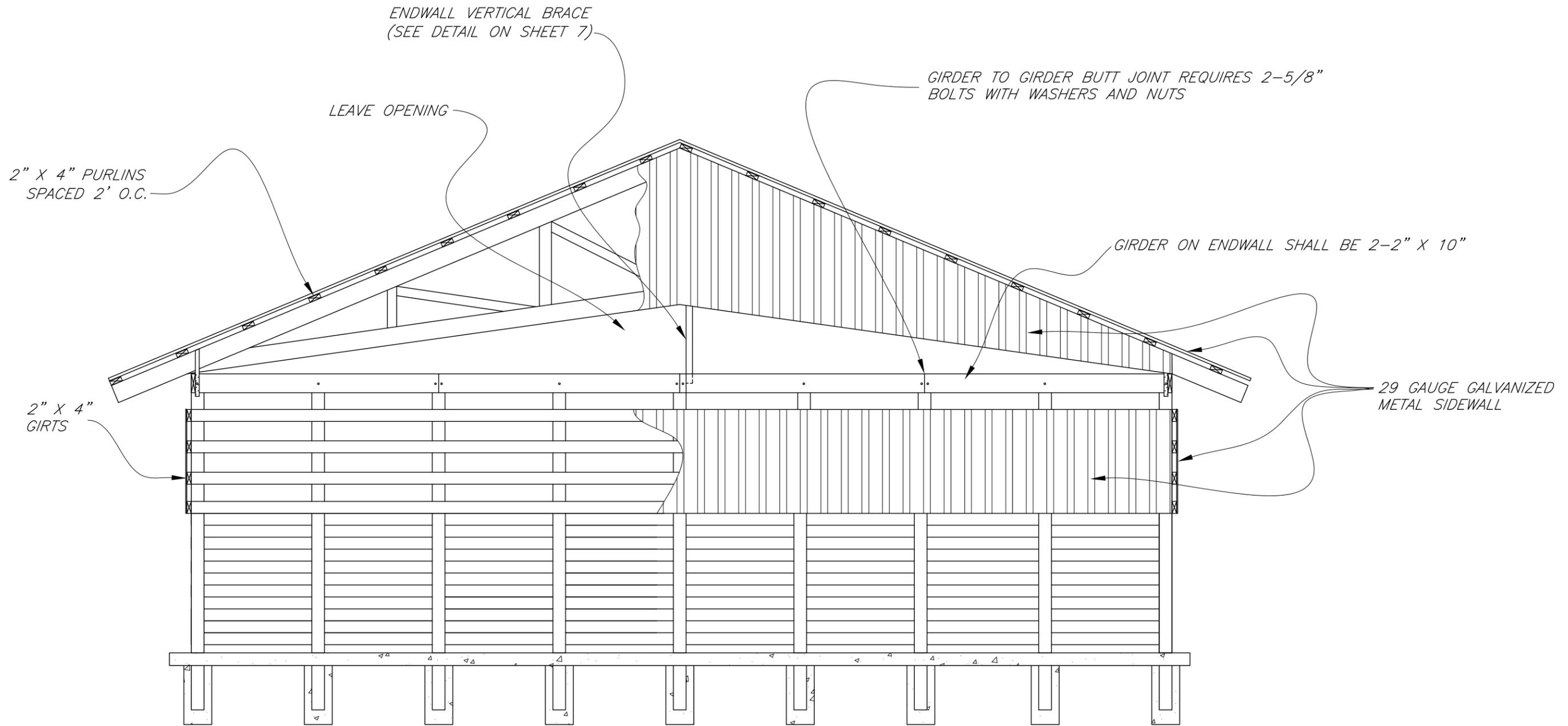


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Drawing No. Plan

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DATE	APPROVED	TITLE
09/05	H. McFarland	State Engineer
01/06	H. McFarland	State Engineer
07/07	H. McFarland	State Engineer

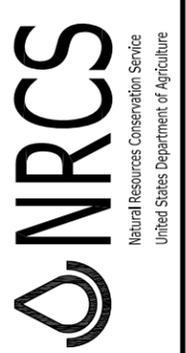
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Sheet 3 of 8



**ELEVATION VIEW OF ENDWALL**  
Not to scale

Date 07/07  
 Designed W. Brown  
 Drawn D. Drewry, S. Rogers, H. McFarland  
 Checked J. Holloway  
 Approved H. McFarland

GEORGIA POULTRY LITTER DRY STACK  
 FACILITY FOR HURRICANE REGIONS  
 (12' or 14' Walls, 6"x8" Posts Spaced 5'o.c.)  
 County, GA

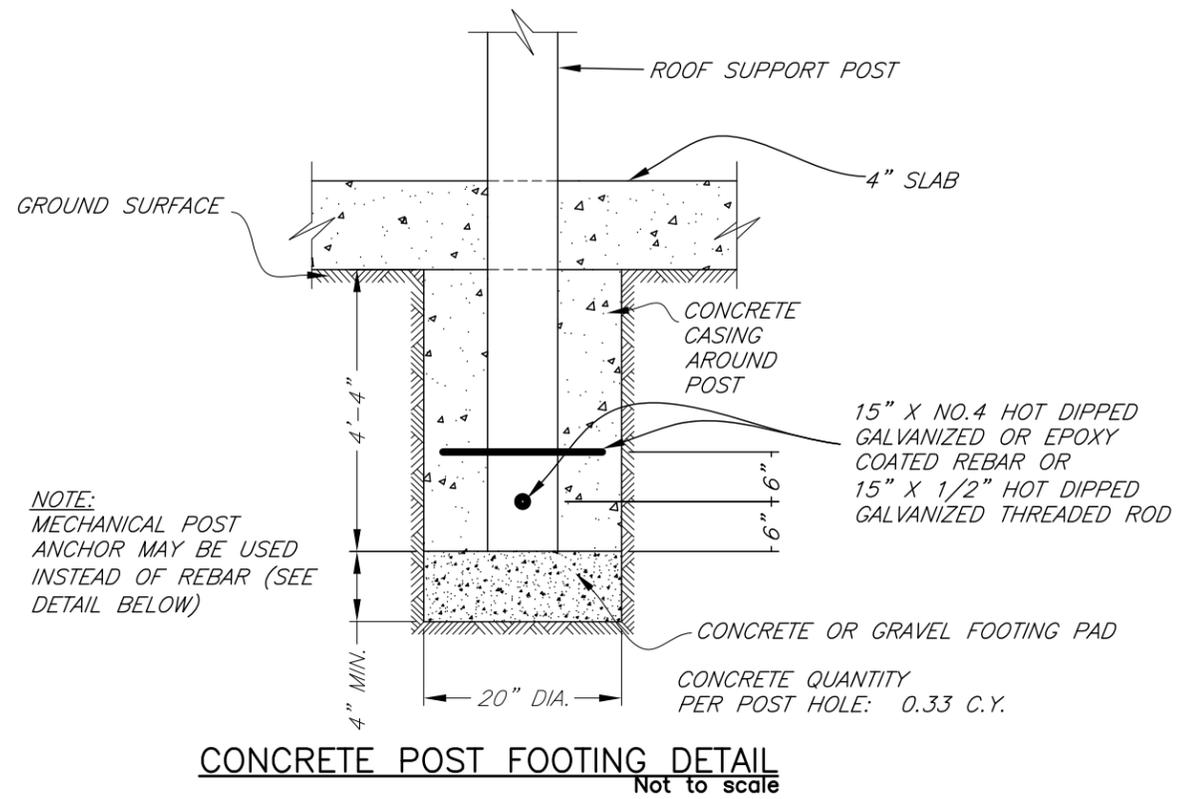
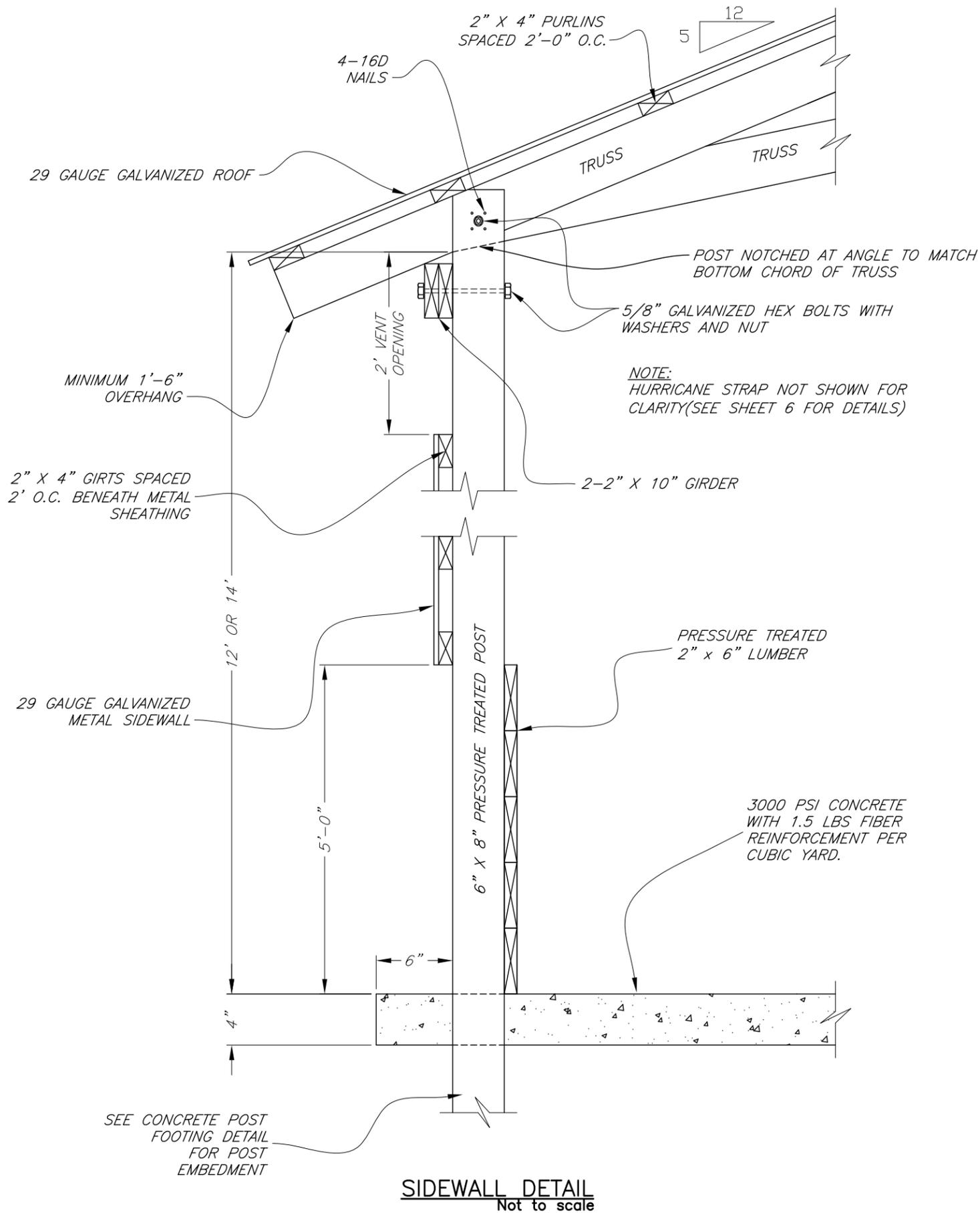


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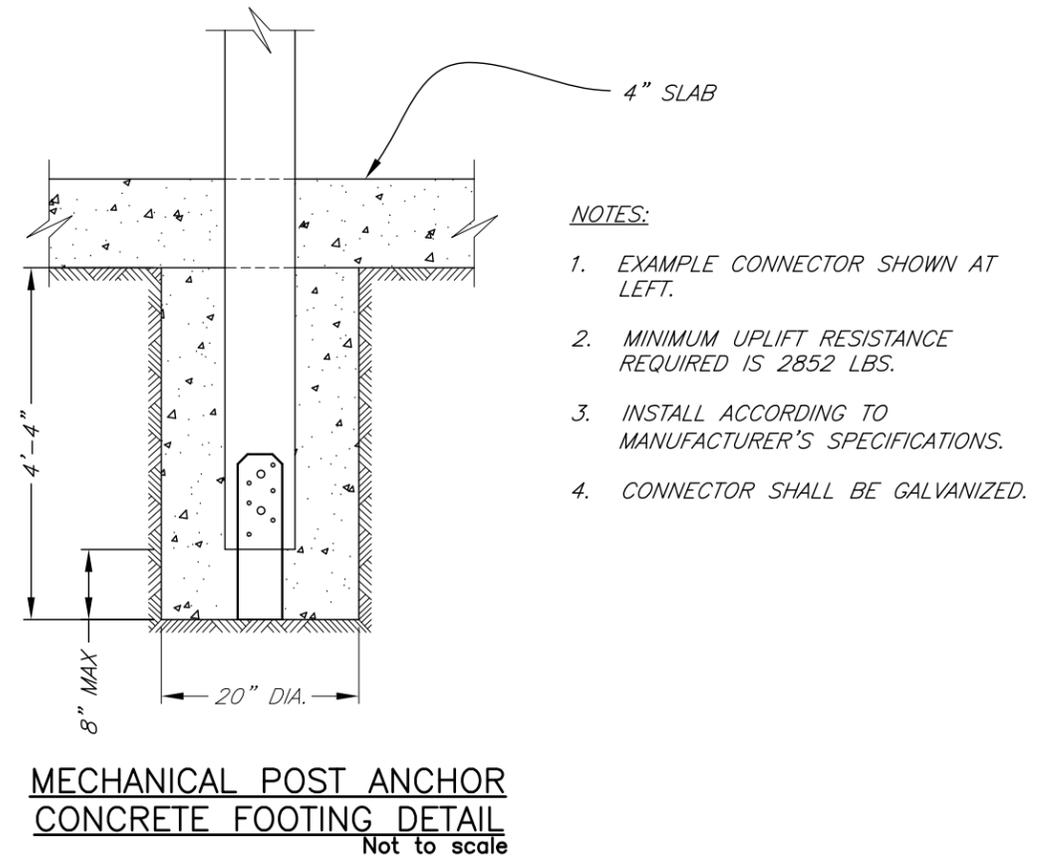
Drawing No.  
Endwall

REVISIONS		
DATE	APPROVED	TITLE
09/05	H. McFarland	State Engineer
01/06	H. McFarland	State Engineer
07/07	H. McFarland	State Engineer

8/8/11 2:17 PM  
 Sheet 4 of 8



**CONCRETE POST FOOTING DETAIL**  
Not to scale



**MECHANICAL POST ANCHOR CONCRETE FOOTING DETAIL**  
Not to scale

Date	07/07
Designed	W. Brown
Drawn	D. Drewry, S. Rogers, H. McFarland
Checked	J. Holloway
Approved	H. McFarland

GEORGIA POULTRY LITTER DRY STACK FACILITY FOR HURRICANE REGIONS (12' or 14' Walls, 6"x8" Posts Spaced 5'o.c.)  
County, GA



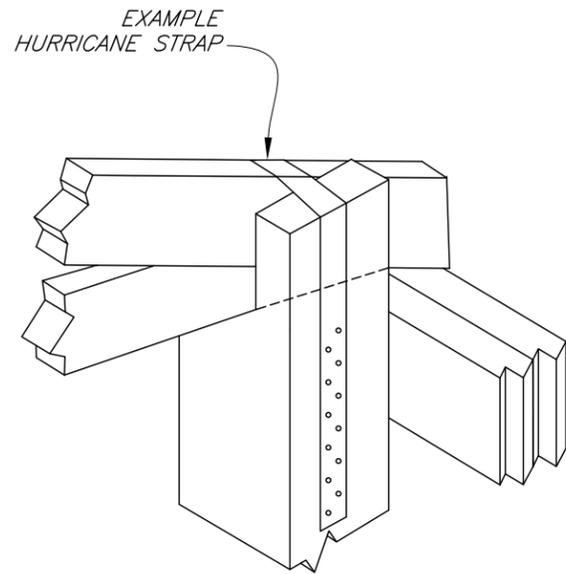
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Drawing No. Sidewall

REVISIONS		
DATE	APPROVED	TITLE
09/05	H. McFarland	State Engineer
01/06	H. McFarland	State Engineer
07/07	H. McFarland	State Engineer

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Sheet 5 of 8

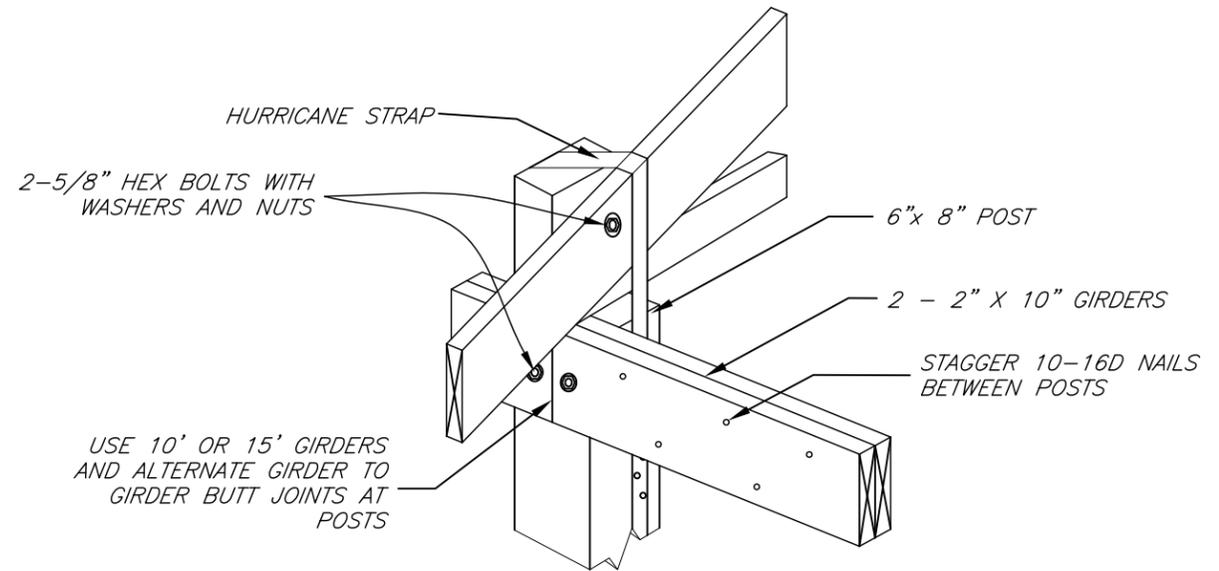
NOTE: ALL BOLTS, WASHERS, NUTS, NAILS, AND STRAPS ARE GALVANIZED.



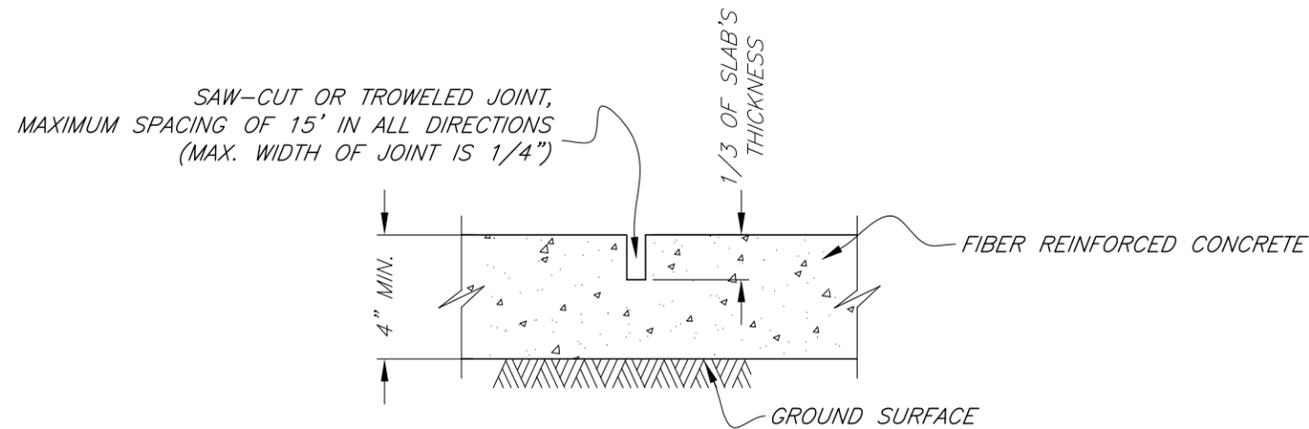
NOTES:

1. USE HURRICANE STRAP AT POST TO TRUSS CONNECTION AS SHOWN AT LEFT.
2. MANUFACTURER'S SPECIFICATIONS SHALL BE PROVIDED TO NRCS.
3. MINIMUM UPLIFT RESISTANCE IS 1289 LBS.
4. STRAPS MUST BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
5. BOLTS NOT SHOWN FOR CLARITY (SEE DETAIL SHEET 5).

HURRICANE STRAP  
Not to scale



TRUSS TO GIRDER CONNECTION  
Not to scale



FIBER REINFORCED CONTRACTION JOINT DETAIL  
Not to scale

WOOD TREATMENT TABLE

MINIMUM RETENTION RATES IN PCF					
USE	CCA	ACQ-C/D	CBA-A	CA-B	MCA
GROUND CONTACT OR FRESH WATER	0.40	0.40	0.41	0.21	0.15
IMPORTANT STRUCTURAL MEMBERS	0.60	0.60	0.61	0.31	0.23

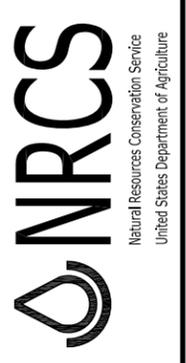
CCA - CHROMATED COPPER ARSENATE  
 ACQ-C/D - ALKALINE COPPER QUATERNARY  
 CBA-A & CA-B - COPPER AZOLE  
 MCA - MICRONIZED COPPER AZOLE

NOTES:

1. ALL WOODEN WALLS, HALF POSTS, AND BIN FRONT WOOD SHALL MEET THE GROUND CONTACT RATES.
2. ALL SUPPORT POSTS SHALL MEET THE IMPORTANT STRUCTURAL MEMBER RATES.

Date	07/07
Designed	W. Brown
Drawn	D. Drewry, S. Rogers, H. McFarland
Checked	J. Holloway
Approved	H. McFarland

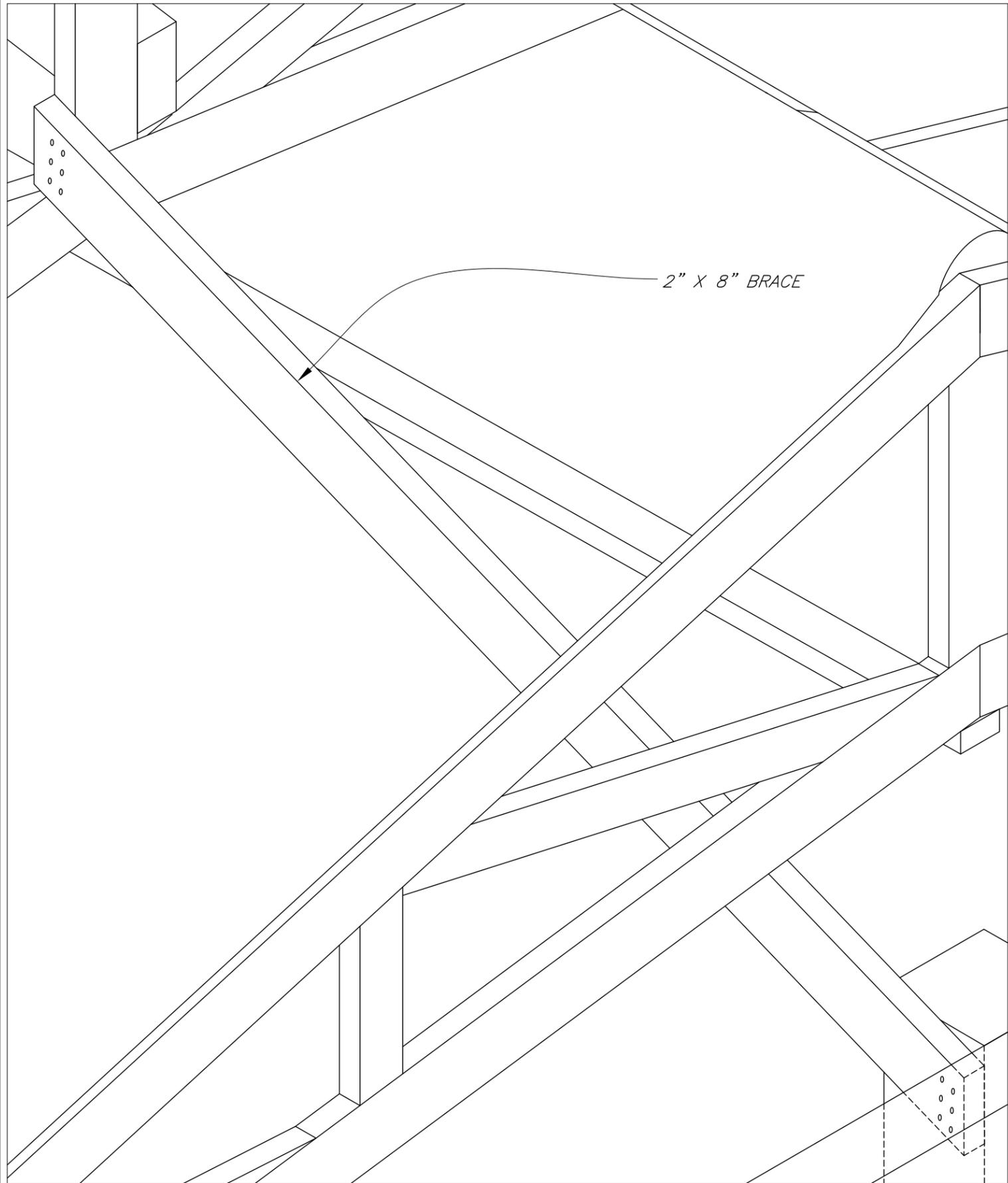
GEORGIA POULTRY LITTER DRY STACK FACILITY FOR HURRICANE REGIONS (12' or 14' Walls, 6"x8" Posts Spaced 5'o.c.)  
 County, GA



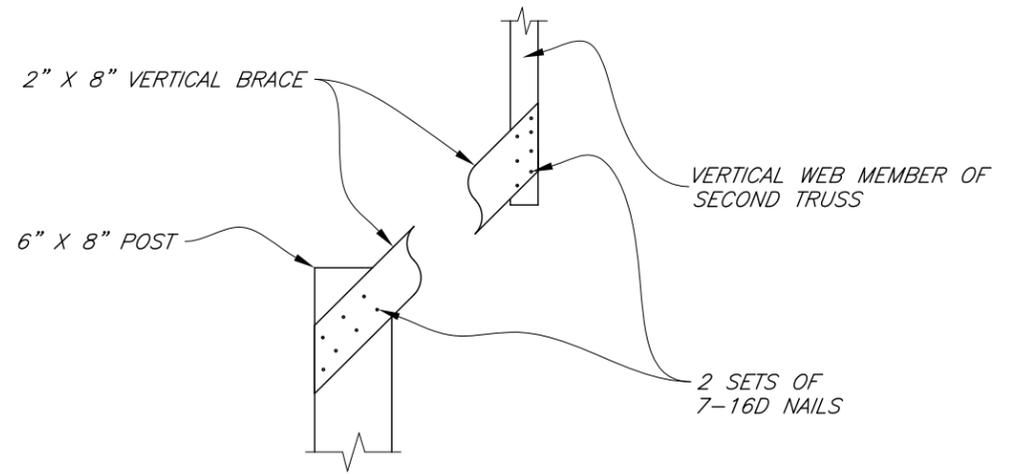
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REVISIONS		
DATE	APPROVED	TITLE
09/05	H. McFarland	State Engineer
01/06	H. McFarland	State Engineer
07/07	H. McFarland	State Engineer
10/10	J. Holloway	State Engineer

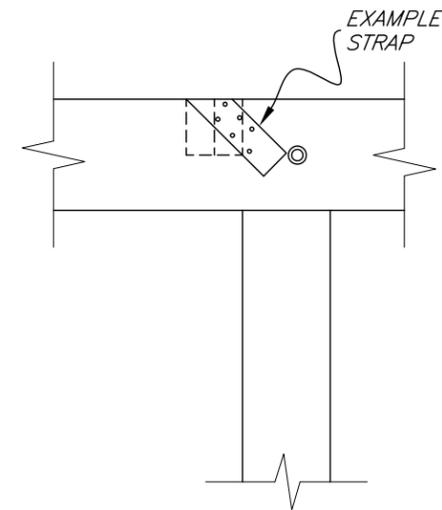
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 Connections  
 10/29/2010 9:00 AM  
 Sheet 6 of 8



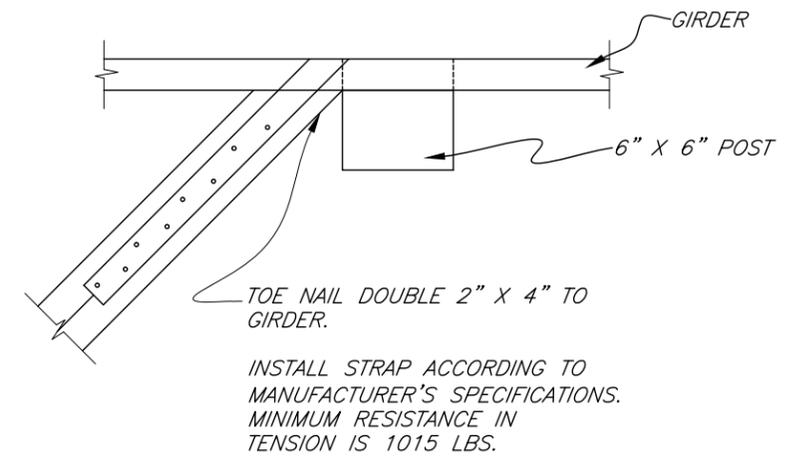
**HORIZONTAL ENDWALL BRACE (ISOMETRIC VIEW)**  
Not to scale



**ENDWALL VERTICAL BRACE DETAILS**  
Not to scale



**HORIZONTAL ENDWALL BRACE DETAIL**  
Not to scale

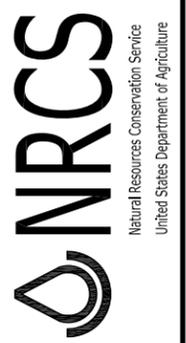


**HORIZONTAL ENDWALL BRACE DETAILS (TOP VIEW)**  
Not to scale

REVISIONS		
DATE	APPROVED	TITLE
09/05	H. McFarland	State Engineer
01/06	H. McFarland	State Engineer
07/07	H. McFarland	State Engineer

Designed	W. Brown	Date	07/07
Drawn	D. Drewry, S. Rogers, H. McFarland		07/07
Checked	J. Holloway		07/07
Approved	H. McFarland		07/07

GEORGIA POULTRY LITTER DRY STACK FACILITY FOR HURRICANE REGIONS (12' or 14' Walls, 6"x8" Posts Spaced 5'o.c.)  
County, GA



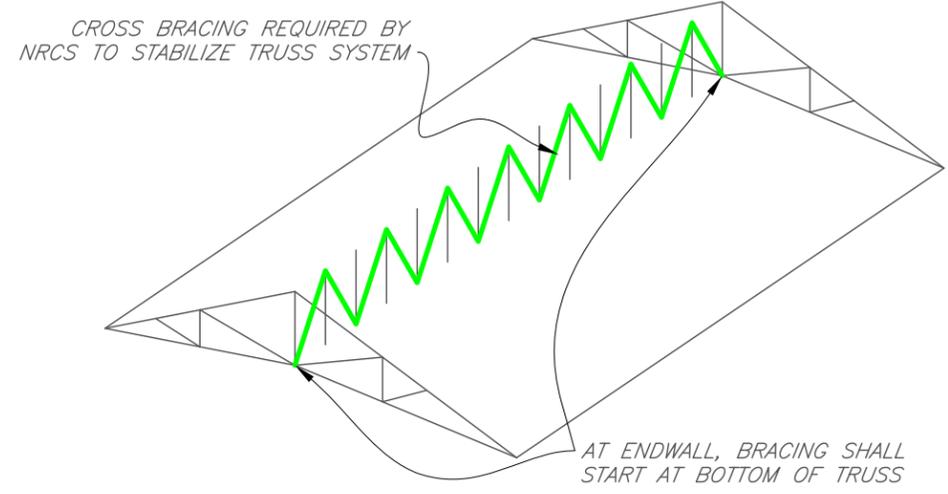
File No. ga-eng-313-ps3.pdf

Drawing No. Endwall Brace

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Sheet 7 of 8

**NOTE:**

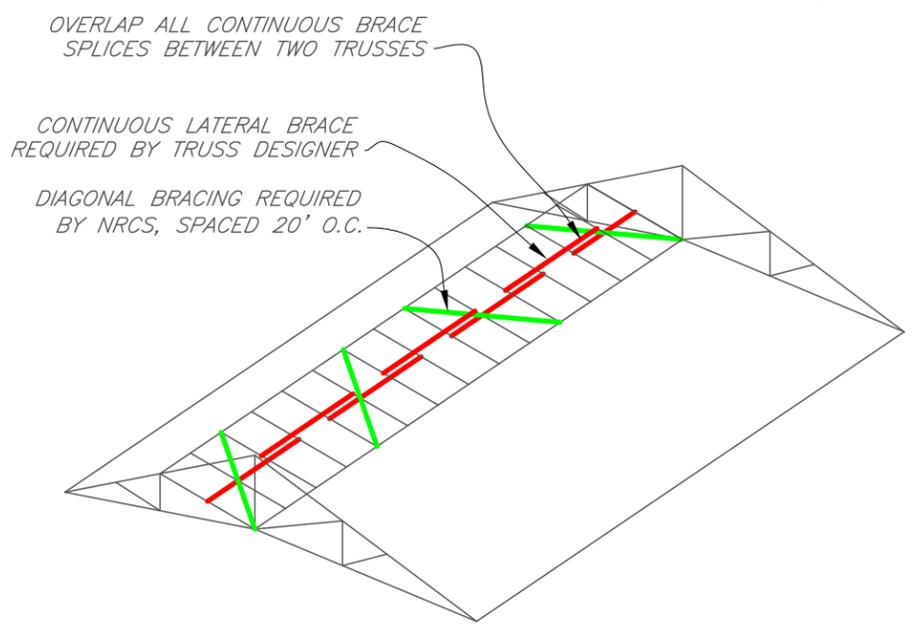
- CROSS BRACING (REQUIRED BY NRCS) SHALL BE INSTALLED BETWEEN ALL ADJACENT TRUSSES.
- THIS BRACING SHALL BE ATTACHED TO THE VERTICAL WEB AT THE CENTER OF THE TRUSS.
- IF THERE IS NO VERTICAL WEB AT THE CENTER OF THE TRUSS THEN BLOCKING SHALL BE ADDED AS NECESSARY TO INSTALL THE BRACE.



**ISOMETRIC VIEW OF VERTICAL CROSS BRACING**  
Not to scale

**NOTE:**

- WEB MEMBER BRACING SHALL BE SPECIFIED BY THE TRUSS DESIGNER ONLY. IF TRUSS DESIGN DRAWING DOES NOT SPECIFY WEB BRACING THEN THERE IS ALSO NO DIAGONAL BRACING REQUIRED.
- NORMALLY THIS WILL CONSIST OF CONTINUOUS LATERAL BRACES INSTALLED AT THE CENTER OF COMPRESSION WEB MEMBERS. IN SOME CASES THE BRACING MAY CONSIST OF "L" OR "T" SCAB BRACING.
- ALL CONTINUOUS LATERAL BRACES SHALL BE REINFORCED WITH DIAGONAL BRACING EVERY 20 FEET AS SHOWN. THIS IS AN NRCS REQUIREMENT AND WILL NOT BE SHOWN ON THE TRUSS DESIGN DRAWING.

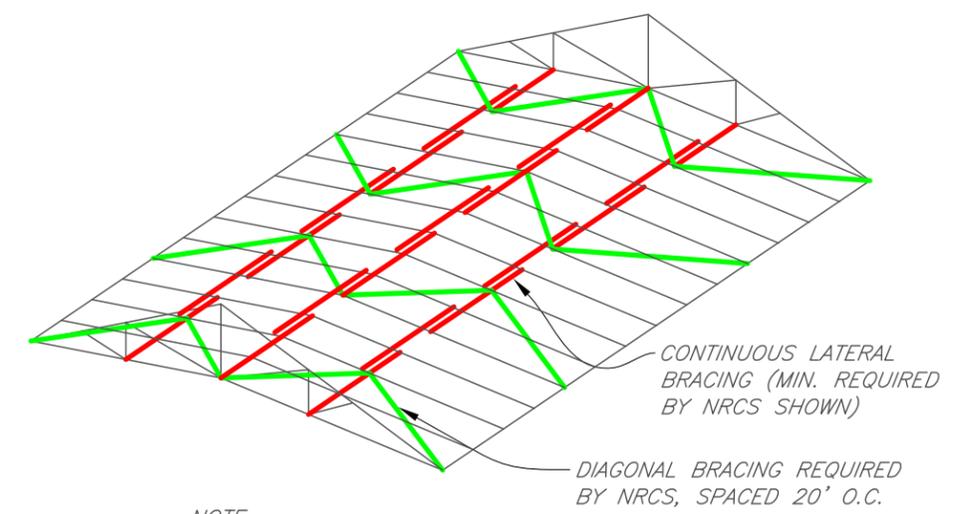


**NOTE:** WEB MEMBER BRACING IS SHOWN ONLY ON 1 SIDE FOR CLARITY. THIS IS AN EXAMPLE ONLY. THE TRUSS DESIGN DRAWING WILL HAVE THE ACTUAL WEB MEMBER BRACING REQUIRED.

**ISOMETRIC VIEW OF WEB MEMBER BRACING**  
Not to scale

**GENERAL NOTES:**

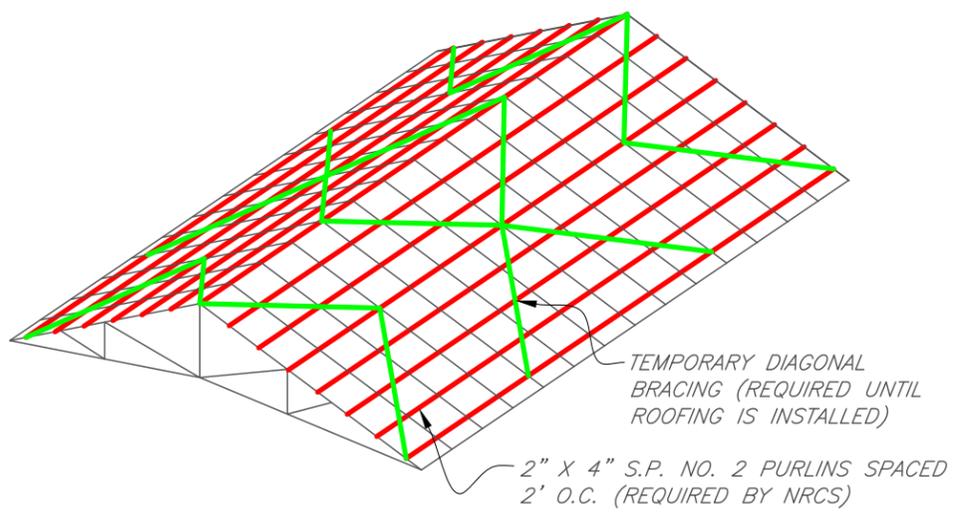
- BRACING REQUIREMENTS SHOWN ON THIS PAGE ARE THE MINIMUM REQUIRED BY NRCS.
- BRACING SHALL BE INSTALLED AS THE TRUSSES ARE ERECTED.
- UNLESS SPECIFIED OTHERWISE, ALL BRACING SHALL CONSIST OF 2" X 4" STRESS-GRADED LUMBER CONNECTED WITH TWO 16D DEFORMED SHANK NAILS TO EACH TRUSS MEMBER THE BRACE CROSSES.
- EXCEPT FOR TOP CHORD BRACING, ALL CONTINUOUS AND DIAGONAL BRACING SPLICES SHALL OVERLAP BETWEEN TWO TRUSSES (SEE WEB MEMBER BRACING DETAIL BELOW).
- ADDITIONAL TEMPORARY BRACING REQUIRED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REMOVED WHEN CONSTRUCTION IS COMPLETE.
- CONTACT YOUR AREA ENGINEER IF YOU HAVE ANY QUESTIONS REGARDING TRUSS BRACING.



**NOTE:**

- BOTTOM CHORD BRACING IS NORMALLY SPECIFIED BY THE TRUSS DESIGNER ON THE TRUSS DESIGN DRAWING. THE TRUSS DESIGN GOVERNS PLACEMENT UNLESS DESIGN REQUIRES LESS THAN THE MINIMUM BOTTOM CHORD BRACING REQUIRED BY NRCS OF THREE EQUALLY SPACED CONTINUOUS LATERAL BRACES.
- LATERAL BRACING SHALL BE REINFORCED WITH DIAGONAL BRACING EVERY 20 FEET AS SHOWN. THIS IS AN NRCS REQUIREMENT AND WILL NOT BE SHOWN ON THE TRUSS DESIGN DRAWING.

**ISOMETRIC VIEW OF BOTTOM CHORD BRACING**  
Not to scale



**NOTE:**

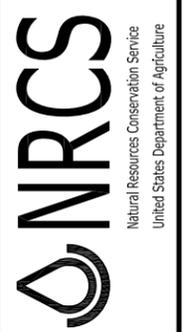
- TOP CHORD BRACING SHALL CONSIST OF 2" X 4" PURLINS (SOUTHERN PINE #2 OR BETTER) SPACED 2' O.C. AS SHOWN ON SHEET 5.
- TEMPORARY DIAGONAL BRACING SHALL ALSO BE REQUIRED IF ROOFING IS NOT INSTALLED IMMEDIATELY OVER THE PURLINS.

**ISOMETRIC VIEW OF TOP CHORD BRACING**  
Not to scale

REVISIONS		
DATE	APPROVED	TITLE
09/05	H. McFarland	State Engineer
01/06	H. McFarland	State Engineer
07/07	H. McFarland	State Engineer

Date	07/07
Designed	W. Brown
Drawn	D. Dreyer, S. Rogers, H. McFarland
Checked	J. Holloway
Approved	H. McFarland

GEORGIA POULTRY LITTER DRY STACK FACILITY FOR HURRICANE REGIONS (12' or 14' Walls, 6"x8" Posts Spaced 5'o.c.)  
County, GA



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Drawing No. Bracing

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Sheet 8 of 8