

2005
NORTH CAROLINA
AFFORDABLE
PASSIVE SOLAR
PLANBOOK

THE GATTAWBA VALLEY

3 BEDROOM/ 2 BATH
1132 SQ. FT. TOTAL HEATED SPACE



DRAWN BY: Appalachian State University Energy Center
Construction Technology Department

State Energy Office



www.energyinc.net 1-800-662-7131
N.C. Department of Administration "Ensuring a sustainable energy future"



DISCLAIMER:
This house plan has been developed under a contract with the North Carolina State Energy Office as part of their ongoing effort to promote energy efficient house designs.

The designs, drawings, and specifications offered are generally suitable for construction in the state of North Carolina. Changes necessary to adapt the designs to other areas should be performed by professionals experienced and competent in passive solar applications. In addition, the working drawings and specifications should be submitted for review to local building officials to insure compliance with code requirements. This review should be done prior to site selection, financial commitments, or construction permit applications.

Neither the State of North Carolina, nor any agency thereof, nor any of the employees makes any warranty, express or implied, or assumes any legal liability or responsibility for any third party use or the results of such use of any information, apparatus, assembly, product, or functional efficiency in this plan or represents that the use by such third party would not infringe upon privately owned designs or rights.

The energy use information and design criteria for energy analysis on this plan has been assumed for the climate conditions found in North Carolina. Neither ASU Energy Center, nor any of their employees or consultants, shall be responsible for variations in the actual performance of this design.

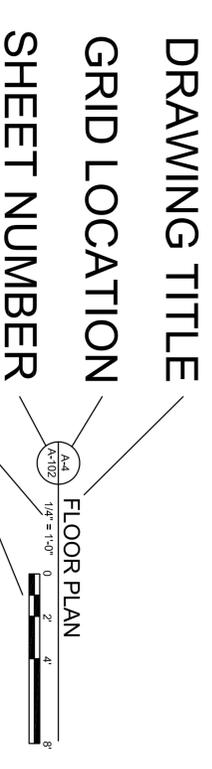
The drawings in this set have been prepared as architectural guidelines for the evaluation of a passive solar house. Items such as heating and cooling equipment, plumbing, and electrical requirements are included, though modifications may be necessary due to the location and the specific site. All modifications should follow energy efficient guidelines; provide continuous exterior insulation, seal all air leaks, create a continuous air and moisture barrier, and insulate and seal all ductwork. The contractor and owner shall follow the requirements of local codes carefully. The contractor is responsible for all fabrication processes, construction techniques, and coordination of work with all trades and subcontractors. Any dimensional errors or omissions from the drawings do not relieve the general contractor of the responsibility to provide a complete project in accordance with genuinely accepted quality standards.

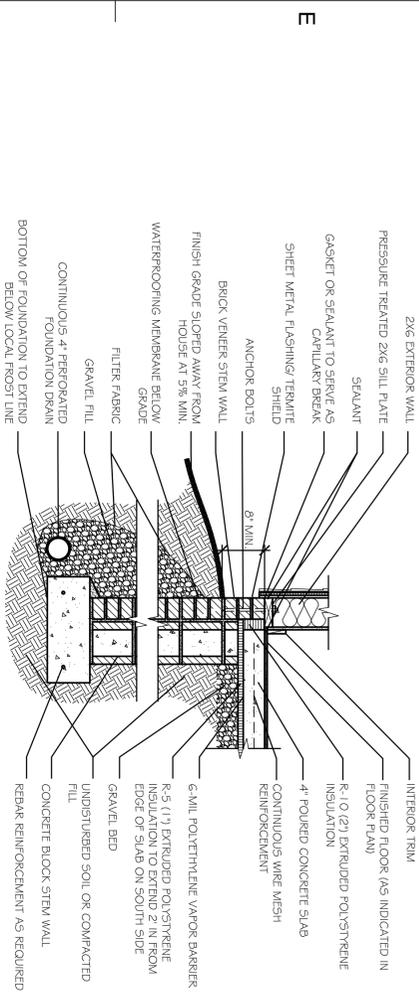
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A-101	FOUNDATION PLAN
A-102	1ST FLOOR PLAN
A-103	ROOF PLAN
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A-301	BUILDING SECTIONS
A-401	DETAILS

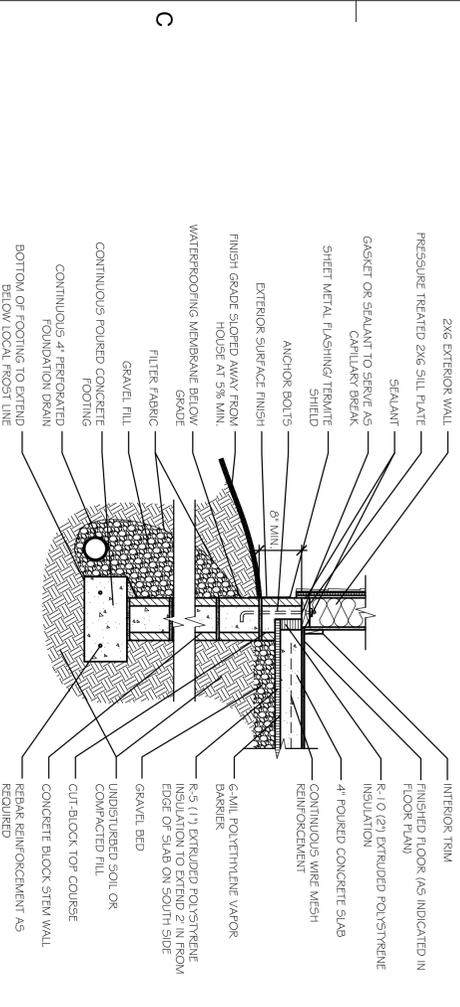
LEGEND:

DRAWING TITLE	
GRID LOCATION	
SHEET NUMBER	
SCALE	
NORTH	
DETAIL	
SECTION DETAIL	
EXTERIOR ELEVATION	
BUILDING SECTION	

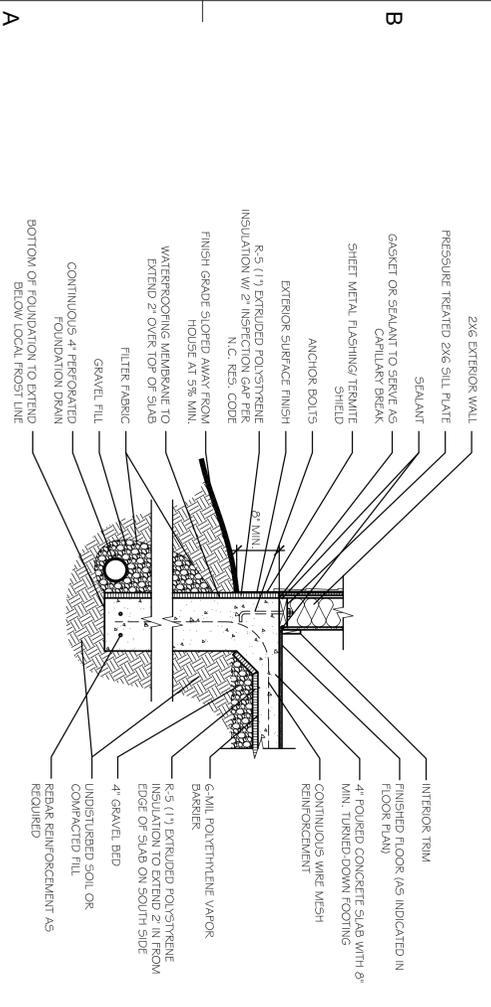




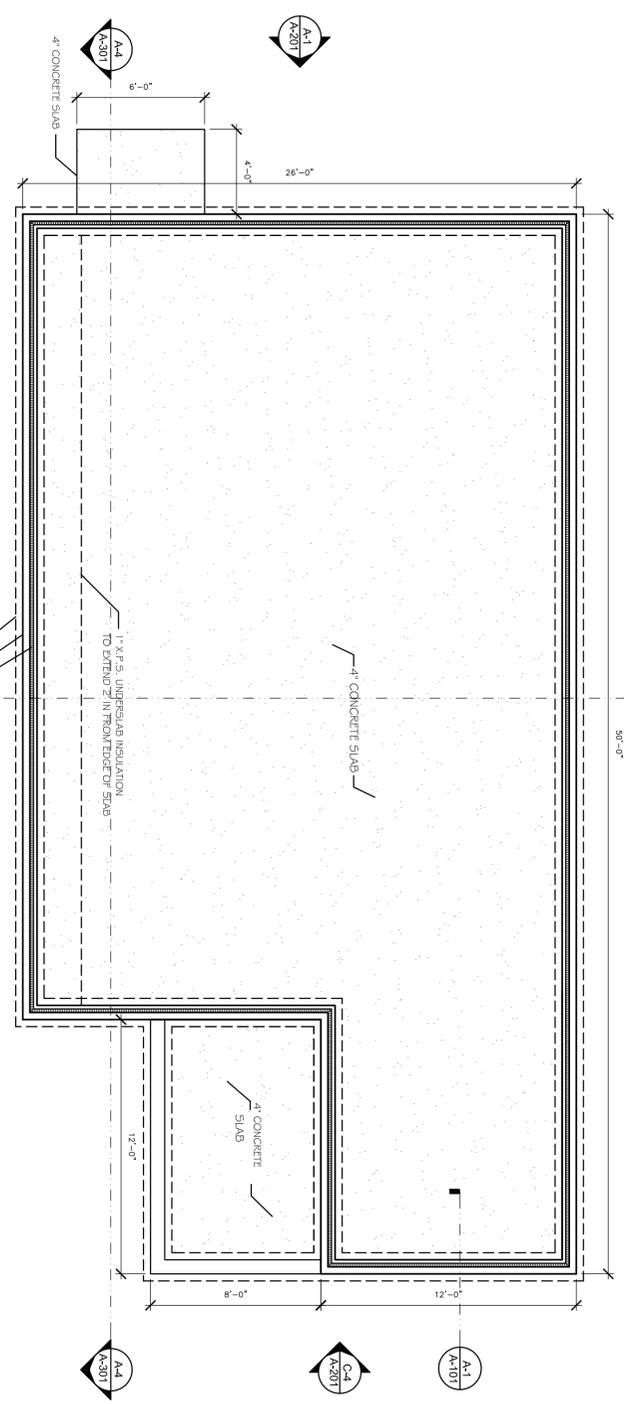
OPTION 3:
CONTAINED SLAB W/BRICK
VENEER STEM WALL



OPTION 2:
CONTAINED SLAB W/CONCRETE BLOCK
OR POURED CONCRETE STEM WALL



OPTION 1:
MONOLITHIC SLAB W/ TURNED
DOWN FOOTING



FOUNDATION PLAN

FOUNDATION DETAILS

A-1/A-2 3/4" = 1'-0"

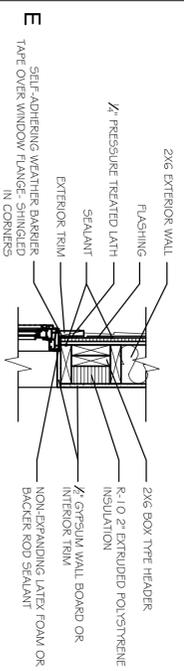


FOUNDATION PLAN

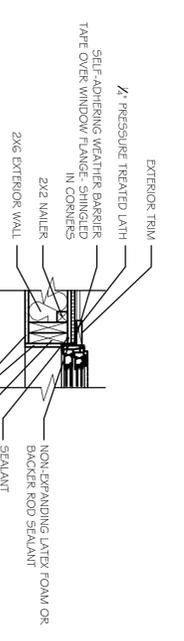
A-1/A-2 1/4" = 1'-0"



MARK	DATE	DESCRIPTION

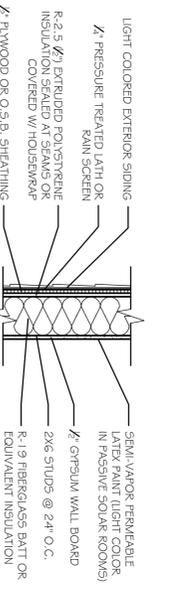


INSULATED HEADER

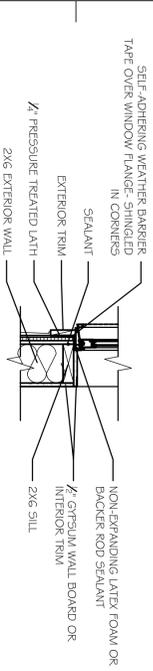
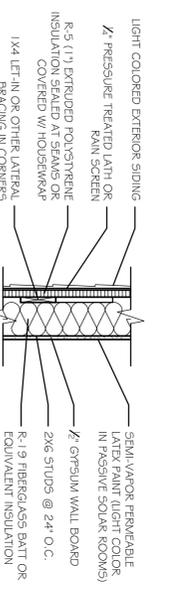


JAMB

OPTION 1:
R-21.5 W/ PLYWOOD OR O.S.B. SHEATHING



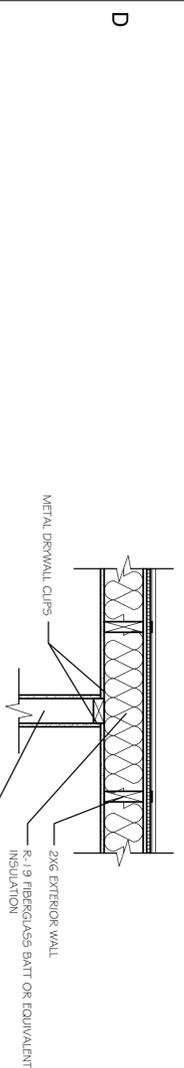
OPTION 2:
R-24 W/ 1" IN BRACING



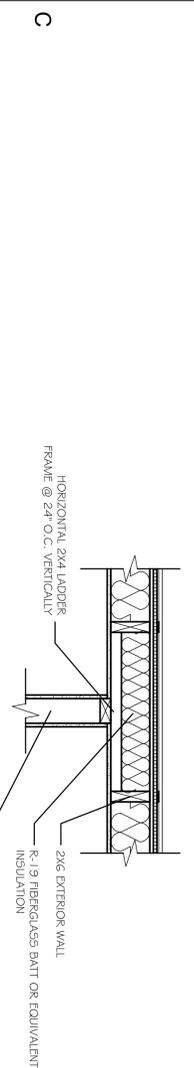
SILL

WINDOW AND DOOR DETAILS
A-102
1" = 1/4" 0 1/2" 1" 2"

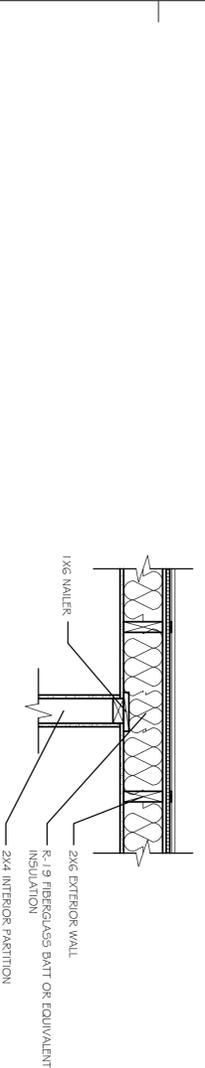
2X6 EXTERIOR WALL DETAILS
E-4
A-102
1" = 1/4" 0 1/2" 1" 2"



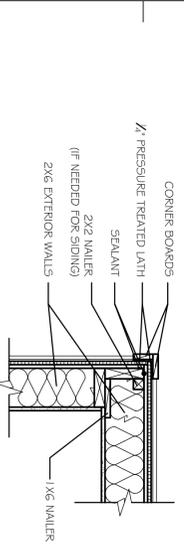
OPTION 3:
DRYWALL CLIPS



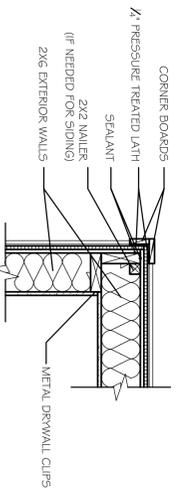
OPTION 2:
2X4 LADDER FRAME



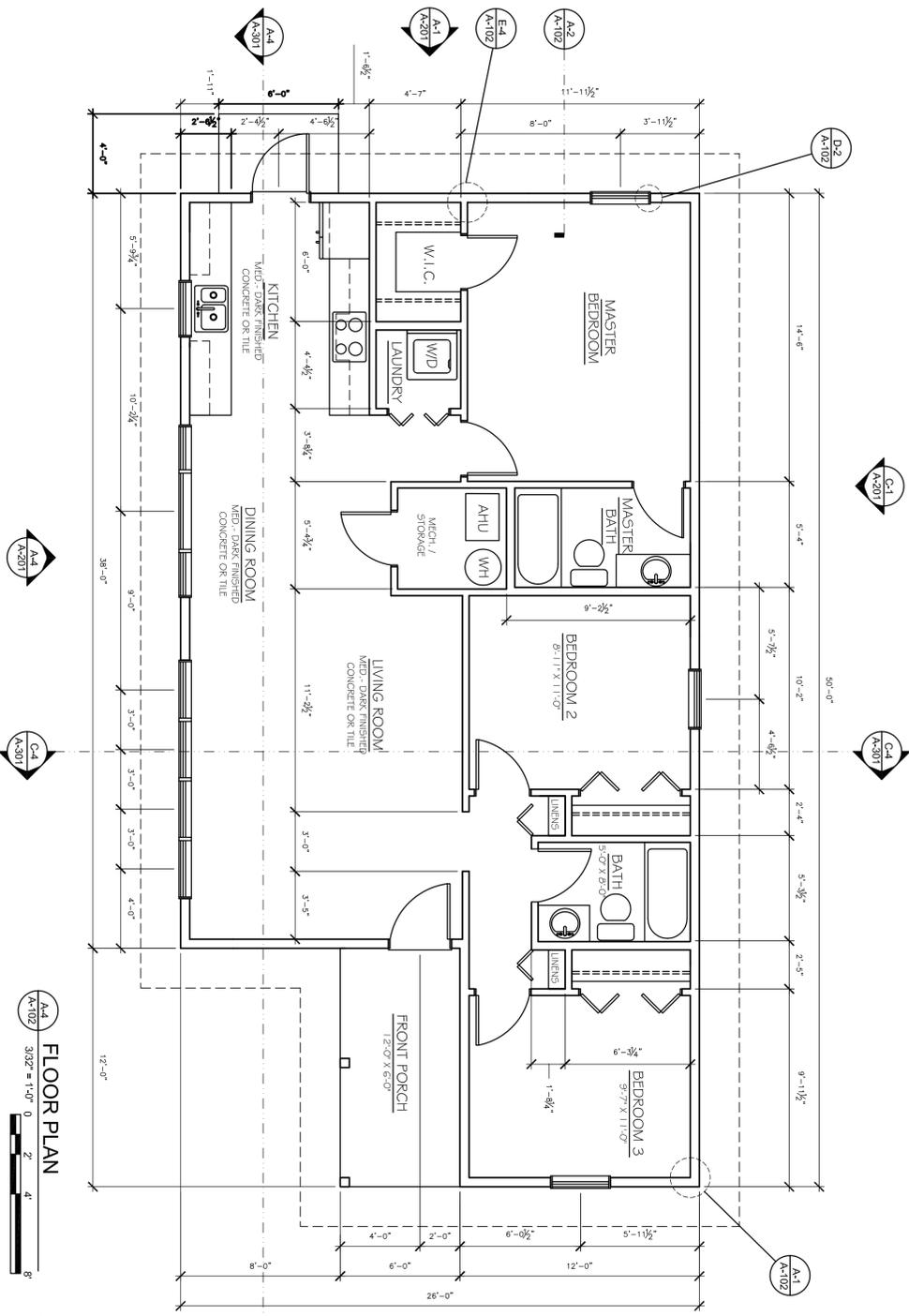
OPTION 1:
1X6 NAILER



OPTION 1:
3-STUD CORNER



OPTION 2:
DRYWALL CLIPS



FLOOR PLAN
A-102
3/22" = 1/4" 0 2 4 8"

EXTERIOR CORNER DETAILS
A-1
A-102
1" = 1/4" 0 1/2" 1" 2"

MARK	DATE	DESCRIPTION

DRAWN BY
Aparichaiti
Energy
DEPARTMENT

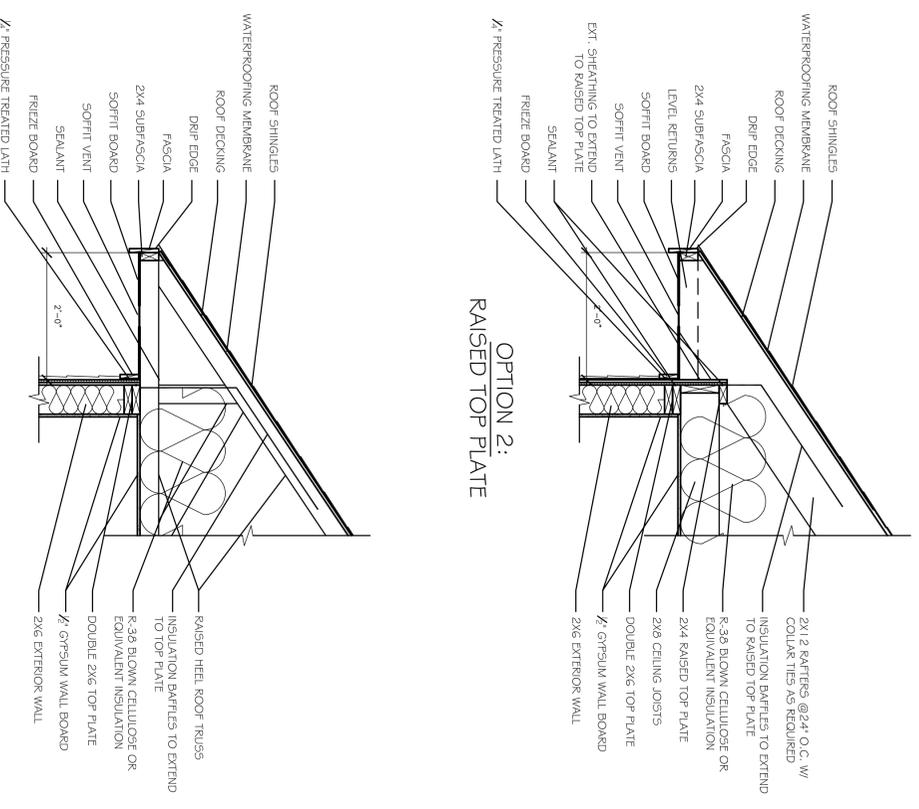
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THE CATAWBA VALLEY

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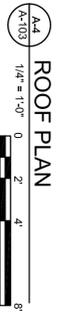
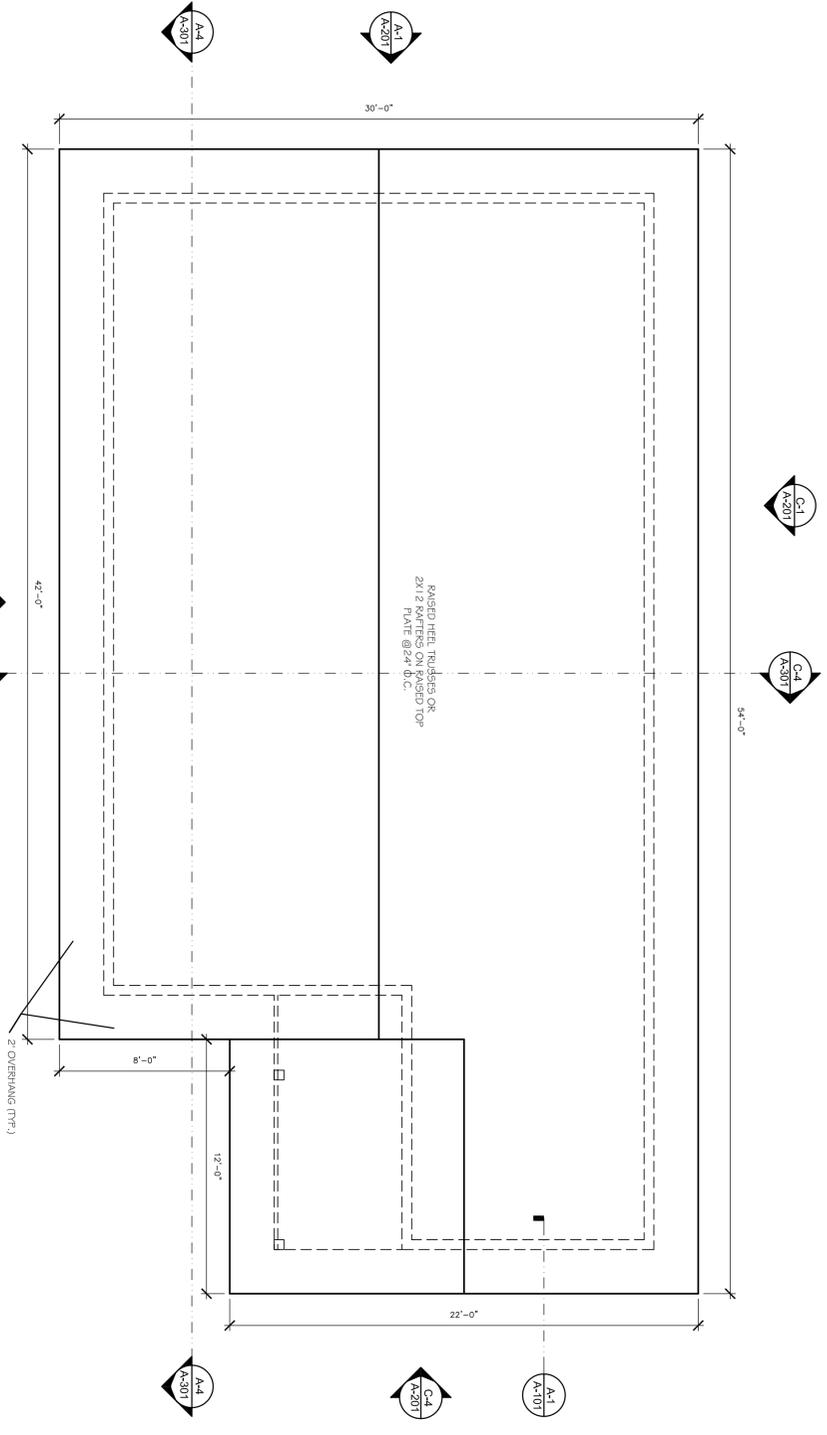
SHEET NO.
A-102

FLOOR PLAN and DETAILS



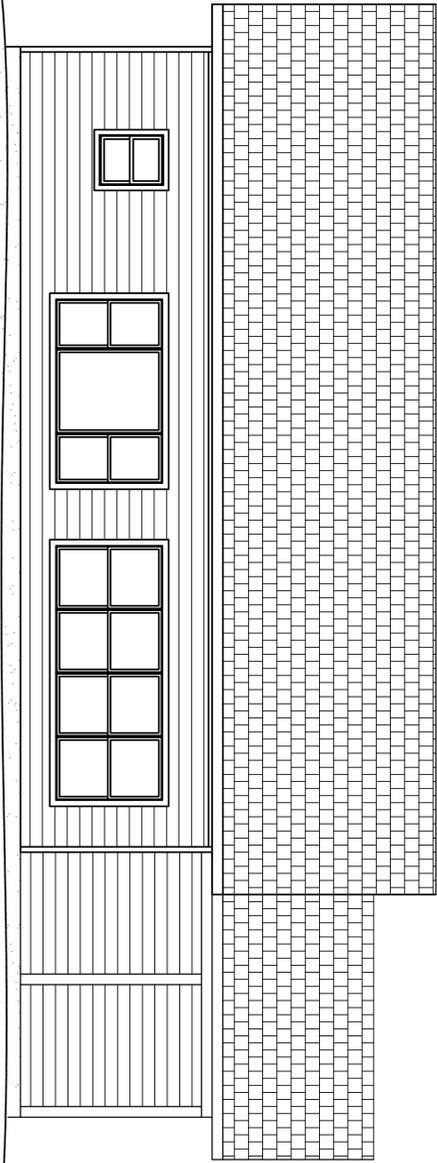
OPTION 1:
RAISED HEEL TRUSS

OPTION 2:
RAISED TOP PLATE



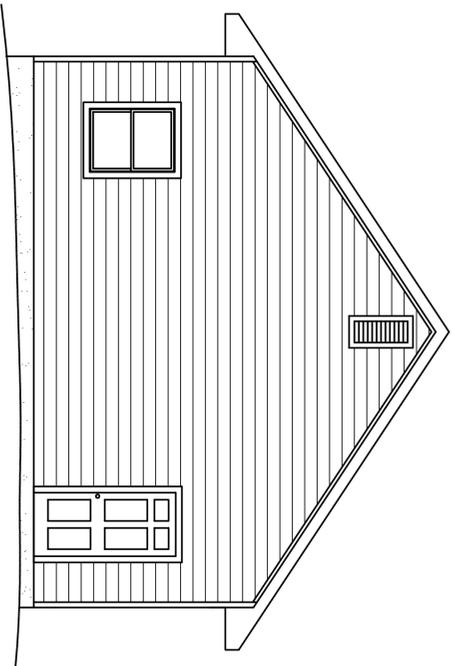
MARK	DATE	DESCRIPTION

E



A-4
A-201
1/4" = 1'-0"
0 2' 4' 8'

C



A-3
A-201
1/4" = 1'-0"
0 2' 4' 8'

A

PROJECT



THE
CATAWBA
VALLEY

SOURCE

2005
AFFORDABLE
PASSIVE SOLAR
PLANBOOK



ISSUE

MARK	DATE	DESCRIPTION

SHEET TITLE

ELEVATIONS

SHEET NO.

A-201

1 2 3 4 5 6

