Final Collaborative Design
Design Solution

Following the process of, in effect, three previous levels of design and critique; the final amalgamation of designs was made. Fortunately the end product was formulated with a sympathy toward the look of the total project. (easily individual positions could have been selected over the good of the whole.) Throughout the design, influences from each individual and group become apparent while maintaining the gestalt.

It seems that each person learned from the earlier designs and took those theories into application for the collaborative design. Many revisions came with late night sessions comprised of different combinations of the fourteen designers. This accidental method of musical chairs created an interesting mix of ideas that kept the design moving along without getting stuck on any particular point of resolution for very long.

Referring to the final solution, the most crucial area in the entire house lies on the south side of the building. This locale provides for the best views and lighting opportunities. The quintessential element of the design is the ‘Winter Garden.’ Acting as a connection piece, the volume extends the entire height of the barn structure. Surrounded and intertwined in the vertical circulation, the winter garden provides interesting views and
relationships between the various rooms and circulation paths. Another highlight created by this space occurs at the first floor level where the open gap between the living room and master-bedroom study is made with a narrow bridge spanning along the highly glazed south wall.

This design capitalizes on the vertical volume of public spaces like the previous. An airy openness also occurs in the living room where the ceiling slopes along the roof line. Horizontally, the opening is maintained by direct access to the dining room and visual access to the kitchen through an extending bar. Providing a visual connection through the multi-story space allows for interesting relationships and views.

In my opinion, the most spectacular view is seen looking down from the second floor railing into the living area over the winter garden. The amazing volume and lightness of the structure is accentuated with the abundance of glazing for light openings.

Upon arrival through the formal entry, the visitor is given a choice in direction. A bit of mystery takes you into an 'out' spanding space which begins with a narrow entrance into the formal
dining area and takes the eye over the pond and beyond the site at a line askew to the patterning of the timber frame. This added angle creates the opening for the winter garden and a movement which pushes one through the interior spaces and beyond.

The other auxiliary spaces feed off of the open areas and provide for a more secluded appeal. One such space is the breakfast nook off of the kitchen. This corner is capped with a bay window which looks down onto the Mississinewa River and a ceiling line which follows that of the roof.

Another intriguing space floats above the kitchen, forming its ceiling. The loft area rest directly upon the kitchen askew to the rectilinear layout of the existing structure. Also, the loft looks over the entire open layout below.

On the exterior, the original form of the barn was exploded by the addition of two opposing dormers. These additions function practically to allow for enough head clearance in the corresponding craftroom and upstairs bathroom. It is with these elements that a more tradition house appearance is created. The common suburban dormer used for lighting, is transformed in to a functioning piece of the barn layout.
Construction
The process of construction was an overlapping one with several different teams working simultaneously on general and particular tasks.

The process began back in early November with a cleanout of all levels of the barn. After a path was cleared for construction, the demolition of the siding, flooring and multiple roofs layers followed. The old joist flooring was left until a new joist system was leveled above it. At this point, the structure in its bareness revealed its purity and strength. At roughly the same time, the subflooring and roof sheathing were applied. Soon after, the shake-style shingles were attached and almost complete before Christmas break.

It is at this time that the rough framing of the exterior walls begins appearing in great force along with interior walls on the main floor. In order to keep out the cold, blueboard was quickly attached to enclose and insulate the barn, during the coldest part of our construction season. And then the wall construction moved to the second level. While the interior walls were being finished, the electrical service was being installed.

Under the direction of Bruce, Bob and Troy, the walnut rafter
stairs were ceremoniously erected in Amish style. After all of the exterior walls were up and rigid insulation was up and taped, the batt insulation went up in roughly two days, thanks mainly to Biff and Plinko. The insulation for the ceiling, Tuff-R, went up between the rafters as the carsiding was being attached. But before the carsiding could be attached, rafter extentsions ripped from 2x6's were screwed to the existing walnut.

Around this same time the basement was being treated with concrete to stabilize the foundations and the column piers. But prior to this series of events, the garage doors were cut out of the concrete foundation walls. Excavation for these items took us through concrete, clay and seemingly endless feet of mud. A long process with several pours followed. Some were more successful than others. The strength of the formwork strengthened with experience like the crew.

The amish bobcat [minnow] driver removed the layers of clay necessary to make room for the basement concrete slab, which was finished by Jeannie's dad and uncle John. Simultaneously, the water supply line was trenched and laid, while the plumbing was beginning to be roughed in around the slab. The whole day of slab work went wonderfully, thanks!
In the upper levels the existing structure was being treated with Timbore to protect against nesting insects and vermin while the vapor barrier was being hung.

Finally, the Anderson windows arrive to the site for installation, yea!!! The barn begins to take the shape of a house when the window openings were cut out of the blueboard, and truly takes its form with the addition of windows and doors.

The last job we were able to accomplish was hanging drywall, on most interior walls. The addition of drywall changed the whole character of the space which had become so familiar over the past six months. Actual rooms were defined and separated from the rest of the spaces.

Over the entire construction period, the name of the design-build studio might better have been named the "build-design" studio.

The barn has come a long way from housing sheep all of the time. (well maybe.)
EXTERIOR FRAMING
INTERIOR FRAMING
ROUGH OUT ELECTRICAL AND TELEPHONE
ROUGH OUT PLUMBING AND PRESSURE TEST PLUMBING
ROUGH OUT DUCTWORK AND COMPLETE FRAME ENCLOSURES
HANG BATT INSULATION AND HANG VAPOR BARRIER
INSULATE BOT. OF ROOF WITH BLUE BOARD
HANG CAR SIDING-CEILING
SOFFIT FRAMING
SET WINDOWS AND DOORS
HANG SIDING, TAPE / FILL BLUEBOARD SEAMS
HANG DRYWALL
MEASURE FOR CABINETRY AND TAPE AND MUD WALLS

EXCAVATE FOUNDATIONS AND SLAB INCLUDING SHEER WALL AND FIREPLACE FOOTINGS
FORM FOUNDATIONS AND COLUMN BASES INCLUDING SHEER WALL AND FIREPLACE FOOTINGS
WATERLINE UNDER SLAB
TRENCH-WATERLINE
TRENCH-ELECTRICAL & PHONE
POUR FOUNDATION WALLS AND COLUMN BASES INCLUDING SHEER WALL AND FIREPLACE FOOTINGS
FORM SLAB, PORCHES AND DRIVE APRON
POUR SLAB, PORCHES AND DRIVE APRON
COAT FOUNDATIONS AND INSULATE
PLACE PERIMETER DRAIN AND BACKFILL
SEPTIC & LEECH FIELD

FIT CABINETS
ANCHOR COUNTER TOPS
SET TUBS AND TOILETS
SET SINKS
LAY FINISH FLOORS WITH HARDWOOD, TILE, CARPETING
FINISH FLOOR WITH SAND AND URETHANE FINISH
WINDOW AND DOOR TRIM WITH BASE MOLDING
PAINT SEAL TRIM AND CASWORK
HANG LIGHTING FIXTURES
SWITCH & OUTLET COVERS WITH DIFFUSERS AND VENT COVERS
GRADE SITE
SEED AND PLANT
Afterthoughts...
Reflection

The 'design-build' process allows for great flexibility and control throughout the entire design process. The key to this process is that it never ceases. It occurs from beginning to end. The unbelievable opportunities to design in a renovation project such as an existing barn continually present themselves. Such a project as refurbishing the original 1840's heavy-timber structure, most definitely, requires such measures.

The attention to existing structure like that of the barn -- which is neither square, level or plumb -- extends beyond field verification left to a contractor.

Looking back over the past two semesters, we received a blessing with the mild construction season endured.
Conclusions

The finished product comes not from the completion of a structure, but the achievement of a goal. That goal was to provide one final, buildable solution. As a solution, the barn was all of that and more. Providing learning opportunities and responsibilities, the physical construction of the barn-house was an instrumental educational tool for all involved.

Although hind-sight is twenty-twenty and ‘if only’ still rings through the ears of the entire design-build studio, the accomplishment of building the house to a certain level surpassed all previous expectations.

In the final client-architect meeting, Tony presented his opinion of the short-comings of the project. His words came in the form of praise, praise for the outstanding effort exerted by all involved. The accomplishment of a thesis studio arises by sheer number and experience of the design-build studio surpassed is expectations for the final outcome. However, the lesson gained from that meeting is simple. Express concerns as they arise and deal with them directly. The biggest problems expressed by the client were directly related to communication. Indeed the communication gap occurred on both sides, as this was not brought to attention until after the fact
where no resolution could be established -- referring back to the simple lesson.

Gaps in communication are easily mended early in a process. If left unattended the gap grows and grows allowing for mistrust and suspicion to abound. The two main suggestions, well taken, given by Tony were the shortcomings fell with poor planning in terms of materials or construction and communication of the proceeding work with the client.

In the end, I believe that we are all stronger for the experience. Dealing with a client directly, dealing with construction difficulties directly, and dealing with architect personalities directly provided a giant peek into the inner-workings of a developing project. Being involved on the front and back end of that project also provided for many learning opportunities. The strength was also gained in the muscles and minds of those involved. (I have new arm muscles that never existed before)
Appendix
DRIVEWAY

Alternative 1(a)
Extend original drive to east side of house and create a 'car court' Garage entrance would then be on east (southeast) side (2 door) Requires the use of a retaining wall in some fashion Main (formal) entry would be on east side through a walkway system, door located at NE, E, SE

Pros
+ Economic benefit by reusing existing driveway  
+ Procession in approach sequence provides an experience of the whole before point of entry  
+ Future potential for service drive to other barns (shoot off existing)  
+ Least amount of site disruption  
+ Possible use of other barns for parking facilities  
+ East side is more protected from the elements (snow, winter winds)

Cons
- Conflicts with (but does not control) the privacy and morning light requirements of the master bedroom, and the entry zone  
- Does not provide for an easy public to private flow in the plan

Alternative 1(b)
Place 'car court' (parking) to the north for a north main level entry (as a formal, main entry)

Pros
+ Retains original entry with two big doors  
+ Easy access to the main level for pedestrian travel  
+ More usage of a back entry

Cons
- Disrupts view and green space opportunities  
- Adds extra paving sq. footage ($ & time)  
- North wind (but can be designed around for comfort)

Alternate 2(a)
Create paved (gravel) drive entry from the west side of pond Garage entrance on west (southwest) side (2 door), with visitor parking and retaining wall as required Main (formal) entry west side with side porch or other walkway

Pros
+ Works well with the public to private aspects of the house plan  
+ View around the pond (close up)  
+ New house, new driveway apart from the old  
+ Definite front door/back door relationship to site

Cons
- Economics, costs more  
- Weather, flooding of pond, winter conditions (drifts, ice, etc.)  
- Construction considerations-time, building up above pond level & compaction
- More steps up to the main level, west entry requires move movement of earth  
- At a west entry the weather is a greater negative determinant in design

Alternative 2(b)
Place 'car court' (parking) to the north for a north main level entry (as a formal, main entry)

Pros and Cons same as for Alternative 1(b)
DRIVEWAY/PARKING ZONE

Visitor Parking
up to 20 cars
car court-double as
turn-around
(plaza)

Everyday Parking
2-3 cars
visual barriers

Garage
2 cars
people door

Alternate 1(a)
Alternate 2(a) - Mirror Image of above
GARAGE

Characteristics

- Ground level entry from east or west, adequate room for 2 cars and storage for car and garden equipment

Floor
- poured concrete, with drain
Walls
- 2 ply gyp. board for 2 hour fire rating; painted
Ceiling
- painted gyp. board
Windows
- 1 or 2 small windows
Doors
- aluminum, 2 hr. fire rating to interior; garage doors
Base
- overhead
Lighting
- shelves and cabinets for equipment storage
Furnishings/Cabinetry
- garage door opener
Equipment
- standard
Electrical
- floor drain

Primary Relationships
- Vertical circulation
Notes
- Workshop

WORKSHOP

Characteristics

- approx. 20' x 20' room with adequate access for supplies

Floor
- poured concrete
Walls
- painted gyp. board
Ceiling
- painted gyp. board
Windows
- not necessary, possibly 1 or 2 small windows
Doors
- aluminum
Base
- overhead, florescent
Lighting
- countertops, cabinets
Furnishings/Cabinetry
- standard
Equipment
- possibly one outlet

Primary Relationships
- Garage
- Vertical circulation
Notes
- Vertical circulation
- Ventilation system

UTILITIES & STORAGE

Notes
- Freezer enclosed in block
- utility core also enclosed in block
- ground level pantry for long-term storage

Notes
**ENTRY (FORMAL)**

<table>
<thead>
<tr>
<th>Alternative 1a</th>
<th>South entrance on first level, eastern or centrally located</th>
</tr>
</thead>
<tbody>
<tr>
<td>pros</td>
<td>+better protection from elements; views of pond; accessible from either East or West driveway</td>
</tr>
<tr>
<td></td>
<td>-need for stair or ramp; not easily accessible to elderly or handicap</td>
</tr>
<tr>
<td>cons</td>
<td>East or Northeast entrance on first level, ideally from grade level</td>
</tr>
<tr>
<td></td>
<td>+no stair with Northeast entrance; close proximity to East driveway</td>
</tr>
<tr>
<td></td>
<td>- no evening light, no view of pond</td>
</tr>
<tr>
<td>Alternative 1b</td>
<td>North entrance on first level</td>
</tr>
<tr>
<td>pros</td>
<td>+no stair necessary; accessible to elderly and handicap; possible to have easy vehicle access; sense of mystery to visitors</td>
</tr>
<tr>
<td>cons</td>
<td>-exposure to elements; not readily visible to visitors</td>
</tr>
</tbody>
</table>

**INTERIOR:**

**Characteristics**

- Natural daylight; mystery-not revealing living space immediately
- Tile
- Painted 5/8" gyp. board
- Higher ceiling; painted 5/8" gyp. board
- Allowing light but providing some privacy
- Wood
- Oak
- Artistic or antique hanging light fixture
- Hall tree, entry table, chair or bench, coat closet
- Standard
- Possible for 1/2 bath located off of entry

**EXTERIOR:**

**Characteristics**

- Visible from approach, sheltered
- Wood deck, concrete
- Extended roof or new material (wood, metal)
- Bench (built-in or moveable)
- Down lighting
- Doorbell, doorknocker
- Standard
- Plantings, planters, pots
- Exterior: parking, garage, connecting deck/porch
- Interior: living, vertical circulation, entry bath
### LIVING

**Characteristics**
- Open (plan, ceiling heights), provide for socialization and isolation, intimacy, heating center

<table>
<thead>
<tr>
<th>Floor</th>
<th>hardwood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>painted 5/8&quot; gyp. board and wood siding accents</td>
</tr>
<tr>
<td>Ceiling</td>
<td>2-stories with view of structure, possibly loft above with painted gyp. board/wood</td>
</tr>
<tr>
<td>Windows</td>
<td>flooded with natural light and many views</td>
</tr>
<tr>
<td>Doors</td>
<td>none or few, open plan</td>
</tr>
<tr>
<td>Base</td>
<td>wood</td>
</tr>
<tr>
<td>Lighting</td>
<td>ample light for reading (or outlets for lamps)</td>
</tr>
<tr>
<td>Furnishings</td>
<td>public and intimate spaces, sofas, chairs, coffee tables, piano, book storage</td>
</tr>
<tr>
<td>Equipment</td>
<td>fireplace or ceramic stove</td>
</tr>
<tr>
<td>Electric</td>
<td>standard</td>
</tr>
<tr>
<td>Telephone</td>
<td>one phone, two jacks</td>
</tr>
<tr>
<td>Plumbing</td>
<td>none</td>
</tr>
</tbody>
</table>

**Primary Relationships**
- Dining
- Entry
- Deck/Pond
- Circulation

**Notes**
- Views outside, visual connection to kitchen

### DINING

**Characteristics**
- Open, formal, flowing from other spaces (living and kitchen)

<table>
<thead>
<tr>
<th>Floor</th>
<th>hardwood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>painted gyp. board and wood siding accents</td>
</tr>
<tr>
<td>Ceiling</td>
<td>lower ceiling height that Living area, painted gyp. board</td>
</tr>
<tr>
<td>Windows</td>
<td>few, create internal focus</td>
</tr>
<tr>
<td>Doors</td>
<td>none</td>
</tr>
<tr>
<td>Base</td>
<td>wood</td>
</tr>
<tr>
<td>Lighting</td>
<td>hanging fixture(s)</td>
</tr>
<tr>
<td>Furnishings</td>
<td>small table-expandable; china display</td>
</tr>
<tr>
<td>Equipment</td>
<td>NA</td>
</tr>
<tr>
<td>Electrical</td>
<td>Standard</td>
</tr>
<tr>
<td>Telephone</td>
<td>None</td>
</tr>
<tr>
<td>Plumbing</td>
<td>None</td>
</tr>
</tbody>
</table>

**Primary Relationships**
- Kitchen
- Living

**Notes**
- view to outside
# KITCHEN

**Characteristics**

Breakfast/family dining area with view to south/southwest; generous
counterspace for multiple users; manipulated openness to other areas-
allow for some segregation

<table>
<thead>
<tr>
<th>Floor</th>
<th>ceramic tile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counters</td>
<td>reuse of hand-painted tiles</td>
</tr>
</tbody>
</table>
| Walls     | drop ceiling/ varied heights - possibly low over work, high over serv-
ing; 5/8" gyp. board |
| Ceiling   | clerestory window; possibly under cabinet window |
|           | access to pantry; possible access to deck |
| Windows   | oak |
| Doors     | various task lighting; accent light for displays |
| Base      | bread counter, birch plywood with hardwood edges |
| Lighting  | see zoning diagram |
| Furnishings/Cabinetry | multi-circuit 110V + 220V |
| Equipment | one outlet |
| Electrical| 2 sinks - prep and clean-up, stainless steel; separate drinking water; |
|           | dishwasher; refrigerator (ice maker) |

**Primary Relationships**

Deck
Dining/gathering
Mudroom/secondary entry/vehicles
Laundry
Pantry

**Notes**

Views of pond - south - southwest site, west site
Refrigerator Center
(receiving & food prep)
mixer, chop blocks
mixing bowls, utensils
cake & pie tins
occasional dishes
condiments, staples
"daily food"
wine storage
radio

Gathering

Range Center
(cooking & serving)
pots & pans, wok
steamer, potholders
frying pans, roaster
cooking utensils, platters
serving dishes, trays
grease containers
seasoning/spices
canned goods
bread bin/board
low counter for bread-making
microwave oven
butter block top
marble (like) slab for pie crusts

Family Dining

Planning Desk
cookbooks
appliance literature
phone

Pantry

Sink Center
(food prep & clean-up)
chop blocks, chopper
eyeveryday dishes, glassware
pots & pans, pitchers
cutlery & silver
vegetable bins
towel rack, soap dispenser
wastebasket/recycling bins
cleaning utensils
disposal, colander
secondary cooler, mixer
coffee maker/grinder
can opener, juicer, blender
drinking water tap

KITCHEN ZONE
<table>
<thead>
<tr>
<th>MUDROOM/BATH</th>
<th>SECONDARY ENTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 2a</td>
<td>South entry, ground level</td>
</tr>
<tr>
<td><strong>pros</strong></td>
<td>+ also provides access to outdoor recreation area</td>
</tr>
<tr>
<td><strong>cons</strong></td>
<td>- separate from parking; need for vertical circulation</td>
</tr>
<tr>
<td>Alternative 2b</td>
<td>East entrance, next to garage</td>
</tr>
<tr>
<td><strong>pros</strong></td>
<td>+ access to more storage</td>
</tr>
<tr>
<td><strong>cons</strong></td>
<td>- separated from main living spaces</td>
</tr>
<tr>
<td>Alternative 2c</td>
<td>North entry, first level, entrance on grade</td>
</tr>
<tr>
<td><strong>pros</strong></td>
<td>+ access for elderly, handicap, vehicle unloading</td>
</tr>
<tr>
<td><strong>cons</strong></td>
<td>- separate from parking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MUDROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristics</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| Floor | ceramic tile |
| Walls | painted 5/8” gyp. board |
| Ceiling | normal height, painted 5/8” gyp. board |
| Windows | minimal |
| Doors | insulated, aluminum door |
| Base | match floor material |
| Lighting | overhead |
| Furnishings/Cabinetry | closet, counter and overhead cabinets, coat rack |
| Electrical | standard |
| Telephone | none |
| Plumbing | utility sink, possible shower, possible bath |

| Primary Relationships | Kitchen |
| | Secondary Entry |
Mudroom
storage
easy clean-up
access to vert. circ.
bath/shower

Utility Entry
Storage

Mud Room
Vertical Circulation

Workshop
access from garage
counter space

Garage
2-hour fire rating
2 cars
storage for auto
and garden supplies

Site

Site

MUDROOM/BATH
SECONDARY ENTRY ZONE
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Quiet, cozy, introverted, private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor</td>
<td>carpet or wood with area rug</td>
</tr>
<tr>
<td>Walls</td>
<td>painted 5/8&quot; gyp. board (possibly exposed structure)</td>
</tr>
<tr>
<td>Ceilings</td>
<td>painted gyp. board (possibly exposed structure)</td>
</tr>
<tr>
<td>Windows</td>
<td>one, with a pleasing view</td>
</tr>
<tr>
<td>Doors</td>
<td>one entry - wooden</td>
</tr>
<tr>
<td>Base</td>
<td>wood moulding-painted or stained</td>
</tr>
<tr>
<td>Lighting</td>
<td>ceiling fixture, task lighting (lamps) at work areas</td>
</tr>
<tr>
<td>Furnishings/</td>
<td>large desk with 'comfy' chair, bookshelves, filing cabinets, sofa-bed</td>
</tr>
<tr>
<td>Cabinetry</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>outlets to accommodate lamps, computer</td>
</tr>
<tr>
<td>Electrical</td>
<td>at owner's discretion</td>
</tr>
<tr>
<td>Telephone</td>
<td>for computer?</td>
</tr>
<tr>
<td>Cable</td>
<td></td>
</tr>
<tr>
<td>Plumbing</td>
<td>wall space available for artwork display</td>
</tr>
<tr>
<td>Special</td>
<td></td>
</tr>
<tr>
<td>Primary Relationships</td>
<td>lock between public spaces (living, kitchen, entry, etc.), close in proximity to a bathroom</td>
</tr>
<tr>
<td>Notes</td>
<td></td>
</tr>
</tbody>
</table>
Requirements
Desk
Computer
Bookshelves
File cabinets
Sofa/Bed
Sitting Space
View
Art work
Privacy

STUDY/ DEN ZONE
## MASTER BEDROOM

### Characteristics
- Prefer morning light; possible access to exterior spaces; vaulted ceilings with lowered portion over sleep area, includes sitting area adjacent; linked with dressing, bath areas
- hardwood with area rugs or wall to wall carpet
- painted 5/8" gyp. board
- multi-level exposed timber frame and gyp. board
- east or south exposure if possible
- lock, access to exterior, dressing, and bath
- match hardwood floor materials
- ample light for reading, adjustable with dimmers (mood lighting)
- bed, side tables, 2 easy chairs, book shelves, loveseat, coffee table
- wood stove, ceiling fan, track lighting
- standard
- (smartly spaced) multiple jacks
- none
- must provide enough space for a sitting area

### Primary Relationships
- No direct access to family(public) areas; bath and dressing as sound buffers

### Exterior Relationships
- Deck or patio, semi-private vertical circulation to study above

### Notes
- Partial high ceiling, conversation sitting area, morning light
### BATH (Master Bedroom)

**Characteristics**
- Well lit, tile for counter and floor surfaces, prefer some exposure to morning light and access to exterior space

<table>
<thead>
<tr>
<th>Floor</th>
<th>ceramic tile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>tile or painted 5/8” gyp. board, based on location</td>
</tr>
<tr>
<td>Ceilings</td>
<td>multi-level, exposed timber frame and gyp. board</td>
</tr>
<tr>
<td>Windows</td>
<td>frosted glass, glass, glassblock, clerestory</td>
</tr>
<tr>
<td>Doors</td>
<td>access to exterior, dressing, and bedroom</td>
</tr>
<tr>
<td>Base</td>
<td>tile to match</td>
</tr>
<tr>
<td>Lighting</td>
<td>indirect in shower and/or tub, direct in toilet and vanity area</td>
</tr>
<tr>
<td>Furnishings/Cabinetry</td>
<td>linen cabinet, built-in vanity, counters</td>
</tr>
<tr>
<td>Equipment</td>
<td>toilet, vanity, shower stall, jacuzzi tub, shower, toilet vents</td>
</tr>
<tr>
<td>Electrical</td>
<td>standard</td>
</tr>
<tr>
<td>Telephone</td>
<td>one outlet</td>
</tr>
<tr>
<td>Plumbing</td>
<td>service for shower, tub, sinks, toilet</td>
</tr>
<tr>
<td>Special</td>
<td>must provide enough space for a sitting area</td>
</tr>
</tbody>
</table>

**Primary Relationships**
- Bedroom, Dressing, Exterior spaces

### DRESSING (Master Bedroom)

**Characteristics**
- Clean in presentation and appearance, everything in its place with a place for everything

<table>
<thead>
<tr>
<th>Floor</th>
<th>hardwood with rugs or wall to wall carpet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>NA-mirrors, painted 5/8” gyp. board based on location</td>
</tr>
<tr>
<td>Ceilings</td>
<td>exposed timber frame and gyp. board</td>
</tr>
<tr>
<td>Windows</td>
<td>frosted glass, glass, glassblock, clerestory looking to bedroom</td>
</tr>
<tr>
<td>Doors</td>
<td>access to dressing, and bath</td>
</tr>
<tr>
<td>Base</td>
<td>match hardwood</td>
</tr>
<tr>
<td>Lighting</td>
<td>well lit for dressing, task lighting at counter</td>
</tr>
<tr>
<td>Furnishings/Cabinetry</td>
<td>cabinets for clothing storage (dressers), built-in make-up areas, possible desk surface</td>
</tr>
<tr>
<td>Equipment</td>
<td>space storage cabinet system, drawers, hanging rods</td>
</tr>
<tr>
<td>Electrical</td>
<td>standard</td>
</tr>
<tr>
<td>Telephone</td>
<td>one outlet</td>
</tr>
<tr>
<td>Plumbing</td>
<td>sink</td>
</tr>
<tr>
<td>Special</td>
<td></td>
</tr>
</tbody>
</table>

**Primary Relationships**
- Bedroom, Bath areas
**Master Bedroom**
- Sleeping
- Reading

**Sitting**
- Reading/library
- Writing/desk

**Private Porch**

**Master Bedroom**

**Dressing**
- Sink
- Place to sit
- Mirrors
- Organized storage

**Master Bath**
- Jacuzzi
- Toilet
- Sink
- Shower
- Sauna

**Exterior Space**
- Private
- Garden
- Sitting
- Reading

**Entry**

**Study**

**Access**

**View**
**BEDROOMS/BATH**

**Characteristics**
- Spaces recommended to be on second floor
- Visual separation of reading and sleeping area
- Prefer daylighting to the north (bedrooms)
- Prefer to overlook interior spaces from interrelated library and art gallery
- Common storage space between bedrooms intended for linens, seasonal clothing, etc.
- Hi-low ceiling (over sleeping area)
- Exposed structure ideal

**Floor**
- Bedrooms-carpet, Bathroom- ceramic tile, Storage-carpet, Circulation and Gallery area-hardwood floors

**Walls**
- Painted 5/8" gyp. board
- Exposed structure, painted 5/8" gyp. board, high-low

**Ceilings**
- Library and Art Gallery-plenty of fenestration, Bedroom-windows recessed from perimeter of existing structure

**Windows**
- Access to possible exterior balcony

**Doors**
- Wood

**Base**
- Special lighting for reading, general overall room lighting, warm (color) lighting for dressing, lighting to read in bed, indirect/direct combination for bathroom

**Lighting**
- Wood bookshelves (indirect lighting), custom cabinetry for intermediate hall between bedrooms and bath, beds in bedrooms (with shelf combination), seating in reading areas (bedrooms), built-in seating in library and art gallery

**Furnishings/ Cabinetry**
- Ceiling fans, exhaust fan (bath)

**Equipment**
- Standard

**Electrical**
- One outlet per bedroom, one outlet in library and art gallery

**Telephone**
- Toilet, shower/tub, sink

**Plumbing**
- Circulation with railing overlooking first floor

**Special**

**Primary Relationships**
- Close proximity to private zones of overall residence.
- Library and art gallery to serve as 'buffer' between public and private

**Notes**
### RECREATION AREA/ EXTERIOR

**Characteristics**
Outdoor space, patio space, covered outdoor space, a physical extension of interior space flowing to the outdoors and the outdoors into the interior

**Features**
deck, patio, barbeque, plantings, garden areas, walkways

**Floor**
Deck-wood, Patio-concrete, pavers, brick (from house)

**Walls**
only adjacent exterior finishes

**Overhead Coverings**
trellis, extended roof, lattice with vines, canopy (metal)

**Windows**
french doors, sliding glass doors/wall, side lites and transom (façade)

**Doors**
flood lighting, task lighting at BBQ, accent lights at walkways

**Base**
patio chairs and table, picnic table, lounge chairs, benches

**Lighting**
BBQ/grill, bug zapper

**Furnishings/ Cabinetry**
standard

**Equipment**
boat dock, pier, vertical connection to main level (stairs), garden, plantings

**Primary Relationships**
Pond - House
Rec. area (garage entry) - Patio
Living area - Deck
Kitchen connection

**Notes**
**EXTERIOR RECREATION ZONE**

- **Deck**
  - partially covered
  - planters
  - seating
  - dining
  - view

- **Living Room/Deck**

- **Pond**
  - BBQ/grill
  - lighting
  - seating
  - canopy
  - view

- **Patio**

- **Rec. Room**
  - transitionary space
  - between house and patio
  - access to garage and living areas (esp. kitchen)
  - kitchenette? wet bar?

- **Garden**
  - plantings at pond edge
  - block driveway from view
  - pedestrian paths from entry

- **Access**

- **View**

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Architecture

CONTINUATION FROM PG. 1

year, but this design/build project is a first for the university. The project consists of transforming an 1847 walnut barn near Albany into a house for Tony and Suzanne Shidler, whose adjacent house burnt down March 17, 1994, as a result of an overheated broiler.

"Considering the fact that we're college students and they've never done anything like this before, they're doing an extraordinary job," said Tony, who is the director of Purdue programs at Ball State.

The students began the project at the beginning of the fall semester by individually developing designs for the house. After studying similarities in the 13 original designs, the students formed three groups, which drafted new designs. These designs were then presented to the Shidlers.

"My wife and I looked at the five and picked what we liked of each," Tony said.

The students then drafted a final, composite design, and construction began in November, continuing every Monday, Wednesday and Friday through rain and freezing temperatures.

"You can go around this barn and look at different elements and relate those back to the original 13 designs," said Matt Douhan, a fifth-year architecture student.

Meyer said he thought of converting the Shidler's barn into a house after some of his students asked if they could do a design/build project for their thesis. But working with the existing walnut frame of the 0.000-square-foot house has not always been easy, according to Douhan.

"Nothing in this barn is square," he said.

Another challenge for the students to work around was the four sheep living in the barn at the start of the project.

"When we started, the sheep were in the barn," Douhan said. "They remained there until last month when we poured the slab. The sheep were still in there, and we had built up around them."

According to fifth-year architecture student Jennifer Cullinane, who said the worst part of the project was "shoveling sheep manure," two of the sheep were eaten by neighboring dogs after they were moved outside.

Another obstacle faced by the group was convincing Shidler to agree to design ideas. Fifth-year architecture student Amanda Fritz said she said the group of students thought the house's exterior color should be beige with red accents, but Shidler thought red was too bright.

"With dealing with a real person and someone else's money, it's their decision that matters," she said. "You don't get to do everything you want. But that's the real world."

According to fifth-year architecture student Bob Harnsey, another challenge came from having 13 designers working on one project. Whenever a spontaneous change needed to be made, everyone wanted to be in on the decision.

PRACTICALLY Experienced

Students studying architecture fulfill class by rebuilding burned-down home for family.

by Laura J. Cummings
Assistant news editor

SHOVELING 10,000 CUBIC FEET OF SHEEP MANURE is not a typical architect's job, but through an innovative thesis project to renovate a 148-year-old barn, 13 architecture students are experiencing all of the ups and downs of design and construction.

"Everybody's taken their share of shoveling manure and slopping in the mud," said Bruce Meyer, professor of architecture and the students' thesis adviser, as he stood on the second floor of the three-story frame.
Barn

Continued from Page 18

in the center hall a horizontal half-wall repeats the same acute angle, like an arrow, leading the eye to windows of the room. An angular staircase to the left shows off its significance in place, lurking back to the barn's usual function.

The whole concept of the angle is to create a new symbol of better in place of the barn's 10' x 10' foot grid, said Matt.

"There really wasn't a square corner in the barn. Everything was slightly off, even the floors, which we had to level by about 1 inch. Where we're building is to be squared for appliances and cabinets," Douthit said.

The master suite occupies the east side of the structure. Master bedroom, dressing room, bath and sitting room," said Marshall, describing what the suite will include. Above these rooms there will be two bedrooms, a bath and serving room that looks down from a balcony onto the central hall and through the stairway, providing glimpses of the winter garden.

"More than two-thirds of the room is open space," said Douthit, putting up to the windows. The room will flow upward and in a constant across the center peak of the barn and back down. In summer it will be just the reverse with cool air.

"We explored the structure," said Douthit, "measuring, pounding, insulating, and hacking. Then we were pleased that the weather held together."

"As for plans, we felt we could put the place in order," said Marshall. "We had some really full plans to put here. But November and December were wet, so we got a bit of the outside work done."

So far we’ve achieved of a barn, Marshall said. "Sometimes the designed doesn’t work, so we’ve added a few changes here and there. Some things just come up with a better idea to do it."

This project is a learning adventure, and one that we’ve planned to do, he continued. We’re using the experience to add to our knowledge."

The design/build projects tutor and supervisor, the students and other members of the design/build group are working on the barn to be built at the University.

Tony and Susanne Stidler's barn near Albany (Top photo) is in the process of being turned into a house. The Barnconstruction Project, which began last fall, is being done by Bruce Meyer's class of fifth-year students in Ball State's College of Architecture.

Above, a student works on the inside of the barn.
"Don't encourage him, Sylvia."
September 7, 1994

Mr. and Mrs. Anthony Shideler
Albany, Indiana 47320

Dear Mr. and Mrs. Shideler,

Following a long tradition of community service here at the College of Architecture and Planning, my students and I are pleased to be able to meet with you and discuss the design of your new residence in Albany. As faculty critic for the architectural thesis studio involved with your project, I would like to review our understanding of the terms and conditions under which we will be working. These relationships may be modified and refined at your request during our preliminary discussions.

While the premise of this relationship is that this thesis studio intends to design and build your new residence according to your specifications during the academic year 1994-95, you are under no obligation to actually initiate construction, whether with our group or any other. We do ask that you commit to meetings with the class on a regular basis (perhaps weekly) through the programming, design and design development phases of the project. These meetings are planned as reviews of proposals made by the class during which you will be asked to give your frank opinions, suggestions, and criticisms. The meetings will be conducted professionally, as the real-world architect-client relationship they are.

Our group will provide the following pre-construction services:

Measurement and analysis of the existing heavy-timber frame barn, including structural assessment by a licensed civil engineer, and analysis by an expert in historic preservation and restoration; preparation of scaled orthogonal drawings of the existing barn on the site;

Basic site survey including topographic elevations and production of contour map, location of utilities, drainage and climate analysis;

Development of the building program, including your requirements, standards and budget for your residence;

Preparation of design concepts, both spatial and technical;

Development of preliminary designs for the house, presented with drawings and models which will allow you to easily visualize what the designs will look like;

Revised designs, based on your reviews and criticisms;

Design development drawings and preliminary specifications which show final selections of materials, equipment and systems to be used in the house; revisions made based on your reviews;
Construction documentation which would control the actual bidding and construction processes;

Material, construction and system specifications;

Material quantity surveys (take-offs) show amount of specific materials to be used;

Bidding of selected subcontractor services (not general contracting) determined jointly with you;

Determination of allowances for identified finishes, cabinetry, lighting, appliances or other items you select;

Detailed and summarized price listings for all phases of construction, including special tool and insurance costs;

Alternative plans for coordinating student construction services with hired professional subcontractors.

Your obligations during this process will be to meet with the group and provide information, opinions and criticism which corresponds to the work described above; the related soul-searching and review of examples that you need to make decisions; and access to the barn and site as needed to conduct the work. No actual cash expenses are anticipated through these phases, unless you wish to make additional copies of any documents produced.

Beyond this point, the class will also have prepared a number of plans and documents which will allow actual construction to begin, including documents needed for building permits, "fast-track" scheduling and so forth. You will make the final decision about whether and/or how to continue.

While this initial letter of intent may seem a bit detailed, there will no doubt be a number of issues not addressed here and other which may be seriously changed as a result of our discussions. Please feel free at any time to contact me with your concerns or suggestions. We are all enthusiastic about working with you.

Cordially,

Dr. Bruce F. Meyer
Professor of Architecture
<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENTS</th>
</tr>
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<tbody>
<tr>
<td>SEP 5 - 9</td>
<td>Interview client; begin program</td>
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<tr>
<td></td>
<td>Complete conceptual design- AIA</td>
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<tr>
<td></td>
<td>Indiana Day Review</td>
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<td></td>
<td>Technology alt's briefing</td>
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<td>Complete primary framing base doc's</td>
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<tr>
<td>SEP 12 - 16</td>
<td><strong>Conceptual Design Review</strong></td>
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<td></td>
<td>Program review with client</td>
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<td></td>
<td>Begin preliminary design</td>
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<tr>
<td>SEP 19 - 23</td>
<td>Complete preliminary designs</td>
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<td></td>
<td>Preliminary design review with client</td>
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<td></td>
<td>Identification of design element</td>
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<tr>
<td></td>
<td>Strengths</td>
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<td></td>
<td>Provide tech briefs to class</td>
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<td></td>
<td>Preliminary subcontractor meetings</td>
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<td></td>
<td>Begin supplier specs outline</td>
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<tr>
<td>SEP 26 - 30</td>
<td>Field Trip</td>
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<td></td>
<td>Final design responsibilities identification</td>
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<td></td>
<td>Design modifications</td>
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<td></td>
<td>Presentation charette</td>
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<td></td>
<td>Client design review</td>
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<tr>
<td>OCT 3 - 7</td>
<td>Final design review with client</td>
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<tr>
<td></td>
<td>Design development decisions</td>
</tr>
<tr>
<td></td>
<td>primary: finish materials, equipment; cabinetry; lighting; HVAC; plumbing; electrical</td>
</tr>
<tr>
<td>OCT 10 - 14</td>
<td>Complete design development including draft specifications;</td>
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<td></td>
<td>Begin Code verification</td>
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<tr>
<td>OCT 17 - 21</td>
<td>Complete: Construction documents</td>
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<td></td>
<td>Specifications</td>
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<td></td>
<td>Complete Code verification</td>
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<tr>
<td></td>
<td>Construction management schedule</td>
</tr>
<tr>
<td></td>
<td>Contracts Preparation</td>
</tr>
<tr>
<td></td>
<td>Tool acquisition plan</td>
</tr>
<tr>
<td></td>
<td>Primary material orders prep</td>
</tr>
<tr>
<td></td>
<td>Final utility connections plan</td>
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<tr>
<td>OCT 24 - 28</td>
<td>FinalBidding / pricing</td>
</tr>
<tr>
<td></td>
<td>Preparation of final client presentation</td>
</tr>
<tr>
<td>OCT 31 - NOV 4</td>
<td>Client project review</td>
</tr>
<tr>
<td></td>
<td>Client decision</td>
</tr>
</tbody>
</table>
October 28, 1994

Mr. and Mrs. Anthony Shideler
Albany, IN

Dear Tony and Suzanne,

We have completed the preliminary material take-off and costing phase of work on your new house project and feel very positive about the results. While numerous issues of substitution and supplier negotiation are still ahead of us, what we present to you here is essentially a worst-case scenario. Most prices have been calculated at retail and some quantity estimates were made deliberately high. While shortfalls and omissions are a part of any project, I believe the total contains sufficient contingency to account for such additional costs. The basic house has been calculated with quality materials but there may naturally be areas where you wish to add additional budget to include certain luxury or specialty items.

There are a number of issues you will want to consider which I'll attempt to summarize below.

Costs. Attached are spreadsheets of building materials and costs which we will review with you at our meeting. The two-page summary outline of specifications may help you better follow what was actually priced. There are, of course, a number of final selections to be made by you in specialty areas, but we have tried to list options whenever possible. Please feel free to contact me with any questions.

Liability. As I mentioned on the phone, Larry Cistrelli, who deals with insurance and risk management for Ball State sees no problem with the project as students work within the design studio course. His letter to me on the subject is attached. Medical insurance, if needed, will be decided directly with you.

Tools and equipment. In general, we will supply all basic hand and hand-held power tools and building equipment. Some specialty equipment, like scaffolding, we should be able to borrow at no cost, while other pieces may have to be rented for short periods. I am assuming that these costs will also fall within your budget unless you decide otherwise. For example, if we mill the casework and base ourselves to save on the enormous cost of these materials, we would expect that special cutter blades and/or a router would be provided by you. Even equipment like a small backhoe I may be able to borrow at no cost to do the simple foundation and septic excavations. These decisions we would make together, but always with an eye on total costs. I would ask you to consider allowing us the use of your existing travel trailer on site for some time during the winter for water, toilet, and possible phone and computer set-up.

Subcontractors. To date we are assuming most phases of construction would be completed by us, with the following exceptions:

- electrical connections to meter base and wiring of breaker box (by Tony)
- removal of existing roof material (Al Tuscano?)
- construction of new roof (Al Tuscano said with a couple of helpers, a conventional roof could be completed in a weekend)
installation of furnace, water heater, water softener, and new well head connections and ballast tank (even these services I believe I can have donated)

new and repair masonry

Concrete finishing will be donated by professional finishers.
I also believe I will have donated specific training or technical demonstrations by other professionals as required, including plumbing, heating ductwork, drywall finishing, etc.

Methods and Schedules. If you decide to pursue the work with us, I will provide a complete schedule of events on a calendar basis with a full description of construction methods to be followed. This will allow you to know exactly what step is next at each phase of work and also when you need to make final special selections or design changes. I will also provide you with a copy of our "shop" rules governing safe work habits and our standard work schedules. In general, all students will average twenty hours per week on the project for approximately 20 weeks.

Estimated completion date for the house will be the second week of April 1995. I believe this to be reasonable and to adequately account for slow-downs due to weather, material or service delivery and errors and omissions.

Agreement. If you decide to commit to the project with us, we will discuss with you what specifics beyond those described here you would like to see in writing. At our meeting we will decide the time needed for you to make your final decision. Again, please feel free to call me with any questions as you review these materials.

We are excited and committed to building you the very best house. We look forward to a long and mutually satisfying professional relationship. Thanks for the interest and encouragement all through this Fall.

Cordially,

Dr. Bruce F. Meyer
Professor of Architecture
and the BarnBecils
To: Dr. Bruce Meyer  
School of Architecture  
AB 307

From: Lawrence Cistrelli, Jr., J.D., CPCU, HIA  
Risk Management and Insured Benefit Programs  
Office of Controller

Date: October 19, 1994

Re: Insurance and Home Building Projects in AR 403 and AR 404

This memo will confirm yesterday's phone conversation.

You indicated that Architecture Students will be involved in home building projects off campus on a regular basis in the near future. You wanted me to look at those projects relative to University insurance coverages.

The proposed projects are covered under the University's liability policy. That policy protects the property and person of those parties injured by the negligence of the University.

It is possible that while working on these projects the students might injure themselves by accident or through their own carelessness. The University does not retain insurance to cover those situations. I would suggest advising students (and parents) of this situation so that medical insurance can be purchased. Most students will probably be covered through their family health insurance. Those students without health insurance should be advised of the availability of student health insurance.

Should an accident involving personal injury occur, I will need to be informed of the particular facts. I will file all such reports with our liability insurance company. If the company finds the University liable, the policy will respond to the medical expenses. If no liability is found, the student will be responsible for his medical expenses.
PERT CHART
List all major construction events
Place in sequence with prerequisites or prior conditions. Keep parallel paths separate
Estimate time required for each; add contingency
Place on calendar

SHOP RULES
Assume training at beginning of all new tasks or skills- lay out acknowledgment form
Establish decision-making path
Consider equipment, clothing, procedures, communications intra-group and with Shidekers,
Weather-related scheduling
Emergency protocols

WORK SCHEDULES and TRANSPORTATION SYSTEM

ORDERING, INVENTORY, RECORDKEEPING
establishing accounts, setting limits, Shideker authorization
order forms- including receiving / inventory
bookkeeping and payment of monthly billings with inventory verification approvals
CAP / BSU equipment

Immediate jobs:
Prepare central supplier (Wolohan) pricelist across all teams
Prepare building permit drawings
Determine septic requirements and prepare plan, conduct perc test, permit app.
Detail slab with spec's; Concrete reinforcing walls?
T-shirts-Sweatshirts? iron-ons?
Requests for Independent Study / elective

Continuing jobs:
Construction documents / specifications completion
Materials, subcontractor pricing

Other:
Shideler Residence
General Specifications / Cost Analysis

Water systems
Supply piping: general: polybutylene, 3/4"; risers sized as needed for fixtures; Connections: polybutylene pressure fittings
Sanitary waste: 2" and 4" PVC drains and vents; Connections: PVC glued - pipe cleaner and solvent, towels to clean; pipe cutter or hack saw & rasp, file or sandpaper; through roof vent flashing caps; toilet base fittings, clean-outs as needed
1/4" per foot fall continuous
Septic system: tank, leech field perforated piping, clean-outs, etc. - special design
New Well: 4" steel-cased drilled with capacity for domestic and geothermal heating; submersible pump with polyethylene supply to house; ballast tank, pressure valve, cut-off;
Connections for rented water softener; connections for geothermal heating-supply and return
Hose bibs as shown on plan, polybutylene;

Fixtures:
Kitchen: stainless steel kitchen sink- min. double basin, possible triple or separate salad sink; "delta" style faucet controls, polished chrome-plated brass; kitchen set to include soft and hard water supply, spray hose, tall goose necks on swivels;

Guest (1/2) bath: porcelain steel lavatory w/faucets and fittings, cast porcelain flush-tank toilet
Master Bath and Dressing: 2 porcelain steel lavatories, cast porcelain flush-tank toilet, fiberglass or acrylic whirlpool tub with ceramic tile surround; separate fiberglass shower with glass door and side panel(s); all faucets and fittings for lav's, tub and shower;
Upper Level Bath: porcelain steel lavatory, cast porcelain flush-tank toilet, separate fiberglass shower/tub with curtain rod; all faucets and fittings for tub and shower;

Wall, Floor and Foundation systems
exterior walls: foam-core panels- walls @ 6" nominal thickness (5-1/2) w/ drywall interior
splines: 2 x 6 panel-panel, window & door
double 2x's ledgers all four sides? interface on south with decking?
pole barn nails or screws, caulk, foam

interior partitions conventional at: 2 x 4 @ 16" o.c., single 2x4 sole and double 2x4 plate w/ 1/2" drywall

main floor sub-floor system (foamcore or standard framing shimmed on existing)
standard underlayment: 5/8 CD ply + 3/8 OSB or 3/4" ply w/ 1/4" luan for all but oak T & G; w/ 2-1/2" white oak T & G, underlay with 5/8 min ply; NOTE - adjust underlayment of areas adjacent to oak for depth of finish material; all underlayment screwed and glued if not foam core
second floor framing conventional: 2x8 or 2x10 @ 16" o.c. according to spans w/joist hangers between double or triple 2x12 beams -long spans with built-up glued and nailed 2x beams w/ 1/2 plywood centers as needed; 2x ledgers (not joist hangers) fixed to existing oak beams where used in lieu of new beams; second floor partition framing set on plywood layer only with underlayment to sole

Interior Finishes
Walls: painted 1/2" drywall except as noted
Ceilings: under roof- 3/4" SPF car siding or equal if foam core roof panels used; 1/2" painted drywall in all other interior spaces except as noted; 3/4" SPF car siding may be used as suspended ceiling in zones for access to mechanical systems running beneath upper floor structure; all SPF surfaces to be finished with polyurethane
Lighting: (interface with HVAC electrical) balance built-ins with switched outlets for lamps
Stairs: (structural and finish) base bid-carpeted dimension lumber; alternate-oak treads, risers and carriages on dimension framing
Doors: 1-3/8" x 6'-8" pre-hung hollow core luan painted except as follows: solid cores at: guest 1/2 bath main floor, master suite if no double-door "lock"; trim to be painted SPF 2-1/4"; hinges brass-plated loose pin, rounded corners
Window trim: interior jamb extensions and casings of 2-1/4" SPF (style to be determined) stained light oak and coated with polyurethane 2 coats, sanded between coats; finishing nails countersunk and filled after urethane

Base: 3" oak or SPF with 3/4" cove or quarter-round, finished as w/ window trim all areas except baths, kitchen, laundry, mudroom; alternates: vinyl cove or ceramic

Cabinetry, fixtures, specialty hardware:
All baths: toilet tissue dispenser, towel bar(s), mirrors and/or mirror cabinets, base cabinet under lav's
Kitchen cabinets and countertops: to be determined with client, calculate minimum solid wood doors and fronts, Formica countertops; alternates - custom cab's and cast tops
Book shelving, dressing room storage units, pantry shelving, closet shelving and hanging rods
Locksets: brass-plated privacy and passage on interior; solid brass on exterior doors with deadbolt

Exterior Finishes, Windows and Doors
Siding, soffits and trim: vinyl, steel, or aluminum to be determined (no wood siding or trims)
Windows: Anderson vinyl-clad wood double-hung (preferred by client) or casement (according to sizes)
Doors: prehung painted steel clad solid core 3'-0" x 6'-8" with magnetic gaskets; specialty doors (e.g., full-lite french) may be Anderson vinyl clad; garage doors with remote opener - painted insulated metal

HVAC Electrical

Heating: "Water furnace" geothermal heat pump; gas-fired forced air alternate- upflow furnace with central AC (est. 3-4 tons)
Dual-duct supply-return ducting; all ducts all steel -no duct board, spiral wire or accordion duct; insulation as determined by design

Electrical: 440 -volt 200 amp service (underground preferred);
all copper interior wiring; breaker box near meter base and convenient from interior;
exterior breaker for any compressor
plastic junction, duplex and switch boxes; all duplex outlets grounded;
GFI outlets as required by code adjacent to water supply areas
switch, duplex, and phone/coax outlet plates white or ivory plastic telephone, coaxial cable, door bell outlets and wiring as per plans

Passive solar: interface with interior / exterior teams for - window treatments, shuttering and floor finish / thermal mass

Stove(s): base bid- cast iron in public area; alternates- masonry/tile in public area, smaller stove in master suite and/or upper level public loft
Class A flue (for non-masonry solutions) (three-wall, stainless inner) through roof
Hearth material of tile or brick to provide for wood carrier or other storage and to extend as required by code
Only 148 Years, 8 Months, and 4 Days in the Making...

Barnitecture: The Design-Build Thesis Studio

invites all interested faculty, students, friends & family to an Open House/Project Review

Friday 5 May, Noon-4

SEE HOW THIRTEEN STUDENTS, THREE FAMILY MEMBERS, A HALF DOZEN SUNDARY SUB-CONTRACTORS, ONE FRAZZLED (formerly non-smoking) PROFESSOR, AND TWO DEAD SHEEP TRANSFORMED A POST & BEAM BARN INTO A LUXURY HOME (sort of)

Matt Douhan
Amanda Fritz
Jennifer Gilmer
Bob Harmeyer
Aaron Haschel
Jeannie Kemble
Tim Macy
Sarah Marshall
Phil Matton
Bruce "marlboro" Meyer
Troy Miller
Kelly Mulder
Roland Resurrection
Tony Schideler
Suzanne Schideler
T.J. Schideler
Matt Woodruff
et. al.

Note: If weather is rainy, wear appropriate footwear
Further Note: Comments about completeness will be dealt with harshly
Furthest Note: Additional maps available in arch. office

"Scale: One Inch Equals One Inch"
Bibliography


