AGRICULTURAL BARN
CONCEPTUAL DESIGN PROJECT REPORT

Prepared by:  
Prepared for:

Alpha Gamma Rho
www.vtagrs.com
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CDAC Project Team

Elizabeth Gilboy
Director

Chris Schellhammer
Project Coordinator

Lauren Duda
Undergraduate Student, Architecture

Melanie Kwon
Undergraduate Student, Architecture

Fatemeh Saeidi-Rizi
Undergraduate Student, Architecture
Acknowledgements

Travis Hundley
AGR, Alumni Board Member

Steven Bowman
AGR, Alumni Board Member

Mark McConnel
Principal, The Summit Studio

Cathy Cook
Chief Building Official

Town of Blacksburg

Andrew Warren
Zoning Administrator

Town of Blacksburg

Kim Steika
Landscape Architecture

Project Coordinator, CDAC
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Project Description

Alpha Gamma Rho (AGR) is a fraternal organization for those interested in all forms of agriculture. The Virginia Tech National Chapter was established in 1975 and resides in a historic home (circa 1850) surrounded by 6 acres of land on the western side of US 460 (1503 Tom’s Creek Road).

The property is flanked by US 460 bypass and Tom’s Creek Road. Honeysuckle Road, a residential road, winds around the remainder of the property and now serves as access to the property. Honeysuckle Road also serves 8 homes directly across the road which view the fraternity’s grazing pasture. A growing number of homes (60+) are located on Honeysuckle. Thus, many neighborhood residents pass the property during their daily commutes.

Development on Tom’s Creek has grown up around AGR’s facility. VDOT construction of Honeysuckle Road and a VDOT sanctioned access/driveway to the Alpha Gamma Rho property required the removal of one picnic/pavilion structure that served as a covered meeting and storage space. Consecutively, time has taken its toll on storage buildings. Only the original stable building remains and cannot be utilized. Demolition of this structure is inevitable and perhaps some material can be recycled or salvaged.

The AGR Alumni Board authorized an investigation into the design of a barn-like facilities to replace the storage and work spaces that have been lost, or that are planned to be razed due to building condition. Having previously worked with the Community Design Assistance Center (CDAC) on a landscape master plan for the site, the AGR Board requested CDAC’s design assistance again to develop conceptual design options for replacing the lost picnic/pavilion structure that was removed due to the aforementioned VDOT road construction.*

Additionally, the designed replacement facilities will support current and future agricultural operations. The facilities will provide spaces for the secure storage of farm and grounds equipment, stalls for livestock, the storage of feed/hay and include general meeting and work space dedicated to facilitating animal care and maintenance of the property.

CDAC worked with the representatives of AGR and Town of Blacksburg staff to create a thoughtful addition to the local community.

The fraternity is committed to the community and makes efforts to respect its neighbors and contribute to the character of their neighborhood while also exercising their interests in agriculture. The proposed structure will have a responsibility to the programmatic needs and general budgetary limits of the Alpha Gamma Rho organization, a responsibility to the heritage of the historical site/home, a responsibility to the local viewsheds from US 460, Tom’s Creek Road and Honeysuckle Roads, and to Town of Blacksburg regulations.

*Note: As explained later in this publication, the picnic pavilion use as originally requested was replaced by agricultural use.
Design Process

The design team began by visiting agricultural facilities within 20 minutes of Blacksburg. The team also researched barn form and structural systems online (see following page). The team discovered a variety of barn forms with the primary distinction being found in roof types. Barns with uses beyond agriculture offer a wide variety of material considerations similar to residential design. Despite this variety, common elements were determined that helped the team hone in on regionally relevant design considerations.

Within agricultural applications, wood is the predominant structural and cladding material. Metal roofing, from economical corrugated roofing to standing seam also dominates. The periodic use of poly carbonate, open sides, or window openings without glazing provides ventilation and natural lighting into the structure to minimize artificial lighting requirements.

The team developed two design options. Both options were required to address the agricultural program and aggregate the total square footage of prior structures (approximately 4,000 sq.ft. total) as a target for the square foot totals in each design option.

Option 1 - This option split the program and square footage of the original utility buildings into two parts. One building would serve animal and feed storage. The other building would provide agricultural equipment storage. Consequently, this option had multiple locations to consider for siting the two buildings.

Option 2 - This option aggregated the program and square footage of the original utility buildings under one roof. Animal, feed/hay, and equipment needs would be addressed in one facility. The location of one facility would need to balance program requirements with the distance and proximity of site features.

During design development, the team conducted several design review sessions with local professionals, internally with other CDAC teams, with the client and with Town of Blacksburg building and zoning officials.

Suggestions from each review were used to further refine each design scheme. During barn design, site analysis was conducted in parallel to determine the most advantageous location for each scheme.

Each barn site had positive attributes that addressed certain design objectives and program. Ultimately, each location for each option was selected on its strength in addressing select criteria. The site analysis process described in the following section further details how each concept was sited.

Both concepts were presented to the AGR Board. One concept was selected and refined as the final conceptual design. This short supporting report was prepared to document the design process and describe the design concepts.

The CDAC Design Team met with professionals throughout the design process. CDAC employee, Lauren Duda discusses her design with Summit Studio Principal and Architect, Mark McConnel AIA.
GAMBREL BARN
- Gambrel Barn is the barn that has a roof built with a double slope on each side, with the lower slope having a steep roof pitch than the upper slope. Also called Dutch-Style Barns.
- Gambrel style roof provides extra attic space for storage.
- Provides a different kind of look "Old Barn Look".
- More expensive to build.

GABLE BARN
- Gable Barn is the barn that has a triangle shaped (A-Frame) roof. The roof is built with a single slope on each side. The pitch of a Gable Roof usually varies between 4/12 (8.43° angle) - 12/12 (45° angle).
- Most affordable way to build a barn roof.
- Roof may be built with varying angles.
- Less attic space compared to the Gambrel Barn.

MONITOR BARN
- Monitor Barn (aka Raised Roof Barn) is the barn that has the center portion of its roof raised (or pushed up) from the main roof, which is then supported by the addition of knee walls (short walls).
- Unique look.
- Ability to have an extra room in the center while keeping the roof pitch low.
- Ability to use modular construction and have the center part delivered completely built.
- Provides less of the loft space.
- More expensive than a regular Gable Barn.

BANK BARN
- Bank Barn is the barn that's built into the side of a hill (bank), making it possible to provide the accessibility to both first and second floors at ground level or via a built up ramp.
- Ability to build your barn on the hill if level site is not available.
- Access to both floors from the ground level.
- Provides two full stories.
- Significantly more expensive to build.
Site Analysis

The site was analyzed to determine optimal locations for each building option.

- Slope analysis was used to determine "no build zones". (no design option took advantage of slope to propose a split-level scheme)
- Circulation habits and public and private zones were mapped to optimize public and private views and to provide user convenience with respect to other site features.

Environmental conditions also influenced building design and location. The following recommendations used during design are also relevant to future planning, construction and use:

Wind Direction

Objective: keep well ventilated, block cold winds in winter, capture breezes in summer

- Locate equipment or storage areas on the north facing side of building to mitigate the coldest winds
- Openings are well shaded and oriented to prevailing breezes in warm weather
- Options to block cooler north-west winds in winter

Solar Orientation

Objective: take advantage of morning sun and afternoon shade for day lighting

- Orient openings to south to maximize winter sun exposure, but design overhangs to shade in summer
- Trees should not be present or planted in front of day lighting features, but rather beyond 45 degrees from each corner
- Organize floor plan so winter sun penetrates into daytime use spaces with specific functions that coincide with solar orientation

Runoff Patterns

Objective: avoid natural drainages, limit erosion

- Grade site as needed to prevent runoff that would damage foundations or saturate soils near frequently used areas

Visual & Auditory

Objective: consider proximity to house and other structures, balance distance and convenience

- Conveniently locate but do not crowd other site features; position such to minimize the impacts of the local viewshed

Each area of analysis is documented by the following maps.
Site Analysis

15% Slope and Above: Housing units will require special architectural adaptations such as pole construction, road and utility access will be difficult and costly. Limited for development. Farming can occur with limited intensity, as steep slopes become a safety issue. All roads falling within these areas should be placed parallel to contour lines to minimize erosion and sedimentation potential.

20% Slope: Severely limited for development and should be used for forestry, wildlife habitat and recreation. Roads and trails that occur in these areas should be placed parallel to contour lines to minimize erosion and sedimentation potential.

25% Slope: Considered a maximum for lawn areas to be cut by machinery. Due to erosion control this might be the steepest land that could be altered.

0-1% Slope: Too flat for proper drainage.

1-5% Slope: Ideal topographic conditions requiring minimum cut and fill. Most suitable for development. Present few limitations for farming or forestry practices. These slopes provide the best potential for structures and shooting fields as well as pond and wetland development.

5-10% Slope: Good building conditions requiring more careful siting at the upper range of steepness. Suitable for most types of development including farming and forestry operations.

10-15% Slope: Housing units should be split-level and sited parallel to the contours to minimize cut and fill and retaining walls may be required. Moderately suitable for development. They present some limitations recommended as a maximum for access and haul roads, with the exception of up to 15% slopes for distances up to 200 feet.

Disclaimer: This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.
This drawing is conceptual and was prepared to show the approximate location and arrangement of buildings on the site. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.
Preliminary Design Concepts

Concept A - two facility option

Two barn facilities to accommodate the entire agricultural program:

Barn #1 (located near pasture)
1. Animal Care & Storage
2. Animal Feed Storage

Barn #2 (located near current “Boar’s Nest” barn)
3. Agricultural & Grounds Equipment Storage

By splitting the program, the strength of this option is in its user efficiency and programmatic relevance.

While this option would be more expensive, it provided the best proximity to use solution: Animals, feed and hay were closest to the current fenced pasture and the equipment had access to hardened surfaces that allowed equipment to reach other parts with the least amount of disturbance to soils.

Conceptual design drawings for Concept A can be found on the following pages.
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Preliminary Design Concepts

Concept B - one facility option

Concept B uses a single barn facility to accommodate the entire agricultural program:

1. Animal Care & Storage
2. Animal Feed Storage
3. Agricultural & Grounds Equipment Storage

A larger barn allows the building to include all of the square footage requirements of prior agricultural buildings and offers additional space to expand agricultural opportunities in future.

The proposed structure is sited on the south side of the property between the house and VA Route 460.

Conceptual design drawings for Concept B can be found on the following pages.
Concept B

Site Placement

October 29, 2012

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Blackburg Alpha Gamma Rho Facilities

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Final Concept

The final concept draws its form from Concept B. The changes from Concept B to the final version were based on AGR Board recommendations. For economic reasons, the Board wished to build one structure. The Board also agreed that the location of concept B, on the south side of the property facing US 460, would be the least intrusive to the community viewshed.

After determining this building scheme and site, the Board also wished to see concept B increased in size. The Board requested the design to be shown to increase barn length by 30’ (to offer more brothers agricultural practice opportunities), gain 4’ in height (to offer a more usable hayloft), and increase in width by way of open shed areas with roofs on both sides of the barn (for equipment overflow when animals needed more stall space).

Rather than add open shed areas to both sides, the roof was adjusted to provide an integrated covered space on the south side of the barn.

The resulting rectilinear plan is structured by a repeating pole structure that creates a 12’ X 12’ column layout. The drawings on the following pages provide current design dimensions. The proposed structure allows AGR to adjust the size of the building by adding or subtracting from the pole structure along the long axis.

Circulation is through central aisles with designated animal stalls on either side. The stalls can be configured in many sizes. The nature of partitions is open at this time for users to determine.

Within this agricultural context, the proposed concept provides ample space for animal care and storage, animal bedding/feed storage and agricultural/grounds equipment storage.
Final Concept (continued)

The floor plan configuration is flexible and designed to change as needed through an open pole barn design. For example, side by side 12’ X 12’ bays can be fenced such to enclose a 12’ X 24’ area.

The central aisles intersect at the center of the building. The center is open to the hayloft above for drive-in hay deliveries. The hayloft can also be accessed on either end of the building. The building shell extends at both ends of the barn and provides an ample overhang to these hayloft openings. The hayloft is open to all animal stalls on the south side of the structure for efficient hay distribution. For this reason, and in an effort to mitigate seasonal winds, most equipment storage is best suited for the bays on the northern side of the building.

In the final design concept, hayloft areas are accessed by ladders. Permanent stairs were not proposed in the final design to keep the plan flexible. Final design (size/layout) and/or frequency and use by AGR members using the barn may best determine a more permanent vertical circulation scheme. For example, a catwalk from one hayloft section to the other might be more affordable than two stairs, thus freeing up ground floor space. Or perhaps one hayloft is accessed by stairs and the other by ladder. It is recommended to keep stairs out of the central circulation aisles by using a portion of one or more stall areas.

The following drawings convey material intent. There are two basic materials suggested to match the regional language of agricultural buildings. Wood of course provides the frame for the structure. On the public facing poles, it is suggested to cap the poles with dimensional lumber so that from a distance, the barn would appear to be a timber-frame structure. Wood is also used as cladding.

A board and batten pattern is suggested. This pattern is to continue across sliding doors and around the entire base of the building. In place of standard window-type openings in the walls an open ventilation band along the top of both long walls of the barn is proposed to minimize exposure to animals but also offer ventilation and day lighting on the ground floor. Ventilation and day lighting for the hayloft is provided by openings on either end of the barn and through protected openings along the entire length of the roof.

Corrugated metal is proposed for the roof, with areas of like-kind corrugated poly carbonate to provide weather protected day lighting. Corrugated metal is also proposed for vertical cladding on the upper section of the barn. This is to include the covered bays on either end of the barn, and the hayloft siding along the north wall.

While entire roof coverage is a must, cladding can be modified from these designs to offer additional open-barn spaces for AGR. For example, perhaps portions of the long walls, on either side, or on both sides, can be open. Because of the public view of the barn, it is recommended to use cladding to shield agricultural equipment as this often appears untidy.

The barn and its use should enhance the public image of the fraternity and limiting public views of open storage areas is encouraged.
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GENERAL NOTES:
1 Landscape plantings included per CDAC report (2010)
2 This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

Site Plan - Old Barn Demolition
scale: 1" = 100'

Old barn and adjoining fence to be demolished/disposed prior to site work for new barn construction.

Contractor to provide silt & erosion control fencing for entire disturbance area.

Photo Point of View of Old Barn
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General Notes:
1. Landscape plantings included per CDAC report (2010)
2. This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

Site Plan - Grading Plan

Scale: 1" = 100'

Sensitive Areas: Avoid grading under drip line of mature oak trees

New Pole Barn (120' x 46')

Contractor to provide erosion control fencing for entire disturbance area.

Circulation Key:
- Animal
- Hay/Feed
- Equipment
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Foundation Plan
scale: 1/8" = 1'

NOTES:
- Primary Structural Poles are based on a 12' X 12' Grid
- Structural Poles: pressure treated lumber rated for ground contact

Edge of Roof Above
Shed Roof Footings: 20" X 20" X 12" (top of footing @ 2' below grade)
Concrete Pier (Sonotube) (from footing to 2" above grade)
Pole Footings: 32" X 32" X 12" (top of footing @ 2' below grade)
10" Diameter Structural Poles

Primary Structural Poles are based on a 12' X 12' Grid
Structural Poles: pressure treated lumber rated for ground contact

Tonic: 123’ 0”
1 2
1 2
1 2
46’ 9”
50’ 3”
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South Elevation

scale: 1/8" = 1'

NOTES:
- Transparent Polycarbonate for Daylighting
East Elevation

scale: 1/8" = 1'
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West Elevation

scale: 1/8” = 1’
Section B - East-West Cross Ventilation

scale: 1/16" = 1'
Section B: North-South Cross Ventilation

Scale: 1/8" = 1'

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The conceptual solution contained herein does not reconcile the original program requirement (see Project Description) of replacing the lost picnic pavilion due to VDOT activity.

The Town of Blacksburg zoning ordinances prevent any fraternity within Town limits to expand fraternity-related use. Because of the economic benefits to the fraternity of aggregating total square footage requirements within a single structure, a dedicated picnic pavilion of like-kind and size could not be offered. Thus, the intended use of the proposed structure is based on the fraternities interest and rights to practice agriculture.

Within this agricultural context, the proposed concept provides ample space for animal care and storage, animal bedding/feed storage and agricultural/grounds equipment storage. The floor plan configuration is flexible and designed to change as needed through an open pole barn design.

As an agricultural structure, the proposed facility falls outside many of the requirements determined by the International Building Code*. However, the facility must comply with other local requirements.

The subsequent section provides "Follow-Up Information" as obtained through meetings with Town of Blacksburg officials and a review of local ordinances. This information should not replace official requirements. The owner and other service providers working on future phases of the project should be aware of current requirements as the included requirements affecting the project may change following the date of this publication.

*Note: The barn as an agricultural-utility building is not subject to certain building codes that specifically address safety. Due to its intended agricultural use the drawings also do not address user safety. The owner should address certain areas with respect to safety with their future service professionals. The hayloft area, including vertical circulation to/from, and hayloft boundaries (open to areas below) should be adequately addressed to prevent accidents. AGR will need to determine if the convenience of hay distribution into stalls below should outweigh a guard to prevent falls. Smart design could address both. The bottom rail of a guard could be placed at a height to allow hay to be pushed through this opening to the stalls below while also providing protection.
Follow-Up Information

Building Permits & Construction Documents:

The Town of Blacksburg will issue a building permit if a satisfactory set of plans (construction documents) for the proposed agricultural barn meets their requirements. The requirements for the submittal is included in the appendix of this report.* It is most efficient to align the structural details of the plans with the means and methods utilized by your selected builder.

*Note: Future contributors to the project will want to confirm the current requirements by obtaining a current document from the Town’s website.

Recommendation: Coordinate a meeting with both a licensed architect and builder so standards can be leveraged for the project. The following information will help the project team comply with Town requirements.

Compiled from prior meetings with the Town, the following information is the level of detail that the Chief Building Official will be interested in seeing specified on the plans:

Structural Drawings and Specifications: type, size, spacing, etc... for the categories below:

1- Footing Design Details
   • Footing dimensions, concrete specifications (typical), rebar size, spacing, direction)

2- Framing Details and Lumber Schedule
   Lumber type, size, spacing

3- Connections and Fastener Schedule
   • For connections such as:
     • Footing to Post (Anchor type, size, fastener specifications),
     • Floor Joist to Beam (Hanger type, size, fastener specifications),
     • Post to Beam (Thru Bolting, Cleating, etc...)  
     • Roofing to Rafters (Fastener type (i.e. galvanized), size, spacing),

   Note: when using “building products”, manufacturing specifications should be included.

Plumbing:

On drawings, show supply below grade, show connection to source, outlets, etc... Per conversations with the Town, an acceptable water source is to be called an agricultural-spigot appliance (frost-free hydrant type) and no floor drains should be shown.

Electrical:

The intended use for electrical service will determine how electrical service is supplied: If the intended strategy is to provide electrical service from the current service at the house, this would need to be demonstrated to the Town as sufficient.

If intended use will not be met by using the current service, a new service/sub-panel will be needed to be provided by an electrician.

If interior fixtures will be used for lighting, an interior lighting plan will be needed. In addition, zoning ordinances addressing light pollution restrict any exterior lights from being an open bulb type and/or fixtures that emit horizontal light. All light from exterior fixtures must emit light down.

Site Plans: (5,000 sq. ft. Disturbance Threshold)

Once disturbance of the land exceeds 5,000 square feet (as is currently the case with the building footprint alone), certain site plan requirements are triggered.

1. Erosion/Sediment Control Plans ($600 Town Fee)
2. Stormwater Management Plans ($1000 Town Fee)

While the Town’s fees are significant, the corresponding design fees to produce acceptable plans are critical to understand. The Town of Blacksburg website (GIS Section) includes Erosion and Stormwater requirements.

The increased size of the single structure puts the project well over the 5,000 threshold. Adjusting the size as described, and the adjacent site work to keep the project under 5000 sq. ft., would minimize fees/requirements.

However, one must be careful not to simply avoid this threshold and lose sight of the intent of the require-
Follow-Up Information

ments altogether. The AGR Board will want to develop the property responsibly for future AGR members and the benefit of the greater community. For example, avoiding a stormwater management plan should not prevent one from thinking about rainwater harvesting, dry-wells, bio retention swales or other runoff-control measures. A tremendous amount of water will be flowing off the barn, regardless of its final footprint.

Bringing any future site-work projects to the table at the next phase of planning and design (such as parking resurfacing), AGR would be well served to have a professional to consider a comprehensive stormwater management and provide a master plan in this regard.

Other techniques to mitigate the 5,000 requirement include phasing the disturbance, which would be difficult to apply here: the barn construction and associated site work is phased such that each phase would be less than 5,000 and that adequate stabilization measures (seeding) are taken between phases.

The demolition of the current barn, and specific siting are also opportunities. The demolition permit for the current barn could be done immediately, and this would fall under the 5,000. Following stabilization, your construction project would apply under a different permit and be evaluated for the disturbance that corresponds to the new project. To perform both demolition and construction under one permit, the associated disturbances will need to be combined.

Because the footprint of the current design and the old barn are so unequal, it is difficult to similarly site, and thereby superimpose the disturbances. However, if the new design was adjusted accordingly, this is an opportunity to reign in the disturbance areas. This changes the current design and location radically, but sharing this option in light of the situation seems appropriate.

Lastly, based on a three dimensional terrain modeling and massing study, smaller versions of the final size requested by the Board will “fit” better and also provide driveway and parking privacy from some of the public views on 460. (See Appendix B - Page 1 of 2)

CDAC is interested in minimizing how the new structure might dominate the site and overshadow the historic AGR house. The AGR property is an important open-space viewshed in town, so CDAC supports this recommendation.

An example of new construction overshadowing historic facilities can be seen on 460, across from campus at the equestrian center, where from certain angles, the historic barns there are nearly screened from public view by the new arena.

CDAC’s objective is to preserve, through this design and these recommendations, the open space qualities of the property and the historic significance of the house for both the benefit of AGR and local community.
Appendices

Appendix A (2 pages)  New Commercial Projects Plan Submittal Requirements

Appendix B (2 images) Viewshed modeling study of site terrain and proposed barn design
New Commercial Projects Plan Submittal Requirements

Please submit the following information:

- Two complete sets of plans
- Site plan
- Soil report
- COMCheck
- Any requests for VUSBC modifications
- Provide all information pertaining to special inspections as required by 1704.1
- Asbestos report (if demolishing structures constructed prior to 1985)
- Historical Design and Review Board approval (if required)

Plans shall include the following information at a minimum:

- Must be to scale
- Sealed by all Architect(s) and/or engineer(s) of record
- Site plan
- Building Code Data including:
  - Use group(s), if more than one use mixed or separated
  - Construction type
  - Occupancy load
  - Egress information including travel distances, exit access distances, etc.
  - Sprinkler information
  - Fire alarm information
  - Number of stories
  - Height and area calculations
  - Code edition
  - Fire separation distances
  - Energy conservation code compliance – Prescriptive or Performance
    (Show compliance with mandatory energy code requirements on the plan)

- Submit Site Plan – must show accessibility from public ways to building.
Appendix A (2 of 2)

☐ Provide floor plan layout. Please include uses of all spaces. A use must be designated for each space. Empty space (unfinished space) within a structure must be identified as to its intended use group.

☐ Window and door locations and schedules. Provide U-factors of windows, skylights, doors and other glazing.

☐ Building sections for all wall types, floor/ceiling assemblies, stairs, etc

☐ Wood Construction - Show wall bracing locations and attachment, blocking details.

☐ Details and location of all fire rated partitions or construction

☐ Insulation requirements, R-values

☐ Roof plans- covering type, slope and venting

☐ Details of all penetration of fire rated construction or assemblies

☐ Structural, mechanical, plumbing, electrical, sprinkler system and fire alarm systems

☐ Roof/ floor Truss layout and detail sheets approved by structural engineer of record.

☐ Electrical riser diagram including size of all conductors, conduit and equipment

☐ Mechanical equipment schedule and include equipment specifications, submit ASHRAE/ACCA Standard 183 Worksheets.

☐ Cross connection protection for water connection hazard level of occupancy, size, type and location

☐ Soil report must be submitted in accordance with 1802.2.2

☐ VUSBC modification requests must be made in writing and must state the reason for the request and the method being used to meet the spirit and intent of the code.

☐ Special inspections information per 1704.1

Plans will be reviewed within 60 days of submittal date. A submittal date will not be assigned until all information requested has been submitted to this office.

Please call (540) 961-1125 if you have any questions.

2/2012
Disclaimer: This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

Recommendation - The shaded area above reflects a reduction in length of the building by 24 ft. Moreover, the location shifts the building away from impacting heritage oak root systems, and in the move, reveals more of the historic AGR home, and screens additional parking areas from public views.

3D model view of proposed barn from US 460 west from the Tom’s Creek Road exit
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3D model view of proposed barn from Honeysuckle Road, south of property access drive