

Project Showcase

hyundai of brenham

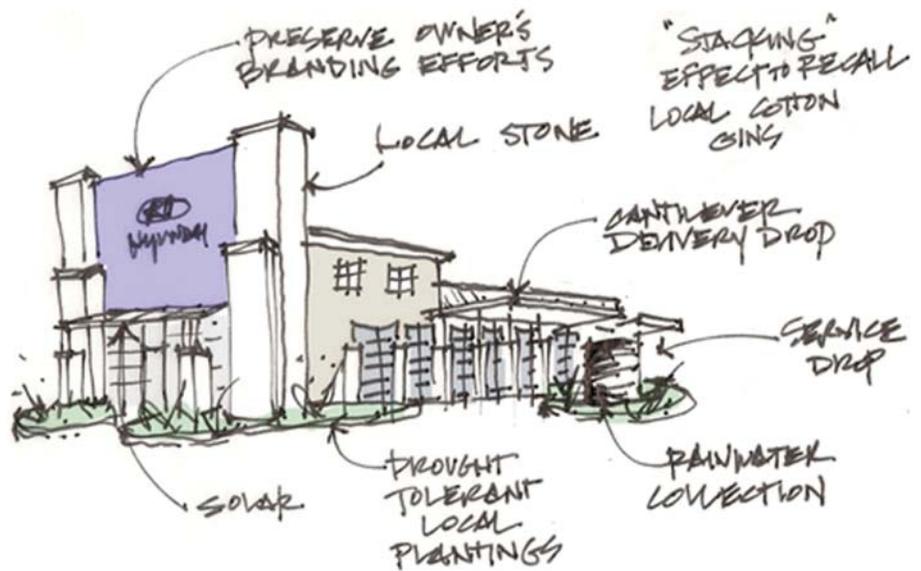
By Burch Group Architects

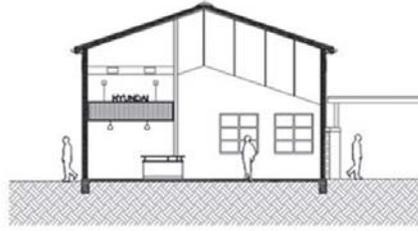
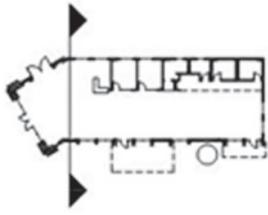
The design process for the New Sales Facility for Hyundai of Brenham was an experiment in the feasibility of attaining LEED accreditation at a cost comparable to a project where sustainable practices were not a factor. Through the combined efforts of Owner, Contractor, and Architect, good stewardship and energy efficiency were the grounding ideas in an effort to create a green building without a significant change to the budget.

The rural context of the project paired with the industrial nature of the automobile itself became the source of design inspiration. Combinations of wood and steel, soft earthy colors, raw metals, and high efficiency lighting become reminiscent of nearby historic cotton gin barns. The Hyundai dealership is a building meant to be true to its rural place, as well as true to the energy-efficient nature of the project it markets.

Hyundai of Brenham is located on a small site bordered by Highway 290 and a wet-weather creek. The Hyundai corporation stipulated that the "front" door must face Hwy 290. The site features a natural, elevated terrain and a gently sloped detention pond. Roughly half of the Owner's car display area is a more pervious gravel paving versus concrete, lessening the need for detention and aiding the site in dealing with storm water runoff.

The design team determined very early on that the building would be most ideally located at the one high point of the property, which would allow the natural contours of the property down to a wet-weather creek to remain largely undisturbed. The building façade placement became more of a challenge due to the Owner's restriction that the front "door" must face the adjacent highway. Another Owner restriction, that the

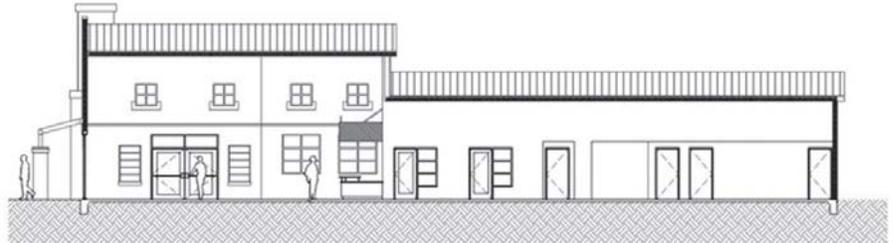
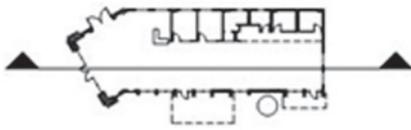




Building sections demonstrate the daylighting characteristics and open-plan functionality of the building.

The “stacking” nature of the building masses recall local historic cotton gin barns, and give interest and variety to a very economical structure, at both the exterior and interior scale.

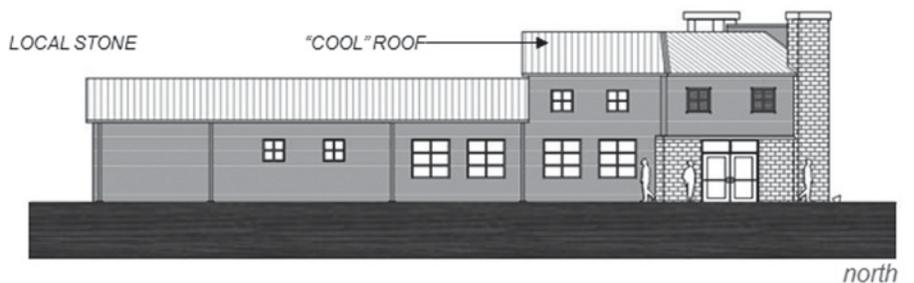
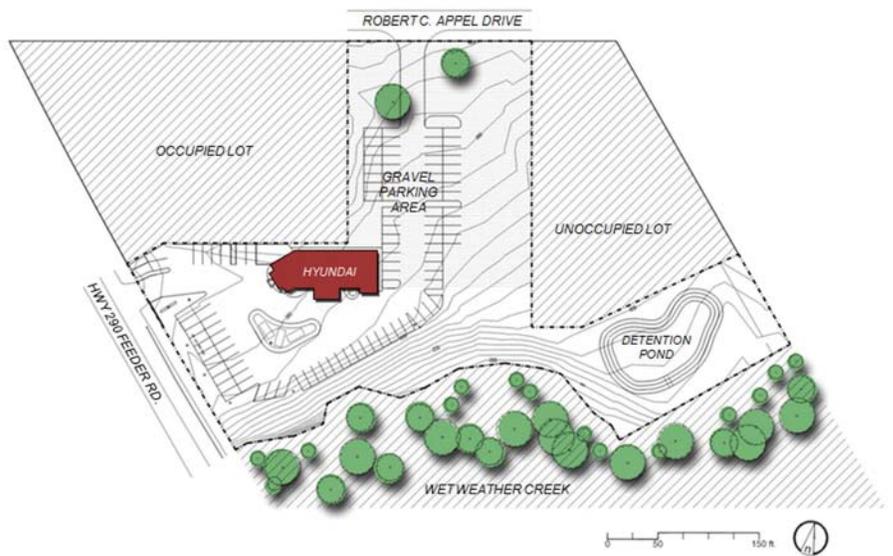
Images provided by Burch Group Architects



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► facility must be a pre-engineered structure (a restriction based on economics), led to several schemes which separated the Hyundai signage from the building. However, these scenarios did not integrate the Owner’s branding efforts as well as they would have liked.

The ideal solution became clear after the construction manager called a local pre-engineered building contractor for input. The metal building contractor agreed to use his resources to modify a small portion of the front of the building to face the ►



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▶ road. Thus, in a “pseudo” pre-engineered building, the entire building sits upon the natural high point of the property, and the very front faces the highway as the Owner requested.

The multipurpose nature of the large open space of the building allows for marketing functions, flexible vehicle display, and the community activities which the Owners routinely host. All work spaces feature daylight and views, task lighting, and a “clean” work environment accomplished by the use of zero-VOC paints and sealants. The high-efficiency HVAC equipment is easily accessible via removable panels over the restroom area mezzanine.

The Hyundai of Brenham building features a galvalume “cool roof” system, bifacial solar panels as an entry canopy, shaded low-E glazing, a rainwater harvesting cistern to collect water for drip irrigation of drought-tolerant plants, and local building

materials throughout. The building was designed with construction recyclability in mind and over 95% of the construction waste materials were recycled. According to energy models, building commissioning, and ongoing verification through a computerized energy cost regulation system, the Hyundai building expects a 22% energy savings over the typical baseline (code compliant) case study.

The building exterior varies drastically from the traditional all-glass (non-shaded), stucco facades of the typical dealership. Hyundai’s exterior façade features high-recycled content metal siding and local stone. All of the (high efficiency) exterior lights are time-clock controlled in conjunction with photo eye sensors, in order to maximize efficiency and cut energy costs. Bifacial solar panels function as a front entry canopy and collect energy from both the atmosphere and the concrete paving below.

The design incorporates the use of FSC certified wood, individual space lighting controls, recycled furniture,

low-e glass, and shaded windows in pursuit of energy savings and LEED certification. Exposed ceilings and bare polished concrete floors reduce the waste associated with additional treatments and continue the industrial feel of the space.

Architecturally, the rural context of the project paired with the industrial nature of the automobile itself became the source for design answers.

Combinations of wood and steel, soft earthy colors, raw metals, and high efficiency lighting create an overall effect similar to nearby historic cotton gin barns.

While the building remains true to its place, the community response is one of interest and curiosity; the “green” features in particular have generated a continuous flow of questions and have essentially created a platform for educating a rural community on more energy-efficient design and building. Hyundai of Brenham opened in March of 2011, within budget, and currently awaits LEED certification. ■



Project Details
 Completed: 2011
 Client: Appel Hill Properties, LLC
 Size: 3 259 sf



- 1. VEHICLE DISPLAY
- 2. RECEPTION
- 3. LOUNGE
- 4. OFFICE
- 5. BREAK ROOM
- 6. ELECTRICAL
- 7. RESTROOM
- 8. SALES
- 9. DELIVERY ENTRANCE
- 10. SERVICE ENTRANCE