In any area in which the preservation of beauty of Nature is a primary purpose, every proposed modification of the natural landscape ... deserves to be thoughtfully considered. A basic objective of those who are entrusted with development of such areas is ... to hold these modifications to a minimum and so to design them that, besides being attractive to look upon, they appear to belong to and be a part of their setting.

Arno B. Cammerer, 3<sup>rd</sup> Director, NPS, 1938.

#### SUSTAINABLE FACILITIES

Catoctin Mountain Park operates three cabin camps, one campground, and one youth camping area in addition to 12.72 miles of roads and 37 miles of trails. Along with utility infrastructure these facilities sustain at full operation a community of over 800 people. Park staff insures that all facilities are aesthetically compatible and historically accurate. All facilities will be maintained in ways that minimize deterioration and provide the safest environment possible for staff and visitors. Many facilities utilize a variety of sustainable materials and energy conservation measures that we hope to expand with future projects. Sustainable materials include recycle wood and plastic decking, occupancy sensors for lighting. We will seek to maximize the public's utilization of our facilities without impairing them.

# Accessibility

The Americans with Disabilities Act (ADA), enacted in 1991, and the Architectural Barriers Act (ABA) requires federal agencies to make new facilities and programs accessible to the full range of abilities and disabilities. Interpretive programming must be developed in accordance with NPS Director's Order 42, and interpretive media must be developed within the NPS Accessibility Guidelines for Interpretive Media.



Sawmill boardwalk. Photo by NPS.

Interpretive and Education Program Access: The park web pages meet current accessibility guidelines and have sections identifying access information and facilities for visitors. Interpretive and education program access needs to be more fully explored and developed. Closed captioning equipment and assistive listening devices are available at the Visitor Center and a PMIS request is in place for an orientation film/video. A few site bulletins are available in large print but need to be updated. Increasing interactive and tactile exhibits needs to be explored and implemented.

Structural Access: Physical accessibility has improved throughout Catoctin Mountain Park, especially at the Visitor Center and group camp facilities. Existing barriers to accessibility have been identified at many park sites. Installing accessible grills, picnic tables, tent pads, and surface materials would be a first step. These improvements are needed in the picnic areas and walks that connect parking to comfort stations, water fountains, and play equipment need to be modified. There are no fully accessible camping sites. Our aging cabin camps and picnic areas need interior element improvements in all comfort stations and kitchen areas to make them fully accessible.

### SUSTAINABLE FACILITIES

## Accessibility (cont'd)

Exterior elements in the Camp Misty Mount and Camp Round Meadow also need to be brought up to ADA standards. Although we recently completed an accessible trail in Misty Mount, there are almost no other accessible walks due to excessive slope, cross slope, or surface conditions, to connect the elements in these camps to each other. With the exception of Spicebush Nature Trail and the Sawmill Exhibit, most of the trails and outdoor interpretive exhibits are not accessible due to mountainous terrain and rough trails. Owens Creek Campground Amphitheater needs improved seating for wheelchair access. There are no scenic vistas available to visitors with mobility impairments.

Innovative solutions to make reasonable accommodations need to be explored, planned and implemented. As the majority of US population continues to age, there will be an increased demand for accessible facilities and services throughout the park. Overall, the park needs to extend accessibility into developed park areas that have not been upgraded to ADA standards and complete accessibility improvements at sites that have received partial improvements so that all visitors may fully experience and enjoy the park.

# **Design Guidelines**

Catoctin Mountain Park needs to develop design guidelines that specify building materials and construction techniques suitable to its rural environment and its historic New Deal era construction. Standards are needed for interior and exterior historic lighting, color palettes and texture finishes for roofs and buildings, and road and walk surfacing materials.

# **Energy Conservation:**

The conservation of energy in all forms is an important aspect of maintaining sustainable facilities at Catoctin Mountain Park. Finding ways to reduce or eliminate the need for energy in daily park operations can and will save the park budget dollars.

The basic areas of concern are domestic hot water heating, lighting, insulation, building heating and cooling and vehicle fuel consumption. The park has taken the approach that to accomplish this work; we will use the following criteria.

Energy conservation projects will:

- Utilize available and proven technology.
- Be easy to achieve.
- Have Low to moderate unit cost.
- Be able to phase in over time
- Be easy to maintain
- Have less than ten year payback to recover cost
- Use alternative fuels when possible

Several recent energy related projects that we have undertaken include:

- Replacing older heat pumps and oil fired furnaces with higher efficiency units.
- Providing additional wall, ceiling, and exterior insulation in deficient buildings
- Installing timers on hot water tanks.
- Installing motion sensor controlled parking lot and office lighting.
- Purchasing alternate fuel and hybrid vehicles to reduce gasoline consumption.

### SUSTAINABLE FACILITIES

## **Hours and Seasons of Operation**

#### Visitor Center

Balancing visitor services with fiscal and human resources is a continual challenge. We will seek to operate facilities to accommodate the greatest demand by the public. To serve most of the park's day use visitors, the Visitor Center is open 7 days per week. During higher visitation periods of spring through fall, the facilities are open on holidays; during the winter months when visitation is generally lower, the facility is closed on holidays as a budget saving feature. The building opens at 10:00 am on weekdays to better match visitor use patterns and provide staff time to work on interpretive programs and projects, answer mail, and conduct other park business.

#### Headquarters

Park Headquarters is open Monday-Friday from 8:00-4:30.

#### Cabin Camps

The operation of camps is tied to seasonal visitation trends. Camp Misty Mount is an individual cabin rental facility used by individuals, families, and organized groups. The camp is open from mid April through the end of October since cabins are unheated. Heaviest use is May through August with a slight drop in September. The camp is extremely busy on October weekends due to fall foliage. Camp Greentop is an organized cabin camp for larger groups. As the individual cabins are not heated, the main visitor use is in the summer and weekends in the spring and fall. Use by organized youth groups results in higher demand for weekends when school is in session. Camp Round Meadow is available year round since it has four heated dormitories available for rent. It is the only year round facility for rent in the park and is used by the public, and for special events and media activities related to the operation of the Presidential Retreat.

#### Campground

At Owens Creek Campground the demand for family and individual camping is often dependent on the weather. Most campers prefer mild to warmer temperatures. The campground is open from mid April through the 3<sup>rd</sup> Sunday in November. Mid April allows the staff time to prepare the camp for the upcoming season. Summer visitation, June through August, remains fairly constant with weekday camping dropping off in September coinciding with the re-opening of the local schools. October weekends are very busy with people enjoying the display of fall colors. November offers those campers who enjoy cooler weather and more privacy an opportunity to enjoy the park. The demand for winter camping is very low so the closing of Owens Creek Campground is set for the weekend before Thanksgiving.

#### Other Sites

Two Adirondack Shelters are a hike-in primitive camping facility that is open year round for those desiring back country camping experience. Poplar Grove Youth Group tent camping area is available for organized youth groups requiring reservations. This campground serves many Scout groups and provides opportunities to meet winter camping requirements. Poplar Grove is closed only from March 1<sup>st</sup> through April 15<sup>th</sup>, for repairs and rehabilitation of the campground. There are two Poplar Grove campgrounds but only is open at a time as sites are rotated every three years to allow for regeneration of vegetation at the closed location.

### SUSTAINABLE FACILITIES

# **Right Sizing Visitor Services**

#### Picnicking

There are five picnic areas throughout the park varying in size from one table to twenty-five tables, three areas have ether a pit toilet or comfort station, but none have a picnic pavilion. Many groups have requested such a facility and range from 10 people to 50 people in size. A pavilion would provide an ideal facility for many of these groups who visit the park as day visitors throughout the year since the weather can change quickly in the mountains and ruin an otherwise pleasant outing. The construction of a 30' X 75', open sided pavilion, equipped with electric lights, tables and centrally located cooking area could handle up 50 people. Possible locations include: Chestnut Picnic Area, Camp Round Meadow Area, or the Visitor Center Area. The funding and construction would be partnered between the park and groups who wished to contribute and/or participate in construction.

### Recreational Vehicle (RV) Campground

Today nearly 8 million U.S. households own at least one RV—a 15 percent increase over the past four years and a stunning 58 percent rise since 1980, according to a University of Michigan study. One in 12 U.S. vehicle-owning households now own at least one RV. As demands to accommodate RVs increase, the park will explore adding a RV campground. Electric hook-ups, dump stations, and additional support services would be part of the development package. Sales of firewood and ice, often requested by campers at Camp Misty Mount and Owens Creek Campground, would be considered as an additional source of income for the park and additional services for our campers.

#### Swimming Pools

The original Camp Greentop and Misty Mount swimming pools were constructed in the 1930s and have been modified and repaired many times over the years. They are in need of replacement due to deteriorated concrete and poor water circulation. The Greentop pool is used extensively by handicapped campers, but only about half of the pool is shallow enough to be safely used by non-swimmers. The deep end (8 feet) is wasted space as we allow no diving due to safety issues. The pool has many cracks in the concrete and loses water at an unacceptable rate of about 2 inches per day. Cracks have been caulked many times, but reappear each year. The existing circulation and filter system do not provide adequate filtration due to poor water circulation. Poor circulation, deep water, and the addition of fresh cold water each day makes it impossible to maintain proper water temperature (78-84 degrees) for campers. There is only one water return pickup for the filter and only one water feed to the pool.

### SUSTAINABLE FACILITIES

## **Right Sizing Facilities**

The park is in the process of possibly downsizing the Owens Creek Picnic Area. This picnic area has proven to be a difficult area for disabled visitors and comfort station maintenance. Sloping terrain makes it difficult to meet ADA requirements and high humidity levels caused by heavy shade make the cleaning and upkeep of the comfort station difficult. There is no electric service at this site and the addition of solar energy would mean cutting down a large number of good trees to acquire enough energy to maintain the comfort station. The current level of visitation is being reviewed to determine if this site is a viable full service picnic area or should be a trailhead parking area for the Brown Farm Trail. If the parking area is downsized, the comfort station, picnic tables, and much of the old loop asphalt road will be removed. The old road bed and picnic sites will be returned to nature leaving only a parking lot for the Jim Brown Farm Trail Head and 1-2 picnic tables.

#### Quarters

Currently there are six residences within the park. Four sets of quarters in the park are rented to personnel who, as a condition of employment, are required to live in the park. The remaining two are used for temporary quarters for law enforcement, seasonal employees, and volunteers. Costs of maintaining these structures are borne by rental fees paid by the employees. These facilities are adequate to our needs but we would prefer if that they be more geographically dispersed around the park. Currently there are no quarters along the northern boundary. The park also maintains volunteer host sites in Round Meadow and Owens Creek Campground and a cabin for volunteers in Misty Mount.

The mobile home facility currently located in the park will be phased out closed by 2009.

#### **Demolition of Misty Mount Stables**

The Misty Mount Stable building, located behind the Roads and Trails (R&T) Yard, should be removed with the electric and water connections to remain for future use such as a campsite. The original part of the structure was a picnic pavilion, built by YCC either the late 1970s or early 1980s. Later in the 1980s it was expanded to include the second story (hayloft) and the Tack Room. The building has most recently been used as a Maintenance storage shed for BBQ grills, trash cans, and lumber.

# **Proposed Construction**

### Fitness Facilities

Maintaining fitness levels is required for all law enforcement and firefighter personnel. Law enforcement and firefighter employees are afforded 3 hours/week on duty time to assist in maintaining a high level of fitness. Other employees have the option to use fitness equipment by arrangement with the fitness coordinator. Currently fitness equipment is available to Catoctin Mountain Park staff in the Round Meadow gymnasium. This equipment provides cardio training with a Step Master, treadmill, stationary bike, ski machine. Weight equipment provides strength training with a "Universal" type machine, a "Bow Flex" type of machine, sit up bench. Equipment is outdated, marginal in operation, and space is cramped. Rangers have use of the gym for basketball, volleyball (when not rented) and the use of pools at Greentop and Misty Mount for exercise. Law enforcement rangers and firefighters also have the ability to use fitness facilities at the nearby Federal Emergency Management Agency (FEMA) campus to maintain fitness standards.

### SUSTAINABLE FACILITIES

## **Proposed Construction (cont'd)**

### Records and Supply Storage Building 167

Current storage of many temporary paper records occurs at Building 167, a former park housing unit constructed in 1966. These records are retained here only until the NPS Records Disposition Schedule allows them to be destroyed, usually a period of from 3 to 6 years. Destruction of records subject to the Privacy Act requires shredding on-site. While stored here, the records are accessible for reference as needed by authorized staff. Building 167, however, has inherent problems of humidity and periodic rodent infestations which prohibit any permanent record storage. It is utilized primarily because storage space in the park is limited, and this is currently the best option.

The building is currently not handicapped accessible as there are steps to enter at both the front and back of the building, the bathrooms are too narrow and most of the rest of the building would be difficult to navigate through in a wheelchair. The building could be remodeled on the interior to eliminate the barriers and a usable access route into the structure developed with a small parking area. Several trees would have to be removed to allow more sun light in to the area in an effort to cut down on mold issue. The structure is heated and air conditioned with a heat pump system and backup base board heating in all areas of the building.

The park needs a secure climate controlled storage. Building a new stand alone structure for this purpose seems unnecessary when an extension on an existing structure could handle our needs. The best solution would be to modify the park's warehouse, located in Camp Round Meadow, to accommodate the various supplies and materials now stored at this location. This building should be surveyed and removed. The footprint could either be restored to nature or turned into a small picnic area for the east side of the park.

#### Warehouse

The park's warehouse, located at Camp Round Meadow, is well suited for the storage of heavy, bulk supplies and materials that do not require a controlled atmosphere such as humidity or temperature. While the current warehouse is large and fairly spacious it is not well lit or well insulated. Structurally, the building is in good condition and could be upgraded to provide climate-controlled storage for many types To maximize use of this space, a section is needed that would allow storage of paper products, computers and other items sensitive to extreme heat, cold and high humidity. Many files and records must be kept onsite for a pre-determined period of time as stipulated by NPS Records Management regulations. Until time of destruction, these must be easily retrievable for reference.

Currently, inventory is stored in several different areas in the park. The warehouse could be arranged to allow for better central storage of items and better use of other spaces now being used for inventory. All items in the warehouse should be clearly labeled and one person should be responsible for tracking inventory. Should it be needed, this building could replace Building 167 on the east side of the park that houses supplies requiring a controlled storage atmosphere.

# SUSTAINABLE FACILITIES

## Proposed Construction (cont'd).

### Salt Storage Facility

Road Salt is an important material used by the Maintenance Division each winter to control snow and ice on the park roads and parking lots. At present, road salt storage at Catoctin Mountain Park is accomplished in a roofed, open-front, concrete storage building. Having an open-front design, the salt is exposed to rain that blows in and water that wicks in from the foundation and causes a top layer of crust to form and freeze. Salt run-off also kills nearby vegetation. A new salt storage facility that would keep all of the salt dry and ready to use throughout the year in an enclosure. The snowplows could also be loaded inside this storage facility, causing less spilled salt and sand in the loading area. The cost of such a facility is expensive (over \$ 100,000), but will keep the surrounding environment cleaner while reducing exposure to inclement weather for drivers and loaders.

### Security Facilities

The park has some security structures that are used for vehicle checkpoints. These are adequate but could be improved to provide better tactical protection for law enforcement rangers. Vehicle barriers currently in use are difficult to place for temporary security details. Planning to improve vehicle barriers is currently underway.

### Visitor Services Office/Ranger Station

This ranger station is located at the west end of the park in Camp Round Meadow. With law enforcement presence at the Visitor Center and Park Headquarters) on the east end of the park, this provides balanced coverage. There are 3 individual offices and shared space for 3 in a larger room. Current issues include: adequate office space, adequate lighting in common areas, and the need for additional physical security including deadbolts and alarm systems within the building. Detention facilities in the form of a bench where detainees can be handcuffed are included at one end of the ranger station. This allows rangers to process paperwork and monitor detainees. As this is a shared space, weapons storage security needs to be improved and vigilance maintained to ensure that no potential weapons are within reach of a detainee. This building could be expanded along the west side to allow for more office space and further separation of detention and office areas. Acquisition of additional buildings along Foxville-Deerfield Road would allow for a greater law enforcement presence along a heavily trafficked road near the northwestern boundary.

### SUSTAINABLE FACILITIES

## **Solid Waste Management**

#### Recycling

Catoctin Mountain Park has recycled materials for over 30 years. In the late 1980s, the recycling effort was expanded to include: car/truck lead acid batteries, antifreeze, motor oil, hydraulic oils, NiCad, mercury and gel cell type batteries, old lumber, glass, plastic, and metal containers, metal scraps and vehicle tires. Later, paper and cardboard were added to the list and included in a commercial contract attached to the park's trash service. Hazardous tree limbs are reduced to wood chips each year for use throughout the park. Hazardous trees that cannot be left in place to recycle nutrients back into the soil are cut into firewood and used to heat many buildings throughout the park. This firewood is burned by campers at Camp Misty Mount and Owens Creek Campground and made available to park staff in park housing to help defray energy costs. Old road bed material has been recycled for rehabilitating trails, gravel roads and parking areas. Asphalt road millings are used to stabilize and improve gravel roads and parking areas. We will also provide recycling containers at all dining halls, Park Headquarters, and the Visitor Center or other points of waster generation.

#### Trash Free Park

Ideally, all park visitors will take only pictures and memories and leave only foot prints when they visit. Many people take a break at one of the park's rest / picnic areas for a meal and relaxation. This can be part of an overall positive outdoor experience for the visitor. On the other hand, trash left behind by the visitor is a negative impact on the park and requires additional staff time, equipment and expense for the park to dispose of the trash. Trash Free Parks are quickly becoming a reality in the effort to educate the public in the areas of recycling and trash conservation. Visitors learn to use more recyclable materials and therefore have less waste to dispose of at the end of their visit. Areas throughout the park have "Trash Free" plastic bags made from recycled materials for the public to carry out their trash as they leave. This will allow the park to provide a pleasant visitor experience without the overall problems of trash cleanup and removal. It is expected that all visitors will take home their memories, pictures, trash and leave only footprints, so that future generations will be able to experience the same pleasant visit.

#### Utilities

Five categories of utilities serve Catoctin Mountain Park. A full listing is found in Appendix C. Four new wireless communications facilities have been installed in the last two years. Currently a major upgrade of all electrical systems is underway across the park. Four new wells have been dug in the last two years and a sewage lagoon has been converted to use as a wetland after the system was connected to a sewage treatment facility. Only Camp Greentop remains on a septic system.

We will also look for opportunities to bury overhead utilities along Route 77, in Camp Round Meadow and at the Chief Ranger's residence.

The park should be preserved in its natural state to the fullest degree possible.
... the great body of the park should be kept inaccessible except on foot or horseback .... The true policy of the government in dealing with this problem should therefore be to make roads as limited in extent as will meet actual necessities, but to make those found necessary perfect examples of their class.

Capt. Hiram Chittenden, US Army Corps of Engineers, 1902

### ROADS

# **National Highways**

East—west interstate highways 70 and 270 provide excellent non-rush hour access from Baltimore and Washington to US Route 15 which is the primary park access route on the east side connecting to both MD Rtes. 77 and 550. US Route 15 was initially dualized in 1970 and has grown into a major north-south artery through the county. Since 1981 Average Daily Traffic Counts (ADT) have increased by 71%. In 2004 Route 15 through Frederick County was designated the Catoctin Mountain National Scenic Byway. Route 15 though the States of Virginia, Maryland and ending in Gettysburg, PA is under consideration as a Journey through Hallowed Ground National Heritage Area by the US Congress.

In Washington County the park is thirty minutes from the major north—south corridor of Interstate 81. I-81 can be accessed from the park via Routes 77 west to I-70 Exit 35 though there is no signage for the park at this exit.

## State Highways

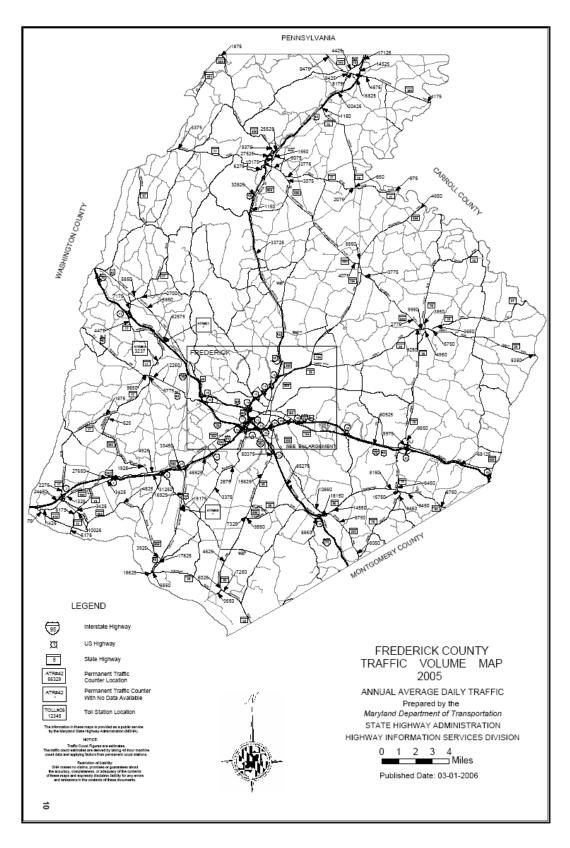
The transportation corridor that connects the gateway communities of Thurmont and Smithsburg is MD Route 77. This highway forms 3.1 miles of the southern boundary of the park and parallels Big Hunting Creek for approximately 4.1 miles. The park holds ownership to the centerline of Route 77 but the MD



Park Central Road. Photo by NPS.

State Highway Administration (MDSHA) and Maryland State Police (MSP) have operational jurisdiction. Average daily traffic (ADT) counts have nearly doubled from 1725 vehicles in 1998 to 3225 in 2004. Increased commuter and truck traffic along Route 77 are affecting visitor experience by increasing the frequency of accidents in the corridor, slowing traffic speeds, and increasing left turn waiting times. Rangers frequently respond to assist Maryland State Police in accident management and the US Secret Service for motorcades. MDSHA does regulate truck traffic over Maryland Route 77 by limiting truck length to 40 feet and allowing deliveries only to nearby communities and installations.

MD State Highway Administration (MDSHA) has been reluctant to implement NPS design and safety standards in the Route 77 and 550 corridors even though the NPS has offered to cost share on issues like stone guard walls and timber guard-rails. NPS believes these would be both a safety and aesthetic improvement within the corridor. The NPS would like to see design guidelines set for the roadway that include the replacement of galvanized W-beam guardrails with timber guardrails or where appropriate stone guardwalls. Funding for these projects could come from Transportation Enhancement (TEA-21) or Scenic Byway funding administered by the MD SHA and the Federal Highway Administration's Federal lands Highway Program.



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## TRANSPORTATION

## **ROADS**

# Park Roads

Catoctin Mountain Park contains 10.55 miles of hard surface road and 1.4 miles of gravel or dirt roadways. In support of the road system the park maintains two bridges, 50 culverts, 23 drop inlets, 4.86 miles of ditch line and 17 parking areas. (see Appendix B). In winter portions of Park Central and Manahan Roads are closed due to hazardous vehicular travel conditions and to allow for cross-country skiing. Traffic congestion is an issue on peak visitation weekends in good weather.

#### Scenic Overlooks

At the present time there are no suitable scenic vistas that can be enjoyed by visitors from their vehicles within the park. The park would like to build one scenic overlook accessible by automobile somewhere between Thurmont Vista and Hog Rock at an elevation of 1,550 feet. This overlook would provide a view of the valley looking north towards Sabillasville and Harbaugh Valley. Design and construction would be similar to overlooks found in Shenandoah National Park and along the Blue Ridge Parkway. This would also implement an uncompleted item from the 1965 Master Plan Catoctin Mountain Park.

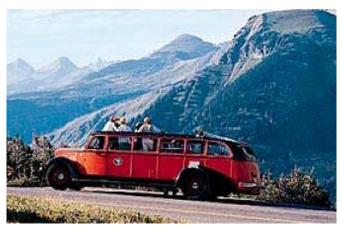
### Tour Buses

In 2006, 4,885 (.07%) visitors arrived at Catoctin Mountain Park in approximately 150 busses. As the population ages that number is projected to rise to as much as 3% annually. Due to the steep grades and seasonal closures Park Central Road is available for bus traffic only from west to east and only during the spring summer, and fall seasons.

<u>Year</u> :	<u> 2006</u>	<u> 2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
<b>Busses:</b>	150	204	183	142	155
Passengers:	4,885	7,665	6,332	4,457	5,605

### Shuttle Buses

Some parks use shuttle systems during peak visitor periods. Probably the first time that Catoctin would use a shuttle system is on peak visitation weekends in the spring or fall. We would probably utilize the type of red bus system currently in use in Glacier National Park.



Glacier shuttle bus. Photo by NPS.

In the 1930s, the National Park Service utilized canvas-topped touring sedans to provide transportation for visitors within national parks. The White Motor Co. built 500 of these touring sedans for Bryce Canyon, Glacier, Grand Canyon, Mt. Rainier, Yellowstone, Yosemite, and Zion National Parks. Glacier's fleet of 33 red with black trim vehicles were built between 1936 and 1938 and refurbished by Ford Motor Company in the last few years. We anticipate that the internal park shuttle would be free to the public. There may also be an opportunity to run a shuttle bus from the hotels in Thurmont to the park on spring wildflower, fall foliage, and Colorfest weekends if there were sufficient visitor interest.