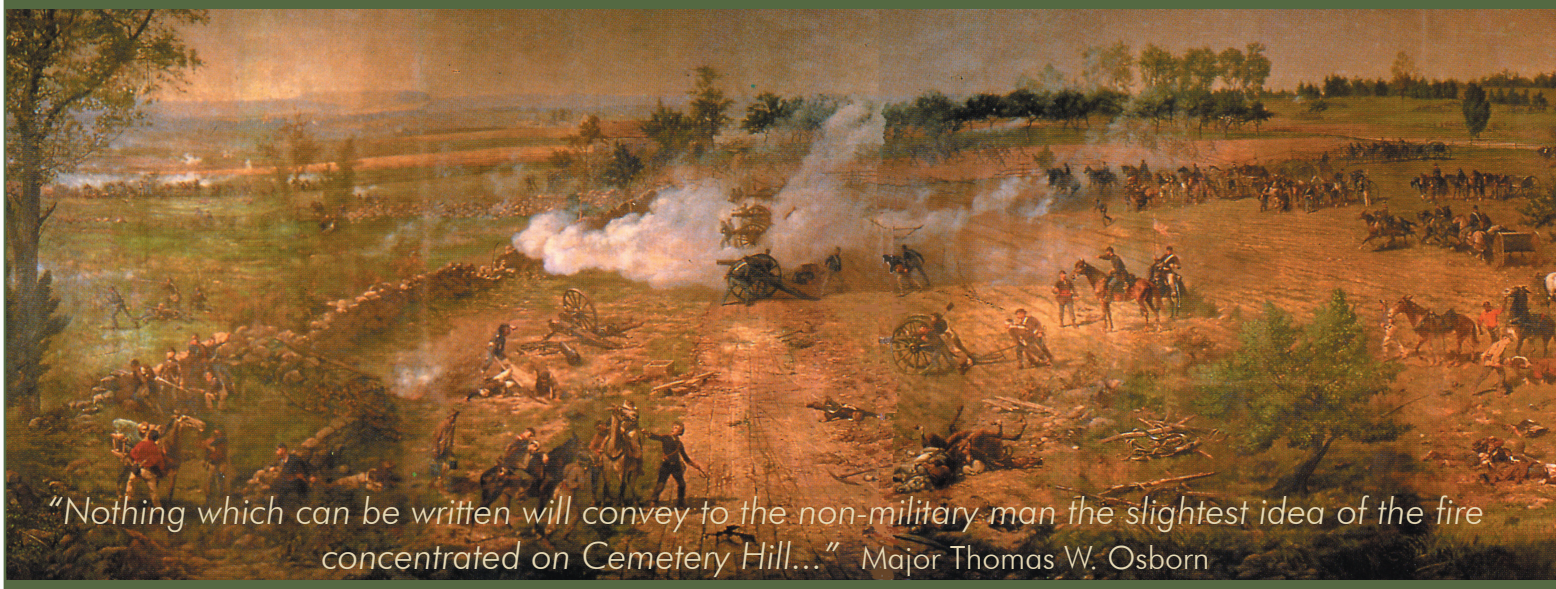


"Nothing which can be written will convey to the non-military man the slightest idea of the fire concentrated on Cemetery Hill..." Major Thomas W. Osborn

Cultural Landscape Report: Defense of Cemetery Hill

Part I: Site History, Existing Conditions, and Analysis & Evaluation
Part II: Treatment

June 2004

Gettysburg National Military Park

Cultural Landscape Report: Defense of Cemetery Hill

FINAL DRAFT

Part I: Site History, Existing Conditions, and Analysis & Evaluation
Part II: Treatment

June 2004

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Acknowledgements

Rhodeside & Harwell wishes to thank the following individuals for their hard work and dedication to making this Cultural Landscape Report possible:

Park Staff:

Dr. John A. Latschar, Superintendent
John P. McKenna, Deputy Superintendent
Jim Johnson, Chief, Resource Planning Division
Brion Fitzgerald, Chief, Interpretation and Visitor Services
Eric Campbell, Park Ranger/Historian
Gregory Goodell, Archivist
Scott Hartwig, Supervisory Historian
Troy Harman, Park Ranger
John Heiser, Historian
Karlton Smith, Park Ranger

Special thanks to:

Winona Peterson, Historian/Cultural Resource Specialist
Kathy Harrison, Senior Historian
Curt Musselman, Cartographer

We would like to especially thank these three individuals for their countless hours of work researching historical data, gathering historic photographs and plans, and producing the maps for this report. Your partnership and support have been invaluable to us throughout this process.

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Introduction

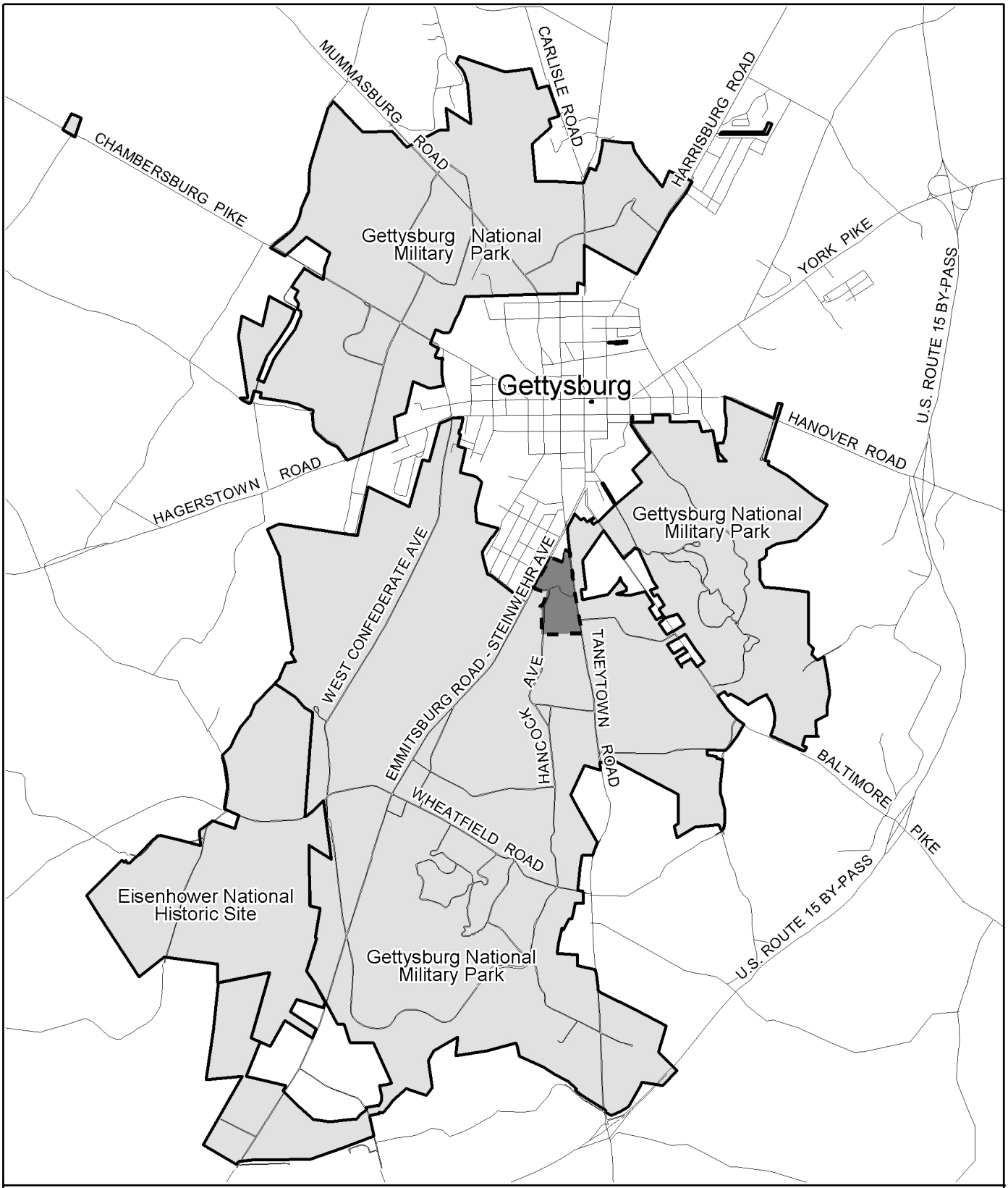
> *"During all the forenoon...the enemy could be seen moving...into position all along Seminary Ridge...and commanding our front. ...with our glasses we could see Lee's batteries in position on Seminary Ridge, standing at regulation intervals covering a line of two miles. It was the longest and finest line of light batteries ever planted on a battlefield. We were fully aware that this...meant mischief to us and that immediately behind it was a corresponding body of infantry."* [1]

So wrote Maj. Thomas W. Osborn in describing the situation from Cemetery Hill during the moments preceding the grand cannonade and "Pickett's Charge" at Gettysburg on July 3, 1863. Today the panorama Osborn described is greatly changed. Fields became woods, the town expanded and modern intrusions appeared, including nearby commercial development as well as the presence of the National Park Service's Visitor and Cyclorama Centers. These dramatic changes have hidden the site of important battle action under asphalt parking lots, concrete, brick, and non-historic vegetation. Thus, it is nearly impossible to visualize today the conditions encountered by over 6,500 soldiers in July 1863. The events that occurred along the western slopes of Cemetery Hill and the northern end of Cemetery Ridge had a significant impact on the Battle of Gettysburg and, ultimately, the outcome of the Civil War.

The General Management Plan (GMP), completed in 1999, ensures that the park has a clearly defined direction for resource protection and visitor use. Volume I of the Cultural Landscape Report (CLR) for Gettysburg National Military Park will include a general history and philosophy of treatment for the critical battlefield landscapes of the park. Other Volumes of the CLR will be made up of a series of proposed CLRs that will, when combined, document, analyze, and offer treatment recommendations for the entire Gettysburg National Military Park battlefield landscape. This report, Volume 3 Part (2) contains the Cultural Landscape Report and recommendations for the treatment of the 'Defense of Cemetery Hill' project area (see Map 1: Location Map). The detailed research and preparation of reports such as this follow the recommendations of the GMP and are the next step in its implementation. Detailed treatment recommendations are provided for this site within the context of the GMP and the mission of the park:

> *"The mission of Gettysburg National Military Park is to preserve and protect the resources associated with the Battle of Gettysburg and the Soldiers' National Cemetery, and to provide understandings of the events that occurred here, within the context of American history."* [2]

One of the most important proposals in the GMP included the building of a new visitor center and museum complex and the removal of the current facilities from Cemetery Hill and Ziegler's Grove. The study area for this CLR includes the northern extension of Cemetery Ridge with Taneytown Road forming its eastern edge (see Map 2: Study Area



MAP 1

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

LOCATION MAP

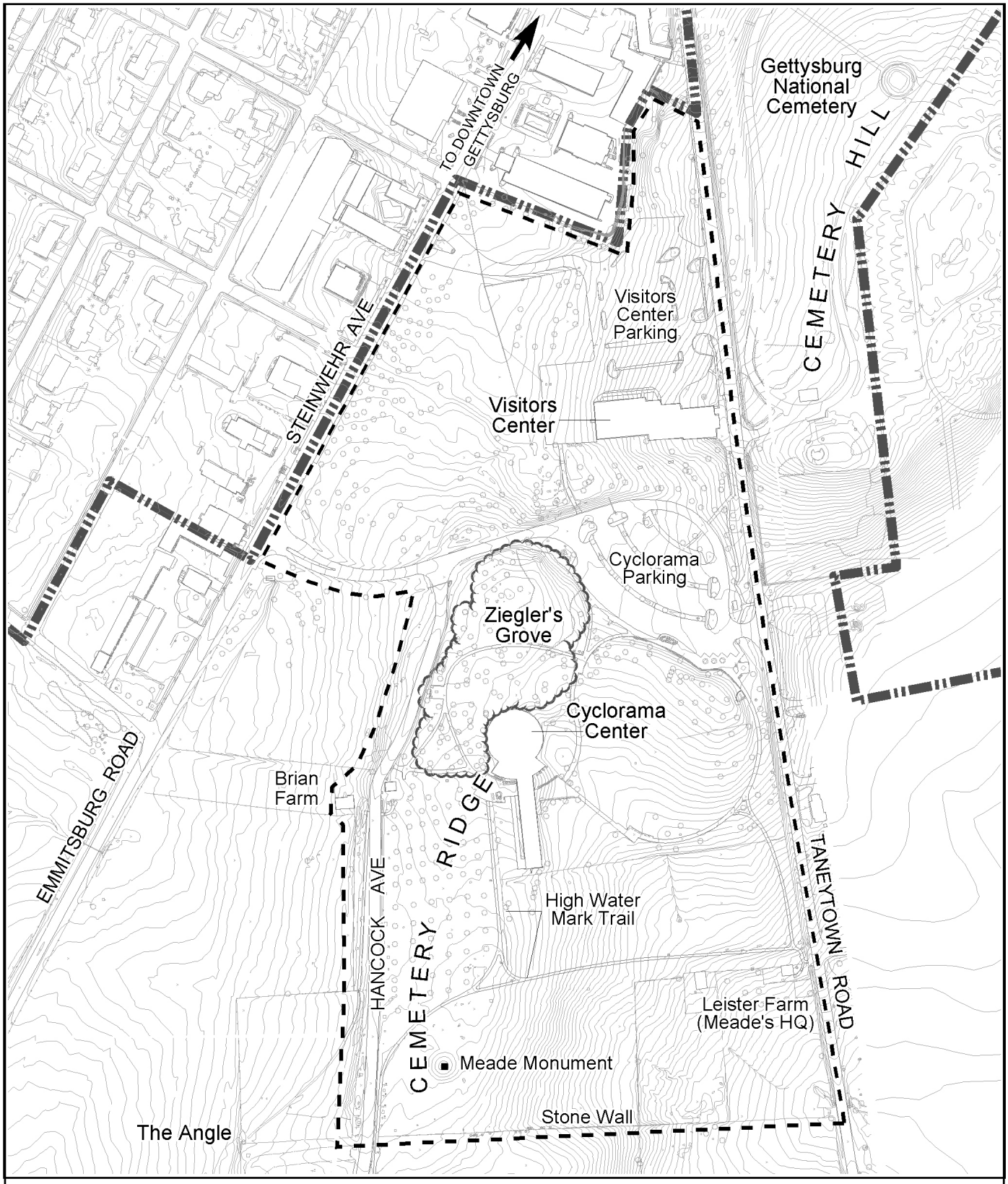
0 0.5 1 Mile

Study Area Boundary

Park Boundary

Source: The park boundary was derived from the National Park Service Gettysburg NMP Boundary Map 305/80034B with a scale of 1:15,000 and dated March 1990.

Prepared by the USDI NPS GNMP GIS on June 10, 2003.



MAP 2

Source: Topographic surveys of existing conditions were carried out by C.S. Davidson, Inc. between 1999 and 2001. The Borough of Gettysburg's existing conditions were mapped in 1999. The park's existing conditions were mapped on 3/24/ 2000 and 6/08/2001. These were combined and updated by the USDI NPS GNMP GIS Office during 2002.

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

STUDY AREA MAP

0 150 300 Feet

Prepared by the USDI NPS GNMP GIS on June 12, 2003.

N W E S

Study Area Boundary
Park Boundary

Map). On the west, the area is bounded by Hancock Avenue, including the road frontage and the Brian Farm, and the segment of Emmitsburg Road (also known as Steinwehr Avenue) just north of and including the vehicle access to the present Visitor Center and Cyclorama Center. The park property line forms the northern edge of the site; the southern edge is bounded by the stone wall just south of the Meade Equestrian Monument and the Leister Farm.

Project Scope

This CLR will focus on providing appropriate levels of documentation for the historic conditions of the project area, and the evolution of this landscape over the period from 1863 to the present. The intent of this research is to establish the basis for treatment recommendations for rehabilitating the landscape of the battle and the battle commemoration, as reflected in the landscape. Also included in this document are solutions for parking and traffic to satisfy contemporary requirements within the project area. Plans for repairs to features that have changed and designs for missing features have also been included with this report. Treatment recommendations include plans for the removal of the Visitor Center and Cyclorama Center as well as plans for the rehabilitation of significant historic landscape features.

Methodology

The NPS contracted with the architecture/engineering firm Einhorn Yaffee Prescott and its subcontractor Rhodeside & Harwell Incorporated, landscape architects. This CLR represents a collaboration between the consultants and NPS planners, historians, park management and park staff. The team examined primary and secondary documentation materials from several repositories, the most extensively used of which was the park archives. Sources and credits for illustrations are cited with the illustration throughout the text of the document. Site visits were conducted by the team to determine existing conditions and to evaluate the remnants of historic resources in the project area. Gettysburg National Military Park contributed research, text and supporting maps. The consultants evaluated existing conditions, prepared the document and provided treatment recommendations and design for the site.

Summary of Findings

Through the process of research and analysis conducted for this cultural landscape report, we have found that the 'Defense of Cemetery Hill' site is an extremely valuable cultural resource that should be preserved. However, several key areas of the site have been degraded over time and no longer reflect their Battle Era or Commemorative Era appearance. In order to increase opportunities for interpretation and to provide a more complete reflection of the landscape at the time of the battle, these missing historic features should be rehabilitated. There also continues to be the necessity to balance the

rehabilitation of the site with the need for modern amenities such as transportation, parking, and visitor access. Some of these needs can be met by the rehabilitation of the Commemorative Era features that served the same purpose and are also nationally significant. The Treatment Plan provides a framework for addressing these needs, while still recommending the rehabilitation of the 1863 landscape to the fullest extent possible.

Part I: Site History, Existing Conditions, Analysis and Evaluation



Chapter 1: Site History



Historical Overview

The land that comprises Gettysburg Military Park has always been a dynamic landscape. Before the battle took place, forces of nature and man played their part in the evolution of the site. The rural landscape of Adams County which cradles the small town of Gettysburg is part of an area known as the Piedmont Province, which abuts the South Mountains.

A plateau of red shale, sandstone and limestone with outcropping of igneous rocks characterizes the gently undulating landscape of the Piedmont, in contrast to the uplifted sedimentary rocks of the South Mountains. The battlefield is enclosed by Marsh Creek on the west and Rock Creek on the east and the Conewago in the northwest. As a result, about half of the surface of the county is covered with Triassic sediment. Faults in the limestone floor near the western edge of the county gave an outlet for molten diabase to invade these sedimentary rocks. The resulting rolling terrain with distinct rock outcroppings influenced circulation, settlement and agricultural patterns, and small-scale features of the landscape. These surface landscape characteristics also affected the tactics used by the armies engaged at Gettysburg during July of 1863.

The circulation patterns established by white settlers after 1700 closely followed the trails blazed by Native Americans living, traveling and trading in this part of Pennsylvania. By 1800 it was possible to reach Pittsburgh by the Black's Gap Road or to travel to southern frontier settlements by the Nicholson's Gap Road, both of which passed through Adams County. Gettysburg's dominant position for the selection as county seat was assured due to its access to both of these roads. Other early roads influenced settlement patterns and facilitated travel to Baltimore along such Indian paths providing a means to transport products and goods to a larger market than that found locally. As was typical of many regions in pre-revolutionary and post-revolutionary America, it was the junction of important roads that determined the sites and development of most towns in Adams County. In addition, these earliest towns resulted from the ambitions of landowners who took the initiative to have their land surveyed and platted for town lots. Gettysburg was one of these early towns.

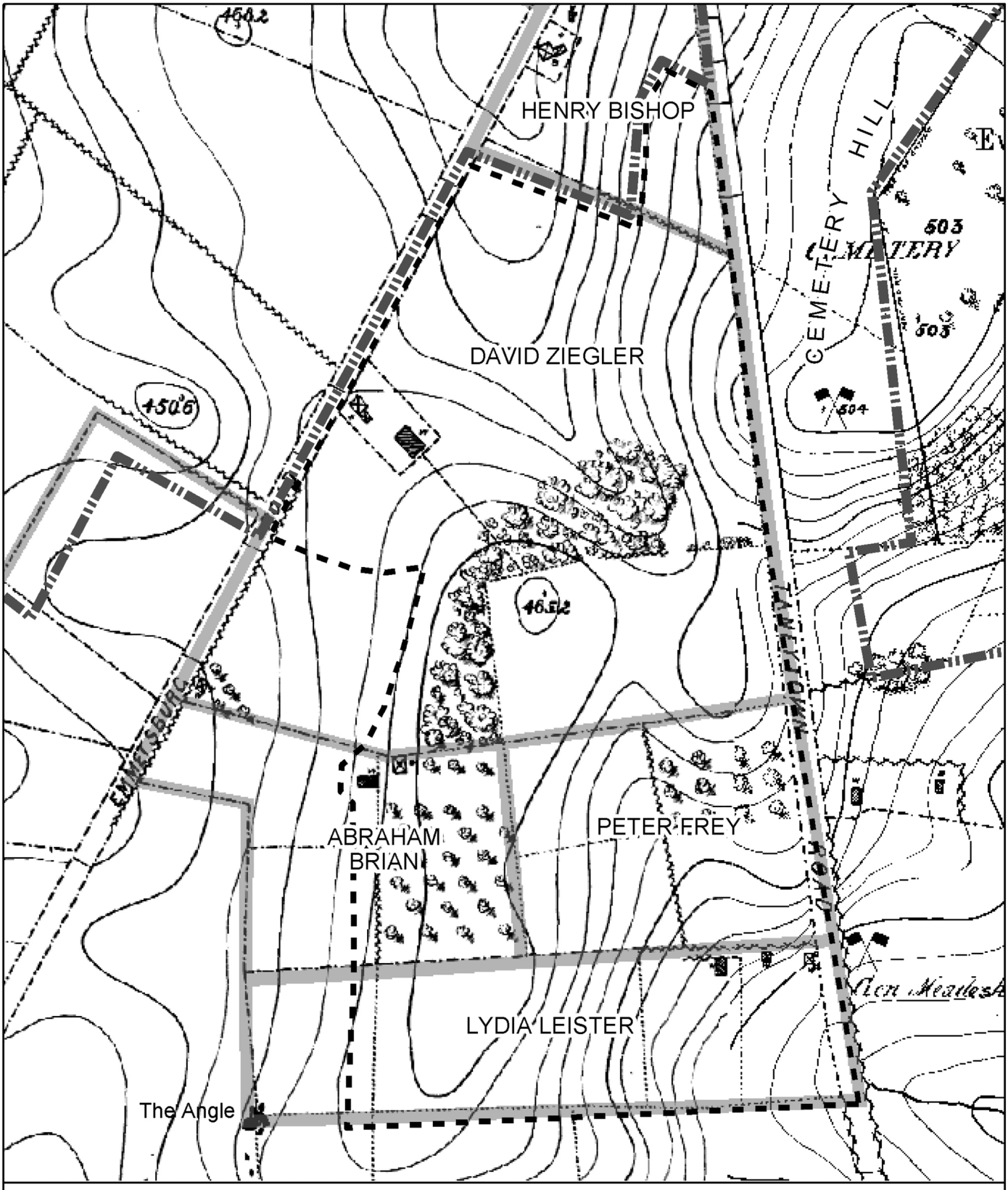
Most of the towns founded in the eighteenth century had attributes typical of town life on the eve of the American Civil War. There were stores, factories, hotels, inns or taverns, professional services, schools and churches. Gettysburg, was the only town in Adams County to have a population surpassing one thousand people by the beginning of the Civil War due in part, to its establishment as the county seat. Gettysburg further benefited from the convergence of nine roads at its center. In 1823 the Water Company was organized providing "city water" to residents. Grading and paving of the streets was taking place in 1859. By 1860 the town had a gas works which provided gas to the Seminary, the College and nearly 100 other buildings. Gettysburg was a bustling center of activity for local county residents at the time of the battle action that would make it a world-famous place and dramatically alter the evolution of its landscape.

In 1863 agriculture was the economic base of Adams County. The tax rolls of fourteen of its townships between 1800 and 1810 indicate that during that time approximately eighty percent of the county's population lived on farms. It is interesting to note settlement patterns of the early inhabitants of the Gettysburg area. North and west of town the land was settled predominately by the Scots-Irish, the first wave of settlers. They chose this location because its soils and topography were the most productive of the cropland surrounding the town. The map of existing conditions in 1863 reveals large tracts of property, few fence lines and woods north and west of town. By comparison, the cropland south of town and in this project area was rocky. Thus, in this section of the park the maps reveal smaller holdings, numerous stone walls and fairly extensive woods. The owners of this land were generally Germans who arrived in Adams County later than the Scots-Irish. Whether established by the Scots-Irish or Germans, these farms were subsistence in nature. In general, each holding had an orchard, grain fields, a family garden, and woodlots.

The arrival of the railroad in the 1850's brought about great change to the agricultural economy. The *Compiler* reported that during 1857-1858 Samuel Herbst sold no fewer than 60 "Manny's reaping and mowing machines". Although there was some export of goods prior to 1850, it was not until the arrival of the railroad that the farmers of the area utilized "modern" farming techniques. The railroad brought lime for the depleted soils and improved stock for the farms. Increased production enabled farmers to grow enough crops to sell their surplus in marketplaces other than Gettysburg. Turnpike and rail connections created new markets for goods at Baltimore and Philadelphia.

The appearance of the landscape when the troops arrived on June 30, 1863 was one that reflected both the subsistence as well as the economically successful farms of Adams County (see Map 3: Battle Era Farm Boundaries). Farmsteads included a variety of structures needed to support the agricultural existence of the inhabitants. In addition to a house and barn with fences and walls there were privies, chicken houses, pig pens, smoke houses, corncribs, bake ovens, summer kitchens, and other storage sheds. When fences or structures were damaged, the replacement parts were made up of whatever was handy. Original structures, though crude at first, were replaced with finer materials as finances allowed. It was not a landscape of perfection, but rather one that reflected the means and occupations of the landowners.

The outbreak of the Civil War in 1861 jarred the Gettysburg area out of its pastoral security. The network of roads that had assured growth for the community in the pre-war era became a curse in the summer of 1863. Gettysburg's strategic position, at the crossroad of the nine routes that connected major towns between the Potomac and Susquehanna rivers, led to its central role in the campaign. The character of the major topographic features that affected the evolution and outcome of the battle is generally unchanged since the 1863 battle. However, significant changes to the surface of the nearly 6,000 acres of the battlefield within the park are due to successional and uncon-



MAP 3

Source: The background shows portions of sheets C-3 and C-4 from the series of drawings traced by the Gettysburg National Park Commission from the 1868-1869 Warren surveys. The NPS GNMP GIS Office edited the scanned files to remove some text and features that were not present in July of 1863. Landowner names are based upon courthouse deed research done by NPS historians in December of 2002.

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

BATTLE ERA FARM BOUNDARIES

0 150 300 Feet

Prepared by the USDI NPS GNMP GIS on Sept. 3, 2003.

Study Area Boundary
Park Boundary
1863 Property Boundary
FREY 1863 Property Owner

trolled growth of vegetation, and to changes in agricultural practices (elimination of fences, orchards, and some internal circulation systems). Accommodation of modern agriculture, which continued into the 1990s, and the changes permitted by each generation of managers have also accumulated. As a result of these and other management actions, the pattern of lanes, farm fields, and woodlands that characterized the historic landscape is obscured.

Significant Periods in the Evolution of the Site

Battle Era (July 1-3, 1863):

In July 1863, Union and Confederate forces converged on the land surrounding the town of Gettysburg, engaging in a battle that would become the turning point of the Civil War. The Cemetery Hill/Cemetery Ridge area played a crucial role in the battle, especially during July 2 and 3, the second and third days of the engagement. Both Cemetery Ridge and Cemetery Hill were key strongholds of the Union Army and the Union troop position on these uplands was a critical element in the successful defense of Pickett's Charge, the climactic final assault by the Confederates. When this battle action took place the landscape of the project area was open, and views extended for miles across the fields from one ridge to another. This openness was broken only by the woodlot of Ziegler's Grove, three orchards, and the small buildings of the three farmsteads within the study area: the Brian Farm, the Leister Farm, and the Ziegler Farm. The Brian farmhouse was used for cover during the battle and also as General Hays' headquarters, while the Leister house was used as General Meade's Headquarters and later as a hospital. Also impacting the movements of the battle was the array of stone walls and fences found on the site, defining field, pasture, and farmstead boundaries. The sudden onslaught of thousands of troops and the battle action that followed dramatically affected the meaning now associated with this landscape.

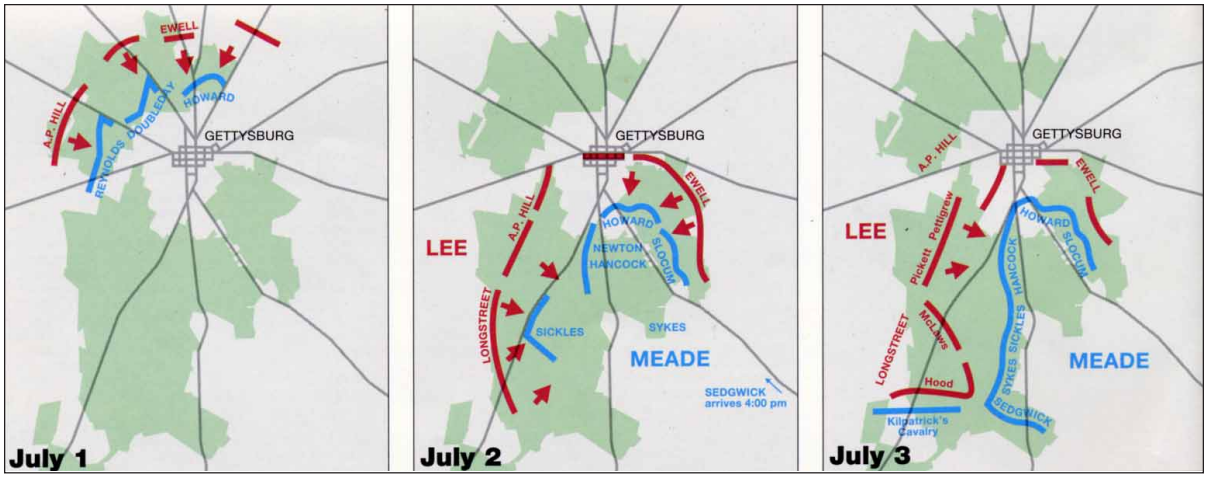


Figure 1. Diagrams of the troop positions held on the 1st, 2nd, and 3rd day's battle. (Gettysburg - Official Map and Guide, 2000).

The Battle Action - Defense of Cemetery Hill and Cemetery Ridge

The Battle for the defense of Cemetery Hill and Cemetery Ridge began early on the morning of July 1, 1863, and lasted until just before early evening on July 3rd. Northern officers recognized the importance of Cemetery Hill almost immediately upon their arrival, during the earliest stages of the battle. The battle began early on the morning of July 1, 1863 as an unplanned collision between the leading elements of the widely scattered Union and Confederate armies. Rapidly this small meeting engagement began to grow into a major battle as more units from each army arrived on the field. By late morning, though the Army of the Potomac's First Corps had stopped the initial Confederate thrust west of town, another Southern force was approaching from the north.[1]

Maj. Gen. Otis O. Howard, upon taking command of the Union forces on the field, reported that "After an examination of the general features of the country, I came to the conclusion that the only tenable position for my limited force" was Cemetery Hill. Not only did Howard note that the "highest point at the cemetery commanded every eminence within easy range," but he also specifically mentioned the "slopes toward the west and south were gradual, and could be completely swept by artillery." This included the western slopes of the hill and the northern extension of Cemetery Ridge. Howard's ultimate goal was to secure Cemetery Hill for the Army of the Potomac.[2]

He felt the best way to accomplish this was by fighting a delaying action beyond the town in order to gain the time needed for the remainder of the Union army to reach the field. Howard therefore deployed two divisions of the Eleventh Corps north of the town, while at the same time ordering one battery of artillery and his last division of infantry (Brig. Gen. Adolph von Steinwehr's), "to be put in position...on Cemetery Hill" as a last defense.[3]

By mid-afternoon, with the Confederates arriving in larger numbers from both the west and north, the Union lines were simply overwhelmed. The First and Eleventh Corps lines gave way. The survivors were driven in some confusion through the streets of the town. Though defeated, these troops managed to rally on Howard's reserve and establish a new battle line across the northern face of Cemetery Hill. Soon after the Second Corps commander, Maj. Gen. Winfield Hancock, arrived on the field.[4]



Figure 2. General George Meade, Union Commander. (Gettysburg - Official Map and Guide, 2000).

Under orders from Maj. Gen. George G. Meade, commanding the Army of the Potomac, Hancock had ridden to Gettysburg to take charge of the Northern forces there and to assess the situation. Like Howard before him, Hancock immediately realized the importance of Cemetery Hill, and the two officers worked together to rally the shattered Union ranks and to

establish a new line of battle. Included in these movements was the placement of Brig. Gen. Orland Smith's Eleventh Corps brigade "to the foot of the hill...behind a stone wall" on the east side of the Taneytown Road and the deployment of a skirmish line beyond.[5]

In order to protect the hill from possible Confederate turning movements, Union troops were positioned both to the southeast and southwest. Brig. Gen. John Robinson's First Corps division was ordered into "position on a ridge to the left of the cemetery, facing the Emmitsburg road...." Robinson was thus south and west of Cemetery Hill with his right anchored in Ziegler's Grove and the remainder of his division stretched southward down Cemetery Ridge. Providing further protection to this flank was part of Maj. Gen. John Buford's division of cavalry, which established a battle line along Long Lane, parallel to, and west of, the Emmitsburg Road.[6]

Gen. Robert E. Lee, upon seeing this new Union line for the first time, described it as "a high range of hills" and later as "a strong position...upon two commanding elevations adjacent to each other, one...known as Cemetery Hill, immediately south of town, which lay at its base. His line extended thence upon high ground" to the south. It is worth noting that from his vantage point, near the Lutheran Theological Seminary, Lee was viewing, and therefore describing, the western slopes of Cemetery Hill and Cemetery Ridge.[7] Cemetery Hill had served its first important purpose for the Army of the Potomac. It's sheer height and formidable appearance, along with the rapid reorganization of the Union line, assisted in dissuading the Confederates from pushing their advance.

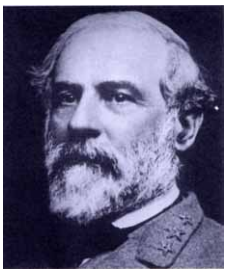


Figure 3. General Lee, Confederate Commander. (Gettysburg - Official Map and Guide, 2000).

By early evening, as the Union soldiers solidified their lines along the northern and eastern slopes of Cemetery Hill, their officers, including Howard and Hancock, realized the hill's growing role in a continued struggle at Gettysburg. It would no longer be a mere rallying point; it now became a critical section of the new Union battle line.[8]

Formed during the night of July 1 and morning of July 2, this line, when completed was approximately three and a half miles in length and resembled the shape of a giant fishhook. The section of the battle line located on the western face of Cemetery Hill, through Ziegler's Grove and along the northern portion of Cemetery Ridge was the final portion of the bend and the beginning of the shank, or straight section, of the fishhook. Cemetery Hill was *the* key terrain for the Army of the Potomac. Brig. Gen. Adolph von Steinwehr pronounced it "the commanding point of the whole position" and claimed "its occupation by our troops had a decisive influence upon the further progress and the final result of the battle."[9] The general held this attitude for several reasons. Primarily, the hill was the apex of their fishhook defensive line and also protected the Baltimore Pike and Taneytown Road, the vital avenues of approach, communication and supply for the Union army, which crossed over the eastern and western slopes respectively. The nearly

unobstructed view from the hill gave the Union troops excellent observation over most of the field, making it an ideal location for a signal station and artillery placement. Taking advantage of this numerous Union batteries were placed on the west, northwest, north and east slopes of the hill. Maj. Thomas Osborn, commanding the all the batteries on the northwest and west side, reported:

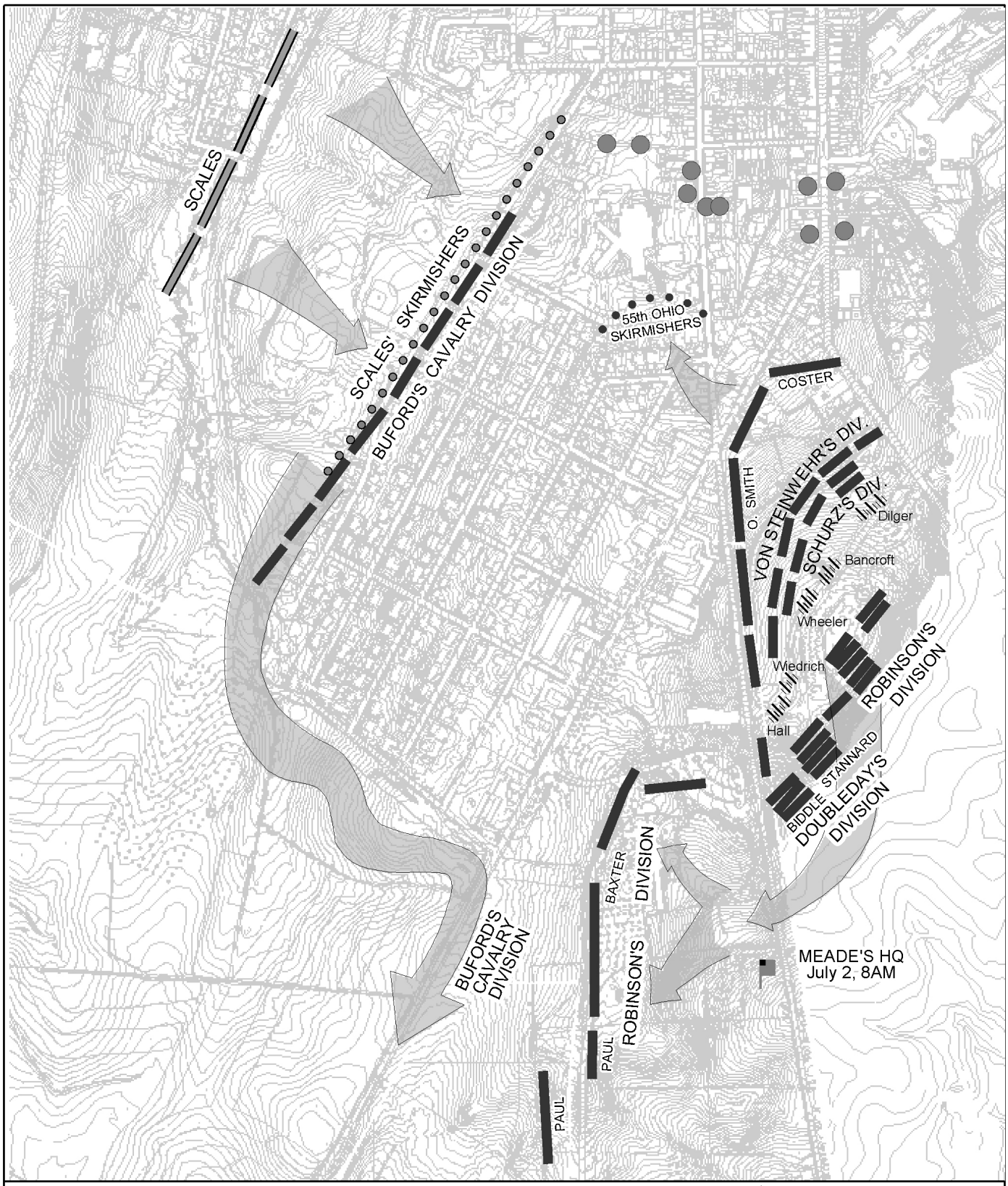
> *"...I commanded...every point on which the enemy could place artillery commanding Cemetery Hill. I also occupied every point of the hill available for artillery, and during the engagement every gun, at different times, was used with good effect...."* [10]

The hill also served as cover and concealment for the Union army. Northern artillery stationed upon the western face used a "sharp curve in the side of the hill" for "good and convenient protection of the caissons." Infantry units of the First Corps were also placed in reserve behind the hill, thus gaining the protection of the hill's western and northern slopes.[11]

Cemetery Ridge, while not as imposing as Cemetery Hill, was still described as "well-defined," and as "smooth and open." It became key terrain for it determined the placement of a major section of the Army of the Potomac's line of battle and gave both Union infantry and artillery excellent observation and fields of fire toward the west. Later, the ridge also became a slight obstacle to assaulting Confederate units. Another benefit of Cemetery Ridge was the cover and concealment it gave the Union army. Gen. Henry Hunt reported the crest of the ridge concealed "everything immediately behind it from the observation of the enemy." Ziegler's Grove, a small lot of trees located at the northern end of the ridge, also provided some cover and concealment.[12]

Stone walls and fences ran along the length of the ridge and provided cover and concealment to the Union troops placed here. Robinson's men attempted to further improve their position by constructing "temporary breastworks." Brig. Gen. Alexander Hays, whose Second Corps division was placed along this same line on July 2nd and July 3rd reported that a "stone wall just below the crest...gave much strength to the position."[13] During the early morning hours of July 2 Meade established his headquarters at the Lydia Leister farmstead, located southeast of Ziegler's Grove, along the west side of the Taneytown Road. This small, 1 1/2 story three room house was probably chosen for its central location, being not only near the center of the Union battle line, but also easily accessible from any other part of the field.[14]

By dawn of July 2 the majority of forces from both armies had arrived on the field and were being positioned in preparation for the continued struggle later that day (see Map 4: Battle Action Map - Day 1). As Confederate skirmishers pushed forward from Long Lane and from the buildings at the southern edge of the town, fire erupted at first light along the Union skirmish lines northwest and west of Cemetery Hill. This Confederate pressure, along with the removal of Buford's troopers during the night, forced the regi-



MAP 4

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

BATTLE ACTION MAP - DAY 1

July 1, 1863 4PM to Dawn July 2, 1863

0 350 700 Feet

Prepared by the USDI NPS GNMP GIS on June 10, 2003.

Source: The battle action was compiled by NPS Historian, Kathleen G. Harrison during 2002. The source of the base information is the same as cited on the Study Area Map included in this report.

- Artillery
- Confederate Skirmishers
- Confederate Troop Positions
- Confederate Skirmish Lines
- Union Troop Positions
- Union Skirmish Lines
- Direction of Troop Movement

ments in Smith's Brigade to deploy skirmishers of their own. These soldiers thus moved down the open west slope of Cemetery Hill, across the Emmitsburg Road and into the fields beyond where they established a skirmish line and immediately came under Confederate fire. This small action marked the beginning of a bitterly contested struggle between the opposing skirmish lines that continued, nearly unabated, throughout the remainder of the battle. As this skirmishing grew more heated, it also began to spread southward.[15]

Near dawn the first elements of the Union Second Corps began to reach the field and take up positions along Cemetery Ridge. Alexander Hays' division arrived throughout the early morning and was placed at the northern end of Cemetery Ridge, thus relieving Robinson's division. Hays held the right end of the Second Corps line, but found this flank somewhat exposed. The main Union battle line, held by First and Eleventh Corps troops, was to his right rear, on the west slope of Cemetery Hill and along the Taneytown Road. To connect with these troops, and to protect his right, Hays positioned the brigades of Col. Thomas Smyth and Col. Samuel Carroll in the open fields southeast of Ziegler's Grove and facing north. Col. George Willard's brigade was placed at the south end of the Brian orchard, facing west. Thus Hays held a small salient in the Union line at Ziegler's Grove, with his men facing both north and west. All of these brigades were formed in columns of regimental lines, a temporary formation designed for rapid movement and could be quickly changed as the situation became clearer. The remainder of the Second Corps formed on Hays' left along Cemetery Ridge.[16]

Once in position Hays' regiments quickly deployed skirmishers of their own into the fields west of the Emmitsburg Road. At this same time the lengthening Confederate line was forming along Seminary Ridge, less than a mile to the west. Opposite Hays' troops were the Southern divisions commanded by Maj. Gen. Dorsey Pender and Maj. Gen. Richard Anderson. They too deployed skirmishers to their front and soon fire broke out between the opposite lines.[17]

The chief point of contention became the William Bliss farmstead, located about halfway between the battle lines. The house, and especially the large stone barn, provided perfect cover for skirmishers and sharpshooters. These attributes made it a focal point of the skirmishing that followed, as both sides fought stubbornly to possess it. Over the next nine hours (from approximately 10:00 a.m. to 7:00 p.m.) the Bliss farmstead would change hands seven times.[18]

The fight for the Bliss farmstead also corresponded with, and influenced, the skirmishing in the fields to the north along Smith's front. The principal feature of contention in this area was a gentle nameless ridge running southeast to northwest and located from 160 to 300 yards west of the Emmitsburg Road. A Virginia worm and post-and-rail fence, which passed over the western slope of the ridge also drew the attention of the opposing forces. Throughout most of this action Confederate troops held the fence line while Union troops attempted to defend the crest of the ridge.[19]

This entire struggle, from the Bliss farm to the southern edge of town, eventually involved seventeen Union regiments from six different brigades and regiments from ten different Confederate brigades.[20] The fighting became so obstinate that, at times, artillery batteries on both sides became drawn into the fray. As the Union army was fighting a mostly defensive battle, the Confederate advances through this area marked the highlights of this struggle. Though the skirmish lines constantly swayed back and forth during this see-saw engagement, there were three Southern advances that posed a real danger to the Union line. The first of these came around 11:30 a.m. when troops from of Pender's and Anderson's divisions advanced, retaking the Bliss buildings and driving nearly the entire Union skirmish line back to the Emmitsburg Road.[21]

Between 3:30 and 4:00 p.m. another Confederate thrust, again consisting of troops from Anderson's and Pender's divisions, recaptured the Bliss farmstead and pushed most of the Union skirmish line back. Troops from Pender's division actually reached the Emmitsburg Road just north of the David Ziegler farmstead before being forced to fall back. In reaction to these threats more Union regiments were ordered out to bolster the skirmish line west of the Emmitsburg Road.[22]

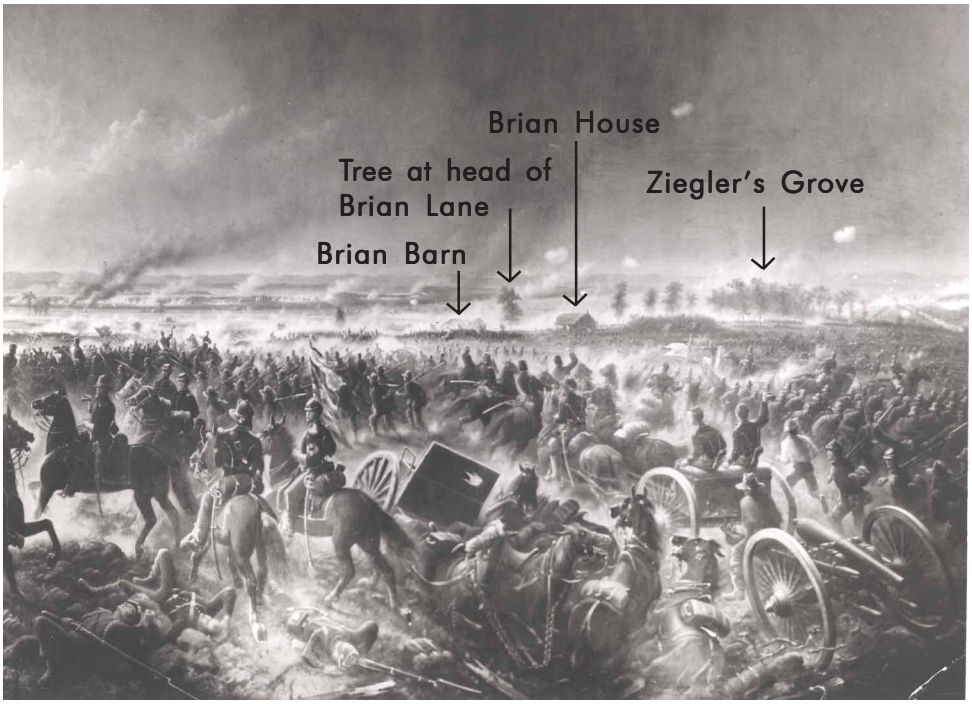


Figure 4. "Longstreet's Assault" (July 2, 1863) - Painting by James Walker. (#12I - 0064, General Historical Photographic Prints, Gettysburg NMP).

The last Southern threat in this area came in conjunction with the principal Confederate assault on July 2. This assault had started against the Union left near 4:00 p.m. and then slowly spread northward as more Confederate brigades were fed into the battle, one brigade at a time. In reaction to this threat Hays slowly shifted regiments from

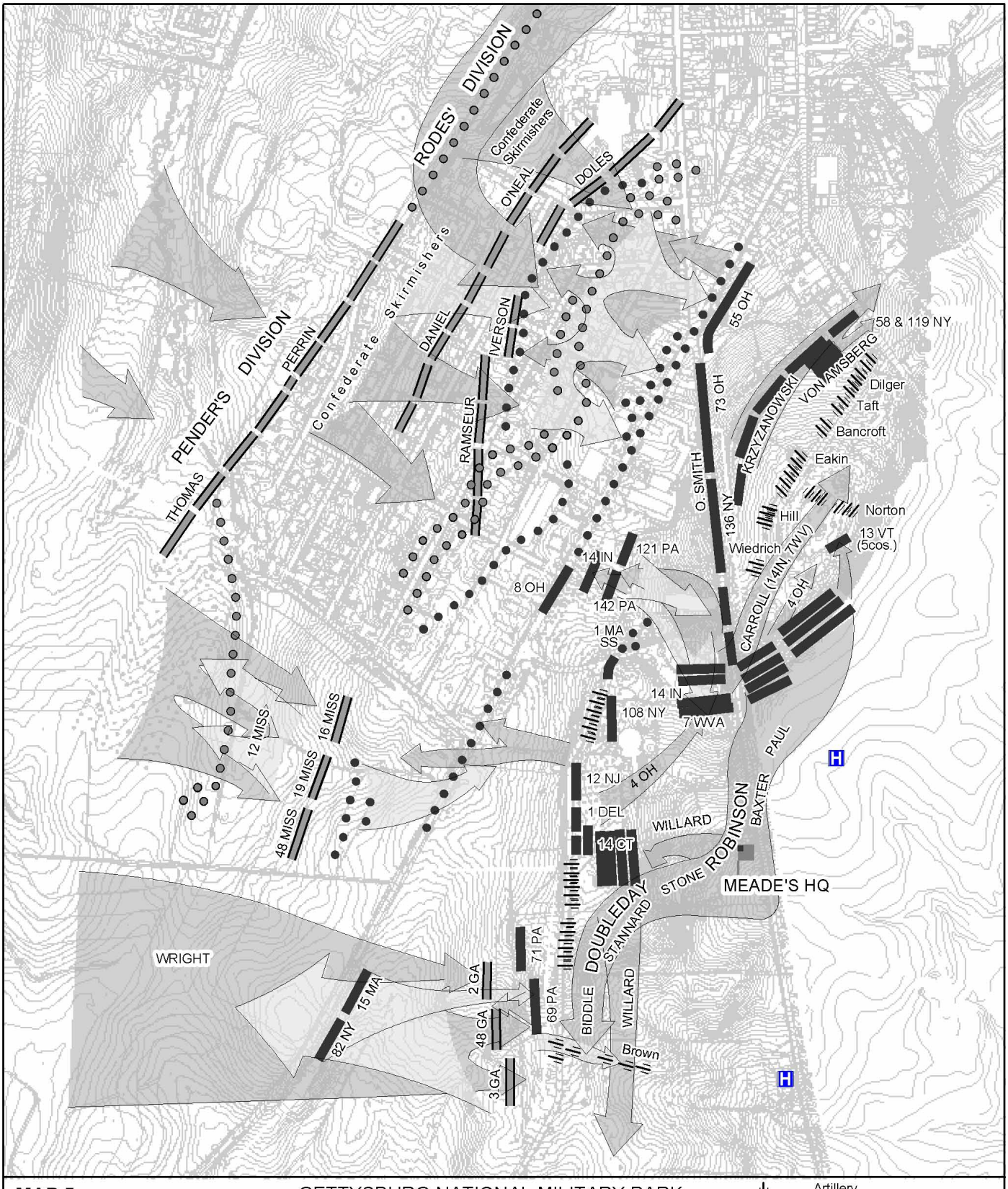
Smyth and Carroll to the left and placed them along Cemetery Ridge. By 7:00 p.m. the Confederate attack reached the Union center as two brigades of Anderson's Division moved toward the Union line. As per previous orders Pender's brigades began to push forward their skirmishers in preparation for a general advance. Maj. Gen. Robert Rodes's division, positioned along the southern streets of Gettysburg, also began to move forward. All of these movements succeeded in pushing the Union skirmish line back to the Emmitsburg Road. Brig. Gen. Ambrose Wright's brigade actually penetrated the Union line just south of the copse of trees before being forced to withdrawal. The failure of this Confederate advance, however, did not end the fighting on July 2nd.[23]

A second Confederate offensive was launched near dusk against the Union right (see Map 5: Battle Action Map - Day 2). In the growing darkness Southern troops struck the Union line at Culp's Hill, followed by an assault against East Cemetery Hill. This latter attack crumbled the Union line and Confederates momentarily captured several cannon at the hill's crest. In reaction to this, Carroll's brigade was sent to the right, "arrived at a very critical time" and assisted in repulsing this threat. Shortly after, the fighting on July 2nd sputtered to a conclusion.[24]

During the night of July 2nd and into the early morning of July 3rd the opposing forces in this area prepared for further action. Along the Union line this included the return of detached units, the reestablishment and reinforcement of the skirmish line and the movement of other regiments to the front lines. On the Confederate front some units were detached and sent elsewhere, the front line was firmly established in Long Lane and the skirmish lines were bolstered.[25]

With dawn came "the repetition of the practice of the previous day", according to Alexander Hays (see Map 6: Battle Action Map - Day 3). The dreaded skirmishing had begun again. With the Bliss farmstead once again in Confederate hands, Hays ordered that it be recaptured. This led, once again, to a series of attacks and counterattacks, with the farmstead changing hands three times within 3 1/2 hours. Apparently tired of this constant struggle and the drain upon his available manpower, Hays ordered the Bliss house and large stone barn to be burned. By 11:30 a.m., with the buildings' destruction, a lull fell over this part of the field.[26]

Coinciding with the fight for the Bliss farm, was a bitter struggle between the opposing skirmish lines across the fields to the north. This involved men from Smith's Eleventh Corps brigade, along with other units, who faced Confederate skirmishers from the brigades of Col. Abner Perrin's (Pender's Division) and Brig. Gen. S. D. Ramseur (Rode's Division). This mostly consisted of small attacks and counterattacks for control of the nameless ridge west of the Emmitsburg Road. By noon, the worst of this fighting was over and the opposing skirmish lines were in nearly the same location as the day before; Union soldiers held the crest of the ridge, while the Confederate skirmish line was located along the fence line to the west. To the south the burned out Bliss buildings were in a "no mans land" between the opposing skirmish lines. The Confederates took posi-



MAP 5

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

BATTLE ACTION MAP - DAY 2

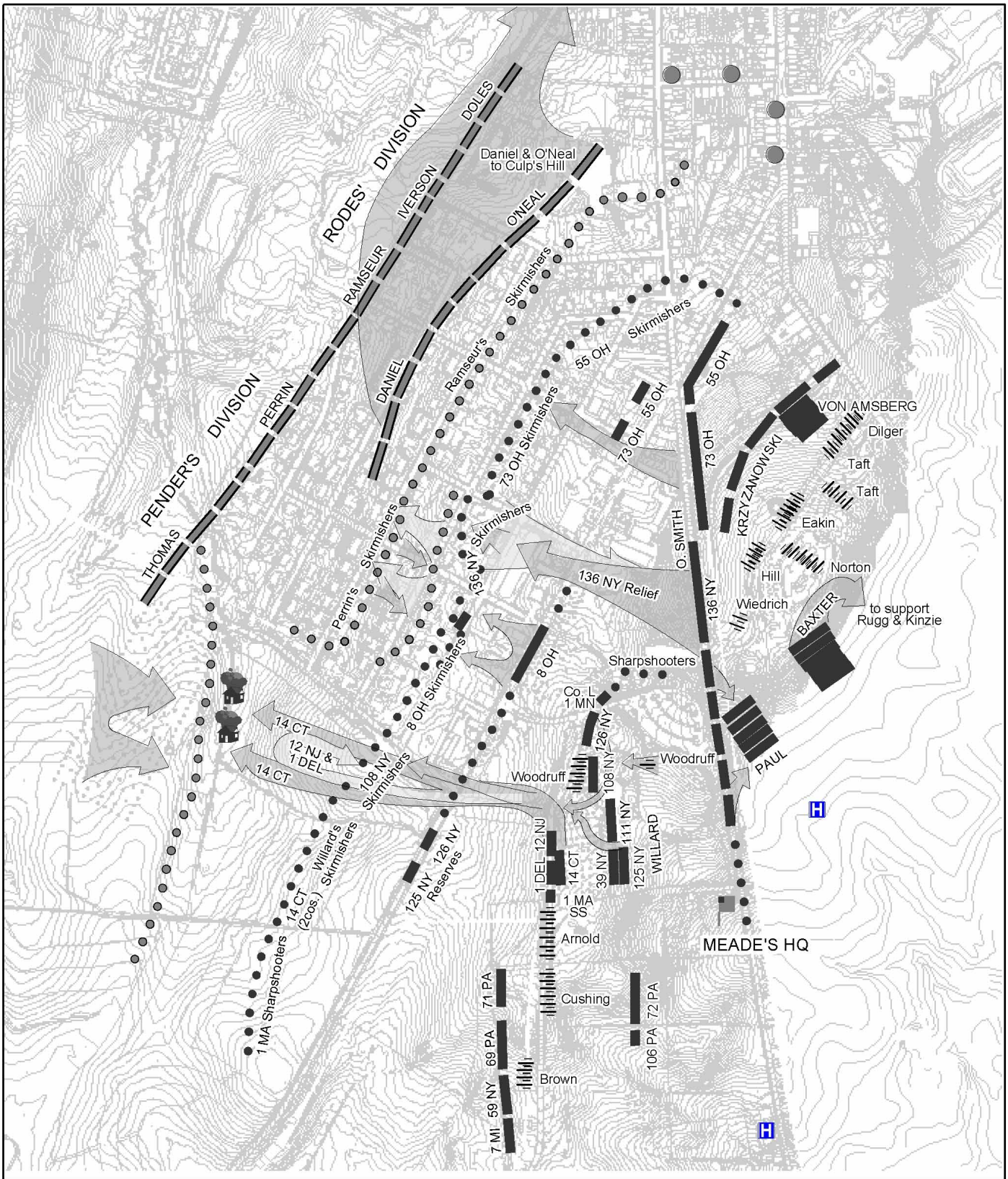
July 2, 1863 6 PM to10 PM

0 350 700 Feet

Prepared by the USDI NPS GNMP GIS on June 10, 2003.

Source: The battle action was compiled by NPS Historian, Kathleen G. Harrison during 2002. The source of the base information is the same as cited on the Study Area Map included in this report.

- Artillery
- Army Field Hospitals
- Confederate Troop Positions
- Confederate Skirmish Lines
- Union Troop Positions
- Union Skirmish Lines
- Direction of Troop Movement



MAP 6

Burned Buildings

Army Field Hospitals

Source: The battle action was compiled by NPS Historian, Kathleen G. Harrison during 2002. The source of the base information is the same as cited on the Study Area Map included in this report.

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

BATTLE ACTION MAP - DAY 3

July 3, 1863 Dawn to 1 PM

0 350 700 Feet

Prepared by the USDI NPS GNMP GIS on June 11, 2003.

Artillery
Confederate Skirmishers
Confederate Troop Positions
Confederate Skirmish Lines
Union Troop Positions
Union Skirmish Lines
Direction of Troop Movement

tion in the orchards directly west of the farmstead. The Union line was established along the post-and-rail fences about 150 yards west of, and parallel to, the Emmitsburg Road, with a strong picket reserve within the road itself.[27]

Throughout the morning, as this vicious fighting continued, Gen. Robert E. Lee was overseeing the preparations for an assault that he believed would bring him a decisive victory at Gettysburg. This plan called for the largest artillery cannonade and one of the grandest infantry assaults ever attempted on the North American continent. The cannonade would concentrate its fire on the Northern batteries on Cemetery Hill and Cemetery Ridge. This would be followed by the infantry attack that would strike the center of the Union line, including the area south of Ziegler's Grove. It was an attack that would be known in history as "Pickett's Charge."[28]

These Confederate preparations did not go unnoticed by the Union high command. Maj. Thomas Osborn, commanding all the Northern artillery on Cemetery Hill between the Baltimore Pike and Taneytown Road, remembered:

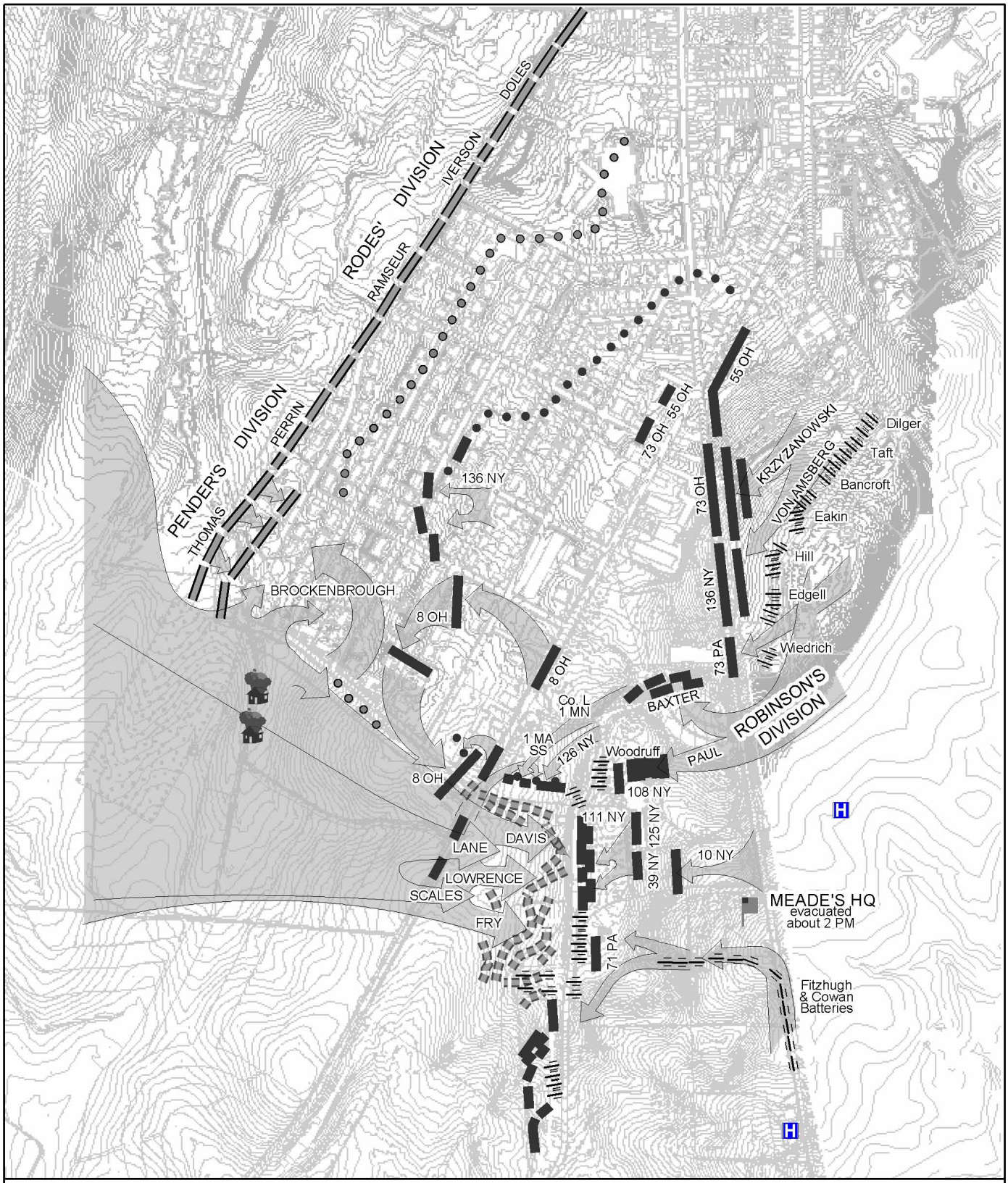
> *"General Hunt [Chief of Artillery]..said...he had reached the conclusion the enemy would concentrate his artillery fire on Cemetery Hill.... If his conclusions should prove correct the position I held would be the one upon which the enemy would open, and my command would suffer the most.... We were in plain view of the batteries of the enemy...the country all open, no woods intervening.... We made the best target for artillery...the enemy had during the war."* [29]

Despite this looming threat, Osborn held some advantages, which he later described:

> *"But there was another side to it. We commanded their guns as well as they did ours.... In addition to this we commanded the plain perfectly, with no timber intervening, over which the enemy's infantry must advance to the charge."* [30]

Furthermore, Osborn wrote, "I had...seven batteries faced west, commanding the plain and the low hills beyond...." Altogether, he had twenty-eight guns on the west and northwest slopes of Cemetery Hill that overlooked the open fields below. The only question in Osborn's mind was "whether my command could be driven from the hill" by the Southern artillery.[31]

That question was soon tested, for around 1:00 p.m. Confederate batteries opened fire. What followed was a cannonade that a soldier in the 111th New York believed was "unparalleled...in warfare" (see Map 7: Battle Action Map - Day 3, Cannonade & Pickett's Charge). Another New Yorker later stated that:



MAP 7

Burned Buildings

Army Field Hospitals

Source: The battle action was compiled by NPS Historian, Kathleen G. Harrison during 2002. The source of the base information is the same as cited on the Study Area Map included in this report.

GETTYSBURG NATIONAL MILITARY PARK

Defense of Cemetery Hill CLR - Phase I

BATTLE ACTION MAP - DAY 3

Cannonade & Pickett's Charge

0 350 700 Feet

Prepared by the USDI NPS GNMP GIS on June 11, 2003.

Artillery

Broken Confederate Line

Confederate Troop Positions

Confederate Skirmish Lines

Union Troop Positions

Union Skirmish Lines

Direction of Troop Movement

> *"Words are powerless to convey an idea of the tremendous uproar of more than 200 cannon, sending through the air every variety of missile ...with whirr and hiss, and screech or rumbling thunder, mingled with the shouted orders...."* [32]

Maj. Osborn simply stated, "Nothing which can be written will convey to the non-military man the slightest idea of the fire concentrated on Cemetery Hill...." The fire upon his guns was particularly destructive, as Osborn explained:

> *"It was plain that Lee's object was to drive the artillery from that hill. He put his guns into position in the form of a crescent in such a manner that nearly all of them could bear upon Cemetery Hill.... They commanded my guns to absolute perfection. ...the enemy's line of artillery was practically in a semi-circle around us. My batteries...were then raked from every side."* [33]

Despite this fire, Osborn's men, along with the rest of the Northern soldiers on Cemetery Hill and Cemetery Ridge stood their ground, although, the cannonade caused some damage. To counter this some regiments were shifted to obtain cover and a few Union batteries were damaged, forcing their withdrawal. These were rapidly replaced by new batteries, however and Hancock reported, that the "troops maintained their positions with great steadiness....all waited the cessation of the fierce cannonading, knowing well what it foreshadowed."[34]

After what must have seemed an eternity the cannonade slackened and then eventually ended around 3:00 p.m. According to Osborn "a singularly depressing quiet covered the entire field." The wait for Confederate activity was a short one, for in just a "few moments," Osborn remembered, "the infantry of the enemy broke over the crest" of Seminary Ridge. Three Southern divisions, numbering approximately 12,000 to 13,000 men, formed for this grand assault. Gen. Howard called it "an extraordinary parade; the flags were flying and the lines steadily advancing...."[35]

The advantages held by the Union batteries on the west face of Cemetery Hill were obvious. Osborn stated, "The enemy's lines of battle were now in plain view, no trees or other obstructions intervening." The major was quick to open, ordering his batteries to fire as "soon as the enemy's first line of battle had fully developed...." The results were devastating:

> *"Each sold shot...which struck their line cut out two men, but when a shell exploded immediately in front of either line it cut of four, six, eight or even more men, making a wide open gap in their line. These gaps and the width of them could be distinctly seen...."* [36]

Most of Osborn's batteries concentrated their fire on the left flank of the Confederate column, the divisions of Brig. Gen. J. J. Pettigrew and Maj. Gen. Isaac Trimble. The

objective of these two divisions was the northern terminus of Cemetery Ridge, held by Alexander Hays' Second Corps division. A North Carolina soldier best described the Union artillery fire upon their lines:

> *"Solid shot ploughed through their ranks, spherical case rattled in their midst and...swept them by hundreds.... It was an awful experience to pass nearly a mile across an open plain subjected to such a terrible fire, with no hope of protection and without power to resist."* [37]

Osborn reported "the havoc produced upon their ranks was truly surprising." The severe damage inflicted by the artillery upon Col. J. M. Brockenbrough's brigade, positioned on the extreme left of the assaulting column, along with the flanking fire inflicted by the 8th Ohio, caused it to break long before it reached the Emmitsburg Road.[38] The remainder of Confederate column continued to advance, eventually reaching and crossing the road. Here, Osborn's batteries lost sight of the Southern lines due to the "intervening ground" of Ziegler's Grove and the northern end of Cemetery Ridge.[39]

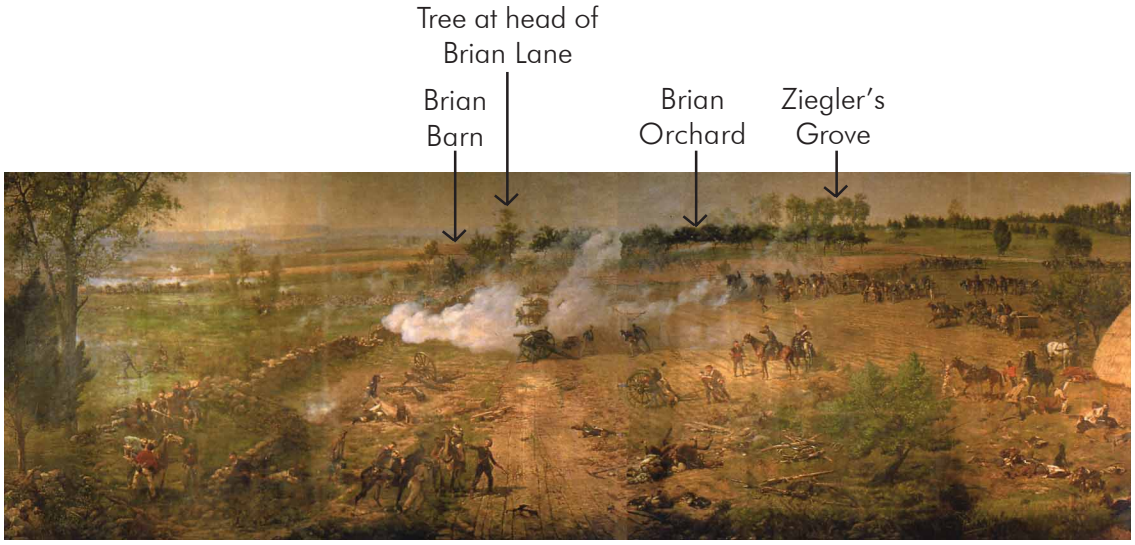


Figure 5. "Pickett's Charge" (Detail of Cyclorama Painting by Paul Philippoteaux,1884).

All this time the Union line on Cemetery Ridge watched the advance and waited "in almost breathless suspense." They became impatient to fire, to strike a blow. Yet Gen. Hays, along with other officers, ordered the men to hold their fire so that the first volley would be more effective. Capt. Arnold's Battery A, 1st Rhode Island and Lt. Woodruff's Battery I, 1st United States opened with canister when Pettigrew's and Trimble's men were about 700 yards away, tearing "great holes" in the Confederate ranks. [40]

As the Confederate columns crossed the Emmitsburg Road the picket reserve from Willard's brigade, positioned to the north, quickly formed and moved against its left flank. Forming west of the road and "at right angles to the enemy's line" these men delivered a devastating fire into the Confederate flank. At that same time the remainder

of Gen. Hays' division, formed behind the low stone wall and rider fence near the crest of Cemetery Ridge, "arose" and delivered "a volley which swept them like a tornado." As the Southern lines continued to advance other units in Hays' command, from the area of Ziegler's Grove, swung down upon the Confederate left and opened fire.[41]



Figure 6. 9th MA Battery, positioned in Ziegler's Grove, July 3 and 4, 1863. (#12I-0023, General Historical Photographic Prints, Gettysburg NMP).

Shortly after, the Confederate assault collapsed and the survivors either surrendered or began to stream back toward Seminary Ridge in "great disorder." Hays reported that his division captured between 1,500 and 2,000 prisoners along with fifteen battle flags. Maj. Osborn's gunners also had a right to boast, for their fire had wrought great damage upon the Confederate lines. Osborn stated in his official report, "I am convinced that the fire from the hill was one of the main auxiliaries in breaking the force of this grand charge."[42]

With the repulse of this last Confederate assault the Battle of Gettysburg was essentially over. The Army of the Potomac had achieved a great victory; one in which they had not only defeated their constant nemesis, the Army of Northern Virginia, but had also saved the Union. This success was in considerable part due to the approximately 6,500 Northern soldiers that defended the west slope of Cemetery Hill and the northern terminus of Cemetery Ridge. Their actions included seizing and holding two pieces of key terrain (Cemetery Hill and Cemetery Ridge), securing the Taneytown Road (a vital avenue of approach, communications and supply route) and assisting in the repulse of numerous Confederate advances, including one major assault. Their jubilance, however, was short lived, for they quickly realized the high price they had paid to achieve this victory.[43]

By the time the fighting ended, approximately 970 of these men had been killed, wounded or captured. Confederate losses were probably higher, though most of these men were killed or wounded west of the Emmitsburg Road. For the Union defenders, all

they needed to do was look toward the west to understand how costly this battle had been. One of these men was Capt. Benjamin Thompson of the 111th New York, who, in the early evening hours of July 3, 1863, looked out over the fields near the Abraham Brian barn. The sight he witnessed remained with him the rest of his life. Years later he described it, writing:

> *"No words can depict the ghastly picture. The track of the great charge was marked by bodies of men in all possible positions, wounded, bleeding, dying and dead. Near the line where the final struggle occurred, the men lay in heaps, the wounded wriggling and groaning under the weight of the dead among whom they were entangled. In my weak and exhausted condition I could not long endure the ghastly spectacle. I found my head reeling, the tears flowing and my stomach sick at the sight. For months the spectre haunted my dreams, and even after forty years it comes back as the most horrible vision I have ever conceived."* [44]

Treatment Philosophy

Features and Characteristics

Nearly every landscape feature, natural and cultural, small scale or large scale, influenced the battle in some way. From a farmer's fence to the largest hill, military leaders and units were forced to react to the surrounding landscape in planning and conducting battles.

Features are any objects that existed on the 1863 Gettysburg landscape. Features can be natural or man-made, large or small. Features possess characteristics, such as height, extent, color, mass, or age. Not every characteristic of a feature is considered necessary for rehabilitation. In some cases, restoration of a characteristic is difficult or impractical; for example, it is not possible to maintain an orchard at the age it was at the time of the battle, since natural systems grow, age and die. The exact placement of trees within a woodlot is not important, but the historic extent of the woodlot may be. The use of modern equipment to prepare fence materials, for example, does not interfere with visitors' ability to understand the impact a fence had on the battle. However, its height, mass and tightness may be characteristics that should be present in order for visitors to appropriately understand the battle action.

The following treatment philosophy outlines features that were significant parts of the battle landscape and distinguishes between the characteristics that must be restored in order to interpret the battle and those that do not have to be restored for a visitor to understand what happened at Cemetery Hill.

Understanding the National Register Significance of a Feature

The 1999 GMP/EIS recognized that full rehabilitation and restoration of all historic features throughout the 6,000-acre park could likely not be accomplished within the 15 to 20 year time frame of the GMP. Accordingly, the GMP recommended strategies that could help park staff identify the elements of the landscape that have national register significance and then prioritize actions necessary to rehabilitate the salient characteristics of those elements.

The principle underlying these strategies is that all features remaining from the period of significance would be identified, protected, and preserved in good condition. Therefore, the adequate identification of significant historic features is the foundation for all rehabilitation planning within the park.

The plan adopted in the GMP process recommends "rehabilitation of landscapes significant to the Battle of Gettysburg and its commemoration." In addition, the park's 1895 establishing legislation is specific. The authorization was for the federal government to preserve for the American people the "important topographic features of the battlefield" and to preserve and mark battle positions. The park legislation also requires the preservation of memorial structures erected to "commemorate the heroic deeds, the struggles, and the triumphs of their brave defenders." [45]

Standard cultural resource planning has convenient, recognizable methodologies to identify and understand the national register significance of man-made features. As applied to landscapes, a standard methodology is described in the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (US Department of the Interior, National Park Service, Historic Landscape Initiative, 1996). However, methodologies for examining and understanding the contributing characteristics and significance of natural features in a battlefield setting were not readily available. Since the park's legislation calls for the preservation of the topography and natural features of the battle landscape, finding a well-understood method to identify them and their salient features was crucial to the development of the GMP/EIS and to this more detailed study of Cemetery Hill.

The methodology ultimately selected for determining national register significance was KOCOA, the military system of terrain analysis that determines the potential of a feature's use during battle as key terrain, observation, cover and concealment, obstacles, and avenues of approach.

The KOCOA system thus helps to identify characteristics that were important to the battle. Other standard methods used in cultural landscape planning, such as allowing vegetation to mature and age naturally, are also important considerations in developing the treatment philosophy.

Research Methods

NPS has determined that the use of the KOCOA system, in combination with the standard cultural landscape treatment methodologies described in the Secretary's Standards, is the basis for determining appropriate treatment for the battlefield landscapes. Every feature described in the following chapters has been researched to determine if it was present at the time of the battle, its battle appearance and use, its impact on the battle, and its characteristics crucial for rehabilitation. At least two original sources were used to document accurate information about location and characteristics of each feature. For example, the style of a fence might be identified by the combination of information from the 1868 Warren survey and an 1863 photograph showing that site. The location of a gate may be identified from a first person report of the battle confirmed by a later photograph of the site. Where additional sources are available, they have been used to the maximum extent possible to confirm the location, appearance, and use of a feature prior to determination of specific treatment.

Setting Priorities

The use of KOCOA provides a second benefit that could not be derived from standard cultural landscape methodologies—a way to understand in more detail the salient features of the battle landscape. For example, standard cultural landscape inventory and assessment methodologies would note from photographs and post-war surveys the presence of a hedgerow. It would note that the hedgerow was composed of mixed hardwoods, categorize their general size and age, and note the density of growth. However, this standard methodology would likely not lead to the understanding that the hedgerow contained a tree that was used by snipers, and therefore that the significance of this natural feature to the battle landscape was related to that use. In practice, this understanding might lead to different treatments. For example, if the feature were understood simply as a hedgerow, it would be managed to ensure that hardwood trees were present. There would in general be no need to provide specific treatment to any hedgerow trees, since just the continued presence of hardwoods would ensure the continuity of the hedgerow. However, if one of the trees was identified as a sniper tree remaining from 1863, and thus a national register significant element of the battlefield landscape, the NPS would provide additional treatment to it, such as lightning protection, special care to ensure its ongoing health, etc., that would not normally be given to regular hedgerow trees.

Park historians had another major concern, as well, which was to find a way to understand the small scale features that ultimately contributed to the fate of individual combatants and units on the field. Because their writings discuss in detail the way that fences, small topographic changes, buildings, and other battlefield features affected them and the course of the battle, this documentation assists in the identification of features, extant and missing, that contributed to the nationally significant battle landscape. NPS has also concluded that if a feature can be confirmed as present, but if

specific information about its use in the battle cannot be located, that the feature should be replaced. This precept—to err on the side of caution—acknowledges that there may be information about a feature that was not found during the research phase, or that a feature may have had an impact upon the battle which has not yet been understood by historians.

Thus, treatment strategies for Cemetery Hill describe and show the opportunities for protecting, preserving, and rehabilitating the crucial features of the battlefield landscape determined by using the methodologies described above. In addition, the strategies must allow for effectively and safely managing the large numbers of visitors who, today and in the future, come to Cemetery Hill to learn about the extraordinary events that took place in 1863.

Understanding the KOCOA System

The analysis and prioritizing of landscape features, both natural and cultural, that affected the Battle of Gettysburg is clarified through the use of the U. S. military's system of terrain analysis. Known by the acronym KOCOA, this is the instructional method used by the modern military to analyze a potential battlefield landscape in an organized and systematic fashion. KOCOA is an acronym that represents:

Key Terrain
Obstacles
Cover and Concealment
Observation
Avenues of Approach

While this acronym did not exist in its current form during the mid-19th century, the basic concept was taught at West Point at that time and was in use during the Civil War. What follows is a brief explanation of each category, using modern military definitions, and examples of how this method might be applied in the analysis of GNMP's battlefield landscape features. The various KOCOA elements are not exclusive of each other, but can be used to analyze a particular battlefield feature in several different ways. Nearly every landscape feature, natural and cultural, small scale or large scale, influenced the battle in some way. From a farmer's fence to the largest hill, military leaders and units were forced to react to the surrounding landscape in planning and conducting battles.

KEY TERRAIN is "any site that gives advantage to whichever combatant seizes, or controls it." During the Civil War this usually included high ground (i.e., ridges, hills) on which an army's main battle line could be established. Ideally such high ground provided good observation (thus controlling the surrounding terrain by providing clear fields of fire), proved an obstacle to enemy troops and provided cover and concealment to the army's reserve troops and rear areas. Key terrain could also include dense woods, rivers, etc. that were commonly used in the Civil War to anchor the flanks of a battle line.

This was especially important, as its flanks were the most vulnerable part of any army's battle line.

OBSTACLES are 'any natural or man-made feature that obstructs the movement of military forces.' Such features can serve either to assist the defenders and/or impede the attackers. Natural obstacles can be high ground; bodies of water (such as rivers, streams or creeks), rough ground, ravines and forestland among others. Man-made features can include fences, farmsteads and stonewalls along with breastworks or entrenchments built during a battle. Obstacles, whether pre-existing or built during the battle, can define avenues of approach, strengthen key terrain and provide cover. For this study, a feature is only considered to be an obstacle if it was covered by enemy fire.

COVER AND CONCEALMENT Cover is protection from enemy fire. Concealment is protection from enemy observation. Based on this definition cover normally is provided by a small-scale features (i.e., stonewalls, buildings, sunken roads, etc.) and concealment are provided by large-scale features (such as the reverse slope of hills and ridges). Once a unit is detected (seen) by the enemy, it can only gain cover from a feature, since that unit is no longer concealed. As an example, the swales located just east of Seminary Ridge provided concealment to Pickett's Division on the morning of July 3rd. Once their advance began later that afternoon, thus revealing them to the Union army, the subsequent swales the Confederates passed through provided temporary cover, as their presence was already known.[46]

Concealment gained by larger-scale features provide areas where troops can move, muster and rest without detection. It also includes areas where supplies, ammunition and support elements of the army may be placed or stored without fear of direct or indirect fire. On both a small and large scale, cover and concealment is also important in the selection of both defensive positions (for protection from observation and indirect fire) and for offensive avenues of approach (for protection from observation and direct fire).

OBSERVATION is defined by what can be seen from a given feature. Places for observation can be either natural features or man-made features. During the Civil War observation applied to two basic elements: signal stations and fields of fire. The placement of signal stations was important for allowing maximum observation of the enemy's movements while also providing rapid communications within the army. Fields of fire applies to both views at long range, such as artillery fire and short range, such as infantry fire This was especially important for Civil War artillery, which was restricted to direct line-of-sight fire, when units are located or firing into vegetation features (i. e., woodlots, thickets, etc.) or when topographical features (i.e., hills, ridges, boulder outcroppings, etc.) can fully or partially conceal units.

AVENUES OF APPROACH include the operational and tactical movement of troops over natural and man-made features. On an operational level major roads dictated the

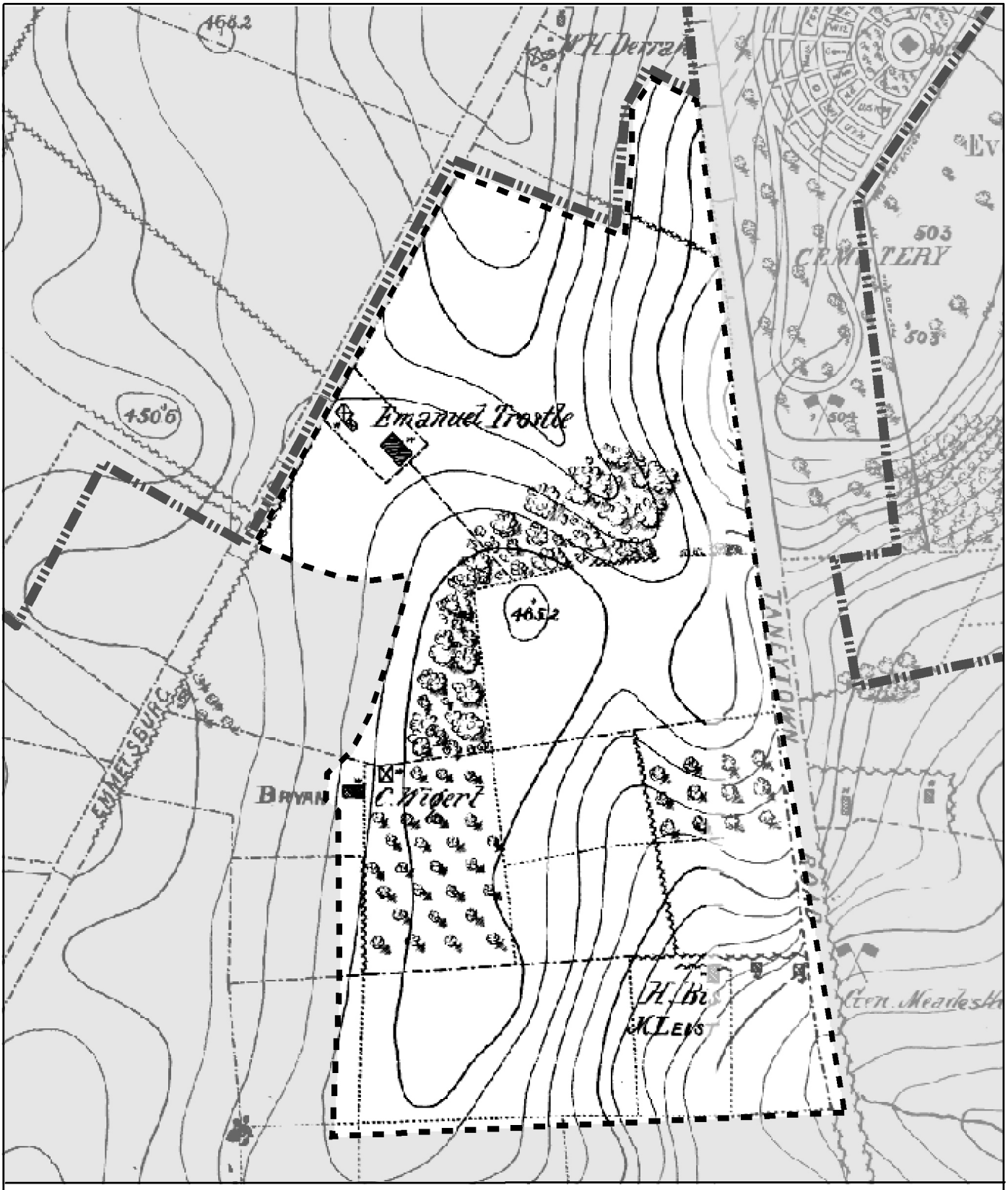
rapid movement of large bodies of soldiers to and sometimes around a battlefield. Logistically road networks were of extreme importance to Civil War armies, who relied upon roads for rapid troop movements and logistical support.

On a tactical level (normally defined as once an engagement begins) avenues of approach includes smaller roads or farm lanes that allowed maneuvering of troops in preparation for offensive action or for defensive reaction. Tactical avenues of approach can also include or be influenced by natural features, such as topography (i.e. hills, ridges, plains, etc.) or vegetation (i.e., woodlots, woods, etc.). As commanders planned and executed military maneuvers (assaults and/or the placement and maneuvering of troops for defensive purposes) some features, such as plains, were ideal for the effective and efficient movement of troops and therefore were excellent avenues of approach. Conversely, other features (i.e., thick woods, dense farm clusters, rocky hills, etc.) hindered the movement of troops and thus influenced the routes units took while maneuvering into or across a battlefield.

Significant Landscape Features of the Battle Era

The Visitor Center, Cyclorama Center and related improvements are located on ground which was held by the Union army and which was the site of extensive fighting during the Battle of Gettysburg in July 1863. This area includes such famous landmarks as Cemetery Hill, Cemetery Ridge, Ziegler's Grove and Gen. Meade's Headquarters.[47] The extensive changes brought about by development have greatly altered these and other sites and have obliterated most of the features that existed in this area at the time of the battle. These changes make it nearly impossible to visualize the conditions encountered by the soldiers in July 1863 and thus to understand how those features and conditions influenced the fighting that took place here.[48]

The Cemetery Hill/Cemetery Ridge study area is roughly 43.5 acres in size and, in 1863, was located approximately a half mile from the southern edge of the town of Gettysburg (see Map 8: 1868 Warren Survey). Within the area were a wide variety of natural and man-made features typical of a mid-19th century agricultural landscape (see Map 9: Battle Era Period Plan). Sections of land from five farms comprised the site and thus the majority of land, approximately 35 acres, was devoted to agricultural fields,[49] with a decidedly open landscape character. Since these were subsistence farms, each needed specialized features for basic requirements and operations. Orchards, woodlots, meadows, wells, springs and fencing (including wooden, stone walls and both dooryard and barnyard fencing) were included. The man-made features were laid out on the existing natural terrain of hills, ridges and ravines in a rectilinear checkered pattern that gave the area a distinctive spatial organization. Circulation features, such as farm lanes and field access lanes, crossed through the area, while two county roads, Emmitsburg Road and Taneytown Road, defined its eastern and northwestern boundaries.[50]



MAP 8

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

1868 Warren Survey

Source: This figure shows portions of map sheets C-3 and C-4 from the series of drawings traced by the Gettysburg National Military Park Commission from the 1868-1869 Warren Surveys.

0 150 300 Feet

Prepared by the USDI NPS GNMP GIS on June 30, 2003.

Study Area Boundary

Park Boundary

Map 9:
Battle Era Period Plan (11 x 17)

Several significant topographic features were located within the study area at the time of the battle. The north section of the study area was the southwest slope of Cemetery Hill, while the northern end of Cemetery Ridge was located in the central and southern end of the study boundaries. The crest of Cemetery Ridge was located towards the western side of the study area, thus the ground comprising its eastern half descended gradually from west to east. Separating these two higher elevations was a natural "saddle" or ravine that ran from northwest to southeast.

The most distinctive feature within the study area was Ziegler's Grove. This mature woodlot or grove was approximately three and a half acres at the time of the battle and was located near the center of the site, essentially dividing the open fields to the north and west from the fields and orchards to the south and east. A substantial hedgerow (Ziegler's Hedgerow) ran along the stone wall that is perpendicular to the Taneytown Road and connected the eastern edge of Ziegler's Grove to the road, completing the vegetative screen that separated the study area.[51]

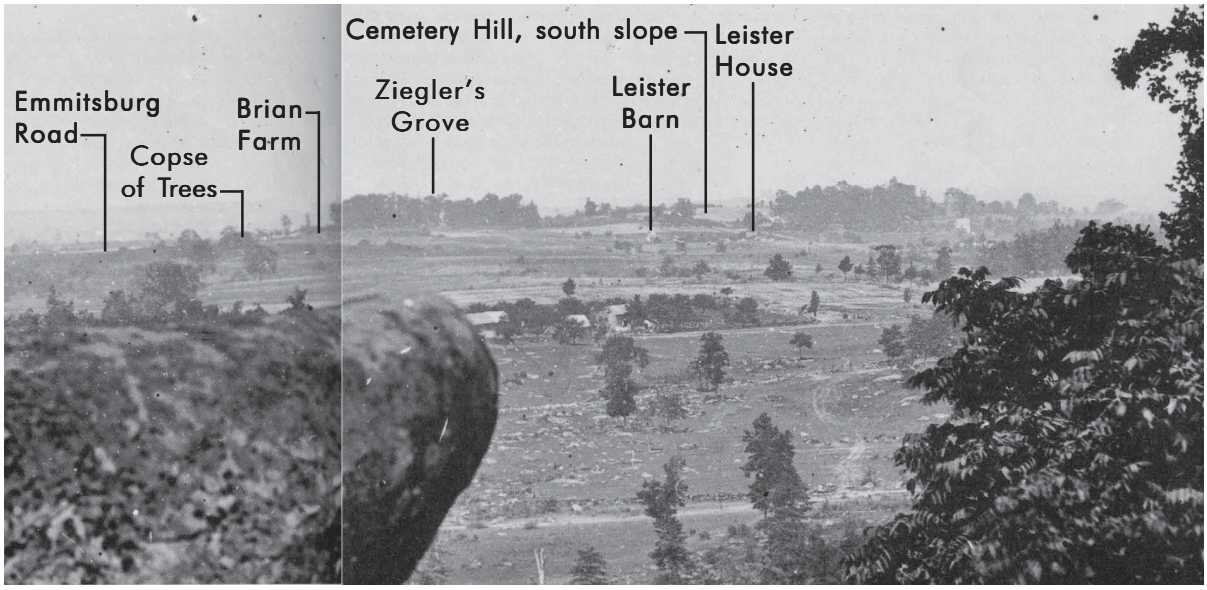


Figure 7. Panoramic view looking north from Little Round Top, c. July 15, 1863. (Stereo #2384, Brady & Co., Library of Congress).

The fields north and west of Ziegler's Grove belonged to David Ziegler, while a small section of a field located at the extreme northeast edge of the study area was owned by Henry Bishop. The two Ziegler fields (Ziegler's North Field and Ziegler's South Field) comprised about a third of his total farm.[52] The David Ziegler farmstead was located northwest of Ziegler's Grove, on the east side of the Emmitsburg Road and between his two fields.

There were nine fields south and east of Ziegler's Grove that belonged to four farmsteads. The large field immediately southeast of the grove was owned by David Ziegler. The four fields to the south of Ziegler's and to the southeast of the grove were owned by

Peter Frey. These were satellite fields, for Frey's main farm (including his farmstead) was located along the west side of the Taneytown Road a short distance to the south. Frey's fields amounted to just under eight acres total and included two meadows, one crop field and one orchard, approximately two acres in size.

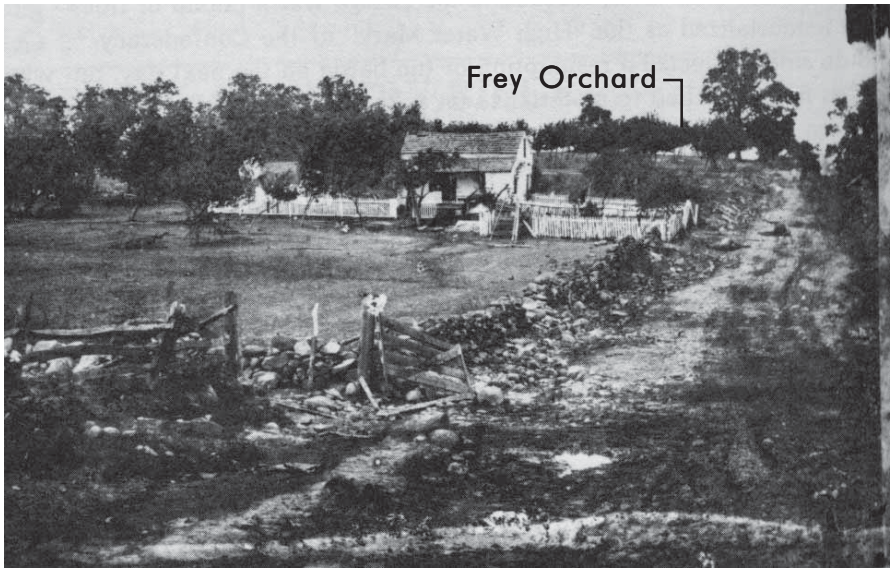


Figure 8. Leister Farm: Meade's Headquarters, July 6, 1863. (Stereo #259, Gardner, Library of Congress)

Situated directly south of Ziegler's Grove, and west of Peter Frey's fields, was a three-and-a-quarter acre orchard owned by Abraham Brian. This mature orchard covered a portion of the crest of Cemetery Ridge. Most of Brian's small farmstead, including the house, was located at the northwest corner of this orchard.





Figures 9 and 10. Two views of the Brian House, c. July 15, 1863. (Left - plate, Brady, PA-MOLLUS; Right - stereo #2396, Brady, Library of Congress).

The three fields marking the southern edge of the study area all belonged to Lydia Leister and comprised the majority of her small farm.[53] Within the two small fields at the eastern end of the farm was the Leister farmstead, including a small house and barn, and a small (one-third acre) orchard, along with a spring and a well, and other small scale features associated with the farmstead. The house was used by Maj. Gen. George G. Meade as his headquarters on July 2 and 3, and finally as a temporary hospital. The two eastern fields, along with the eastern half of the large field, were located on the east slope of Cemetery Ridge and were thus concealed from Confederate observation. The large field, marking the southwest corner of the study area was part of the main Union battle line.[54]

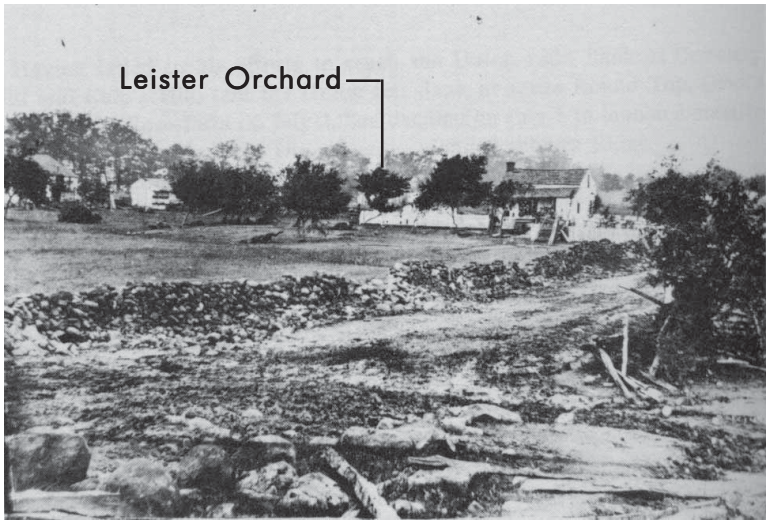


Figure 11. Leister Farm: Meade's Headquarters, July 6, 1863. (Stereo number unknown, Gardner group, Library of Congress).

Fencing through and across the study area varied widely and included almost every fence style present on the 1863 Gettysburg landscape.[55] Except for the stone wall lining the western edge of the Taneytown Road, wooden fences (Virginia worm and post-and-rail) were used almost exclusively north of Ziegler's Grove. Conversely, stone walls, stone-and-rail and stone-and-rider fences predominated in the southern half of the area. While many of these stonewalls were used as permanent property lines, others were used in the interior of the farms, indicating that the use of stone was determined by its availability within a given area.[56]

Generally speaking, the stone walls that existed on the site can be divided into three types: stand-alone stone walls, reinforced stone walls (those with cross braces or riders), and composite fencing (those with post and rail or post and board atop a stone wall). Stand-alone stone walls had to be strong enough and high enough to contain livestock. Photographs and written descriptions indicate that these walls were a minimum of four feet in height. This coincides with the recommendations in the 1887 publication *Fences, Gates, and Bridges. A Practical Manual*. This manual states that permanent stone fences "should be built from four to five feet high, two feet wide at the base and one foot at the top." The construction and appearance of stone fencing was dependent upon at least two variables - the type of livestock and the character of the ground along each side of the wall. The goal of building a stone fence was for permanence - longer than the life span ownership of any individual, a century or more. The fences were made secure on the top by covering them with close-fitting rounded stone (otherwise unusable in the wall construction), preventing the entrance of water into the core of the wall. Stone walls were

built on a foundation of at least one foot, laid in a trench dug out for the length of the wall. Earth from the foundation trench should be "thrown upon each side" of the wall, serving to "turn water from the wall."

The height of reinforced stone walls also varied. If the stone wall was necessary for the enclosure of horses or cattle it needed to approach a height of five feet. This could be achieved without raising the height of the wall but through the addition of rail rider(s). If a stone wall was only two or three feet high, the rider(s) could raise the height to the desired five feet through the variable pitch or angle of the cross braces which supported the rail riders. A rider fence was obviously cheaper and less labor intensive than trying to raise the wall to five feet. Written accounts indicate that no such reinforced walls were less than three feet in height within the project area.

Composite fencing also occurred in assorted heights and widths. These fences were made by back-furrowing a ditch with a plow, resulting in a sod ridge. The ridge and the ditches were finished by hand with a shovel. Posts were thereupon driven through the soft earth of the ridge, and a board or rail fence, usually only three boards/rails high, filled the top three augured holes of the post. Stones, as they were picked up from the field, were hauled to the fence and thrown against the ridge. "This clears the field, strengthens the ridge, prevents the growth of weeds, and assists in packing the earth firmly around the bottom of the posts." These stone walls were necessarily without much form (as opposed to the free-standing stone walls and the reinforced stone walls), and were wider (3-4 feet) than they were tall (c. 2 feet). This type of fence fronted the Taneytown Road north of the Leister buildings.

The numerous types of fencing had marked impacts on the battle. Many, especially the stone walls along or behind the main Union battle line on Cemetery Ridge and those along the Taneytown Road on Cemetery Hill, were used as cover by the Union defenders. Some of the wooden fences along the Emmitsburg Road provided cover for the Union skirmish line throughout the battle. Confederate skirmishers also used the post-and-rail fences along the road as cover when they briefly reached and held that location during the fighting on July 2. Since the wooden fences located behind the Union lines, especially those east and southeast of Ziegler's Grove, would have been obstacles to troop movement, the Union soldiers tore them down on the morning of July 2. Similar openings were created in some of the stone walls for the same reason.[57]

All of these features, both natural and man-made, influenced the fighting that occurred on Cemetery Hill throughout the three days of the battle, and affected all levels of the military, from the commanding general of the Army of the Potomac to the enlisted men serving in the ranks on both sides. Many of the features of this July 1863 landscape proved beneficial, for providing cover and concealment, allowing unobstructed observation and fields of fire or by permitting unimpeded movement as an avenue of approach. Other features proved to be detrimental, by becoming obstacles or providing little or no cover during an advance. These landscape features, both large and small scale, are

crucial to preserve or restore, for in many cases they resulted in the difference between life and death for a soldier on the battlefield.

Many other landscape features played significant roles in the battle but did not necessarily affect the outcome of the battle. These features were usually smaller than the KOCOA features (e.g., headquarters trees, springs, wells) and were not used for defensive or offensive purposes. Some larger features, such as fences and buildings, were likewise not used for defensive or offensive purposes. They did, however, often figure in the course of the battle in other ways. Some fencing was used after the battle for firewood, for grave markers, or to corduroy rain-soaked roads. Buildings could serve as military headquarters or, combined with the proximity of springs or wells, as hospitals. These other significant features are mostly associated with the logistical and administrative course of the battle and not with the fighting.

In the following text, 1863 features with importance to the battle are listed and described in detail. The numbers listed correspond to those shown on the Battle Era Period Plan. The K.O.C.O.A. criteria applicable to each feature are shown in ***bold italic*** lettering. An asterisk (*) denotes features adjoining the study area.

1. Ziegler's Grove

This mature woodlot was described by soldiers in 1863 sometimes as a woods and sometimes as a grove. Both the Warren survey of 1868-69 and the historic photograph from Little Round Top (see Figure 7) indicate that there was an opening or path through the north segment of the grove, connecting Ziegler's North Field (Feature #5) with Ziegler's Large Meadow (Feature #21). The grove was occupied by Union troops from the early evening of July 1 until July 5. The combination of Ziegler's Grove and the grove in the rear of Evergreen Cemetery provided the most notable vegetative feature on the south slope of Cemetery Hill. The grove was used as ***concealment*** to mask the movements and positions of Union troops (Carroll's Brigade, Baxter's Brigade, Woodruff's Battery, Smyth's Brigade, and most of Doubleday's Division at various times of the battle). It also provided some ***cover*** during Confederate artillery and infantry fire because the trees absorbed much of the damage. Because of its location at the corner of the curve in the Union battle line, it was exposed to fire from many directions and troops within it suffered proportionately. It was within the fields of fire of the vast majority of Confederate artillery ***(observation)***.

Current Condition:

No known historic trees remain. Species composition has shifted, particularly in the southern half of the grove, when ginkgo and other trees were planted during Mission 66. Some of the trees planted by the War Department (large sycamore maple by rear entrance) during its reconstruction of the grove still survive. The parking lot, with its consequent grading and paving, displaced more than half of the northern grove. The opening through the north segment of the grove is also nonexistent.

2. Ziegler's Ravine

The ravine was located between the south slope of Cemetery Hill and the northern terminus of Cemetery Ridge. The relatively gentle slopes of both of these topographic prominences met at a point adjacent to and in the north half of Ziegler's Grove (Feature #1). The Union army found it unwise to permanently station its forces in this ravine without some sort of man-made barricades. Its suitability for defensive purposes was restricted by the lack of view in any direction but the west when within the ravine. The defensive weakness of the ravine most likely attracted General Lee in his planning for his final offensive on July 3. It therefore probably was perceived as an ***avenue of approach*** by Confederate high command because of its inherent weakness within the center of the Union line. Because of its enclosed and mostly vegetated nature, it hindered observation from within the Union line. It was, however, ideal for protecting troops during movement between Cemetery Hill and Ziegler's Grove ***(cover)***.

Current Condition:
The extent of the ravine has been diminished by the grading for the Mission 66 avenue and parking lot system of the Cyclorama Center.

3. Ziegler House

The old frame house provided ***cover*** by its exterior mass to troops moving from Cemetery Hill to the skirmish line on and beyond the Emmitsburg Road (Feature #10). It provided shelter for wounded Union soldiers. It also served briefly as the headquarters for the 8th Ohio regiment.

Current Condition:
Demolished. It is possible that a new two-story frame cross-gable house succeeded the original house on this site after the battle damage to the original Ziegler house. Unsure of the date of demolition of either house, but the successor survived through the 1913 reunion.

4. Ziegler Yards and Yard Fences

The fencing was beneficial to the movements of Union forces along the Emmitsburg Road (Feature #10) during the battle because it provided an element of ***cover*** to them while advancing to or returning from the skirmish lines.

Current Condition:
Missing.

5. Ziegler's North Field

This open field provided an ***avenue of approach*** to Union forces moving from the south slope of Cemetery Hill (Feature #35) to the skirmish line on the west side of the

Emmitsburg Road (Feature #10). The lines of ***observation*** within, through, and over this sloping field were ideal for both armies. The high casualties among Union regiments that advanced or retired over this field while under fire of enemy sharpshooters and skirmishers testifies to these ideal lines of fire.

Current Condition:
The eastern half of the field has been displaced by paved parking and the Visitor Center. The western half has been converted to lawn and tree screen. The tree screen effectively negates the character of openness that made this field so important for observation during the battle.

6. Ziegler's South Field (north portion only) *

The entrance drive to the Visitor Center from Emmitsburg Road currently bisects this south field of the Ziegler Farm. Because of its open and exposed character, movement by Union troops over this field was avoided and confined only to a bold movement by men from several regiments to outflank the enemy during "Pickett's Charge." Because of this, the southern half of this field can be perceived as a limited ***avenue of approach***. The major military role for this field during the battle was its ability to provide lines of ***observation*** within, through, and over it by both armies. It provided the fields of fire for one of the most effective and targeted of batteries on Cemetery Ridge (Woodruff's Battery I, 1st U.S. Artillery).

Current Condition:
The portion of the field north of the Cyclorama Center entrance drive has been converted to lawn and ornamental tree planting derived from Mission 66 development. The portion south of the entrance drive (not included in the study area) has been converted to high grass meadow. Remnants of Mission 66 ornamental tree planting and subsequent NPS tree screening occupy the western fringe of the north portion. The 1960s and 1980s ornamental trees interfere with the battle-era observation characteristic of this tract.

7. Ziegler's Stone Wall, south boundary

Use of this stone wall for ***cover*** was limited to massed brigades prior to deployment in line of battle. Ziegler's Grove (Feature #1) and its trees, as well as the upward sloping topography beyond it, made its usefulness as a defensive position limited, if not risky. It became more of an ***obstacle*** to orderly movement between the South Slope of Cemetery Hill (Feature #35) and Cemetery Ridge (Feature #34) than anything of advantage to the Union army. During the attack on the Emmitsburg Road Embankments, the 8th Ohio was compelled to scale this wall and its Hedgerow (Feature #8, see below).

Current Condition:
All portions of this feature are missing. NPS relocated the wall in the 1930s and then

removed it entirely during the construction of the Cyclorama Center and its parking lot.

8. Ziegler's Hedgerow

A substantial hedgerow, one which completely covered the eastern part of the Ziegler's Stone Wall, south boundary (Feature #7), made the wall an even more elaborate ***obstacle*** to orderly troop movement. On the other hand, the hedgerow provided additional ***cover*** and ***concealment*** to those Union troops that lay behind it near the crest of Cemetery Hill. The hedgerow and wall were scaled by the 8th Ohio, the 14th Indiana, and the 121st and 142nd Pennsylvania Regiments at various times on July 2.

Current Condition:

Missing. Because it was associated with Ziegler's Stone Wall, south boundary, which is also missing, this hedgerow no longer exists.

9. Baxter's Defenseworks

Because both useful stone walls enclosed the militarily wrong sides of Ziegler's Grove (Feature #1) (east and south), it was necessary to construct defenseworks along the right sides (west and north). These defenseworks, composed of rails, stones, earth, and building materials provided ***cover*** to Union troops assigned to support Woodruff's Battery and to defend the Ziegler's Grove salient of the Union battle line. Baxter's Brigade constructed the works on the west side of the Grove on July 1. When the 126th New York of Willard's Brigade replaced Baxter's brigade along this part of the line, it strengthened the works. Both units may have used stones from a wall about 150 feet to the rear. This wall defensework appears in at least one July 1863 photograph and was included in a battle sketch made by John B. Bachelder. When Baxter's Brigade found itself back in Ziegler's Grove at the close of Pickett's Charge on July 3, it commenced



Figure 12. Brian House with Baxter's Defenseworks visible on the far right, c. July 15, 1863. (#23S-0051, General Historical Photographic Prints, Gettysburg NMP).

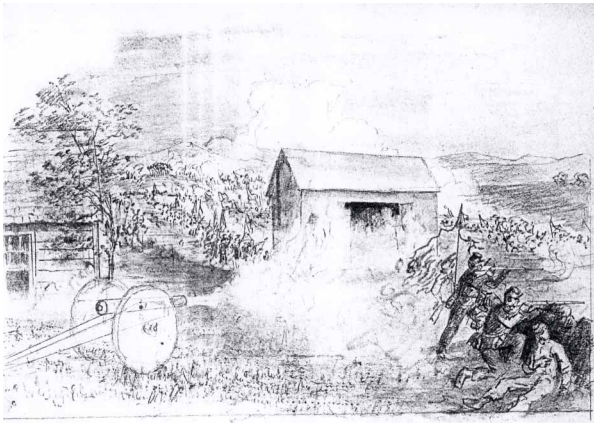


Figure 13. Battle Sketch by John B. Bachelder with Baxters's Defenseworks shown on far right. (GETT. Acc No. 38172, Gettysburg NMP).

immediately to extend these works and constructed new works within the northern portion of the grove, within Ziegler's Ravine (Feature #2).

Current Condition:
There is no visible evidence of these soldier-constructed breastworks. The wall portion first erected by Baxter's men and those of the 126th New York remained in its location from 1863 to sometime after 1890s. It is uncertain how much archeological evidence remains after the development associated with Hancock Avenue and the Cyclorama parking lot.

10. Emmitsburg Road

The portion of the road that forms the western boundary of the project area first served on July 1 as an ***avenue of approach*** by the U.S. Eleventh Corps division of General Francis Barlow. Throughout the remainder of the battle it became a contested area for the contending skirmish lines. Because of its proximity to the Union battle line, that army's sharpshooters and its picket reserve occupied the road through the vast majority of the battle. Its relatively sunken character provided some limited ***cover*** to Union forces strung out along this road from the night of July 1-July 5, 1863.

Current Condition:
The sunken character of the road no longer exists. The alignment of the road appears to be the same.

11. Emmitsburg Road Sharpshooter's Embankments

The portion of the Emmitsburg Road (Feature #10) that bordered Ziegler's North Field (Feature #5) had been graded or otherwise altered to create embankments during its construction. These embankments provided extraordinary ***cover*** since they converted a portion of the Emmitsburg Road into a sort of trench from which sharpshooters could fire without exposing themselves. For a brief time in the late afternoon of July 2, Confederate sharpshooters attained the embankments and fired with impunity from the shelter of the east embankment at cannoneers on Cemetery Hill and in Ziegler's Grove (Feature #1). So grave was the situation, that General Alexander Hays personally ordered the 8th Ohio to attack the embankments and drive the sharpshooters from this protective trench. [Embankments on the opposite side of the road permitted the 8th Ohio to remain in this relative position throughout the rest of the battle, protected from enemy sight and fire.]

Current Condition:
These embankments no longer exist, graded away during the widening of Emmitsburg Road and for the entrance to the National Museum and Electric Map. (Evidence of the natural grade and the depth of these embankments can be ascertained by observing the grade of Friendly's Restaurant in relationship to Emmitsburg Road.)

12. Brian Orchard

This mature apple orchard provided ***concealment*** to Union forces stationed in or moving around the northern terminus of Cemetery Ridge (Feature #34). For the majority of the battle, Smyth's and Willard's Brigades of the Second Corps used the foliage of the trees to conceal their positions and strength from Confederate command on Seminary Ridge. In addition, troops that were moving or massing behind (east of) the orchard in the vicinity of the Taneytown Road (Feature #26) were also concealed from Confederate view. Because these movements were concealed they were not the special targets of Confederate artillery fire.

Current Condition:
Existing.

13. Brian Barn

This frame English-style barn was incorporated into the Union battle line on Cemetery Ridge (Feature #34), not of choice but of necessity. It hindered Union forces in that it interrupted fields of fire (observation) from the Brian farm and Ziegler's Grove (Feature #1). On the other hand, it provided a measure of ***cover*** for soldiers from both armies. Men of the 111th New York sought the cover of the gable walls of the building during the cannonade of July 3, although shells frequently traveled through the length of the barn and killed or maimed several soldiers. Survivors of several Southern regiments sought the protection of the barn walls while advancing under the infantry fire of Smyth's and Willard's Brigades. (The footprint of the building is larger than it was in 1863. A wagon bay was added to the west end of the barn sometime before 1875. During major preservation work on the barn in the late 1980s, several spent Confederate balls were found by archeologists within the barn along the base of the once-external wall.)

Current Condition:
Existing, in its 1875 condition.

14. Brian House

Union division commander General Alexander Hays reputedly used this building as a headquarters during the battle. Like the barn, this house was incorporated into the Union battle line on Cemetery Ridge (Feature #34). It also obscured Union fields of fire (observation), especially during the latter phases of "Pickett's Charge." Union forces in Ziegler's Grove (Feature #1) were frustrated at their inability to fire at the attacking Confederates because of the obstructions of the Brian house and barn. Other known buildings and improvements associated with the house included a grape arbor (Feature #60), a squirrel-tail bake oven, and a dog house. The cluster of the house, barn and other related structures provided limited ***cover*** to Union defenders.

Current Condition:
The house exists. Other ancillary structures are missing.

15. Brian Farm Lane *

This lane connected the Brian Farm buildings to the Emmitsburg Road (Feature #10), its route running between the two shacks along the road. The lane was used as an ***avenue of approach*** by almost every regiment or company assigned to the skirmish line in front of Ziegler's Grove (Feature #1) and the Brian buildings (Features #13 and #14). It was also used by men of the 12th New Jersey, 1st Delaware, and 14th Connecticut regiments—all intimately associated with the two-day battle for dominance at the Bliss farm buildings—to access their target and to retire to their own battle lines. Wounded from both armies were carried back to hospitals using the lane.

Current Condition:
The lane is defined by board fencing along its historic line, but the surface appearance of this circulation feature is lawn, not lane.

16. Brian Farm Lane Fence *

This east-west board fence provided ***cover*** to a flanking column composed of the 126th New York, elements of the 1st Co. of Massachusetts (Andrews) Sharpshooters, a company of Minnesota Sharpshooters, and skirmishers from the 125th New York. From the protection of this fence, these units fired into the exposed left flank of the Confederate attacking column on the afternoon of July 3.

Current Condition:
Existing.

17. Brian Farm Stone Wall with Post and Rail Fence (south of Brian Barn)

This section of wall, extending southward from the Brian Barn (Feature #13), enclosed the stable yard and adjoining field that was used for pasture. The wall, coupled with the rails behind and above it, provided excellent ***cover*** for men of Baxter's Brigade of Robinson's Division on the evening of July 1. Because the Union forces anticipated a night attack by Confederates, the stone wall here provided an excellent defensive position. It is uncertain whether or not the rails were removed and stacked atop the wall by Baxter's infantry to consolidate this fortification during the night. For the remainder of the battle, the 12th New Jersey and 111th New York occupied this position and used the cover of the wall to shelter their battle line. The height of the wall on its western face was an ***obstacle*** to troop movement by both armies during various phases of the battle. Union skirmishers and regiments en route to forward positions were compelled to use the Brian Farm Lane (Feature # 15) in order to prevent the toppling of the wall if crossing it. The height of the wall would have prevented easy Confederate penetration of this part of

the Union battle line.

Current Condition:
The wall exists. The post and rail does not. The wall is currently portrayed as a stone wall with stake and rider.

18. Brian Farm Stone Wall with Stake and Rider Fence (south of Stone Wall with Post and Rail Fence)
This southern extension of the Brian Farm Stone Wall (Feature #19) was heightened on the Brian Orchard (Feature #12) side of the fenceline with a stake and rider fence. Paul's Brigade of infantry occupied this portion of the wall on the evening of July 1, using it as ***cover***. Battle reports indicate that Paul's Brigade constructed breastworks, but it is unclear whether or not this portion of the wall was altered by the removal and restacking of the rails (which could be easily removed). Throughout the remainder of the battle, parts of Smyth's Brigade and successive artillery batteries used the protection of the wall to shield themselves from Confederate artillery and sharpshooters fire.

Current Condition:
Exists with a stake and rider finish. This wall has been altered since the battle. An 1882 photograph (3C-3001) indicates the wall had been removed in its entirety, necessitating the GBMA to erect a post and wire fence on the "downside" or west side of the former wall site. It is unclear when the wall was rebuilt.

19. Brian Farm Stone Wall, eastern boundary
This stone wall enclosed the Brian Orchard (Feature #12) and formed the eastern boundary of the farm. It was used as ***cover*** by various units during the battle, most notably by Willard's Brigade on July 3 during the cannonade that preceded Pickett's Charge.

Current Condition:
A small portion of the wall at its northern end is missing, displaced by the Cyclorama Center grounds and its rear plaza.

20. Brian-Small Post and Slab Board Fence *
Confederate soldiers described the fence that formed the common boundary between the Brian and Small fields as a board fence that intercepted hundreds of Union rifle balls meant for their ranks during Pickett's Charge. Many surviving Confederate attackers used the fence for ***cover***, stopping behind the fence to fire at Union troops along the Brian Farm Stone Wall (Feature #19). When the attacking Confederate moved forward, the fence became an ***obstacle*** to the impetus of their charge.

Current Condition:
Fenceline exists, but fencing material is post and rail instead of post and board.

21. Ziegler's Large Meadow

This large meadow, situated between the Taneytown Road (Feature #26) and Ziegler's Grove (Feature #1), was used throughout the battle as a location to mass troops for the defense of Cemetery Hill. This field was concealed from Confederate observation by the trees of Ziegler's Grove and because of its sloping character. The open nature of the meadow permitted ease of movement by these massed troops and other units passing from Cemetery Hill to Cemetery Ridge (Feature #34), thus making the field an ideal ***avenue of approach***.

Current Condition:
This meadow has been totally incorporated into the development for the Cyclorama Center. It is occupied by ornamental plantings, walkways, parking lot, NPS-era memorial groupings, and the drum of the Cyclorama building. The open spaces not otherwise disrupted by Mission 66 and other development are maintained as formal lawn.

22. Peter Frey Orchard

This mature orchard initially provided ***cover*** to Carroll's Brigade of the Second Corps after it arrived on the battlefield on the morning of July 2. The orchard would have been an ***obstacle*** to the unimpeded march of infantry or the movement of artillery limbers. Movement of this nature was therefore directed to the adjoining meadows and fields of the Frey farm (see Figure 14).

Current Condition:
Missing.

23. Peter Frey Hay or Wheatfield

This field appears as a mown grass or grain field in a July 1863 photograph (see Figure 14). It shows that the grass or wheat had been mown and raked into piles and was ready for gathering and taking to the barn. Located between the Brian and Frey orchards (Features #12 and #22), this field provided an unimpeded ***avenue of approach*** between Cemetery Hill and Cemetery Ridge (Feature #34) for Union infantry. Because this field was on the reverse (or eastern) slope of Cemetery Ridge it was protected from direct observation by Confederate commanders and artillerists, providing both cover and concealment (see Cemetery Ridge).

Current Condition:
Half of the field is occupied by the plaza and office wing of the Cyclorama building and by walks. The other half is maintained as formal lawn.

24. Peter Frey Small Meadow (West)

The small meadow adjoined the Brian Orchard (Feature #12) on the west and the Frey Hay or Wheatfield (Feature #23) on the north. It was the southernmost of the connected Frey fields and was therefore associated with the ***avenue of approach*** that connected Cemetery Hill to Cemetery Ridge (Feature #34). Because this field was on the reverse (or eastern) slope of Cemetery Ridge it was protected from direct observation by Confederate commanders and artillerists, providing both ***cover and concealment*** (see Cemetery Ridge).

Current Condition:

The park currently maintains this field as formal lawn.

25. Peter Frey Small Meadow (East)

The open character of this meadow made it acceptable as an ***avenue of approach*** to units of the Federal army moving from or across the Taneytown Road (Feature #26) between Cemetery Hill and Cemetery Ridge (Feature #34). Because it immediately adjoined the road and other open fields, this small meadow was a reasonable movement corridor for Union infantry and artillery. The destruction of the fencing along the Taneytown Road on the eastern boundary of this meadow testified to its use as a movement corridor for masses of men (see Figure 14).

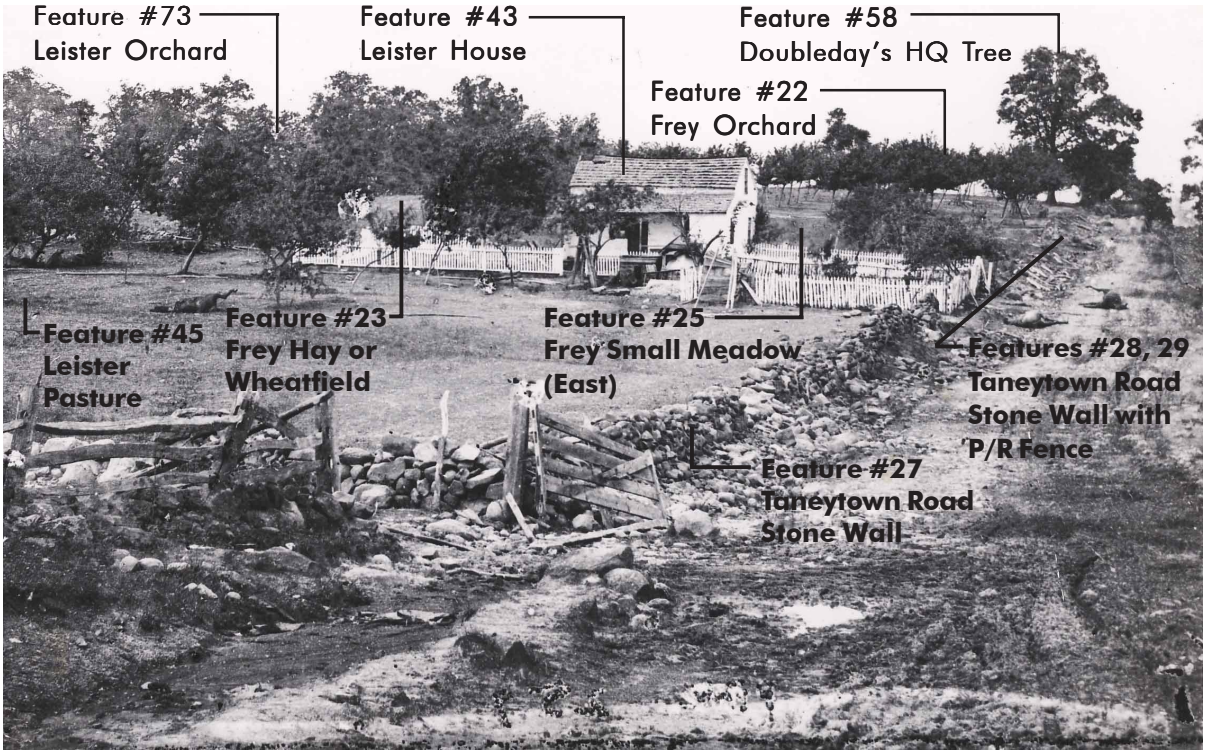


Figure 14. Meade's Headquarters (Leister Farm) as it appeared shortly after the battle. Many significant landscape features can be seen in this photograph. Gardner, July 5, 1863. (#23S-0250B, General Historical Photographic Prints, Gettysburg NMP).

Current Condition:
The park currently maintains this field as formal lawn.

26. Taneytown Road

This public road defines the eastern boundary of the project area but was very important to the Union army during the battle. It was used originally as ***avenue of approach*** for the Eleventh Corps on July 1 as it reached the battlefield. Throughout the remainder of the battle, the road was used to move artillery, infantry, and cavalry as well as ambulance and supply wagons. In addition, the road defined the battle line of part of Orland Smith's brigade of infantry throughout the four days of the battle, as well as the lines of other individual units at various other times (e.g., 10th New York Battalion, Paul's Brigade, 121st and 142nd Pennsylvania).

Current Condition:
The road retains a relative amount of integrity. Although it has been paved and widened, it retains its alignment and much of its original grade through the project site.

27. Taneytown Road Stone Wall (Leister Field)

Although the G. K. Warren survey map designates this fenceline with a post and rail or post and board fence, a July 1863 photograph depicts this fenceline as a stone wall. At least two sections of this wall were partially dismantled to permit movement of horses and men during the battle. It therefore was an ***obstacle*** to orderly and timely movement by Union forces. A panel of post and rail fence was erected at the northern terminus of this fence where it met the Leister Yard Fence (Feature #44). The rails were removed when necessary in order to provide access between the Leister Pasture (Feature #45) and the Taneytown Road (Feature #26). During the course of the battle, these rails were removed from the panel for military purposes, to provide an ***avenue of approach*** for Union infantry and artillery (see Figure 14).

Current Condition:
Existing. The southern corner of this wall includes a commemorative-era alteration to accommodate Hunt's Headquarters marker. The northern "gate" panel is Missing.

28. Taneytown Road Stone Wall with Post and Rail Fence (Frey Small Meadow-East)

This portion of the stone wall along the Taneytown Road (Feature #26) had a low and apparently intermittent stone wall, behind which was erected a post and rail fence (see Figure 14). This rail fence and the posts were knocked down or removed during the battle, showing that this wall and fence was an ***obstacle*** to movement by Union forces. The removal of the fence converted this obstacle into an ***avenue of approach***. A gate was located at the north corner along the road. It appears from the 1863 photograph

that this access gate location was graded down so that the entrance to the Frey Small Meadow (Feature #25) was at the Taneytown Road grade (see Figure 14).

Current Condition:
The wall is no longer intermittent but continuous. The wall is backed by a post and rail fence.

29. Taneytown Road Stone Wall with Post and Rail Fence (Frey Orchard)

This portion of the stone wall along the road was intermittent and not continuous, with stones thrown or stacked along the bottom rails of a post and rail fence. The fence and its posts were dismantled, the posts falling down the bank and into the road before the close of the battle, indicating that this fence was an ***obstacle*** to Union movements. Pioneers of Carroll's Brigade may have been responsible for removing this fence when they were posted in the orchard on the morning of July 2 in order to provide an ***avenue of approach*** for Union artillery and infantry. An entrance field lane into the Orchard was located at the south end of this section of the road fencing (see Figure 14). This field lane was graded down to the level of the Taneytown Road (Feature #26.)

Current Condition:
The wall is no longer intermittent but continuous. The adjoining post and rail fence along this line exists. There is no evidence of the historic opening or orchard entrance along this fenceline.

30. Taneytown Road Stone Wall [with rail added as breastworks]

This fenceline was portrayed on the Warren map as a stone wall; a November 1863 photograph likewise portrays it as an unbroken stone wall (William A. Frassanito, *Gettysburg Then and Now,* Gettysburg: Thomas Publications, 1996, p.48). The wall was used for both ***cover*** and ***concealment*** by infantry regiments of the First and Eleventh Corps throughout the battle. Soldiers of the 136th New York regiment remembered adding height and further protection to the wall through the addition of fence rails. These rails were probably relocated from elsewhere in the Cemetery Hill area, when pioneers removed fencing to facilitate movement of artillery and infantry units, further transforming the boundary wall into a breastwork. Soldiers of Orland Smith's Brigade used walls on both east and west sides of the Taneytown Road (Feature #26) for cover from converging artillery fire on July 2-3. These regiments placed their lines of battle within the road corridor to take advantage of this dual protection.

Current Condition:
A poor representation of this historic wall still exists between the Visitor Center and the Cyclorama Center parking lot entrance. The portion of this wall that runs through the north section of the Ziegler Large Meadow (Feature #21) has been altered to accommo-

date the Mission 66 entrance sign. The northern portion of the wall has been displaced by the Visitor Center and its parking lot.

31. Brian Tenant Shack *

This small frame building was located along the Emmitsburg Road (Feature #10) at the terminus of the Brian Farm Lane (Feature #15). Because it was owned by Abraham Brian, the shack must have been on his property and therefore on the south side of the farm lane. The G. K. Warren survey does not include a building on the site nor does it note that one was removed since the battle. Because Brian's claims file indicated that the building was almost demolished during the battle, it was most likely removed before the Warren survey. Archeological investigation at the site in the early 1990s indicated that this building had no foundation, its sills resting directly on the ground. Its virtual demolition during the battle is verification that it was not only an ***obstacle*** to movement and fields of fire, but that it also provided whatever little ***cover*** for Union skirmishers and Confederate attackers between July 2-4.

Current Condition:
Missing.

32. Ziegler Brickyard Shack *

The G. K. Warren survey of 1868-1869 indicates that there was a small building fronting the Emmitsburg Road (Feature #10) just north of the Brian Farm Lane Fence (Feature #16). This shack or tenant house may have been occupied by a brickmaker who tended the Ziegler brick kiln and yard. (1860 census records list an Alfred Palm, brickmaker, living somewhere along this section of the Emmitsburg Road.) The brickyard shack may have fared better during the battle than the Brian Tenant Shack (Feature #31) because of the cluster of trees that surrounded it. Nevertheless, it would still have been an ***obstacle*** to movement by both armies during the progress of the battle. It also provided limited ***cover*** to Union skirmishers and attacking Confederates between July 2-4.

Current Condition:
Missing.

33. Ziegler Post and Rail Fence (Between North and South Fields)

This fence transected Ziegler's Grove (Feature #1) and continued on towards the Ziegler yards fencing (Feature #4) in the direction of the Emmitsburg Road (Feature #10). The eastern half of this fence most certainly was torn down and the materials reused to construct breastworks at Ziegler's Grove on July 1. The western portion probably was not dismantled and would have been an ***obstacle*** to Union troop movement to and from the skirmish lines. At the same time, it also would have provided momentary ***cover*** to those troops. Union sharpshooters sent to protect and support Woodruff's

Battery most likely used any portion of this fence or its posts as ***cover*** when exchanging fire with Confederate sharpshooters in the fields west of the Emmitsburg Road.

Current Condition:
Missing. The site of this fence runs through the VC picnic area, crosses the old trolley bed, and terminates in the lawn in the proximity of the two surviving large trees east of the tree screen.

34. Cemetery Ridge

This major topographic feature was ***key terrain***, particularly along that portion of the ridge included within the project area. The northern terminus of the ridge was at Ziegler's Grove (Feature #1), the grounds west and north of this terminus sloping down to the open plains and fields of the town's suburb farms and outlots. This ledge provided a limited but key location for ***observation***, and the ridge itself could be used as an ***obstacle*** to an enemy frontal attack. The rear slope of the ridge provided both ***cover*** and ***concealment*** to Union infantry and artillery (positions and movements). The commander of the Union army selected the location of his headquarters behind this portion of the ridge partly because of the protection that the terrain provided.

Current Condition:
The grade of the ridge retains much of its military significance and original condition. The northern terminus (or juncture with Cemetery Hill) has been regraded by NPS for construction of Cyclorama Center facilities.

35. South Slope, Cemetery Hill

The south slope of Cemetery Hill included grounds on both sides of the Taneytown Road (Feature #26), including lands currently occupied by the Visitor Center with its parking lot and the south end of the national cemetery. The Taneytown Road is an artificial boundary visually dividing this terrain feature. The elevation of this slope provided an ideal platform for Union artillery; it was favored and occupied throughout all four days of the battling at Gettysburg for the protection of the Union lines. Because there was not sufficient room for infantry supports, limbers, and caissons on the western side of this South Slope, the artillery was planted on the east side of the Taneytown Road. Limbers, caissons, and support troops could therefore be located to the rear of the guns, behind the reverse slope from the enemy. The grounds on the west side of the road (Visitor Center) were too exposed to Confederate fire to be occupied permanently by any Union forces. Only the north segment of Ziegler's Grove (Feature #1) provided any kind of cover on this side of the South Slope. Because of the openness of Ziegler's North Field (Feature #5), this part of the slope provided unlimited ***observation*** by Union commanders and murderous fields of fire by artillerymen to the Confederate lines southwest, west and north of Cemetery Ridge (Feature #34) and Cemetery Hill. As stated above, it also provided Confederates with the same unobstructed fields of fire and observation

towards the Union positions on this South Slope. As a result, artillery fire across the western portion of the South Slope from both armies was almost continuous throughout the battle. Union commanders regarded Cemetery Hill and its South Slope as ***key terrain*** to be defended at all hazards. No comparable acreage anywhere on the battlefield could rival the numbers of troops and guns that defended and occupied this part of the Union line.

Current Condition:
The South Slope has been manipulated since the last quarter of the nineteenth century, primarily in its association with the brick and tile yards of the Pfeffer Company. Clay was dug and quarried from the west side of the Taneytown Road beginning in the 1880s, resulting in a deep hole which was ultimately minimized with fill from building destruction, borough street improvements, and trash. Hence, a semblance of the original grade of the South Slope partially has been restored. The military qualities of openness that characterized its use for ***observation*** and fields of fire has been severely impacted by the addition of the Visitor Center development. This development likewise undermines any understanding of this as an important part of the Union battle line and as ***key terrain.***

36. Leister South Boundary Stone Wall, The Angle *
This is a continuation of the Leister South Boundary Stone Wall (Feature #71), running westerly from Hancock Avenue to form the northern edge of The Angle. Infantry of the U.S. Second Corps used the wall as ***cover***, partly to protect it from incoming artillery fire and from incessant sharpshooting and sniping. Its solid presence created an ***obstacle*** to Confederates during their major attack on July 3.

Current Condition:
Existing.

37. Leister-Small Post and Rail Fence *
This five-rail post and rail fence runs in a north and south direction, beginning at its southern end at the Angle and terminating at the Leister Farm's common boundary with the Brian Farm (see Figure 15). This fence was not torn down by the Union army prior to or during the battle. Its location about 100 yards in front of the Union stone wall breastworks on Cemetery Ridge provided a textbook lesson in the value of field fortifications. The Union defenders had a clear field of fire from their battle line over the field between the stone wall and this Leister-Small Post and Rail Fence. By leaving the fence stand, the Union line had a clear firepower advantage when Confederate soldiers attempted to climb the fence. This fence was retained as an ***obstacle*** to potential Confederate advances and prevented the Confederates from achieving close quarters quickly—a necessity for the great charge to succeed. Instead, the fence was perceived as ***cover*** by the Confederates. They were reluctant to climb over it and expose themselves to murder-

ous close-range fire. Instead, they used it as a temporary defensework to shelter themselves from the rain of fire coming from Cemetery Ridge (Feature #34).

Current Condition:
Existing.

38. Leister-Brian Field Boundary Fence *

This east-west five-rail post fence separated the Leister West Field (Feature #48) from the Brian Wheatfield (Feature #49). The G. K. Warren survey of 1868-1869 indicates that this fenceline was entirely post and rail or post and board. Sometime before 1882, however, the eastern half of the fenceline was converted to a stone wall with a stake and rider (see Figure 15). No known accounts, civilian or military, mention this fenceline or its composition. No matter what the style of the fenceline, it would have been an ***obstacle*** during the Confederate attack on Cemetery Ridge on July 3. No Confederate accounts mention a stone wall or a post fence as cover during the attack. It is unlikely that this fence would have been removed by Union forces prior to or during the battle, since it did not interfere with their own battle lines or movements and it had the potential to interrupt enemy movements along the Union battle front. Had any portion of the fence remained standing during the Confederate attack, it would have been sought as ***cover*** from cross fire by the attacking and disintegrating Southern lines.

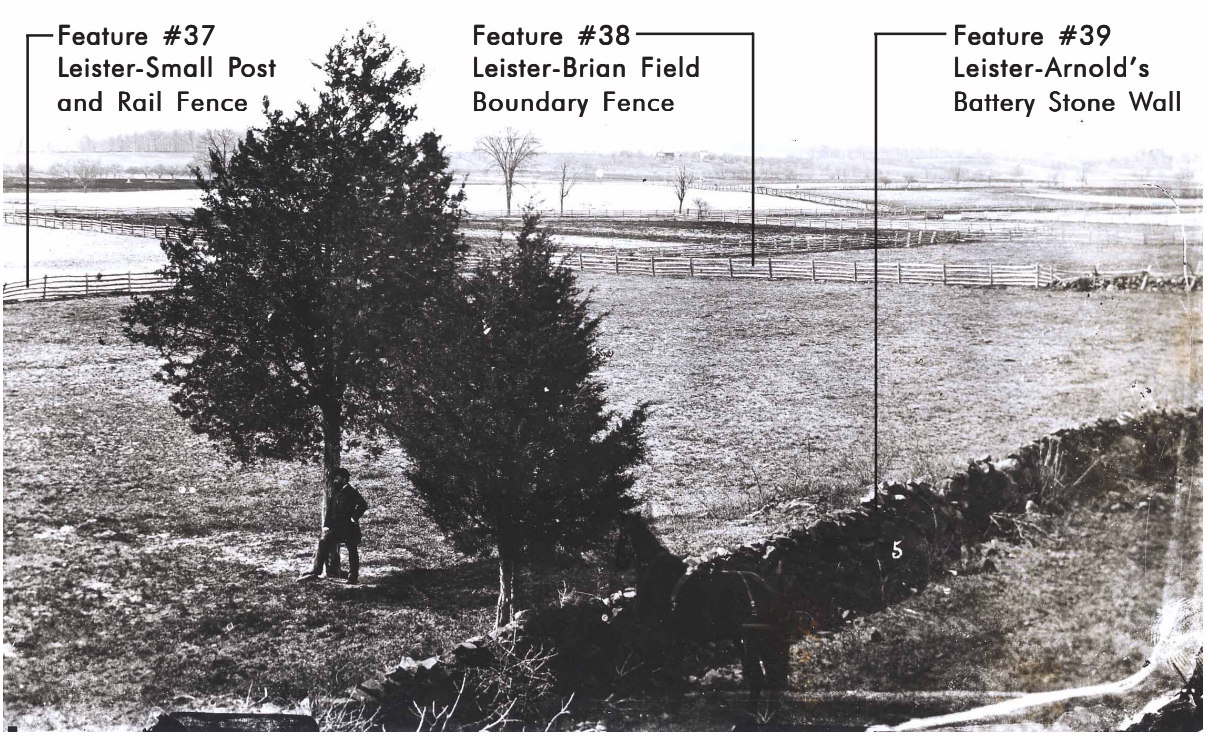


Figure 15. "1882 Panoramic Views: View northwest; Lutheran Seminary, Philippoteaux under tree," Tipton, 1882. (#3C-3011, General Historical Photographic Prints, Gettysburg NMP).

Current Condition:
This fenceline is comprised of a stone and rider section and a five-rail post and rail section. The fence in its current condition portrays its 1882 "Memorial Landscape" appearance. [Theory: This stone section was added after the battle to strengthen and tighten the fence separating two land ownerships. It appears that the stone for this fence may have been moved from the Brian Stone Wall with Rider (#18 on this list), which formed a right angle with this fenceline. The same 1882 photo (3C-3001) that shows the existing stone and rider wall (fenceline #38) reveals a gap where the Brian Stone Wall with Rider should have been.]

39. Leister-Arnold's Battery Stone Wall

This stone wall separated the Leister West Field (Feature # 48) from the Leister Large Field (Feature #47), and was incorporated into the Union battle line as early as the evening of July 1 when soldiers of Paul's Brigade used the wall as a breastwork (see Figure 15). At a point when Paul's brigade was moved to Cemetery Hill in the early hours of July 2, the wall was used by Second Corps infantry and artillery for ***cover***. During Pickett's Charge, the firepower from that protected infantry and artillery augmented the height and strength of the wall and created a mighty ***obstacle*** to Confederate penetration of this part of the Union line during Pickett's Charge.

Current Condition:
This wall exists, but is showing the effects of inappropriate visitor behavior. Visitors standing on and crossing the wall have dislodged rocks, threatening the historic appearance and stability of the wall. It closely approaches its historic height, particularly at the southern end of the wall.

40. Leister Fields Boundary Wall

This wall, located on the reverse slope of Cemetery Ridge (Feature #34), runs in a north-south direction and did not impede movement by Union forces between Cemetery Hill and Cemetery Ridge. Union troops staging for battle or reforming after leaving the battle lines would have used this wall for ***cover***, particularly for protection from overfires of artillery.

Current Condition:
Existing.

41. Leister Pasture Boundary Wall

This dry laid random stone wall runs in a north-south direction and separated the Leister Pasture (Feature #45) from the Leister Small Field (Feature #46). Because it ran in the same direction as the Union battle lines it did not generally affect movement by masses of troops or by mounted artillery when making lateral movements. It was, however, an

obstacle to Union movements from the Taneytown Road in reaching Cemetery Ridge (Feature #34) throughout the battle and was likely avoided in lieu of use of other adjoining fields where more easily dismantled fencing existed. The wall would have provided limited ***cover*** to headquarters staff, headquarters guards, and provost guards from Confederate artillery overshots, particularly during the cannonade on July 3.

Current Condition:
Exists. There is a gap in the wall where drains were installed in the early 1990s to carry drainage from the Cyclorama Center to the Leister Spring wetland.

42. Leister Barn

The log and frame barn provided limited ***cover*** to Union headquarters staff, headquarters guards, and provost guards during the second and third days of the battle, particularly from Confederate artillery overshots. It also stood as an ***obstacle*** to timely and orderly Union troop movement during battle conditions.

Current Condition:
Exists and retains its battle-era configuration and integrity.

43. Leister House

The location of this one-story frame building, located at the Union center near the northern terminus of Cemetery Ridge (Feature #34), placed it almost midway between the right and left flanks of the army. Tucked into the shelter of the reverse slope of Cemetery Ridge, the house was not visible to Confederate forces and was largely immune from direct fire, and thus provided ***cover*** for the general command and his staff throughout the majority of the fighting at Gettysburg. The house and its yards were used as a signal station due to the advantageous nature of the open farmland around it (see Figure 14). There was unobstructed ***observation*** between the Leister House and the Union right at McKnight's Hill and Pardee Field; there were similar lines of ***observation*** between the Leister House and Little Round Top. This was advantageous to the Union command because its central location permitted headquarters to communicate swiftly and efficiently with Union battle commanders.

Current Condition:
Existing.

44. Leister Yards and Yard Fences

The stable yard fencing was a collection of various vernacular and pragmatic styles, including worm, stone and rider, post and rail, and stacked rail. There were no recognizable gates in this conglomeration; the Leisters apparently removed a panel of this ill-fitted fencing whenever it was necessary to move stock from the small barn to the Pasture

(Feature #45) or the Small Field (Feature #46). The most detailed photograph depicting this fencing at the time of the battle is shown in Figure 16 (see also Figure 14).



Figure 16. Leister Yard fencing. (#2403, William H. Tipton Photographic Prints, Gettysburg NMP).

The dooryard and garden fences at the Leister House (Feature #43) seem to have likewise survived the battle mostly intact. The garden fence was composed of painted split palings; the rest of the dooryard was contained by decorative painted pickets. Within these yards were at least one other small outbuilding, probably a privy, located near the dooryard's southwest corner. The array of nailed, stacked, and mortised fencing acted as an ***obstacle*** to timely and orderly troop movement during the engagement. It ultimately hindered rapid movement to and from army headquarters by messengers and aids spurred on by urgency during battle crises.

Current Condition:
Fencing Exists. Privy or other outbuilding within the dooryard is missing.

45. Leister Pasture

This small enclosed pasture fronted the Taneytown Road (Feature #26) and adjoined the Leister Yards (Feature #44) and Orchard (Feature #73). The close-cropped grass that appears in the 1863 photograph (#23S-0250B) identifies this field as a pasture, and the presence of a spring in its southeast corner explains the relevance of that use. The Pasture was used as ***avenue of approach*** by some units of the Union army in moving between Cemetery Ridge (Feature #34) and the Taneytown Road. This use is indicated by the partially dismantled Taneytown Road Stone Wall (Feature #27). Other features

within this pasture were the orchard, a hog pen and building, a bake oven, and a dog house or chicken house (see Figure 14).

Current Condition:
This field recently has been maintained as meadow. The outbuildings that occupied space in this pasture are missing.

46. Leister Small Field

Photographic evidence does not reveal what was growing in this field at the time of the battle. Whatever was growing in this field did not attain the height of the second rail (from the bottom) of a post and rail fence. This may indicate that this field was either pasture, meadow, or some type of small grain or field that had been mown. Because the Taneytown Road Stone Wall (Feature #27) had been tumbled down, it seems that this and other Leister fields were used as ***avenues of approach*** for troops of the Union army in reaching Cemetery Ridge (Feature #34) from the road (or for reaching Taneytown Road from Cemetery Ridge) during and after the battle.

Current Condition:
Exists. This field currently is maintained and mown as meadow.

47. Leister Large Field

This, the largest of Leister's four fields, was located on Cemetery Ridge (Feature #34), its eastern portion extending down its reverse slope. Because this field had no known obstructions within its boundaries it was ideal for movement and was used in part or its entirety as an ***avenue of approach*** by artillery and infantry units of the Union army from July 1 to July 5. The reverse slope of the Ridge provided ***cover*** and ***concealment*** during various phases of the battle to soldiers of the First and Second Corps. There are no known descriptions of the battle appearance of this field.

Current Condition:
The majority of this field is maintained as a mown meadow. The western portion, including the mound of the General Meade Equestrian statue is maintained as lawn. This same western portion hosts the route of the Mission 66 High Water Mark Walking Trail. All historic fencing that once enclosed the northern side of the field is missing. The western edge of the field has been incorporated into Hancock Avenue.

48. Leister West Field *

No known description of the battle appearance of this field have yet been uncovered. It is known, however, that the field was open and free of woody vegetation that would have obscured fields of fire from the adjacent Union battle line. As a result, the character of ***observation*** was a crucial feature of this field. Its open character permitted unrestricted

movement (until reaching fencelines that enclosed it) during advances, retreats, and attacks at various times during the battle. That use made it an ***avenue of approach*** for both armies.

Current Condition:
Exists. The field is maintained as a mown meadow. A portion of the Mission 66 High Water Mark Walking Trail passes diagonally through this field.

49. Brian Wheatfield *

Abraham Brian's battle claims indicate that this field was in wheat at the time of the battle. As with other farmers in the area, Brian may not have had the opportunity to harvest or cut his wheat before the armies converged on his farm. Incessant rain and cool weather during the end of June had not allowed the fields to dry before July 1. As an open field, however, the Brian Wheatfield would have provided for excellent ***observation*** and unobstructed fields of fire from the Union line of defense behind the Brian Farm Stone Wall with Stake and Rider Fence (Feature #18). It also permitted an ***avenue of approach*** to and from the Union lines and was used by both sides during the battle, most notably in the desperate climax of "Pickett's Charge."

Current Condition:
This field maintains its open character and has been incorporated into the P.A. and S. Small field as one large hay field.

50. Brian Hay Field *

Abraham Brian's battle claims indicate that this field was in hay at the time of the battle. As with other farmers in the area, Brian may not have had the opportunity to harvest or cut his hay before the armies converged on his farm. Incessant rain and cool weather during the end of June had not permitted the fields to dry before July 1. As an open field, however, the Brian Hay Field would have provided for excellent ***observation*** and unobstructed fields of fire from the Union line of defense behind the Brian Farm Stone Wall with Post and Rail Fence (Feature #17) and from within Ziegler's Grove (Feature #1). The grounds permitted an ***avenue of approach*** to and from the Union lines and was used by both sides during the battle, most notably in the desperate climax of "Pickett's Charge."

Current Condition:
The northern portion of this field has been physically separated by a post-battle fence from the southern portion. The corridor created by this fence is maintained as mown meadow by the NPS and the southern portion has been incorporated into the P. A. and S. Small field as one large hay field.

51. Brian-Emmitsburg Road Virginia Worm Fence *

This fence protected the Brian Hay Field (Feature #50) from traffic and stray animals on the Emmitsburg Road (Feature #10). It formed the extreme western boundary of the Brian Farm and extended from the north edge of the Small Field to the terminus of the Brian Farm Lane (Feature #15). Both the original 1868-69 Warren Survey Map and the corrected Warren Survey Map of 1872 indicate that this fence was a worm or stake and rider fence. Because there was so much skirmishing and movement near the Brian and Ziegler shacks and within the Emmitsburg Road on July 2 and July 3, this fence was most likely dismantled and the rails and cross braces eventually relocated across the Emmitsburg Road for use in breastworks. However, until they were removed they provided immediate ***cover*** for companies of Union skirmishers assigned as picket reserve and to skirmishers moving from Cemetery Ridge (Feature #34) to the western side of the Emmitsburg Road. Their eventual removal also acknowledged the fence's impact to timely and orderly movement of troops under fire. To dismantle the fence would remove an ***obstacle*** and improve this ***avenue of approach***. This fence or major portions of it had been removed and relocated before Confederates crossed the Brian Hay Field (Feature #50) during "Pickett's Charge."

Current Condition:
Missing. Exists as a five-rail post and rail fence.

52. Ziegler-Emmitsburg Road Virginia Worm Fence (northern part only in project area) *

This worm fence separated the Emmitsburg Road (Feature #10) from Ziegler's South Field (Feature #6). Its line ran from the Ziegler Yard Fencing (Feature #4) south to the Brian Farm Lane (Feature #15). No consulted Union or Confederate accounts describe or mention the effect of this fence during the battle. Like other Emmitsburg Road fencing along this battle front, it would have been incorporated into the lines of the Union picket reserves. Therefore, it was most likely demolished after the fighting began on July 2. This demolition occurred in whole or in part because the fence was an ***obstacle*** to the timely and orderly movement of regiments and companies to and from the skirmish line while under fire. The dismantled rails were most likely stacked along the opposite side of the road (towards the enemy) to provide ***cover*** from sharpshooters firing at the picket reserve from that direction. [This latter use, however, was not within the current bounds of the project area. The southern portion of this fence—from the Brian Farm Lane northward to the existing Cyclorama Center Entrance Drive—is not included in the current bounds of the project area.]

Current Condition:
Missing. A rubble stone wall, constructed during Mission 66 to enhance the then Visitor Center entrance, occupies the line of a portion of this worm fence site.

53. Ziegler-Emmitsburg Road Post and Rail Fence

This five-rail fence separated the Ziegler's North Field (Feature #5) from the Emmitsburg Road (Feature #10). It ran along the east side of the Emmitsburg Road from the Ziegler Yard Fencing (Feature #4) to the northern boundary of the farm. Throughout the morning of July 2 the fence remained intact. Portions of it were removed or partially dismantled because it was an ***obstacle*** to timely and orderly movement of skirmishers from the 136th New York and 73rd Ohio regiments in their exposed haste to reach positions in and beyond the Emmitsburg Road. Later in the afternoon, the 8th Ohio attacked Confederate sharpshooters' position at this fenceline. Like the embankment on which a part of it was constructed, the fence provided an excellent ***cover*** for these Southern riflemen. When the 8th Ohio attacked these Confederates the fence became a momentary ***obstacle***, slowed their pursuit of the outnumbered enemy, and allowed many of these sharpshooters to escape capture. By battle's end, it is likely that all of the rails in this fence had been removed to facilitate movement and for reuse in the construction of breastworks on the western edge of the Emmitsburg Road.

Current Condition:
Missing. The fenceline is interrupted by the Visitor Center Entrance Drive.

54. Frey Farm Field Lane and Gate *

This lane was contiguous to the Leister South Boundary Wall (Feature #71) provided access to the fields of the Frey Farm. A removable rail gateway appears from an 1863 photograph (23S-0250B) to have been supplanted by a hinged board gate as a means of controlled access from the Taneytown Road (Feature #26). The lane and its gate opening was used by both Union infantry and artillery to move between the road and Cemetery Ridge (Feature #34) during battle conditions on July 2 and 3 and was an ***avenue of approach*** during crucial times during the fighting.

Current Condition:
The lane, its gate opening, and the gate are missing.

55. Brian Hay Field Fence *

This fenceline is outside of the current bounds of the project area. The post and rail fence formed the common boundary between the northern end of the Small farm field and the Brian Farm. It is not mentioned in consulted battle records. Because it ran in an east-west direction, it did not interfere with forward or retrograde movement by Union companies or regiments involved in skirmishing on July 2-3. During the attack of Confederates on July 3 the fence was most likely an ***obstacle*** to the alignment of Pettigrew's and Trimble's infantry. It probably provided limited ***cover*** to these same Confederate units when a Union flanking fire poured into their ranks at the close of "Pickett's Charge."

Current Condition:
Missing.

56. Brian Hay Field-Wheatfield Fence *

This fenceline is outside of the current bounds of the project area. The post and rail fence separated two of Brian's fields and allowed for different uses or rotated pasturing. It is not mentioned in consulted battle records. Because it ran in an east-west direction, it should not have interfered with forward or retrograde movement by Union companies or regiments involved in skirmishing on July 2-3. During the attack of Confederates on July 3 the fence may have become an ***obstacle*** to keeping alignment by Pettigrew's and Trimble's infantry. It probably provided limited ***cover*** to these same Confederate units when a Union flanking fire poured into their ranks at the close of "Pickett's Charge."

Current Condition:
Missing.

OTHER SIGNIFICANT FEATURES

57. Ziegler's Clay Pits and Brick Kiln

We have found no recognizable mention in Union or Confederate sources of the pits and only one mention of the brick kiln associated with the Ziegler Farm. Local residents affirmed that these existed on the tract prior to the battle (1850s). Much baked and damaged 19th-century brick has been retrieved or seen by NPS during construction and archeological projects along the Emmitsburg Road (Feature #10) within the southern portion of this farm. The exact location of the dug pits and of the kiln has yet to be determined. The brick kiln probably offered some ***cover*** to both Union skirmishers along the Emmitsburg Road and the advancing Confederates on July 3.

Current Condition:
Not located.

58. Doubleday's Headquarters Tree

This large deciduous tree was located near the northeast corner of the Ziegler's Large Meadow (Feature #21) and was used by General Abner Doubleday to designate the location of his division headquarters from the night of July 1 to the evening of July 2, 1863. It appears in at least two 1863 photographs (see Figures 14, 17).

Current Condition:
Missing. The Mission 66 Cyclorama Center entrance sign at the Taneytown Road appears to occupy the vicinity of this site.

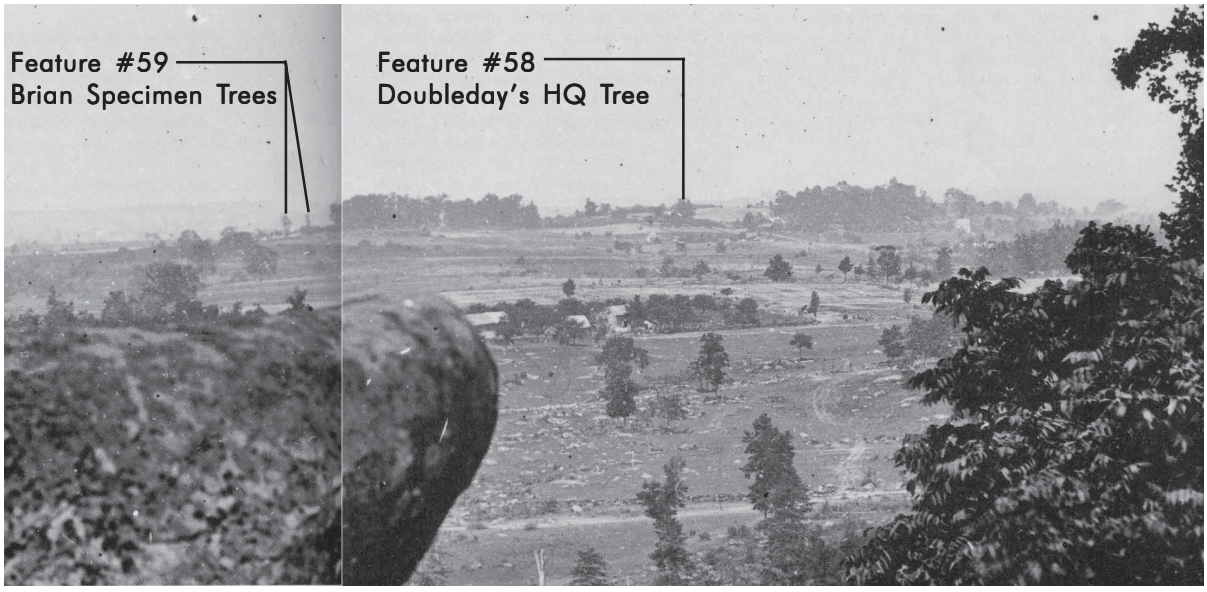


Figure 17. Panoramic view looking north from Little Round Top, c. July 15, 1863. (Stereo #2384, Brady & Co., Library of Congress).

59. Brian Specimen Trees

Two large deciduous trees stood as landmarks at or near the head of the Brian Farm Lane (Feature #15). Their presence above battle smoke would have provided visual clues to Union defenders about the whereabouts of General Hays' Headquarters (see Figure 17).

Current Condition:
One oak tree has been planted on the west side of Hancock Avenue to represent one of these trees. The other tree is missing and its historic location is unknown.

60. Brian Grape Arbor

This mature grape arbor was located south of the Brian House (Feature #14), on a line with the bake oven (see Figures 9, 10). Its drooping foliage acted to ***conceal*** views between the Brian house and barn from Confederate lines, but also blocked views from Ziegler's Grove (observation).

Current Condition:
Missing.

61. Ziegler's Grove and Meadow Stone Wall

This stone wall may have provided minimal ***cover*** for both Union infantry and artillery during various phases of the battle. Some of the wall was dismantled and carried

westward to the edge of Ziegler's Grove (Feature #1) by soldiers of Baxter's Brigade on the evening of July 1 in order to construct breastworks. Enough of the wall remained, however, to provide additional materials for defenseworks by men of Willard's Brigade on July 2-3. (See Baxter's Defenseworks, Feature #9)

Current Condition:
Missing. The wall may never have been rebuilt after the battle. After acquisition of Ziegler's Grove and the route of Hancock Avenue, the GBMA erected a wire fence along this line to designate the boundary. The southern portion of the line of the wall is displaced by the Cyclorama drum.

62. Taneytown Road Post and Rail Fence (Frey Large Meadow)

This rail fence appears in an 1863 photograph to have been heavily overgrown with hedgerow and woody vegetation growing along the adjacent road embankment (see Figure 14). The whole may have presented a formidable ***obstacle*** to timely and orderly Union troop movement.

Current Condition:
A majority of the post and rail fence exists. A non-historic stone wall (constructed in the 1930s) has displaced the post and rail fence on the south side of the Cyclorama parking lot entrance. The hedgerow and embankment growth is missing.

63. Frey-Leister Stone Wall with Stake and Rider

This wall formed part of the common boundary between the Frey and Leister farm fields and defined the north edge of the Leister Farm Lane (Feature #75). It may have been an ***obstacle*** to movement for Union commands.

Current Condition:
This fence has been moved and removed and relocated so many times over the past century, that it seems finally to have disappeared altogether. A single fence that runs along the south (not north) edge of the Leister Lane site may erroneously portray this fence. Because there is no fence along the north edge of the lane, this fence is missing.

64. Frey-Leister Post and Rail Fence

This fenceline may have obstructed movement between Cemetery Hill and Cemetery Ridge (Feature #34), particularly on July 2 when reinforcements were being hurried to the relief of the Union Second and Third Corps. It would have been necessary to remove all or part of this potential ***obstacle*** in order to permit easy passage of massed troops, particularly required in emergency conditions such as those on July 2 when Union forces moved from the Union center to the Union left to reinforce the Third Corps.

Current Condition:
This fence is missing, the fenceline partially within the alignment of the existing Mission 66 High Water Mark Trail.

65. Brian-Leister Post and Rail Fence

This fence delineated the southern boundary of the Brian Orchard (Feature #12) and ran in an east-west direction. It is unclear whether or not this fence proved to be an ***obstacle*** but its orientation would have obstructed easy movement by Federal troops from one part of the battle line to another.

Current Condition:
This fence is missing, the fenceline partially within the alignment of the existing Mission 66 High Water Mark Trail.

66. Frey Orchard Post and Rail Fence

This post and rail fence formed the southern boundary of the Frey Orchard (Feature #22) and ran in an east-west direction. The fence does not appear to have been dismantled during the battle; portions of its upper rail appear in an 1863 photo of the Leister House (see Figure 14). As an intact structure, the fence or portions of it may have been an ***obstacle*** to orderly or timely troop movement and may have compelled Union forces to use other fields or lanes in the vicinity for that purpose.

Current Condition:
This fence currently slithers across the landscape as a stone wall. The corrected Warren map of 1872 indicates this as a post and rail fence line and the 1863 photograph indicates that there was indeed a post and rail fence on this line. However, it does not preclude that there was not a low field-cleared wall beneath the rails following the fenceline. It may take archeology to determine which of the two types of fence occupied this site. In any event, the post and rail fence is missing.

67. Frey Hay or Wheatfield Stone Wall

This wall separated the Frey Hay or Wheatfield (Feature #23) from the Frey Small Meadow (Feature #24) and was a western extension of the Frey Orchard Post and Rail Fence (Feature #66). No mention is made of this feature in any battle reports, although it could have acted as an ***obstacle*** to Union troop movement in transferring regiments between Cemetery Hill and Cemetery Ridge (Feature #34). Portions of the wall may have been pushed over or dismantled to accommodate movement by file through the hay field and small meadow during the course of the battle.

Current Condition:
Existing.

68. Ziegler Large Meadow Post and Rail Fence

This post and rail fence separated Ziegler's Large Meadow (Feature #21) from the Frey Hay or Wheatfield (Feature #23) and thus ran in an east-west direction. It therefore may have been an ***obstacle*** to the movement of Union forces between Cemetery Hill and Cemetery Ridge (Feature #34). No evidence of this fence appears in an 1863 photo of the Leister and Frey properties, indicating that it was torn down during the course of the battle (see Figure 14). The rails were probably used in the erection of breastworks in and along the edge of Ziegler's Grove (see Feature #9, Baxter's Defenseworks).

Current Condition:
Missing. Half of the fence site is now occupied by the Cyclorama Center, its eastern approach and its ground floor plaza.

69. Frey Orchard Post and Rail and Stone Fence

The corrected Warren Map of 1872 indicates that this fenceline was composed entirely of a post and rail fence. However, a remnant of stone wall, running from the Taneytown Road (Feature # 26) westerly towards (but not reaching) the western limits of the Frey Orchard (Feature #22) appeared on maps dating to the GNP Commission era. No post and rail fence appears in the Leister House (Feature #43) and Frey Fields 1863 photograph (see Figure 14). It does appear in that photograph that portions of a low stone wall may have occupied this site. Further research may be necessary to ascertain the true appearance of this fence. Because of its location, this fence may have been an ***obstacle*** to Union troop movement along the northern terminus of Cemetery Ridge (Feature #34) and between that ridge and Cemetery Hill.

Current Condition:
A stone wall occupies the site of the eastern 80-90 percent of the fenceline. The post and rail fence is missing.

70. Brian-Ziegler Post and Rail (?) Fence

This fence defined the southern boundary of Ziegler's Grove (Feature #1) and the northern boundary of the Brian Orchard (Feature #12). It is unclear what type of fence was on this line. The G. K. Warren map indicated that the fence was either post and rail, post and board, or paling. Period photographs of this site are limited, but one seems to indicate that this may have been a ramshackle unpainted post and board fence. Because remains of this fence appear in a July 1863 photograph, it was not entirely dismantled during the battle, even though its east-west direction may have interfered with movement by Union forces during the progress of the battle. Because of its flimsy nature this potential ***obstacle*** was most likely easily knocked over at any panel whenever and wherever necessary. Some undersize posts may indicate that this was a paling fence. (This needs further research.)

Current Condition:
Missing. The paved walk connecting Hancock Avenue to the rear entrance of the Cyclorama Center generally follows this fenceline.

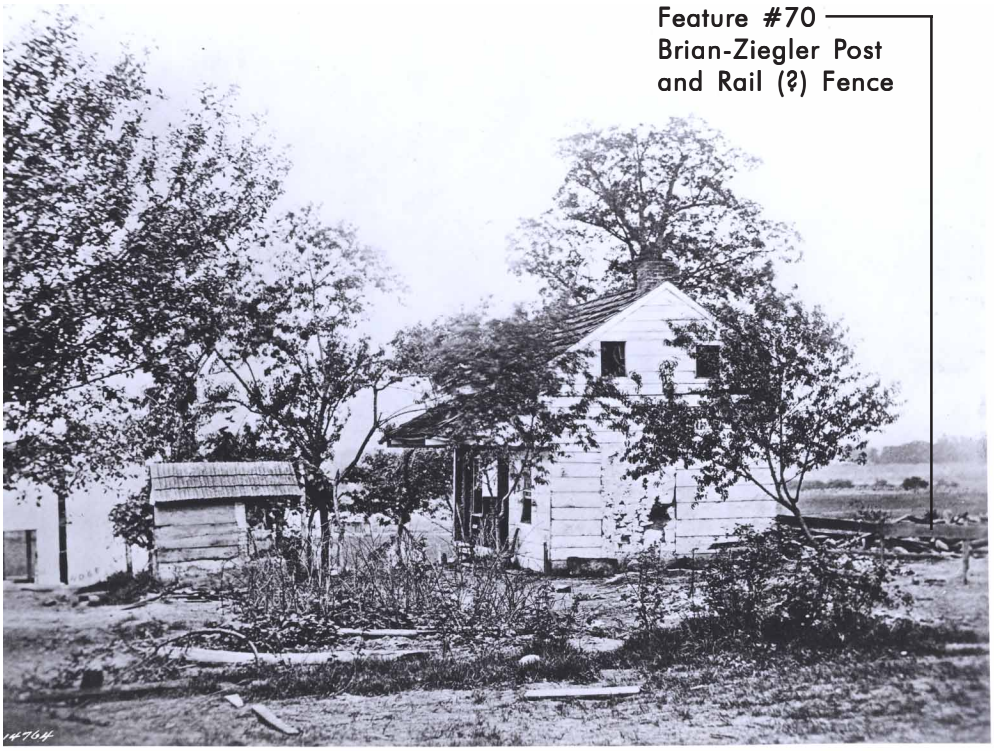


Figure 18. Brian House with Post and Rail (?) Fence on the far right. Note Baxter's Defenseworks behind. (#23S-0051, General Historical Photographic Prints, Gettysburg NMP).

71. Leister South Boundary Stone Wall

This random dry-laid stone wall ran in an east-west direction from the Taneytown Road (Feature #26) to the eastern edge of Hancock Avenue. This wall could have been an ***obstacle***, impeding the movements of Union forces between Cemetery Hill and Cemetery Ridge (Feature #34). It may have been dismantled in places in order to facilitate those movements.

Current Condition:
This wall has a non-historic stake and rider on it, installed in the 1980s to maintain livestock in the Biggs pasture.

72. Leister Farm Lane Post and Rail Fence

This rail fence ran in an east-west direction on the south side of the Leister Farm Lane (Feature #75). It appears from photographic (see Figure 19) and mapping evidence to have connected the northwest corner of the Leister Barn (Feature #42) to the Leister Fields

Boundary Wall (Feature #40), thus restraining animals from running loose into the lane when this field was used as corral or pasture. The 1882 photo for the Cyclorama Painting indicates that a version of this fence still existed on the same line (see Figure 20). The fence was not dismantled during the battle and may have been an ***obstacle*** to Union lateral movement along the rear of Cemetery Ridge. Such lateral movement occurred farther to the west where fences were less numerous and more easily dismantled in whole or in part.

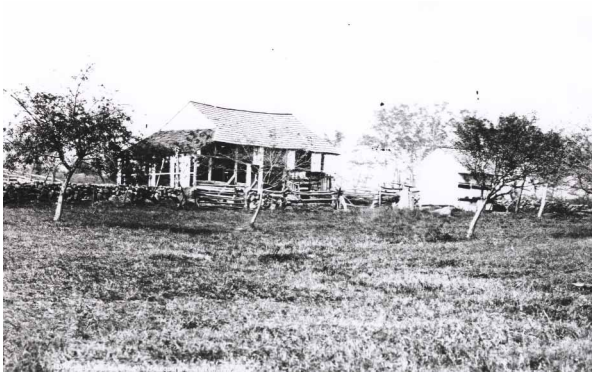


Figure 19. Barn at Leister Farm with post and rail fencing, Gardner, July 1863. (#2403, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 20. 1882 photo for the Cyclorama painting, looking northeast toward the Leister Farm. (#3C-3003, General Historical Prints, Gettysburg NMP).

Current Condition:
This fenceline is currently represented by a stone wall with a stake and rider finish.

73. Leister Orchard

Cherry and apple trees appear from 1863 and early photographs (see Figures 14, 19) to dominate this limited and intermediate-aged orchard in the northern end of the Leister Pasture (Feature #45). Some of the trees look to be actually dying or already dead. A survivor of an earlier orchard (also a cherry tree) was growing in the dooryard next to the house. It is unclear to what extent this orchard affected the military outcome of the battle. Because the sparse nature of the orchard would not have provided much cover from overshots, it is unlikely that it was sought as cover by Union forces. The orchard did, however, combine with the proximity of a spring to attract the site as a hospital following the brutal fighting along Cemetery Ridge (Feature #34) on July 3.

Current Condition:
Replanted in the early 1990s with cherry and crabapple.

74. Leister Spring

Mrs. Leister testified to visitors in the months subsequent to the battle that her spring was

fouled by dead horses (and perhaps soldiers) as a result of the battle. As a consequence, she was compelled to have a well dug near her door. The spring, combined with the location of the Leister Farm itself, attracted the general of the Union army to use the site as his command headquarters. Driven out by the cannonade on July 3, Meade never returned to this headquarters. One reason he did not was because it was impressed into service as a hospital - also because of the spring. This spring, therefore, is not strictly a KOCOA feature but, nevertheless, it had military and logistic significance to the battle.

Current Condition:
Exists. It has been augmented by the diversion of drainage from the Cyclorama roof and grounds.

75. Leister Farm Lane

This lane, located along the northern perimeter of the farm, connected each of the farm fields to the Taneytown Road (Feature #26). Although there are no known accounts that mention use of the lane, its use by Union soldiers and artillery to reach or move from Cemetery Ridge (Feature #34) and Taneytown Road may have provided an ***avenue of approach*** before, during and after the engagement. Originating at Meade's Headquarters (see Figure 14), this lane could have been used extensively by the General and his staff to move to the Union battle line on Cemetery Ridge. However, photographic evidence of 1863 indicates that the nearby Frey Farm Field Lane and Gate (Feature #54) was the major approach from Taneytown Road to the corresponding section of Cemetery Ridge.

Current Condition:
The lane was incorporated into Meade Avenue. When that avenue was removed, the Mission 66 High Water Mark Walking Trail took its place. The lane no longer exists as a visible feature.

76. Frey Small Meadows Virginia Worm Fence

This Virginia Worm Fence separated the two small meadows of the Frey Farm (Features #24 and #25). No evidence of this fence appears in 1863 photographs of the Leister Farm, and it is highly likely it was removed by pioneers of Carroll's Brigade prior to the battle, particularly since that unit was in the immediate vicinity of this fence. Pioneers or the 14th Indiana reported "leveling the fences and clearing the field of obstructions." Because this fence, just to the rear of Carroll's first position, was perceived as an ***obstacle***, it was leveled before the fighting so that the Union army would have an unimpeded ***avenue of approach*** through the Frey Meadows.

Current Condition:
Missing.

77. Frey Orchard Virginia Worm Fence

This Virginia Worm Fence separated the Frey Orchard (Feature #22) from his Hay or Wheatfield (Feature #23). It is highly likely that this fence was removed by pioneers of Carroll's Brigade prior to the battle (morning of July 2), particularly since that unit was in the immediate vicinity of this fence. Pioneers of the 14th Indiana Regiment reported "leveling the fences and clearing the field of obstructions." Because this fence, crowding the left flank of the brigade while massed in column of regiments, interfered with movement and position it was initially considered an ***obstacle*** and was removed. It was leveled before the fighting so that the Union army would have an unimpeded ***avenue of approach*** through the Frey orchards and fields.

Current Condition:
Missing.

78. Ziegler-Bishop Post and Rail Fence

No consulted military accounts of the battle make mention of this fence. Because there was little if any lateral movement of Union troops between the Bishop property and Ziegler's North Field (Feature #5), it is unlikely that this fence was perceived as an obstacle or was demolished because it became one. In moving to and from the skirmish line, some men of the 136th New York may have been protected from fire of Confederate sharpshooters in the town's suburbs by the ***cover*** of this fence.

Current Condition:
Missing. The line of this fence approximates the common boundary of the NPS and the Gettysburg Motor Lodge/Quality Inn.

79. Ziegler-Bishop Virginia Worm Fence

No consulted military accounts of the battle make mention of this fence. Because there was little if any lateral movement of Union troops between the Bishop property and Ziegler's North Field (Feature #5), it is unlikely that this fence was perceived as an obstacle or was demolished because it became one. In movement to and from the skirmish line, some men of the 136th New York actually should have been protected from the fire of Confederate sharpshooters in the town's suburbs by the ***cover*** of this fence. Its proximity to the Union battle line behind the Taneytown Road Stone Wall (Feature #30) would have augmented the cover from this same sharpshooter fire to that part of the battle line (i.e., 136th New York).

Current Condition:
Missing. The line of this fence approximates the common boundary of the Gettysburg Motor Lodge/Quality Inn and its eastern half bisects the Visitor Center bus parking lot.

Commemorative Era (1863 - 1938):

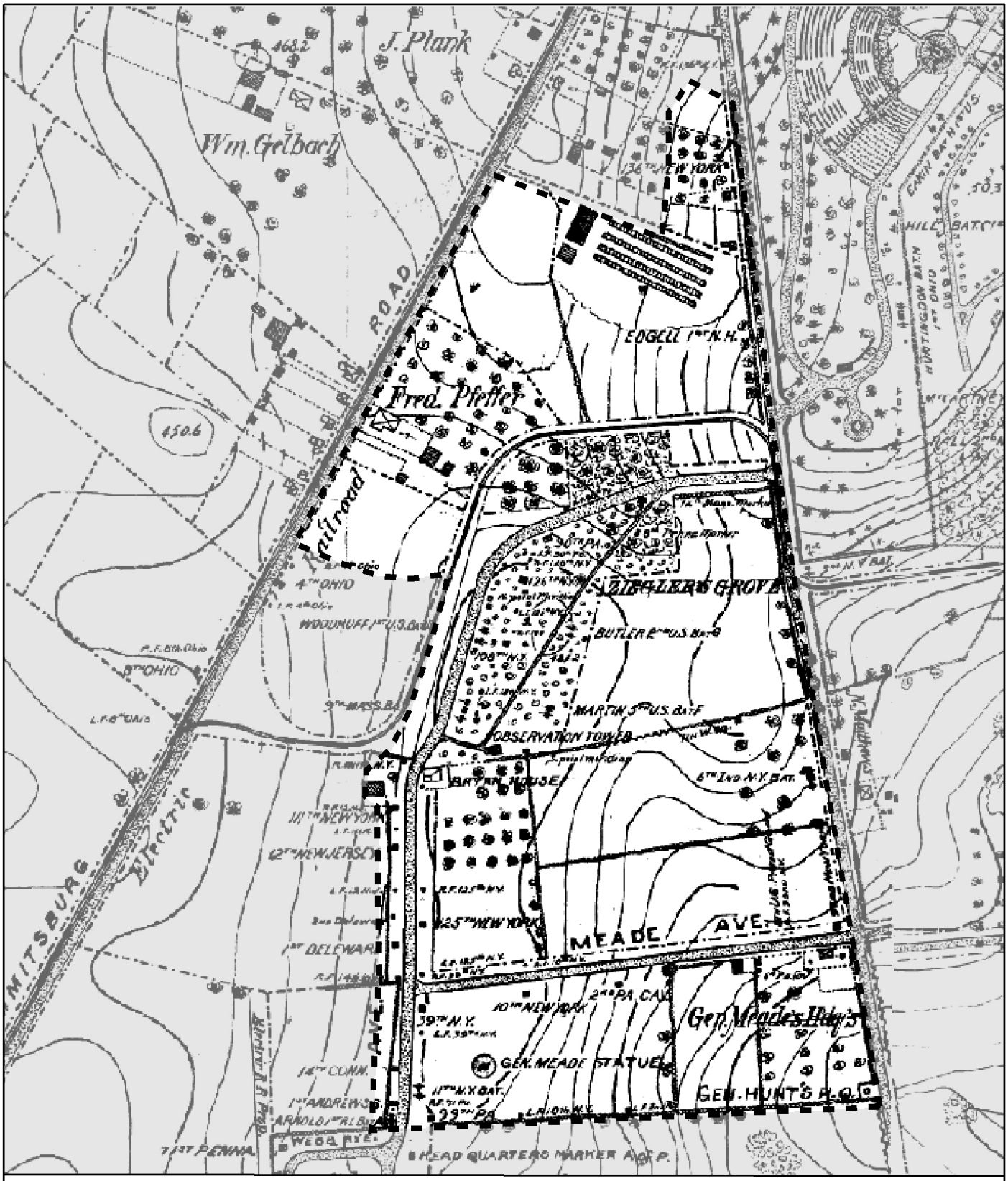
Between 1863 and 1938 battle veterans and survivors began a process of commemoration that ultimately resulted in a designed battlefield park. The idea for a park to commemorate a battle site was new, and the way in which the Gettysburg Park was conceived - by citizens and battle survivors - was also unprecedented. The national military park played an important role in the post-war reunion and reunification of the nation that occurred in the 1890s-1910s. In the fall of 1863, a group of local citizens formed the Gettysburg Battlefield Memorial Association (GBMA), the first group dedicated to preserving the battlefield by acquiring properties that had seen action during the battle. In 1893 Congress passed a bill, which earmarked funds for improvements to the battlefield and also created the first governmental custodian of the park, the Gettysburg National Park Commission (GNPC), to oversee its development as a park. In order to preserve the battlefield for future generations, the U.S. Congress officially created the Gettysburg National Military Park in 1895, and in May of that year the GBMA transferred ownership of the lands it had acquired to the federal government (see Map 10: 1901 Park Commission Map).

Between the late 1800s and early 1900s, many changes affected this landscape, but much of its overall integrity remained intact. Commemorative monuments, markers, and other signs were erected at meaningful locations within the site, and several avenues were built to provide access to the site for visitors (see Map 11: Commemorative Era Period Plan). Hancock Avenue was built in 1882 along the crest of Cemetery Ridge following the position of the Union Line, and Meade Avenue, passing the site of Meade's Headquarters, was added in 1897 to connect Hancock Avenue to Taneytown Road. An Electric Railway line was also installed in the northern area of the site as an attraction to visitors. There were a series of observation towers built within the park by the GNPC in the 1890s, one of which was located on Cemetery Ridge near the present day location of the Cyclorama building. It appears that some of the original trees in Ziegler's Grove were cut down and new trees were planted in a larger area than existed before. There was also a pedestrian path constructed through Ziegler's Grove, from Hancock Avenue to the observation tower.

The most considerable changes to the site during this time occurred in the northern section, including the addition of both Hancock Avenue and the Electric Railway line. In addition, Frederick Pfeffer began operating a brickyard along Emmitsburg Road in 1883, and then expanded it in 1885 by relocating it along the northern boundary of the site. In the fall of 1921 George Rosensteel built a residence along Taneytown Road, which later opened as the 'National Museum' around 1930. By the end of the Commemorative Era some property lines in this northern area no longer reflected those existing at the time of the battle, while further south, much of the original character of the site was maintained.



Figure 21. National Museum, c. 1930-1935. (#26S-1047, General Historical Photographic Prints, Gettysburg NMP).



MAP 10

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

1901 PARK COMMISSION MAP

Source: Parts of the 1901 Gettysburg National Military Park Commission map series sheets C-3 and C-4 are shown here at a reduced scale. The scale of the original maps was 1:2400.

0 150 300 Feet

Prepared by the USDI NPS GNMP GIS on June 12, 2003.

N W E S

Study Area Boundary

Map 11:
Commemorative Era Period Plan
(11 x 17)

Significant Landscape Features of the Commemorative Era

In the following text, important Commemorative Era features are listed and described in detail. The numbers listed correspond to those shown on the Commemorative Era Period Plan. Flank markers are listed but not described; these markers were described in the specifications created by the Board of Commissioners on Gettysburg Monuments as "made of a single block of granite, set a least two feet and a half deep in the ground, and projecting eighteen inches above ground; and properly cut. They are to be placed *corner-wise* at the points occupied by the flanks of the Commands, and on the front faces nearest the monument must be the inscription, thus: for right flank, 'R.F. 11th P.V," for left flank, "L.F. 11th P.V.'" It should be noted that for the most part, veteran erected monuments prior to 1888 did not have flank markers. It was not until the establishment of the commission on monuments that flank markers were included as part of the specifications for erecting monuments on the battlefield. Features appearing in [brackets] were built after 1938 and are not technically part of the Commemorative Era.

1. Smith's Brigade Tablet

This is one of 73 markers designating the general location of the various Union brigade commands during the battle. Designed by park engineer E. B. Cope and erected 1911-1912, these markers consisted of bronze inscription tablets attached to the slant faces of polished sea green granite monoliths. The overall height of the tablet exceeds 5 feet. This particular tablet is located on the western edge of Taneytown Road (Battle Era Feature #26) opposite the national cemetery.

2. 136th New York Infantry Right Flank Marker

3. 136th New York Infantry Monument

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced cast iron tablets with a gilded coat of arms in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. This 1888 monument stands nearly 11 feet high and is located along the western side of the Taneytown Road (Battle Era Feature #26), across from the national cemetery. It consists of a smooth-cut granite shaft surmounted by a carved tree stump and infantry accoutrements. Its two granite flank markers designate the right and left ends of its battle line. The left flank marker sustained damage by parking lot traffic until it was surrounded by a grassed traffic island in the 1990s. The marker, once embedded in asphalt, was raised to its historic height at the same time.

4. 136th New York Infantry Left Flank Marker

5. 90th Pennsylvania Infantry Right Flank Marker

6. Gettysburg National Military Park Monument

This 7-foot monument was erected in 1908 and was located at the northwest corner of Ziegler's Grove (Battle Era Feature #1) near the entrance to the park. The tablet was relocated to the northeast during the development of the Cyclorama Center and the relocation of a portion of Hancock Avenue. This tablet, affixed to a rough-hewn granite monolith, describes the inception of the national military park and the appointment of its commissioners.

7. 12th Massachusetts Infantry Position Marker (Webster Regiment)

This granite marker was erected in September 1885 to indicate the line occupied by the regiment in Ziegler's Grove (Battle Era Feature #1) while protecting the ravine and the Union center on the night of July 1 and during July 3. The marker was removed in 1961-1962 during grading and development of the Cyclorama complex, relocated to a slightly different location, and reset within the parking area by NPS.

8. 88th Pennsylvania Infantry Position Marker

This is one of three monuments erected by the survivors' association of the regiment and designates the position held by the 88th Pennsylvania on July 1-2 and at the close of the fighting on July 4. The granite marker, about 2 feet in height, was mounted on a large boulder within the northwest corner of Ziegler's Grove (Battle Era Feature #1). Erected in the summer of 1883, this is one of the oldest regimental markers in the park and is the oldest one within the project area. The monument and the boulder on which it is affixed were both relocated by NPS during the development of the Cyclorama Center complex. The face of the boulder was broken off causing the granite marker to be reset in a different manner.

9. 1st Massachusetts Sharpshooters Position Marker

This position marker is located at the northwest corner of Ziegler's Grove (Battle Era Feature #1) and consists of granite marker about 2 feet in height onto which is affixed an aluminum narrative tablet. The marker, erected in 1913 at the request of company veterans, indicates the position occupied by these marksmen while defending Union batteries in Ziegler's Grove. The marker was relocated during development and re-grading of the Cyclorama Center grounds.

10. 90th Pennsylvania Infantry Monument

Erected in 1888 in conformance with funding and regulations of the Pennsylvania Monuments Commission, this granite monument is located on Hancock Avenue at Ziegler's Grove (Battle Era Feature #1). The monument has two flanking markers, one of which has been partially buried by sedimentation on the north side of the avenue. The monument, almost 11 feet in height, is surmounted by a bronze drum on which a bronze eagle with outstretched wings is perched. Additional bronze details on the sides of the monument include a canteen and strap. A bronze artillery shell is missing from one of the sides. This monument was probably moved slightly during the development of the entrance drive and parking area for the Cyclorama Center during 1961-1962.

11. 90th Pennsylvania Infantry Left Flank Marker

12. 126th New York Infantry Right Flank Marker

13. Ziegler's Grove War Department Identification Tablet

This is one of 35 surviving identification tablets erected by the Gettysburg National Park Commission between 1896 and 1920. These tablets identified historic sites within the park, including topographic features like Ziegler's Grove (Battle Era Feature #1) that affected the outcome of the battle. Similar in appearance to the avenue tablets, the lettering and borders are raised and painted a contrasting color to the black of the painted iron tablets. The tablets are mounted on fluted cast iron posts. The park engineer designed these identification tablets and the firm of Calvin Gilbert cast them.

14. Alexander Hays Statue

This bronze statue surmounts a granite base and is located at the northwest corner of Ziegler's Grove (Battle Era Feature #1). Erected in 1915 by the State of Pennsylvania, the monument was not formally dedicated until the early 1980s. The monument consists of a rough hewn granite shaft on which are attached a bronze narrative tablet and a bronze coat of arms. The monument was designed and the bronze statuary was executed by J. Otto Schweizer.

15. 126th New York Infantry Monument

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. This monument was erected in 1888 and was located in the center of the regimental battle line in Ziegler's Grove (Battle Era Feature #1). The overall height of this granite monument is a little more than 16 feet and its most prominent features is a bronze relief portrait of the regimental commander (Colonel Eliakim Sherrill) executed by Casper Buberl. Like almost all other New York state monuments, this one is flanked by two granite markers, designating the ends of its regimental battle line during the conflict.

16. Topographic Baseline Monument

This quarried granite marker, about 10 inches above grade, is located within Ziegler's Grove (Battle Era Feature #1), north of the monument of the 126th New York Infantry. Erected between 1893-1895 by the engineer corps of the Gettysburg National Park Commission, it was one of the permanently fixed locations to determine true grade for the base survey of the battlefield (1893-1900). It is the only known surviving baseline marker.

17. 126th New York Infantry Left Flank Marker

18. Battery G, 2nd U.S. Artillery Tablet (Butler's Battery)

The position of the current monument in Ziegler's Grove (Battle Era Feature #1) was staked out during the summer of 1907. It is one of 44 identically-designed monuments designating positions of United States Regular Army forces on the battlefield. The monument consists of a monolith of red granite, the sides and reverse of which are rusticated. To this monolith a bronze coat of arms and a bronze narrative tablet are affixed, on the smooth-faced and polished obverse side. The overall height is seven feet. The monument was designed by the engineer of the Gettysburg National Park and was erected about 1908. The GNP Commission mounted two bronze guns on iron cannon carriages to complete this monument group. NPS traded one of these guns to Stone's River National Battlefield in the 1980s and removed the other gun to storage.

19. Battery F, 5th U.S. Artillery Tablet (Martin's Battery)

The original position of the current monument was staked out during the summer of 1907. It is one of 44 identically-designed monuments designating positions of United States Regular Army forces on the battlefield. The monument consists of a monolith of red granite, the sides and reverse of which are rusticated. To this monolith a bronze coat of arms and a bronze narrative tablet are affixed, on the smooth-faced and polished obverse side. The overall height is seven feet. The monument was designed by the engineer of the Gettysburg National Park and was erected about 1908. The GNP Commission mounted two iron rifled cannon on iron carriages to complete this monument group. NPS traded one of these guns to Manassas National Battlefield in the 1980s and removed the other rifle and carriage to storage.



Figure 22. Example of park monumentation within site area during commemorative era, 1897. (#4759, William H. Tipton Photographic Prints, Gettysburg NMP).

20. 108th New York Infantry Right Flank Marker

21. 108th New York Infantry Monument

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. This replacement monument was erected in 1888 and is located within the heart of Ziegler's Grove (Battle Era Feature #1), designating its battle position in support of Woodruff's Regulars Battery. The most prominent feature of the monument is its oversize granite sculpture in the shape of a trefoil (the symbol of the corps to which the regiment belonged), on which is carved an infantryman in a prone position. This relief was executed by R. D. Barr, one of the most famous granite sculptors of his day. Like almost all other New York state monuments, this one is flanked by two small markers designating the right and left ends of the regimental battle line.

22. Hancock Avenue War Department Identification Tablet

There were three avenue tablets along the route of Hancock Avenue. One was erected at the junction of Hancock Avenue and the Taneytown Road (Battle Era Feature #26), on the south edge of the avenue. Calvin Gilbert's foundry in Gettysburg cast the tablet as per a GNP Commission order of December 28, 1898. This tablet was relocated by NPS during the Mission 66 construction of the Cyclorama Center development. It currently is located on the west side of the avenue, nearly opposite the General Alexander Hays Statue.

23. Battery I, 1st U.S. Artillery Tablet (Woodruff's Battery)

The position of the current monument was staked out during the summer of 1907. It is one of 44 identically-designed monuments designating positions of United States Regular Army forces on the battlefield. The monument consists of a monolith of red granite, the sides and reverse of which are rusticated. To this monolith a bronze coat of arms and a bronze narrative tablet are affixed, on the smooth-faced and polished obverse side. The overall height is seven feet. The monument was designed by the engineer of the Gettysburg National Park and was erected about 1908. The GNP Commission mounted four bronze guns, two of which flank each side of the monument to complete the monument group.

24. 9th Massachusetts Artillery Tablet (Bigelow's Battery)

This is one of three granite monuments erected to designate the evolving battle positions of the 9th Massachusetts Battery on July 2 and 3, 1863. This is the smallest of the three battery monuments, less than 5 feet in height. It is a rusticated granite shaft on the front of which is a three-dimensional carved facsimile of an artillerist's ammunition pouch. The monument is completed by two altered 6-pounder guns, one of which is mounted on replica cast iron carriages on each side of the granite shaft.

25. 108th New York Infantry Left Flank Marker

26. 107th Pennsylvania Infantry Position Marker
This small granite and bronze structure on the western edge of Ziegler's Grove (Battle Era Feature #1) marks the location occupied by the regiment on the night of July 1, where breastworks were hastily erected in anticipation of a Confederate attack. The marker was erected by surviving veterans in September 1913 and was formally dedicated by them on October 2 of that year. The marker was hit by an automobile in the early 1990s, requiring replacement of its granite shaft.

27. 111th New York Infantry Right Flank Marker

28. Brian House War Department Identification Tablet
This is one of 35 surviving identification tablets erected by the Gettysburg National Park Commission between 1896 and 1920. These tablets identified historic sites and buildings within the park, including landmarks like the Brian House (Battle Era Feature #14). Similar in appearance to the avenue tablets, the lettering and borders are raised and painted a contrasting color to the black of the painted iron tablets. The tablets are mounted on fluted cast iron posts. The park engineer designed these identification tablets and the firm of Calvin Gilbert cast them.

29. 12th New Jersey Infantry Right Flank Marker

30. 111th New York Infantry Monument
All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. The monument was erected in 1891 after considerable delay caused by disagreements between the New York Monuments Commission and the veterans of the 12th New Jersey Volunteers. Both regiments contended they occupied the same position along Hancock Avenue and it was only after extensive correspondence and personal negotiation that the 111th New York monument was permitted to be erected on the west side of Hancock Avenue near the Brian barn (Battle Era Feature #13), thus pre-empting a portion of the line of the 12th New Jersey. The most striking thing about this 14-foot high monument is the life-like bronze representation of a Union infantryman in the act of raising his rifle to fire. This statue was executed by Caspar Buberl and complements other bronze inscription tablets on the granite shaft that supports it. Like most other New York state monuments this monument is flanked by two small granite markers designating the right and left ends of the regimental battle line.

31. 111th New York Infantry Left Flank Marker

32. Willard's Brigade Tablet

This is one of 73 markers designating the general location of the various Union brigade commands during the battle. Designed by park engineer E. B. Cope and erected 1911-1912, these markers consisted of bronze inscription tablets attached to the slant faces of polished sea green granite monoliths. The overall height of the tablet exceeds 5 feet. This particular tablet is located on the eastern edge of Hancock Avenue near the Brian farm buildings (Battle Era Features #13,14).

33. 12th New Jersey Infantry Monument

The granite portions of this monument (the bases, shaft, and finial representing a ball with buckshot) were erected in 1886 by the regimental survivors. Upon receiving additional funding from the State of New Jersey, the survivors were enabled to adorn the monument with a bronze relief depicting battle action of the regiment at the Bliss buildings. This bronze relief was made by the firm of Beattie and Brooks and was added in 1891. Two small granite markers designating the right and left flanks of the regiment in battle line were also completed by 1891. This monument was moved approximately 20 feet south from its original location during a dispute between the former members of the 111th New York and the 12th New Jersey. This monument is currently located on the west side of Hancock Avenue, just south of the Brian Barn (Battle Era Feature #13).

34. Hays U. S. Division Tablet

This is one of 23 identically designed tablets that were erected between 1909 and 1910 by the Gettysburg National Park Commission. Designed by the park's engineer, each tablet consisted of a rock-faced granite monolith with bronze narrative tablets affixed to the smooth-faced obverse side. The locations of the tablets indicate the general position of the various Union divisions during the battle. Like the corps tablets, the division tablets stood about 7 feet in height. This particular tablet is located on the eastern edge of Hancock Avenue, just south of the Brian House (Battle Era Feature #14).

35. 125th New York Infantry Right Flank Marker

36. 12th New Jersey Infantry Left Flank Marker

37. 2nd Delaware Infantry Position Marker

This small granite marker was erected in 1885 as part of the monumentation funded by the State of Delaware for its two regiments that fought at Gettysburg. It purportedly marks the position of the regiment on July 3, although evidence indicates that the unit was actually on the skirmish line and in battle line several hundred yards farther south of this position.

38. 125th New York Infantry Monument

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886.

Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. In the case of that erected by the survivors of the 125th New York, the monument was a tall granite shaft on stepped bases, on which a bronze narrative tablet had been attached. Like most other New York state monuments, this monument has two small granite flanking markers to designate the ends of the regimental battle line.

39. 1st Delaware Infantry Monument

Erected in 1886, this granite monument was erected by the State of Delaware and designates the position in battle line of the regiment on July 2-3. The monument is a two-part granite shaft with a cross gable cap with Flemish ends. Its Delaware granite is dressed with rough cut, tooled, and polished surfaces. It is not accompanied by flank markers.

40. John P. Nicholson Monument

This modest memorial, designed by the park's engineer, is a monolithic granite shaft with rough-cut sides and reverse. It has a smooth-cut face on the obverse with a bronze United States eagle medallion on the bottom and a bronze narrative tablet above it. The memorial was erected in 1922 after the death of the chairman and last surviving member of the Gettysburg National Park Commission. Standing a little more than 5 feet high, the marker is located on the east side of Hancock Avenue between the Angle and Ziegler's Grove (Battle Era Feature #1). It is the only memorial commemorating a member of the Commission.

41. 125th (Left) and 39th (Right) New York Infantry Flank Marker

42. Hancock's 2nd Corps Tablet

This is one of 8 identically designed tablets that were erected between 1906 and 1907 by the Gettysburg National Park Commission. Designed by the park's engineer, each tablet consisted of a rock-faced granite monolith with a bronze tablet and corps symbol affixed to the smooth-faced surface of the obverse side. The overall height of the tablets was about 7 feet. This tablet indicates the general location of the center of the battle line of the Union Second Corps and is located on the eastern edge of Hancock Avenue, just north of the Angle.

43. 14th Connecticut Infantry Right Flank Marker

44. 39th New York Infantry Monument (Garibaldi Guards)

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. The granite shaft and bases that were erected using these state appropriations rises to a height of 20 feet. The rough-dressed monu-

ment lacks ornamentation of any kind with the exception of a bronze inscription tablet and a bronze medallion of the seal of the Empire State.

45. Smyth's Brigade Tablet

This is one of 73 markers designating the general location of the various Union brigade commands during the battle. Designed by park engineer E. B. Cope and erected 1911-1912, these markers consisted of bronze inscription tablets attached to the slant faces of polished sea green granite monoliths. The overall height of the tablet exceeds 5 feet.

46. 39th New York Infantry Left Flank Marker

47. 14th Connecticut Infantry Monument

This is one of a handful of early monuments that were made from Gettysburg granite. It is also one of the few that has a "white bronze" (tin-zinc alloy) narrative tablet. It was erected by the regimental association in 1884 and designates the position of the 14th Connecticut in battle line on July 2-3. The monument has only one flank marker and is located about midway between the Brian Barn (Battle Era Feature #13) and the Angle.

48. Meade Equestrian Monument

This equestrian memorial to the Union army's commander, General George G. Meade, was erected in 1895 and dedicated in 1896. Its overall height of 22 feet includes a base of rough-hewn coursed granite and the bronze statuary. The noted 19th-century sculptor Henry K. Bush-Brown executed the design and the sculpture. Bronze narrative and identification tablets were added to the base within five years of its dedication and covered the original carved inscriptions. The monument was funded by the State of Pennsylvania.

49. 11th New York Independent Light Artillery Monument (Havelock's Battery)

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. This is one of three nearly identical such monuments erected by the State of New York for battery units on the battlefield. It consists of a rough-cut granite shaft on which are affixed a bronze narrative tablet and a bronze tondo shield with the coat of arms of New York. The height of the monument approaches 8 feet and is flanked by two wrought iron rifled cannon erected by the Gettysburg National Park Commission to complete the monument group. Because it was logistically attached to Battery K, 1st New York Light Artillery, the monument and its guns are immediately adjacent to and north of that latter monument. It is located on the eastern side of Hancock Avenue near the Angle.

50. 1st Massachusetts Sharpshooters Monument (Andrews)

This is the only monument outside of the national cemetery to be built of Italian Carrera

marble. Erected in 1886 and funded by the State of Massachusetts, the monument designates the general headquarters position of this sharpshooter and skirmishing unit. Its location is on the west side of Hancock Avenue, north of the Angle. It does not have flank markers.

51. 71st Pennsylvania Infantry Right Flank Marker

52. Battery A, 1st Rhode Island Light Artillery Monument (Arnold's Battery)

Located on the west side of Hancock Avenue just north of the Angle, this monument and its four flanking iron rifled cannon designate the July 2-3 position of the battery on the battle front of the Union Second Corps. Erected by the State of Rhode Island in 1886, this granite shaft has incised inscriptions. The Gettysburg National Park Commissioners added the four cannon to complete the monument group.

53. Battery K, 1st New York Light Artillery Monument (Fitzhugh's Battery)

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. This tablet was originally erected near the intersection of Pleasonton and Hancock Avenues. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. The 1888 consequent monument was about 9 feet high and was one of the more ornamental and artistic of its time. It includes a large bronze narrative tablet on its reverse side and two sculptured tablets on the obverse side. These ornamental tablets consist of a bronze relief of the coat of arms of the State of New York and a large bronze relief of a battery in action. The Gettysburg National Park Commission completed the monument group by adding two mounted iron cannon on each side of the battery.

The monument was moved from its original position to this position in 1903 at the request of its battle-era battery commander, Captain Fitzhugh. The two flank markers of the battery remained at the original position—one of each side of Pleasonton Avenue—to designate the first position of the battery prior to going into action along the Second Corps battle front on July 3.

54. Fitzhugh's Brigade Tablet

One of 75 markers with a bronze inscription mounted on sea green granite pedestals, which are square at the base with rounded corners. This style of marker is used to locate brigade and artillery battalion commands of the Army of the Potomac on the battlefield.

55. 99th Pennsylvania Infantry Monument

This monument was relocated to this position in 1889 from atop Devil's Den, where it originally marked the July 2 position of the regiment in line of battle. Upon receiving state-appropriated funds for a new monument, the survivors of the regiment opted to replace the original monument and relocate it to mark a secondary position. Originally

constructed in 1886, the monument consists of a granite shaft with incised inscriptions and rusticated sides. Its position on the eastern side of Hancock Avenue near the Meade Equestrian monument designates the position of the regiment on the afternoon of July 3, at the close of "Pickett's Charge."

56. 114th Pennsylvania Infantry Monument

Charles W. Ziegler furnished and put up this tablet in 1902-1903 to designate the position occupied by this regiment during and after the repulse of "Pickett's Charge." The marker was funded by survivors of the regiment. Erected on the east side of Hancock Avenue near the Angle, this monument consists of a rough-cut granite monolith shaft with a bronze tablet set in a diamond pattern. The height of the monument is about 5½ feet.

57. 10th New York Infantry Left Flank Marker

58. 10th New York Infantry Right Flank Marker

59. Batteries F & K, 3rd U.S. Artillery Tablet (Turnbull's Battery)

The position of the current monument was staked out during the summer of 1907. It is one of 44 identically-designed monuments designating positions of United States Regular Army forces on the battlefield. The monument consists of a monolith of red granite, the sides and reverse of which are rusticated. To this monolith a bronze coat of arms and a bronze narrative tablet are affixed, on the smooth-faced and polished obverse side. The overall height is seven feet. The monument was designed by the engineer of the Gettysburg National Park and was erected about 1908. The two iron gun carriages and bronze Napoleons were mounted 1907-1908.

60. 10th New York Infantry Monument

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. This monument is located along the route of and faced Meade Avenue. It was erected behind the Union battle line because the regiment performed provost and guard duties at Meade's headquarters during the fighting. Erected in 1889, it consisted of a three-part stepped granite shaft surmounted by a carved flag-draped drum and haversack. The monument includes incised inscriptions, a bronze narrative tablet, a bronze state seal, and two flank markers.

61. 2nd Pennsylvania Cavalry Left Flank Marker

62. 2nd Pennsylvania Cavalry Monument

The survivors of the regiment erected this striking bronze and granite monument with state-appropriated funds in 1889. Because the unit performed headquarters duties

during the battle, it was erected behind the primary battle line and fronted Meade Avenue. The monument includes only the left flank marker, the monument itself designating the right flank of the regimental battle line. It consists of a granite shaft surmounted by a bronze statue of a dismounted trooper loading his carbine; the statuary was the product of H. L. Ellicott.

63. 8th U. S. Infantry Tablet

The position of the current monument was staked out during the summer of 1907. It is one of 44 identically-designed monuments designating positions of United States Regular Army forces on the battlefield. The monument consists of a monolith of red granite, the sides and reverse of which are rusticated. To this monolith a bronze coat of arms and a bronze narrative tablet are affixed, on the smooth-faced and polished obverse side. The overall height is seven feet. The monument was designed by the engineer of the Gettysburg National Park and was erected about 1908. The monument is located along the northern edge of the route of Meade Avenue.

64. Oneida New York Cavalry Monument

This granite monument commemorates the services of an independent New York cavalry company that was assigned to general headquarters duties. It was not erected until 1904 and was not included in the original state appropriations for regimental monuments. Standing almost 14 feet high, this granite monument adjoined the north side of Meade Avenue.

65. 93rd New York Infantry Right Flank Marker

66. 6th Pennsylvania Cavalry Monument (Companies E & I)

This monument is a six-sided granite shaft with smooth faces on which are affixed two bronze inscription scrolls and crossed cavalry sabers. The overall height of this monument is almost 8 feet. It was originally located in the yard of the Leister house (Battle Era Feature #44) when it was dedicated in June 1891 but was relocated by NPS during planning for the High Water Mark Walking Trail and the removal of Meade Avenue in the early 1960s. The design and the bronze work were executed by the firm of Beattie and Brooks.

67. 93rd New York Infantry Monument

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. This rusticated granite monument was erected in 1890 and rises to a height of almost 9½ feet. It is located along the western edge of the Taneytown Road just north of Meade's Headquarters. Like most other New York state monuments, this one includes two flank markers representing the general position held by the regiment while acting as headquarters guard for the commanding general of the

Union army. The monument is adorned with a bronze narrative tablet and is surmounted by bronze accoutrements of the infantryman.

68. Meade's Headquarters Monument

This headquarters location is designated by a bronze upright cannon tube mounted in a rough-hewn coursed granite base. This marker, like the other headquarters markers, was designed by the park's engineer and was erected about 1913. The marker was erected about midway between the Leister Barn and the Leister House (Battle Era Features #42, 43) and fronted the southern edge of Meade Avenue.

69. 93rd New York Infantry Left Flank Marker

70. Hunt's Headquarters Monument

It was not until 1920 that this last of the Union headquarters markers was erected, to designate the headquarters of the chief of artillery. The marker consists of a poured concrete base into which an upright bronze Napoleon gun is mounted. A bronze shield on the cannon tube contains the inscription that designates the headquarters. The marker, located on the western edge of the Taneytown Road (Battle Era Feature #26) occupies the southeast corner of the Leister farm (Battle Era Feature #45). The concrete base was once covered by a grassed mound, all of which has since eroded away.

71. 7th West Virginia Infantry Position Marker

This small granite marker is one of three that were erected by the veterans of the 7th West Virginia Volunteers to indicate secondary positions of the regiment. This particular marker indicates the first position of the regiment after its arrival with Carroll's Brigade on the morning of July 2. Its brigade was in reserve behind Ziegler's Grove (Battle Era Feature #1) and perpendicular to the Taneytown Road (Battle Era Feature #26) throughout the day of July 2 until it was moved to East Cemetery Hill to repel a Confederate attack there during the early night. All three markers were placed in the end of June 1898, prior to the dedication of the regimental monument three months later. This marker is in situ.

72. 6th New York Independent Battery Monument

All New York units were originally marked by GBMA through an appropriation by the State of New York. The local foundry of Gilbert and Smith produced identical cast iron tablets with a gilded coat of arms for each New York regiment and battery in 1886. Subsequent state funding provided each regimental association with necessary funding to erect more substantial monumentation. Erected in 1891 using state-appropriated funds, the monument consists of a granite die and base and generally represents the position of the battery when in support of other Union batteries at the close of the battle. The firm of Beattie and Brooks designed the monument and executed the bronze relief and narrative tablet. The Gettysburg National Park Commission erected one mounted wrought iron rifled cannon on each side of the monument to complete the monument group.

73. Smith's Brigade Tablet Stone Wall

This stone wall erected around the plot of the brigade tablet by the Gettysburg National Park Commission is the last vestige of the Civil War-era defensive wall that once enclosed this side of the Taneytown Road (Battle Era Feature #26).

74. Hancock Avenue Entrance Gateway (GBMA)

As part of laying out Hancock Avenue in 1882, the GBMA created an opening in the stone wall on the west side of the Taneytown Road, at the rear of Ziegler's Grove (Battle Era Feature #30) as the access to the avenue. They controlled this access by erecting two wooden posts and a wooden gate with wire. Before the decade ended, the GBMA erected an improved gateway as a result of a donation of iron fencing by the U.S. Congress in 1889. This fencing had originally enclosed Lafayette Square Park in Washington DC and was shipped to Gettysburg for the use of the Association after that organization lobbied hard to get it in 1888. On July 12, 1889, the board of directors resolved to use a portion of the fence for the erection of a gateway at the Taneytown Road (Battle Era Feature #26). The gateway consisted of two ornamental iron posts surmounted by iron eagles, and curving panels of iron picket fencing. No gates were affixed to the posts. The GNP continued to use this gateway to Hancock Avenue until the construction of more befitting stone gateway. (See below).

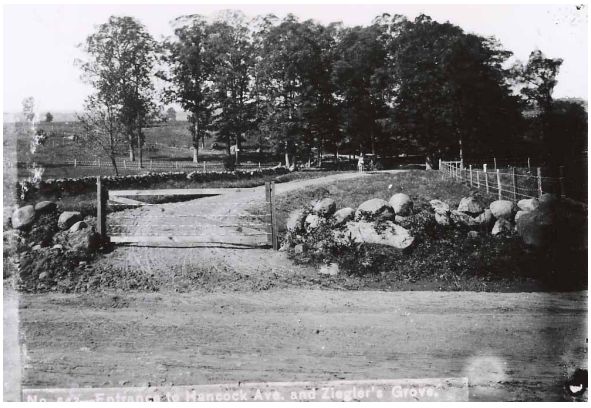


Figure 23. Entrance to Hancock Avenue from Taneytown Road with wooden gate, c. late1880s. (#1882, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 24. Entrance to Hancock Avenue from Taneytown Road with Lafayette Square fencing, 1896. (#3185, William H. Tipton Photographic Prints, Gettysburg NMP).

Hancock Avenue Entrance Gateway (GNP) - This imposing and ornamental stone gateway was erected in 1923. The gateway was proposed by Colonel John P. Nicholson and designed by E. B. Cope in 1922 as a finishing touch for the national military park. Charles Kappes erected the foundations for the gateway entrance but the employees of the Commission undertook the remainder of the construction. The stone for the gateway was of native granite and was taken from Little Round Top. The Bureau Brothers foundry of Philadelphia cast the two bronze eagles, two bronze U.S. seals, and two tablets inscribed "Gettysburg National Military Park" which graced the two central gate pillars. No gates were attached to this gateway.

NPS disassembled this gateway during construction of the Cyclorama Center complex and the relocation of the Hancock Avenue entrance at Taneytown Road (Battle Era Feature #26). The two bronze eagles were loaned to a local antiques dealer in the late 1960s and have since disappeared. The national seals and the gate tablets are in park storage. The Kappes foundations for the gateposts and for the wing walls still exist, retaining the site and footprint of the gateway. The park still has major portions of the stone gateway in a dump behind its maintenance yard.



Figure 25. Entrance to Hancock Avenue from Taneytown Road with stone gateposts, 1922. (#2427B, William H. Tipton Photographic Prints, Gettysburg NMP).

75. Ziegler's Grove Pedestrian Paths

These paths were planned in conjunction with the construction of the Ziegler's Grove Observation Tower. A gravel walk of about 150 feet in length was constructed in late September 1896. This first and shorter path originated at Hancock Avenue near the Brian farm buildings and terminated at the base of the tower. The Commission tentatively marked out the line for another path in the fall of 1896 and construction of this latter path commenced in June 1897. The path ran from Hancock Avenue at the eastern end of Ziegler's Grove (Battle Era Feature #1), through the grove, and terminated at the base of the tower. This latter path was four feet wide, was laid on a stone foundation, and was covered with a surface of screenings.



Figure 26. Path through Ziegler's Grove looking northeast to historic Hancock Avenue , 1897. (#2956, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 27. Path through Ziegler's Grove looking southwest to observation tower, 1897. (#2959, William H. Tipton Photographic Prints, Gettysburg NMP).

76. Ziegler's Grove Observation Tower

The GNP Commission decided on the site for this fifth and last steel observation tower in June 1896, and it was sometimes referred to as Tower No. 5. The site was described as "on the south end of Ziegler's Grove (Battle Era Feature #1) on high ground near stone [wall] east of the Brian House (Battle Era Feature #14)." The tower, which was completed by September 1896, was 75 feet from the top of the capstones to the floor of the observation deck. The square of the base was 25 feet on each side. Specifications for the tower included:

> *"The Foundation for each leg of the tower was to be 6 feet in depth and 4 feet square laid in Portland Cement. The foundation stones were required to be of Gettysburg granite, roughly squared, not less than 18 inches wide, 36 inches long, and 10 inches thick. The foundation capstone was to be 36 inches square and centered on the foundation, 12 inches thick, and dressed on all faces. The base plates of the tower were secured to the foundation with 1¼ inch bolts passing through plates under the foundation and up to the capstone.*
>
> *The Steel Tower was supported by lateral braces of 1¼ inch round steel, with turnbuckle. The stairway steps were to be 10-inch tread and 7½ inch rise, supported by steel horses of angle iron. The steps were rough surfaced and perforated to carry off water. Landings were of cast iron, also rough surfaced and perforated. Railings along stairs and observation deck were 4 feet high, "firm and substantial," with an upper rail of 1-inch diameter and a second rail of ¾-inch gas pipe. Pedestrian shields were of No. 16 galvanized iron, ornamentally punched. These shields were 24 inches wide and riveted to the uprights along the observation deck. They were also installed*

along the stairways, where they were strengthened further along their top and bottom with 1¼ inch half round iron, riveted at points not more than six inches apart. Larger rivets were required where the shield attached to the upright posts supporting the observation deck. A 2-inch gap was required below this shield wherever it was installed on the tower. The observation deck floor was 20 feet square and projected 2 feet beyond the railing on all sides. The floor was perforated and was capable of bearing 10 tons equally distributed. Roofing was of "the heaviest" corrugated iron (not less than No. 16) and was supported by the framework. The roof was "to be so firmly riveted that the highest wind could not loosen it."

Like the four earlier park towers the Ziegler' Grove Observation Tower was cast by the Variety Iron Works. The towers were originally painted a dark red oxide color, similar to (if not the same as) the color applied to the locust posts of the avenue fencing. (The paint was specially mixed and supplied by George D. Wetherhill and Co. of Philadelphia). Wrought iron benches with "dished and perforated cast iron seats" were manufactured and placed by Calvin Gilbert in September 1897. Directional and distance tablets were added and fastened to the tower in 1900. The bronze tablets in the concrete "railing" at the Cyclorama Overlook, are these directional and distance tablets from the Ziegler's Grove Tower.



Figure 28. View from observation tower of path through Ziegler's Grove looking northeast to historic Hancock Avenue. Note newly planted trees in Ziegler's Grove area, 1897. (#4266, William H. Tipton Photographic Prints, Gettysburg NMP).

77. Hancock Avenue

The route of this avenue was originally surveyed for the GBMA in 1866 but was not opened at that time due to lack of funds. In July 1881, the board of directors again

undertook to do so, and authorized the opening of a 60-foot avenue "from the summit of the knoll North East of what is known as 'Ziegler's Woods' to the grove." From there it would be "widened to three hundred feet in order to include the grove." The avenue returned to a 60-foot width at the Brian buildings (Battle Era Features #12 and #13). The 1866 survey plotted the general route adopted by the Association for this avenue, making it the oldest planned and developed avenue in the park. Construction of the roadway itself began in April 1882. The road surface, including ditches, was 22 feet in width.



Figure 29. View of route of Hancock Avenue looking south towards Copse of Trees and Big Round Top, 1882. (#3C-3007, General Historical Photographic Prints, Gettysburg NMP).



Figure 30. View of route of Hancock Avenue looking north towards Brian Farm, 1882. (#3C-3001, General Historical Photographic Prints, Gettysburg NMP).

The GBMA was required to fence lands taken for avenues for the protection of privately owned adjoining lands. The Association enclosed the avenues, "excepting where stone walls rendered it unnecessary, with galvanized steel wire barbed fence and locust posts."

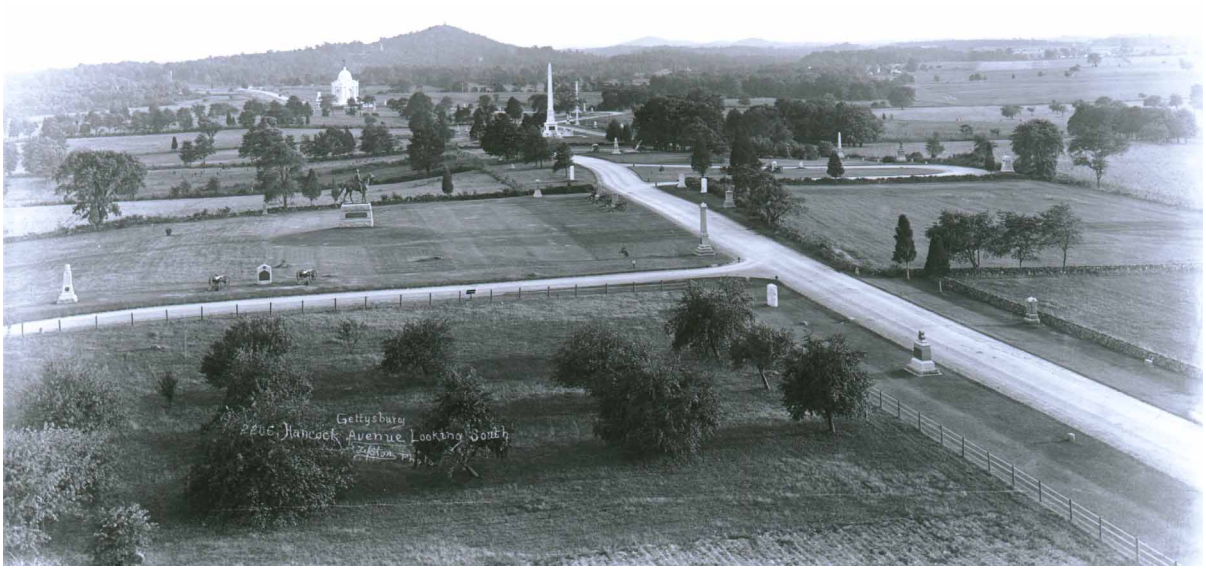


Figure 31. View of Hancock Avenue looking south. Note the presence of Meade Avenue intersecting Hancock Avenue to the left, 1910. (#2414, William H. Tipton Photographic Prints, Gettysburg NMP).

This fencing consisted of galvanized Brinkerhoff Patent Metallic wire fence, the lower three strands of which were unbarbed and the upper two strands of which were barbed.

Cope proposed in 1896 to widen Hancock Avenue from GBMA's 60 feet to a width of 100 feet. The width of the Telford piking was 25 feet. The depth of the piking was at least 15 inches. The Commission proposed paving the gutters along Hancock Avenue in 1900. All of the shell stones on Hancock Avenue were 12-inch stones with 13-inch shells.

78. Regulatory Tablets - Section Letter Tablets

Small tablets were erected along Hancock Avenue at a distance of every 200 yards to designate the section of the avenue for the reporting of guards, engineers, and superintendents of park laborers. These sections were marked with cast iron tablets by letters. Hancock Avenue had 10 such lettered monuments (A-K). Section markers A and B were included within the project area. These section tablets were erected in 1896.

79. Regulatory Tablets - "Keep Off this Mound"

Small cast iron tablets were erected at popular monuments and sites throughout the park in order to protect the earthen mounds around monument foundations and at the artillery lunettes. Two such tablets were erected at the base of the mound of the Meade Equestrian Statue, one on its south side and one at the west front.

80. Regulatory Tablets - "Do not drive on this Ground"

One painted cast iron tablet reading "Do not drive on this Ground" was erected on the east side Hancock Avenue at the Brian House (Battle Era Feature #14). Two tablets were erected on Meade Avenue—one near the Meade Equestrian Statue on the south side of the avenue and the other tablet along the route of the avenue near the center of its length. The intent of these tablets was to keep vehicles from leaving the avenues and marring the grounds of the park.

81. Meade's Headquarters MOLLUS Flagpole

This wooden flagpole was erected by the Pennsylvania Commandery of the Military Order of the Loyal Legion of the United States and was located in the Leister Yard (Battle Era Feature #44), southeast of the house. The flagpole was 24 inches in diameter and 160 feet high. The tenant at Meade's Headquarters raised the flag daily. The flagpole was broken off during a storm but was replaced by the Loyal Legion in the late 1920s. The replacement pole was relocated to the northern side of Meade Avenue where it stood until removed by NPS. A bronze inscription shield that was attached to the pole is in storage.



Figure 32. View of Meade's Headquarters MOLLUS flagpole,1899. (#4882, William H. Tipton Photographic Prints, Gettyburg NMP).

82. Meade's Headquarters Tablet

This tablet was cast by Bureau Brothers in November 1907 for the GNP and was affixed to the siding of the north side of the Leister House (Battle Era Feature #43). During the development of the High Water Mark Walking Trail by NPS the tablet was removed from the house and attached to a Mission 66 wayside exhibit at the junction of the trail and the Taneytown Road (Battle Era Feature #26).

83. Meade Avenue Identification Tablets

These cast iron tablets were produced by the Calvin Gilbert foundry in Gettysburg as per a GNP Commission order of December 28, 1898. Two identical tablets were cast, one for the intersection of Meade Avenue with the Taneytown Road (Battle Era Feature #26) and one for the intersection of Meade Avenue with Hancock Avenue. Both of the avenue tablets were erected adjacent to the south edge of Meade Avenue. The tablets were taken out by NPS after it removed the avenue. At least one of these Meade Avenue tablets is in monument shop storage.

84. Meade Avenue

This avenue was proposed in 1887 during the GBMA era, to be opened sometime after acquisition of the Meade's Headquarters building from Mrs. Leister. Meade Avenue was laid out in early 1897 and was constructed and completed in late August 1897 by the firm of Michael and Timothy E. Farrell after they were awarded the contract. The Telford piking on Meade Avenue was 20 feet in width. The depth of the piking was 13½ inches. Nine hundred feet of new fence with locust posts and galvanized pipe rails was erected on the north side of the avenue in 1898. At the same time two GNP gates were inserted to provide field access - one of these was located at the extreme western end of the avenue fence (Brian Orchard, Battle Era Feature #12) and the other was located almost midway along the avenue (Ziegler's South Field, Battle Era Feature #6). By 1904 Meade Avenue had hand-laid stone-paved gutters on both sides of its roadbed. Five catch basins were installed on this avenue and 4 pipe walls, all with capstones.



Figure 33. Relocation of Meade Avenue, 1936. (#30W-496, General Historical Photographic Prints, Gettysburg NMP).



Figure 34. View of Meade Avenue from observation tower, 1938. Note realignment of the avenue and addition of parking area. (#23S-LE-016, General Historical Photographic Prints, Gettysburg NMP).

NPS altered and then finally removed this avenue. Alterations included the addition of an asphalt surface, the removal of the hand-laid gutters, the removal of the pipe fencing and gates, the addition of a parking area near its eastern end. The avenue was removed in two portions by NPS. A short eastern section was maintained from the Taneytown Road to provide access to the paved parking lot north of the Leister buildings. The entire western section was removed. All vestiges of the avenue were removed during the development of the Cyclorama Center grounds (1961-1962). The High Water Mark Walking Trail (a Mission 66 project) generally follows the route of Meade Avenue.

[Grand Army of the Republic (GAR) Memorial, Albert Woolson Statue]

Although this memorial does not originate in the Commemorative Era, it contributes to the commemorative development of the national park. This memorial honors the last surviving Union veteran of the Civil War and, therefore, the last commander of the Grand Army of the Republic. The GAR was a national organization of Union veterans who influenced the development of the national military park system. The memorial was conceived by the Sons of Union Veterans and was erected in 1956 at the edge of Ziegler's Grove (Battle Era Feature #1). The bronze monument of Albert Woolson was sculpted by Aavard Fairbanks. His seated statue rests on a polished granite base and is flanked by matching granite benches. About the time that the Cyclorama building was erected as the park's visitor center, a flagstone plaza and donor's/sponsor's tablet were added to the memorial site.

[Maryland State Memorial]

Although this memorial does not originate in the Commemorative Era, it contributes to the commemorative development of the national park. This memorial honors the men who fought for the border state as Union and Confederate soldiers. This monument consists of a Port Deposit Granite base. There are representations of the Maryland state flag on the right and left side of this granite pedestal. The bronze sculpture on top was created by sculptor Lawrence M. Ludtke of Houston, Texas. This monument was erected July 3, 1994.

[Delaware State Memorial]

Although this memorial does not originate in the Commemorative Era, it contributes to the commemorative development of the national park. This memorial honors the soldiers from the State of Delaware who fought at the Battle of Gettysburg. The 11 foot by 8 foot Memorial is made of Vermont granite. The names of 691 soldiers from the state are case on a bronze plaque which is embedded on the back of the granite pillar. The front of the memorial contains a bronze bas-relief of the First Regiment repelling Pickett's Charge on Cemetery Ridge. This bas-relief was designed by sculptor Ron Tunison of Freehold New York. This monument was erected July 3, 2000 and was the last monument to be placed on the battlefield.

National Park Service Era (1939 - present):

In 1933, the park was transferred to the administration of the National Park Service (NPS). Several factors caused NPS managers to implement changes to the veteran-designed plan for the park. Although tourism was increasing in importance to the local economy, the surrounding area continued to rely primarily on agriculture. Competition, mechanization, and expanding urban markets during the Depression years of the 1930s began to have an impact on the farming practices that had remained stable for the seventy years following the battle. NPS was one of the leaders in encouraging change. NPS began an active campaign to remove historic fences, combine fields, drain wetlands, and remove boulders. Woods were allowed to grow up in areas not useful for modern agriculture. Soil erosion plans changed plowing patterns, and the increasing use of machinery forced additional changes to the traditional spatial organization that had characterized the 1863 battlefield. Tourism also changed the battlefield. By the 1920s and 1930s, tourist related businesses had begun to intrude on privately-held areas of the battlefield. NPS managers therefore began a process of acquisition and consolidation of battlefield lands that ultimately doubled the size of the park. Changes in transportation brought about the need for additional roadways in the park. Once the automobile became the primary means of touring the battlefield, avenues were realigned and speed limits were increased. While visitors had previously reached the park and circulated through it by train, there was now a need for parking lots. The visiting public was changing as well. In the first 50 years after the battle, visitors were often veterans or survivors and their families who wanted to revisit the sites of their personal experience. But as the Civil War generation died, and a new generation without personal memories of the place began to visit the park, the need for educational programs, maps, tours and other tools to help understand the battle became evident.

Providing for visitor services was of primary importance to NPS. By the late 1930s NPS had established a downtown visitor center and hired historian/interpreters to answer questions for visitors, explain battle history, and undertake some of the research necessary to manage the park.

Since the transfer of park operations to the National Park Service in the 1930s, additional changes have affected the condition and appearance of the site. Early during this period, the park utilized the work of the Civilian Conservation Corps (CCC) whose projects included the removal of Meade Avenue. In 1945,



Figure 35. Removal of Meade Avenue, 1940. (#30W-201, General Historical Photographic Prints, Gettysburg NMP.

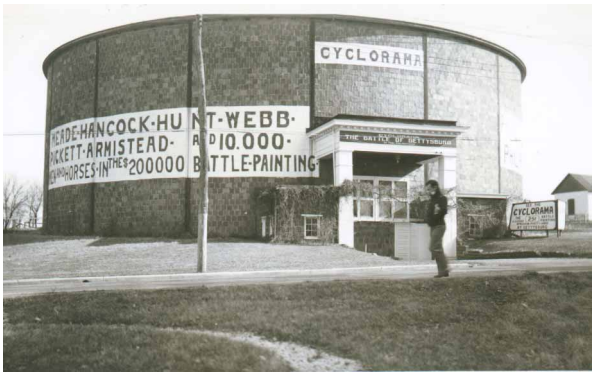


Figure 36. Original Cyclorama building located off Baltimore Pike, c. 1950s. (#3C-3033, General Historical Photographic Prints, Gettysburg NMP).



Figure 37. View of original Cyclorama building from East Cemetery Hill, c. 1950s. (#3C-3057, General Historical Photographic Prints, Gettysburg NMP).

after acquiring the 356' long cyclorama painting, "Battle of Gettysburg," NPS decided to build a center in the park to display this 1884 work by French painter Paul Philippoteaux. This painting had become famous for its extraordinary 360-degree portrayal of the battle events of Gettysburg. In the late 1950s, the architectural firm of Neutra and Alexander was chosen to design the building. After considerable discussion and correspondence, the concept and location for the building were redefined so that the building would not



Figure 38. View of Cemetery Ridge before construction of Cyclorama, 1955. (#41600, Museum Collection, Gettysburg NMP).



Figure 39. Hancock Ave. looking west before construction of Cyclorama, 1959. (#21P-133, General Historical Photographic Prints, Gettysburg NMP).

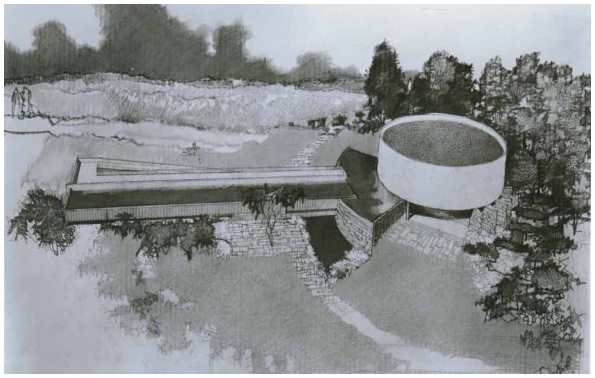


Figure 40. Richard Neutra concept sketch for the Cyclorama Center, c. 1960. (#26S-1073, General Historical Photographic Prints, Gettysburg NMP).



Figure 41. Extensive grading of site in preparation for construction, 1961. (#4C-0001A, General Historical Photographic Prints, Gettysburg NMP).

be adjacent to Emmitsburg Road, as originally conceived, but would be constructed on Cemetery Ridge and in the southern portion of Ziegler's Grove. Construction began in 1960 and the building opened to the public in March 1962. The project was part of the larger 'Mission 66' program of the National Park Service, which focused efforts on increasing visitor services and facilities as a whole. During the construction a large area of the site was regraded and parking and walkways were added.

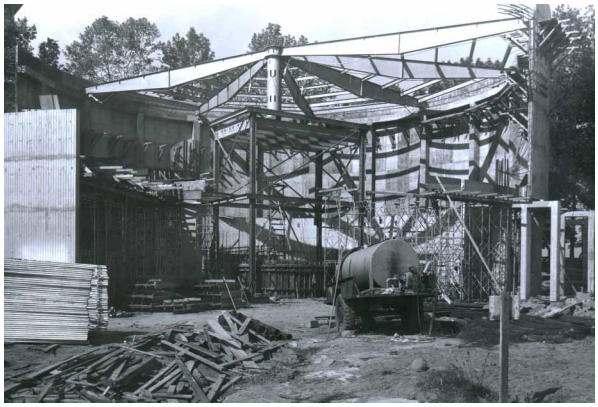


Figure 42. Cyclorama Drum under construction, 1961. (#26S-1009, General Historical Photographic Prints, Gettysburg NMP).



Figure 43. Construction of Cyclorama Center and regrading of site, 1961. (#26S-1006, General Historical Photographic Prints, Gettysburg NMP).



Figure 44. Meade's Headquarters with construction of High Water Mark trail, 1961. (#4C-0001D, General Historical Photographic Prints, Gettysburg NMP).



Figure 45. Construction of High Water Mark Trail adj. to Cyclorama Center, 1961. (#4C-0001E, General Historical Photographic Prints, Gettysburg NMP).

Adjacent to the Cyclorama Center is the structure that is now known as the park Visitor Center. The building was originally built as a residence in 1921 by George Rosensteel and was used to house the collection of battle and Civil War artifacts begun by his Uncle John within days of the end of the battle. Over the years, the Rosensteel family added to the collection and to the building, operating it as the



Figure 46. National Museum (now park Visitor Center) during addition, 1941. (#26S-076, General Historical Photographic Prints, Gettysburg NMP).

Gettysburg National Museum. NPS purchased the building in 1971 intending to demolish it.

The landscape of the park resulting from this evolution is significantly different from the landscape of 1863. While much of the southern area of the site has retained its Battle Era integrity, the northern section is dramatically changed. Large built features have been added, fence lines have been removed, and new trees have been planted. The combination of buildings, parking lots, walkways, and tree cover makes it almost impossible to visualize or understand the historic character of this crucial battle landscape and its effect on the action and outcome of the battle.

In June 1977, the Advisory Council on Historic Preservation published its "Plan to Preserve the Historic Resources of the Gettysburg Area," which included recommendations for the NPS to remove both the Electric Map and Cyclorama buildings. Planning processes beginning in the 1970s and continuing through the 1980s attempted to determine a less intrusive location for these visitor service activities. The 1999 General Management Plan provided the framework and direction for the rehabilitation of the vital Cemetery Hill portion of the battlefield and the placement of the park Visitor Center out of a major battle action area of the park.



Figure 47. Aerial view of Cemetery Ridge after construction of Cyclorama Center and associated parking areas, c. 1973. (#26S-1057, General Historical Photographic Prints, Gettysburg NMP).



Figure 48. Aerial photo of Study Area. Note removal of Meade Avenue and associated parking area,1996. (#OR4F13, Gettysburg NMP).

Chapter 2: Existing Conditions



Overview

Cemetery Hill today reflects its evolution over time, with diverse uses added since the time of the battle. Thus, the character of the site represents these changes in use, as well as varying philosophies of site management during the eras described in this report. Modern times have brought greater numbers of visitors to the battlefield, necessitating the addition of more visitor services and amenities. The growth of the town of Gettysburg itself has helped serve the large volume of tourists, but has created a setting very different from the landscape at the time of the battle.

The eastern and western boundaries of the site, Taneytown Road and Emmitsburg Road, retain the alignments that existed in 1863. The Soldiers' National Cemetery and Cemetery Hill border the site to the east and much of the remainder of the site is surrounded by other portions of the battlefield owned by the National Park Service (NPS). On the north and northwest sides, the site lies adjacent to the town of Gettysburg. Because of its proximity to the main park entrance, this part of the town has become developed with motels, fast-food restaurants and other tourist attractions. Thus, while the site areas surrounded by NPS land have retained their battle era character, the areas of recent commercial development along the northwest are bustling and modern creating great contrast with the adjacent battlefield (see Map 12: Existing Conditions Plan).



Figure 49. Aerial view of the site,1996. (#OR4F13, Gettysburg NMP).

Overall, the site today can be characterized and understood through study of: circulation, topography and drainage, vegetation, views, site use, structures, and utilities.



Figure 50. View of recent commercial development bordering the site to the northwest, directly adjacent to the Visitor Center and Cyclorama entrance roads. (Rhodeside & Harwell, August 2002).

Map 12:
Existing Conditions Plan
11 x 17

Circulation

A comprehensive system of both vehicular and pedestrian circulation exists today to serve the high levels of visitor use at the site. The Visitor Center and the Cyclorama Center each have separate vehicular circulation. There is no vehicular connection between the two areas, but within each area, vehicles may cross between Emmitsburg Road on the west to Taneytown Road on the east. At the Visitor Center an entrance road leads from the west from Emmitsburg Road to the main parking lot. Two additional entrances/exits connect the parking lot on the east to Taneytown Road. The parking lot itself is large and difficult to navigate. All the circulation in this lot is two-way, but is often crowded



Figure 51. Visitor Center entrance road looking towards parking area. (Rhodeside & Harwell, March 2002).



Figure 52. View of Cyclorama Center parking area. (Rhodeside & Harwell, March 2002).



Figure 53. View of Visitor Center parking lot from Taneytown Road. (Rhodeside & Harwell, March 2002).



Figure 54. Cyclorama entrance road looking towards parking area. (Rhodeside & Harwell, March 2002).

with both cars and buses for visitor drop off, pick up or parking. The Cyclorama Center has its own two-way entrance road further to the south off Emmitsburg Road, which also leads to a large parking lot. On the east side one entrance/exit connects the parking lot to Taneytown Road. This parking area is frequently less crowded than the Visitor Center lot and although it is generally better designed for traffic flow, cars often cut through the southernmost parking bay to reach the exit rather than going around the perimeter as intended. According to the GMP:

> *"Parking is inadequate, and weekends between April and October routinely find 200 to 300 cars parked on the fields and lawns surrounding the centers. On these days, traffic congestion at the most visited sites becomes a problem."* [1]

Connecting into the Cyclorama entrance road from the south is Hancock Avenue, one of the major avenues within the park laid out by the War Department in 1895. Hancock Avenue runs one-way south to north, so that vehicles following the Auto Tour reach the end of the avenue and use the Cyclorama entrance road to exit the park.



Figure 55. Intersection of the Cyclorama Center entrance road and Hancock Avenue. (Rhodeside & Harwell, March 2002).



Figure 56. View of one-way circulation on Hancock Avenue. (Rhodeside & Harwell, March 2002).



Figure 57. Auto Tour sign. (Rhodeside & Harwell, August 2002).



Figure 58. Visitor on Auto Tour route, examining monuments along Hancock Avenue. (Rhodeside & Harwell, March 2002).

Extensive paving provides pedestrian circulation throughout the site, dominated primarily by the High Water Mark Trail. This trail consists of a series of paved loops surrounding the Cyclorama Center and continuing southward beyond. The southwestern-most portion of the trail extends beyond the limits of the study area passing by the High Water Mark and The Angle. Within the study area, the trail runs along Cemetery Ridge past the Brian Farm and Brian Orchard, through Ziegler's Grove, and past Meade's Headquarters. The northern half of the trail, directly surrounding the Cyclorama Center, is concrete, while the majority of the trail located further south, is asphalt. In addition to the High Water Mark Trail, there are sidewalks around the Visitor Center and the two parking lots. Pedestrians have two options for walking between the two facilities: they may use either a small asphalt path leading from the west side of the Cyclorama parking lot



Figure 59. Concrete walkways near the Cyclorama Center. (Rhodeside & Harwell, March 2002).



Figure 60. Asphalt walkways further south towards Meade's Headquarters. (Rhodeside & Harwell, March 2002).

across Ziegler's Ravine to the parking annex at the Visitor Center, or an asphalt path leading from the east side of the Cyclorama parking lot along Taneytown Road to the Visitor Center entrance. The first option mentioned requires pedestrians to proceed down a steep set of stairs leading down the embankment from the parking lot. There is also a concrete sidewalk adjacent to the Visitor Center parking lot along Taneytown Road, as well as a brick sidewalk along Emmitsburg Road almost the complete length between the Visitor Center entrance road and the Cyclorama Center entrance road. Pedestrians are also permitted to leave the walkways in order to walk in the grass or the fields for means of site interpretation, but for the most part pedestrian circulation is directed by the locations of the paths.

The signage system also influences the circulation pattern. Many signage types exist within the study area, varying in size, type, and style. The majority of signs conform to the typical National Park Service standard: fashioned of metal, painted brown, with a white border and white lettering. This type can be found in a variety of sizes depending on use. At the main entrances there are large signs in this style, each mounted on a concrete wall with a concrete base containing lighting. These signs direct visitors to the primary visitor facilities. Other wayfinding signs of this style, but smaller, are found at many walkway intersections. Newly added are the 'Notice' signs at the entrances to the Visitor Center and Cyclorama which have been installed for security purposes, and which warn visitors not to carry dangerous weapons. These are similar in style to small brown signs found elsewhere in the park, but they also have a bright red colored strip which draws the visitors' attention. These typical brown metal signs are mounted in a variety of ways, either to a metal post, a concrete wall, or to a series of vertical wood 2 x 2 slats. There is also a series of interpretive signs within the area. One at the Visitor Center orients the visitor to the park as a whole, and the remainder serve to educate visitors as they progress along key points of the High Water Mark trail. These signs are mounted on black metal posts for easy reading by the passerby and they contain detailed information and pictures. Another type of sign within the park are those meant to be read from a passing car, and which designate famous landmarks along the Auto Tour route. These War Department era signs are low in height, and are made of black metal with white embossed lettering. The last category of signs is for traffic control. Since several roads traverse the site, there are many signs directing traffic flow, ('One-Way'; 'Do Not Enter') as well as those related to parking, ('No Parking', and 'Lot Full'). The design of these signs is typical of standard town and state roadway signage. Overall there is a wide and uncoordinated variety of sign types in the study area. Some seem planned as part of a cohesive system, but many seem to have been added haphazardly over time. Although there is much signage, there is little wayfinding of guidance to coherently link one part of the site to another.

Signage Types

Directional:

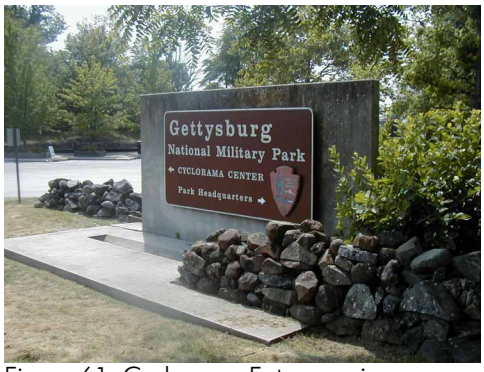


Figure 61. Cyclorama Entrance sign. (Rhodeside & Harwell, August 2002).



Figure 62. Cyclorama directional sign. (Rhodeside & Hawell, August 2002).



Figure 63. Small directional sign along path. (Rhodeside & Harwell, August 2002).



Figure 64. High Water Mark trail directional sign. (Rhodeside & Harwell, August 2002.)



Figure 65. 'Notice' sign at entrance to Cyclorama. (Rhodeside & Harwell, August 2002).

Interpretive:


Figure 66. Interpretive signs at entrance to Visitor Center. (Rhodeside & Hawell, August 2002).


Figure 67. Interpretive sign along the High Water Mark trail. (Rhodeside & Harwell, August 2002).


Figure 68. A 'Mission 66' era interpretive sign. (Rhodeside & Harwell, August 2002).

Signage Types Continued

Interpretive - War Department tablets:



Figure 69. Sign along Auto Tour route - Zeigler's Grove. (Rhodeside & Harwell, August 2002).



Figure 70. Sign along Auto Tour route - Brian House. (Rhodeside & Harwell, August 2002).

Vehicular:



Figure 71. Vehicular signage at Cyclorama entrance road. (Rhodeside & Harwell, August 2002).



Figure 72. Temporary 'No Parking' sign along Cyclorama entrance road. (Rhodeside & Harwell, August 2002).



Figure 73. 'Lot Full' sign in Cyclorama Center parking lot. (Rhodeside & Harwell, August 2002).

Topography & Drainage

The topography of Cemetery Hill today is dramatically different from conditions in 1863. Although the major land features at a large scale remain the same as at the time of the battle, the regrading of much of the site to provide for facilities has altered the historic terrain elevations. The major topographic features are Cemetery Ridge, Ziegler's Ravine and Cemetery Hill (see Map 13: Topography & Drainage). Cemetery Ridge runs north-south, beginning approximately where Ziegler's Grove meets the present day Cyclorama entrance road and extending southward beyond the study area. One of the highest points of the study area, at elevation 608.1, is found at the northern end of the ridge in Ziegler's Grove. The ridge overall provides long views to the west and protective cover to the east. To the west the land slopes gently away from the ridge while to the east there is a much more significant drop-off before the land levels off somewhat again towards Taneytown Road.



Figure 74. View of Cemetery Ridge looking west. (Rhodeside & Harwell, August 2002).

The remnant of what was historically Ziegler's Ravine lies between Cemetery Ridge and Cemetery Hill and continues to collect much of the water runoff from these two areas. The topography of the ravine was changed significantly with the building of the Cyclorama entrance road and parking lot, which filled in much of this historically low area. Today, the ravine is most noticeable just north of the Cyclorama entrance road and southwest of the Visitor Center. A path currently crosses this area, but it has been raised and a culvert installed below to allow the passage of water underneath. Even though this area is not continually wet, it remains saturated for a significant time after even a moderate rainfall. At elevation 587, this area is 21.1 feet lower than the high point on Cemetery Ridge. Further north the terrain eventually flattens out and water flows into a series of drains along a large swale running from southeast to northwest.

Cemetery Hill begins on the northeast side of Ziegler's Ravine and continues to rise to its high point at the Soldiers' National Cemetery. The highest point of the site, at elevation 618.2, is found on the south slope of this hill near the main entrance to the Visitor Center, just west of Taneytown Road. The majority of the south slope of Cemetery Hill is currently occupied by the Visitor Center, on an area now relatively flat. This is partially due to the area having also been regraded over time with the addition of the Visitor Center building and its associated parking lot. While these modern additions have



Figure 75. View of former Ziegler's Ravine, looking north between the Visitor Center and Cyclorama Center parking lot. (Rhodeside & Harwell, March 2002).



Figure 76. View of former Ziegler's Ravine, looking east. Grading for parking lots has dramatically altered terrain. (Rhodeside & Harwell, March 2002).

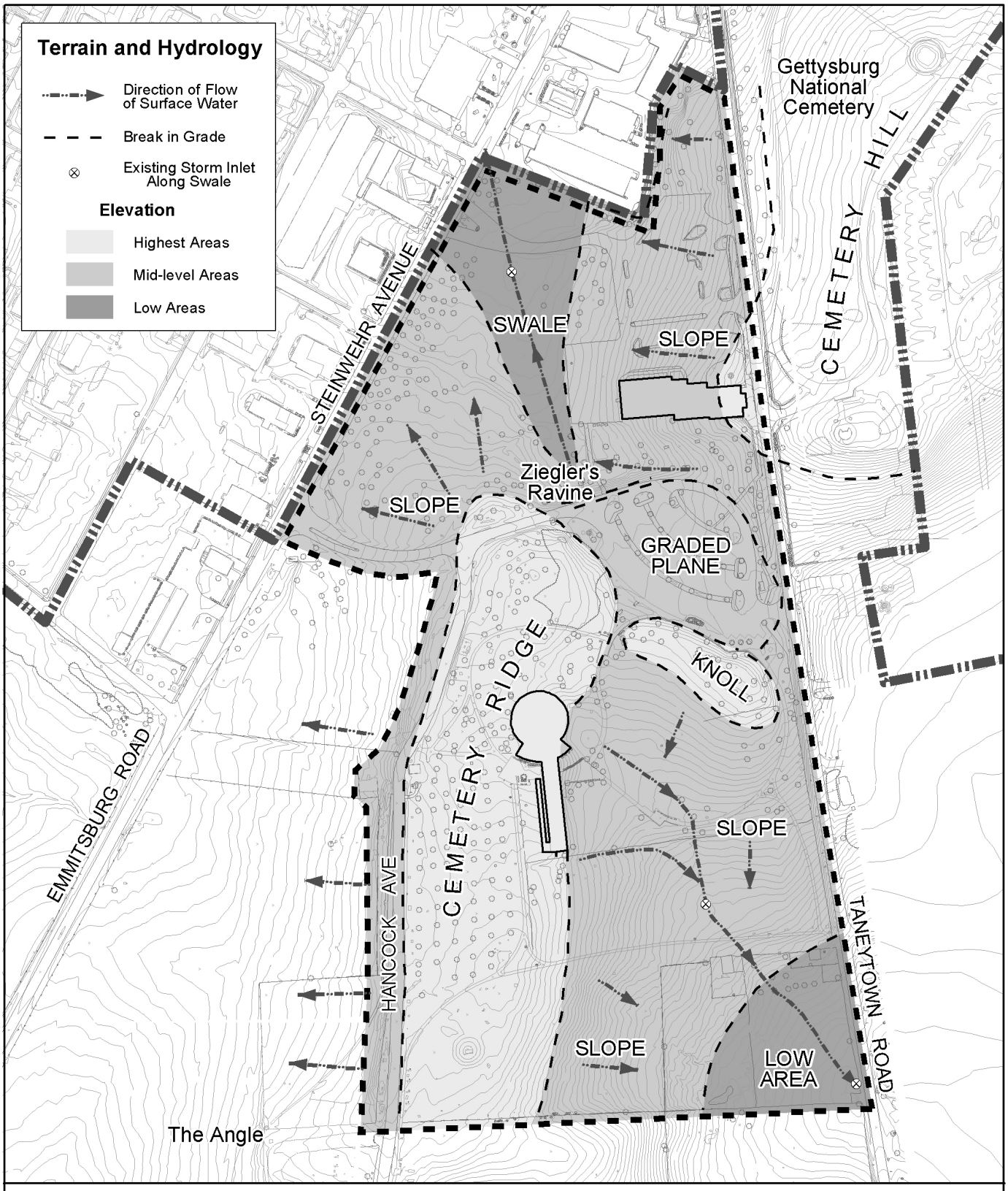
caused changes to the topography as well as the drainage in this area, the most dramatic difference in terrain occurs in the area of the current Cyclorama parking lot. The lot is now a flat area which straddles Cemetery Hill and Cemetery Ridge. Adjacent to the parking area to the south is a small knoll, which at elevation 608.9 is another high point on the site. This knoll was artificially raised with the construction of the Cyclorama parking lot. To the south of this knoll, on the east side of Cemetery Ridge, the land slopes gradually downward, draining in a gentle swale running northwest to southeast



Figure 77. View of high point on knoll located between Cemetery Ridge and Cemetery Hill, looking north. (Rhodeside & Harwell, March 2002).



Figure 78. View of low point (Leister Spring) located south of Meade's Headquarters, looking north. (Rhodeside & Harwell, August 2002).



MAP 13

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

EXISTING TOPOGRAPHY AND DRAINAGE

Source: The terrain and hydrology generalizations are from a Rhodeside & Harwell, Inc. compilation dated April 2, 2002. The source of the base information is the same as cited on the Study Area Map included in this report.

0 150 300 Feet

Prepared by the USDI NPS GNMP GIS on Sept. 3, 2003.

N W E S

Study Area Boundary
Park Boundary

and eventually flowing to the Leister Spring located in the southeast corner of the study area. The spring is the low point of the site, at elevation 548.5, a 69.7 foot difference from the high point on the south slope of Cemetery Hill to the north.



Figure 79. View of sloping terrain on the east side of Cemetery Ridge, leading to a low point south of the Leister Farm. (Rhodeside & Harwell, March 2002).

Vegetation

The vegetation covering the site varies greatly, ranging from large mature canopy trees to open meadow, orchards, fields, and manicured lawn (see Map 14: Existing Vegetation). For the most part, the trees on the site are over 40 years old, are 40 feet or more in height, and are primarily deciduous. In the areas with a high concentration of trees, most notably Ziegler's Grove and the area northwest of it between Emmitsburg Road and the Visitor Center, the mix of species includes: red and white oaks, red maples, sugar maples, ashes, sycamores, catalpas, ginkgos, tulip poplars, lindens, black locusts and a few hemlocks, among others. It is not likely that any Battle Era trees remain, but it is possible that one or two of the trees in the Ziegler's Grove area may have been planted prior to 1897 by the War Department, since they are upward of 100" in caliper. The majority of the current trees were most likely planted as part of the Cyclorama construction in 1961, or later.

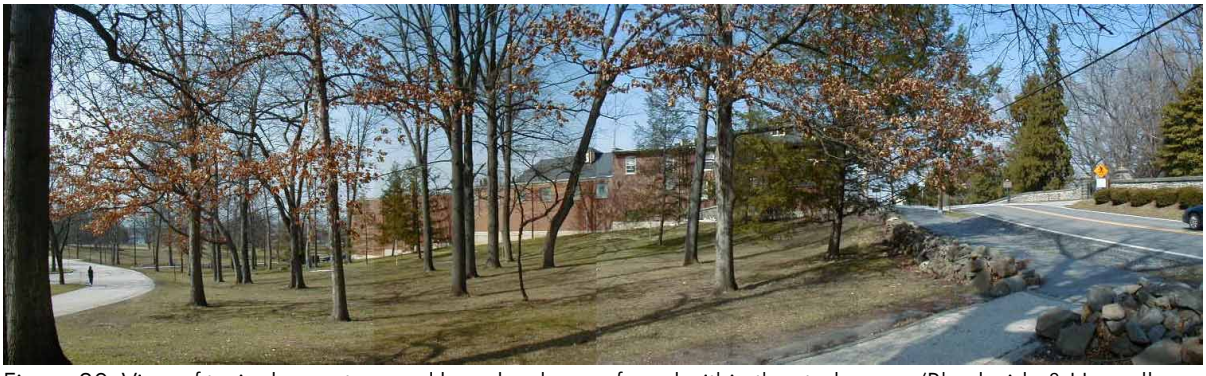
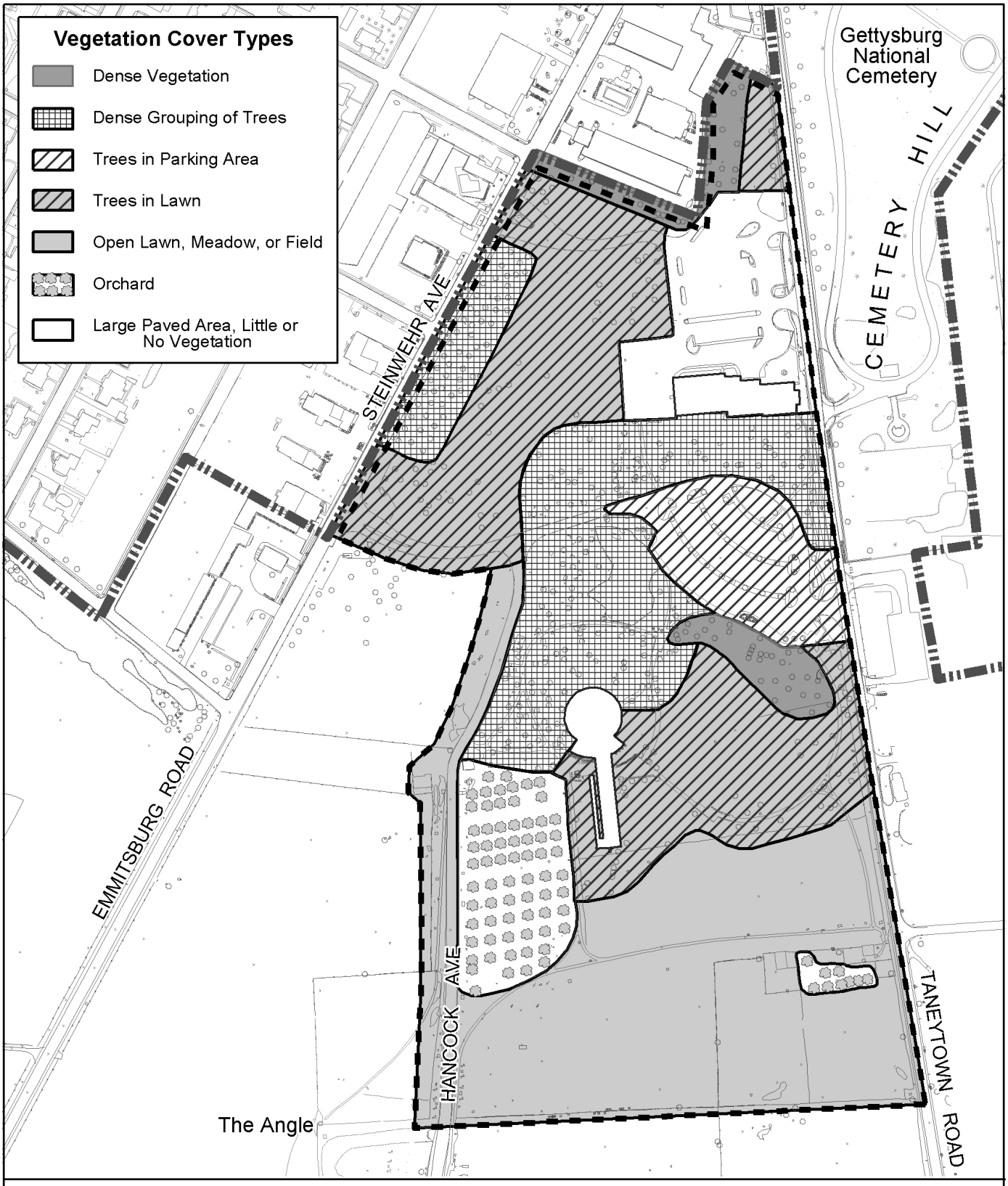


Figure 80. View of typical open tree and lawn landscape found within the study area. (Rhodeside & Harwell, March 2002).



MAP 14

Source: Topographic surveys of existing conditions were carried out by C.S. Davidson, Inc. between 1999 and 2001. The Borough of Gettysburg's existing conditions were mapped in 1999. The park's existing conditions were mapped on 3/24/ 2000 and 6/08/2001. These were combined and updated by the USDI NPS GNMP GIS Office during 2002.

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

EXISTING VEGETATION

0 150 300 Feet

Prepared by the USDI NPS GNMP GIS on Sept. 3, 2003.

N W E S

Study Area Boundary
Park Boundary

The area of Ziegler's Grove and the adjacent area immediately south of the Visitor Center are the most heavily wooded areas on the site, but the understory is still maintained as lawn throughout. Some of the largest trees can be found in this area, with calipers of 24-60" and heights upward of 100 feet. Nearer to the Cyclorama building itself there are a number of smaller trees, most likely planted within the last 20 years by the National Park Service. The area to the northwest, between Emmitsburg Road and the Visitor Center is less dense, maintained as an open tree and lawn landscape. Along Emmitsburg Road itself the trees are once again planted more densely to act as a vegetative screen from the neighboring commercial development. Directly bordering Emmitsburg Road in this area is a continuous row of lindens. While few evergreens are present within these wooded areas, there is an area along the northern edge of the site which is planted thickly with white pines and hemlocks and which acts as a screen from



Figure 81. View of dense planting along Emmitsburg Road. (Rhodeside & Harwell, August 2002).



Figure 82. View of evergreen screen at northwest corner of site. (Rhodeside & Harwell, March 2002).

the adjacent motel. The Visitor Center parking lot contains no trees, while the Cyclorama Center parking area is shaded by red oaks, 40-50 feet in height. The knoll to the south of the Cyclorama Center parking lot is maintained as a thicket, creating both a physical and visual separation between the northern and southern sections of the study area.



Figure 83. View of thicket on the knoll adjacent to the Cylorama Center parking lot. (Rhodeside & Harwell, August 2002).



Figure 84. View of Brian Orchard in the foreground with Ziegler's Grove in the background. (Rhodeside & Harwell, August 2002).

The southern half of the site is much more open in general than the northern section, retaining more of the landscape's historic quality. Two orchards are present in this area, one large one south of the Brian House containing roughly 70 small fruit trees, and a smaller one south of the Leister House. The Brian Orchard contains a mix of trees, including 3 rows of mature apples (24" cal. and 30' ht. on average), 3 rows of cherries (12" cal. and 15' ht. on average), and the rest younger apple trees (8" cal. and 10' ht. on average). The Leister Orchard contains only apple trees, which, though planted in the early 1980s, are mature specimens (24" cal. and 30' ht. on average). Some trees can also be found in the area east of the Cyclorama Center, maintained in an open tree and lawn landscape style, more sparsely spaced than in other areas. South of the Cyclorama Center, as well as further south beyond the High Water Mark Trail, the land is maintained as open fields and meadow.



Figure 85. View of typical open fields and meadow found in the southern section of the site. (Rhodeside & Harwell, March 2002).

Views

Because of the nature of the terrain within the study area, there are many significant views both from and into the site (see Map 15: Existing Views). The most remarkable views from the site are found at various points along Cemetery Ridge. Because it is relatively high in elevation and extends for a long distance, this ridge commands outstanding panoramic views to the surrounding area. To the west one can see as far as Seminary Ridge and beyond, and to the south the view extends across the length of the park to the Round Tops in the distance. Other points within the study area that allow long distance views to the south (although more limited than those from Cemetery Ridge) are the high point on Taneytown Road adjacent to the Visitor Center and further south on Taneytown Road at the pedestrian entrance to Meade's Headquarters.

Additional views can be seen from the edges of the site inward. From the entrance to the Cyclorama Center at Emmitsburg Road one can see north across the trees and lawn to the Visitor Center as well as to the south across open fields to the Brian Farm, Cemetery Ridge and the monuments along Hancock Avenue. Unfortunately the historically



Figure 86. Panoramic view looking west from Cemetery Ridge. View of Seminary Ridge in the distance. (Rhodeside & Harwell, March 2002).

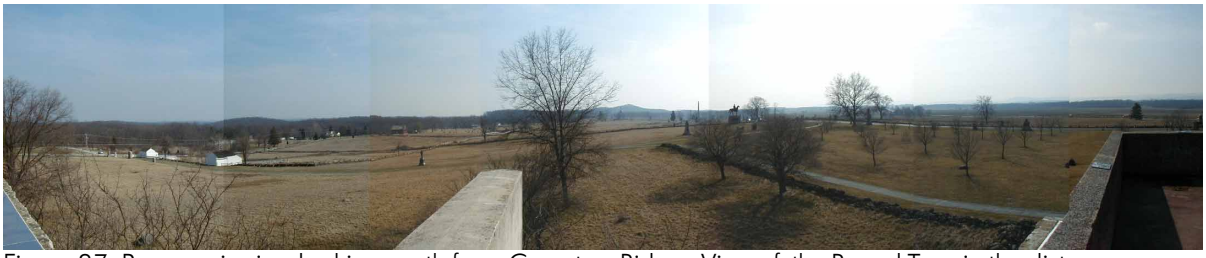
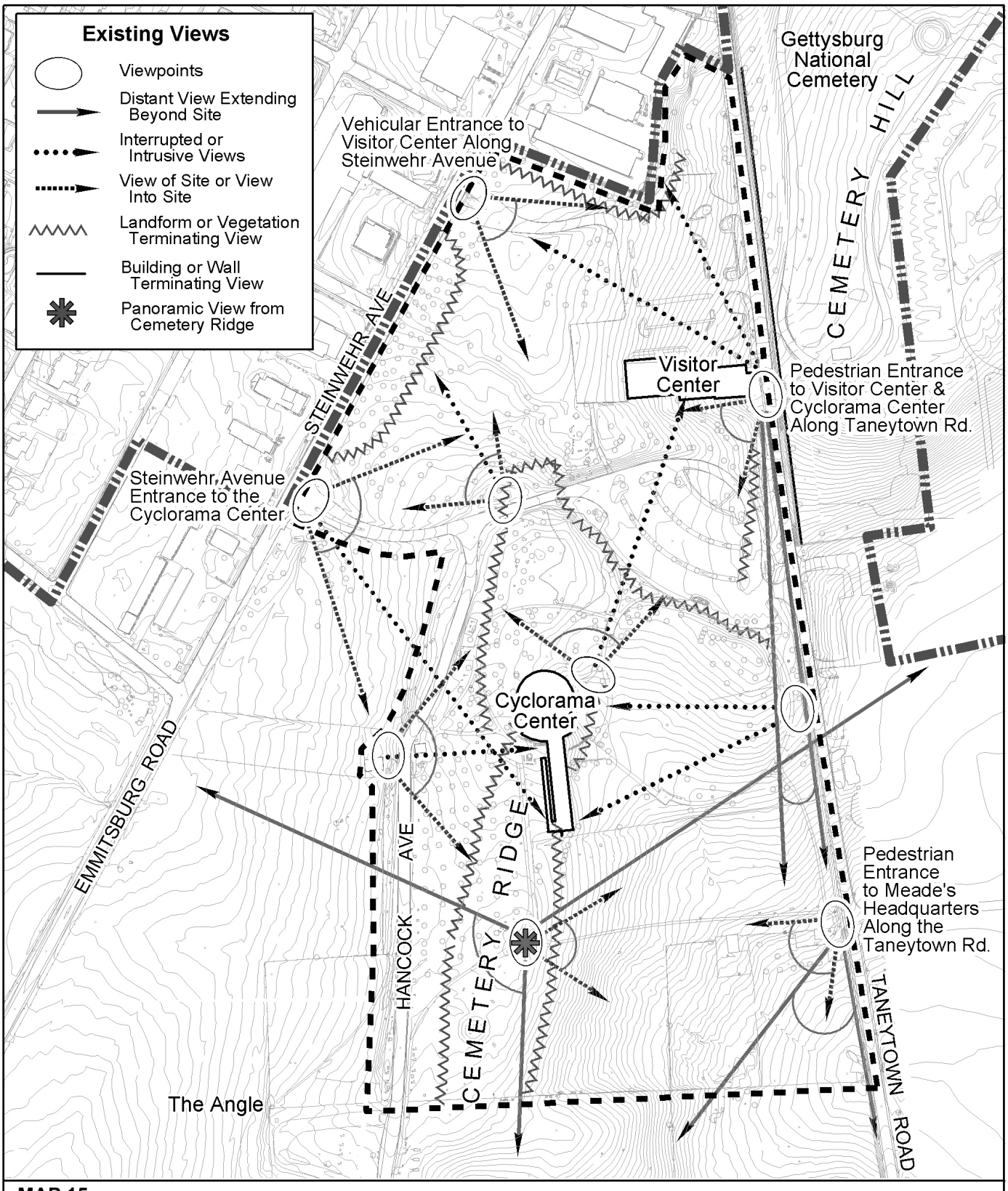


Figure 87. Panoramic view looking south from Cemetery Ridge. View of the Round Tops in the distance. (Rhodeside & Harwell, March 2002).



Figure 88. Panoramic view looking east from Cemetery Ridge. View of Cemetery Hill in the distance. (Rhodeside & Harwell, March 2002).

important view to Cemetery Hill beyond is almost completely obscured by the presence of the Visitor Center building. Other views from the Visitor Center entrance at Emmitsburg Road include both Cemetery Hill and the tree and lawn landscape in the northern section of the site. In addition to long vistas, the site at the high point of Taneytown Road near the entrance to the Visitor Center also allows interior views toward the site of Ziegler's Ravine and what remains of the south slope of Cemetery Hill. Again, this westward view is partially obscured by the Visitor Center building; the area that does remain open to view reveals only the large parking area and entrance road. Although it is a low point in elevation, the pedestrian entrance to the site at Meade's Headquarters encompasses a broad viewshed of open fields and meadows leading up to the back side of Cemetery Ridge. Since the site is not completely open, there are several features that impede views across the site, including the wooded area of Ziegler's Grove and the built structures of the Visitor Center and Cyclorama. Ziegler's Grove continues to screen views to parts of Cemetery Hill from outside the site, as it did historically. As previously noted, the Visitor Center blocks specific views from both the



MAP 15

Source: Topographic surveys of existing conditions were carried out by C.S. Davidson, Inc. between 1999 and 2001. The Borough of Gettysburg's existing conditions were mapped in 1999. The park's existing conditions were mapped on 3/24/ 2000 and 6/08/2001. These were combined and updated by the USDI NPS GNMP GIS Office during 2002. The existing views were added from a Rhode-side and Harwell compilation dated April 2, 2002.

GETTYSBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill CLR - Phase I

EXISTING VIEWS

0 150 300 Feet

Prepared by the USDI NPS GNMP GIS on Sept. 5, 2003.

N W E S

Study Area Boundary

Park Boundary

east and the west. Looking east, the Cyclorama Center building obscures views across Cemetery Ridge from several locations: from Meade's Headquarters, from the knoll to the northeast, and from Taneytown Road. It also prematurely shortens views across the site from the west, looking from Emmitsburg Road at the Cyclorama entrance and from the Brian Farm.



Figure 89. View of Cemetery Ridge in the distance, partially obscured by the Cyclorama Center. (Rhodeside & Harwell, March 2002).

Site Use

The existing NPS Visitor Center, according to the park's most recent survey, is the beginning point for most visitors to the park. In this facility visitors can learn about daily activities and programming being offered in the park, and can obtain maps, brochures, and other information useful for touring and exploring the park. In addition visitors can obtain information about resources, tours, and other activities offered in the Borough of Gettysburg and Adams County. The Visitors Center includes visitor services such as rest rooms, telephones, water, a bookstore, and a cash machine. Similar services are offered at the Cyclorama Center. According to the GMP:

> *"The Visitor Center, open since 1973, fails as a principal information and orientation facility in several ways. Highway signs to the Visitor Center are not adequate. Once visitors reach the center, parking is inadequate. Existing lots provide fewer than half the parking spaces needed on many summer days. From April through October, the number of cars carrying visitors exceeds the parking spaces available on a daily basis. When demand is high, visitors must park their cars in the fields near the National Cemetery, on the grassy lawns of the Visitor Center complex, along Taneytown Road and Hancock Avenue. The pedestrian connections between the*

Visitor Center, the National Cemetery, the Cyclorama Center and the overflow lot are minimal. Walkways are not clearly defined, and there is no interpretation or way finding to link the areas.

…The current Visitor Center offers no comprehensive program to orient visitors to the park and National Cemetery…"

Structures

Various types of structures exist on the site, both historic and modern in nature. Structures include: buildings, walls, fences, and monuments.

Buildings:

The two main buildings on the site are the Visitor Center and the Cyclorama Center, both products of recent history. The Visitor Center is the older structure of the two and consequently has had many 'piecemeal' additions and changes over time. It is a large brick building which still functions for the purpose of visitor services, but is seriously lacking in many modern amenities. The visitor center was originally a private home, then museum, owned by the Rosensteel family. It appears that the Rosensteel house was under construction by 1921 and began to be occupied by the family in 1922. The foundations of the building came from the exterior walls and foundations of the pre-Civil War Granite Schoolhouse, which the Rosensteels purchased and dismantled for their new home. Several relics from the old schoolhouse were included by the Rosensteels in the construction of their home. Fourteen additions were made between 1930 and 1969 to the house, the museum, Mr. Rosensteel's ever expanding collection of relics and memorabilia, as well as the 1939 Electric Map. The NPS purchased the museum in 1971,



Figure 90. Brick Visitor Center building. (Rhodeside & Harwell, August 2002).


Figure 91. Concrete Cyclorama Center building. (Rhodeside & Harwell, August 2002).

intending to tear down the building.

While the Visitor Center grew more or less haphazardly over time, the Cyclorama Center was a deliberate addition to the park. Part of NPS Director Conrad Wirth's 'Mission 66', the billion-dollar initiative to enhance National Park Service visitor facilities nationwide, the concrete building was designed by modernist architect Richard Neutra, and eventually was determined eligible for the National Register of Historic Places in 1998. To date, the building has lost much of its integrity related to the functions for which it was designed. The Cyclorama drum no longer provides the necessary environment for the preservation of the Cyclorama painting because of the lack of temperature and moisture control. Restrooms are inadequate and the structure does not meet ADA requirements. In addition, the sliding door to the open air terrace is no longer operating and the fountains that once embellished the roof and entrance to the building have been removed.

In addition to these two modern structures, there are also two historic building complexes present on the site: the Brian Farm and the Leister Farm. The Brian Farm is located along Hancock Avenue, just west of the Cyclorama Center and consists of a small house and barn. These are both wood frame buildings with wood shingles. The exterior of the



Figure 92. Historic farmhouse at the Brian Farm. (Rhodeside & Harwell, August 2002).



Figure 93. Historic farmhouse at the Leister Farm. (Rhodeside & Harwell, March 2002).



Figure 94. Historic barn structure at the Brian Farm. (Rhodeside & Harwell, August 2002).



Figure 95. Historic barn structure at the Leister Farm. (Rhodeside & Harwell, August 2002).

barn consists of vertical board and batten, painted white, while the house has horizontal boards, also painted white. The house was refurbished in the summer of 2002 with new white paint and new cedar shingles. The Leister Farm is located further south and east adjacent to Taneytown Road, and also consists of a small house and barn. The Leister House is a log building covered with weatherboards and was refurbished in 2002. The Leister Barn is a log and frame building with a frame lean-to. The stable at the north end is the earliest part of the barn and is of log construction, while the southern half is of frame construction. At both these farms, the structures remaining have been relatively well preserved. Both farms have been marked for visitor interpretation and have also recently had fire suppression systems installed.

Other significant built features are the existing walls and fences present within the study area.

Walls:

Historic:

- Stone rubble wall (dry set): One of the most common types of wall found on the site is the loose set stone rock wall. These walls consist of dry laid stones (historically gathered from the farm field and collected at the edges) loosely laid one upon the other to form what today is an informal 2-3 foot high wall. This type of wall is found throughout the study area, but is most often found in the southern section of the site south of the Cyclorama and around the Leister Farm complex. Historic photographs indicate that these walls were a minimum of four feet in height to contain livestock.



Figure 96. Stone rubble wall. (Rhodeside & Harwell, August 2002).

- Stone wall with rider: In addition to the plain stone wall, there are several places where another fence type has been added on top of the stone wall. Along Hancock Avenue, for example, wood rails were added, straddling the stone wall and crossing each other at the top to form what is commonly referred to as a stone wall with rider. Written accounts indicate that these walls were at least three feet in height, with the wood rider providing additional height.



Figure 97. Stone wall with rider. (Rhodeside & Harwell, August 2002).

- Stone wall with post and rail: In other instances a stone wall occurs along the bottom of a post and rail fence. This type occurs along Taneytown Road for example, and historically, the stone wall beneath was often intermittent rather than continuous.



Figure 98. Stone wall with post and rail. (Rhodeside & Harwell, August 2002).

Modern:

- Stone wall at Cyclorama Center (1961): In addition to these historic types of walls, there is also a modern stone retaining wall on the site, bordering the Cyclorama parking area. This wall is mortar set and composed of cut stone pieces.



Figure 99. Stone wall at Cyclorama Center. (Rhodeside & Harwell, March 2002).

- Stone wall at Delaware Monument (2000): Surrounding the Delaware Memorial, this stone wall is the most recent addition to the site and was built to look as similar as possible to the existing adjacent stone wall near the Cyclorama that it connects into.



Figure 100. Stone wall at Delaware Monument. (Rhodeside & Harwell, August 2002).

- Stone wall at Visitor Center: Adjacent to the Visitor Center, this short length of wall is unusual because of its use of white stones throughout, and the series of pointed stones placed vertically along the top.



Figure 101. Stone wall at Visitor Center. (Rhodeside & Harwell, August 2002).

- Brick wall at Visitor Center: A very short length of brick wall exists at the entrance to the Visitor Center, serving as a retaining wall adjacent to the entrance stairs.



Figure 102. Brick wall at Visitor Center. (Rhodeside & Harwell, August 2002).

Fences:

Historic:

- Post and Rail: The most common of the fences in the study area is the post and rail fence, with horizontal wooden slats that are inserted into openings cut into vertical wooden posts. Most often these wood pieces are not sawn, but split, giving them a very natural look.

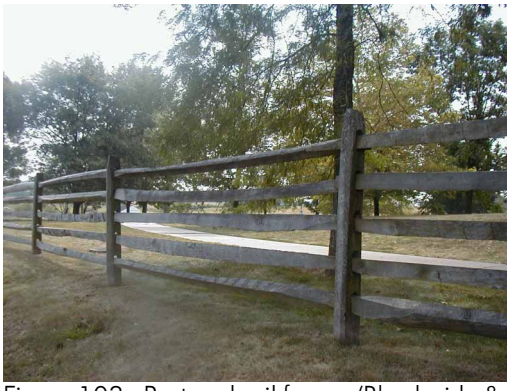


Figure 103. Post and rail fence. (Rhodeside & Harwell, August 2002).

- Post and Board: Another similar fence style is the post and board fence. This fence type uses the same general design as the post and rail, except that the boards and posts are sawn and the boards are nailed to the posts rather than inserted into cut openings. An example of this type is found along the Brian Farm Lane and is painted white.



Figure 104. Post and board fence. (Rhodeside & Harwell, August 2002).

- Yard Fencing: This type of fence is shorter than the others and more decorative. Typically either picket fencing or split palings are used to define the area surrounding a dwelling, as opposed to the other types of fences which are most often used to define field boundaries. White painted yard fencing surrounds the areas immediately adjacent to the Leister House.



Figure 105. Yard fencing at Leister Farm. (Rhodeside & Harwell, March 2002).

Modern:

- Post and Chain: This fence type is found only at the Visitor Center entrance. It is approximately 3 feet in height and consists of black steel posts with a length of black chain linked from post to post.



Figure 106. Post and chain fence at Visitor Center. (Rhodeside & Harwell, August 2002).

Monuments:

Along with buildings and fences, there are at least 72 commemorative monuments located within the site. Placed from as early as 1883 to as recently as 2000, these markers are found most abundantly along Hancock Avenue as well as further east within Ziegler's Grove towards the Cyclorama parking lot. Dispersed throughout the site, there are many other monuments, whose design ranges from very simple to exceedingly grand. Some markers simply designate the location of a troop's left or right flank, while others memorialize an entire brigade or salute the heroism of one outstanding individual.



Figure 107. Example of historic monument - Battery I, 1st US Artillery, 1907. (Rhodeside & Harwell, March 2002).



Figure 108. Example of modern monument - Delaware State Monument, 2000. (Rhodeside & Harwell, March 2002).

Probably the most dominating monument on the site is the Meade Equestrian. This large statue, representing General Meade astride his horse, stands in the middle of one of the open fields in the southern section of the site, near Hancock Avenue. The horse faces west toward the Confederate line and can be seen from a great distance. The location of the monuments is typically of great significance since they were placed as reminders of events that occurred in a particular place to a particular group. The current condition of these monuments is as varied as the monuments themselves. Some are old and have become worn or broken, while others have been built within the past several years and

are in new condition. Some are missing or lost, while some have simply been relocated from their original location.



Figure 109. View of Meade Equestrian Monument in the distance. (Rhodeside & Harwell, March 2002).

A list of relocated monuments follows:

Relocated Monuments and Markers

90th Pennsylvania Infantry Right Flank Marker - Grading of the elevated Hancock Avenue placed this marker at a disadvantage. Its original setting was a gentle sloping grade, but the NPS grading for the Cyclorama Center parking lot and drive created a steeper grade at the marker. By 1977 only the flat top of the marker was visible. By 1994 it was entirely covered by turf. It is now partially buried on the north side of Hancock Avenue drive, with just the top visible. (See LCS photo and measurements.)

Gettysburg National Military Park Monument - This monument was relocated during realignment of Hancock Avenue in 1961-1962.

12th Massachusetts Infantry Position Marker (Webster Regiment) - This marker was moved slightly for the installation of the Cyclorama. It was reset in one of the grass islands for the parking lot, but was set so poorly that the unfinished foundation of the marker is exposed.

88th Pennsylvania Infantry Position Marker - This marker and the boulder on which it rests were both relocated during Cyclorama Center development, the realignment of Hancock Avenue, and the installation of the parking lot. The marker was originally located in the northwestern corner of the existing parking lot. In the process of moving the boulder, NPS or contractor broke off two major portions of it, necessitating the installation of a granite foundation between the broken boulder and the marker itself.

1st Massachusetts Sharpshooters Position Marker - This marker was relocated in a northerly direction from its original location when Hancock Avenue was realigned and graded and the Cyclorama Center parking lot was installed (c. 1961-1962).

90th Pennsylvania Infantry Monument - This monument was relocated to the top of the ridge from a point north of its present location. The original site is now displaced by the realigned and graded Hancock Avenue. This realignment dates to the development of the grounds for the Cyclorama Center in 1961-1962.

Battery F, 5th U.S. Artillery Tablet (Martin's Battery) - This battery was originally located in the southeast quadrant of Ziegler's Grove. Its location was marked on several War Department era maps and these will be used to guide the relocation of this monument when the Cyclorama building is removed.

Hancock Avenue War Department Identification Tablet - This tablet was relocated during the realignment of Hancock Avenue for the Cyclorama Center about 1961-1962. Its original location was at the Taneytown Road entrance, on the south side of the avenue.

12th New Jersey Infantry Monument - Photographs indicate that this monument was relocated and realigned, most likely during a veterans' dispute with the former members of the 111th New York about battle positions. This would have occurred about 1890-1891. The monument appears to have been moved about 20 feet south from its original position.

Battery K, 1st New York Light Artillery Monument (Fitzhugh's Battery) - This monument was relocated from the area of Pleasonton Avenue to this location in 1903 after members of the battery provided sufficient evidence to convince the Commission to relocate it here. The flank markers of the battery remain astride Pleasonton Avenue.

99th Pennsylvania Infantry Monument - This granite monument was relocated from Devil's Den to this position in 1889, when a larger state-funded monument to the same regiment occupied the original site.

6th Pennsylvania Cavalry Monument (Companies E & I) - This monument was relocated to the High Water Mark Walking Tour by the NPS, probably in 1966 after the house was restored. NPS apparently believed that the monument intruded on the Leister House (recently restored) and that it belonged with the monuments of the other Headquarters Guards units along the route of the old Meade Avenue.

Meade's Headquarters MOLLUS Flagpole - This huge wooden flagpole was located in the garden of the Leister House, placed there as a memorial by the Military Order of the Loyal Legion of the United States (former Union officers) in the first decade of the 1900s. It was replaced and relocated to the north of the building in the 1950s,

but was removed by NPS c. 1963. The bronze shield from the flagpole was in curatorial storage in the 1970s.

Meade's Headquarters Tablet - This bronze tablet was removed from the north wall of the Leister House at the time the building was restored by NPS. It was remounted as a wayside exhibit in the High Water Mark Walk along Taneytown Road. When the wayside exhibit mount deteriorated, the bronze tablet was removed to storage. The relocation of the tablet to the wayside exhibit occurred c. 1962. The removal of the tablet to storage occurred c. 1994-1995.

Utilities

Visitor Center

Water Service: Domestic water is provided to the building via an 8" water main located at the rear southwest corner of the building. The water main supplies the fire protection (sprinkler system) and domestic water demands for the building. There is a 10,000 gallon abandoned water storage tank located underground at the south side of the building. The tank is no longer in use and can be removed if deemed appropriate.
Sanitary Sewer: The 8" sanitary sewer connection is located below grade and located on the north side of the building. There is a cleanout located adjacent to the building identifying the service location. The Gettysburg Municipal Authority has the jurisdiction over this utility. The contact person at GMA is Jim Watson (714) 334-6738, extension

Electrical Service: Power is supplied to the visitor's center by overhead lines from Taneytown Road (Pa Rte. 134). The existing transformer is a pole-mounted transformer owned and maintained by the local electric power company. The secondary lines are routed overhead from the pole and run along the facade of the building on the north side to the wall mounted exterior meter location. The electric service is owned and power is provided by the Metropolitan Edison Power Company, (800) 258-7697. The service is in good condition, but there have been a few reports of problems with the power supply running from the Visitor Center to the Rostrum in the Soldiers' National Cemetery.

Telephone Service: The telephone service to the visitor's center is from an overhead line on Taneytown Road (Pa Rte. 134). Sprint provides the telephone service and can be contacted at (717) 633-8366. The service is in good condition and there have been no reports of problems.

Storm Sewer: The roof drainage system is an exterior mounted roof gutter system that mainly drains to two downspouts. There are two 6" CMP connections at the northwest and southwest corners of the building. The two 6" CMP pipes are routed to an existing catch basin located in the parking lot.

Cyclorama Center

Water Service: Domestic water is provided to the building by a 4" water main located at the rear northwest corner of the building. The water main supplies the domestic water demands for the building. There is a 10,000 gallon abandoned water storage tank located underground at the west side of the building. The tank is no longer in use and is in fair condition.

Sanitary Sewer: The 8" sanitary sewer connection is located below grade and located on the southwest corner of the building. There is a manhole located approximately 150 feet from the building with a depth of 14'-15'. The manhole structural and drainage lines appear to be in good condition, but there is evidence that the top courses of the brick structure show signs of movement and minor repair is required.

Electrical Service: Power is supplied to the Cyclorama building by buried lines originating from Taneytown Road (Pa Rte. 134). The existing transformer is a pad-mounted transformer owned and maintained by the Metropolitan Edison Power Company, (800) 258-7697. The 208 volt, 3 phase secondary lines are routed underground from the transformer to the building electric service room. There is a subfed panel in the basement of the Brian House which is fed out of a distribution panel in the Cyclorama electrical room. There is also a single 208-volt, 1 phase circuit that is installed to the Leister House from the building. The circuit is a power supply for the fire alarm and protection system in the Leister House. The circuits and conduits appear to be in good condition with no reports of any problems.

Telephone Service: The telephone service to the Cyclorama building is from a buried line originating from Taneytown Road (Pa Rte. 134). Sprint provides the telephone service and can be contacted at (717) 633-8366. The service is in good condition and there have been no reports of problems. There are also telephone lines associated with the fire suppression systems in both the Brian and Leister farmhouses, which originate at the Cyclorama building.

Storm Sewer: The roof drainage system exits the building at two locations on the east side of the building. The two 8" diameter pipes are then routed below grade to a catch basin. The catch basin collects the two drains and has a single 15" diameter outlet directed towards Taneytown Road (Pa Rte. 134).

Chapter 3: Analysis & Evaluation



Overview

It is clear from the description of the battle and KOCOA features of the study area, that the Cemetery Hill landscape played a pivotal role in the outcome of this historic period in America's development. As an overview to understanding the present conditions of the site, it should be noted that, of the 43.5 acres contained in the study area, changes to grading and circulation and construction of buildings and parking over the years have resulted in only about 20 acres of the landscape remaining in a condition resembling that of the Battle Era (see Map 16: 1868 Warren Survey with Existing Conditions Overlay).

Summary Statement of Significance:

The significance of the Battle of Gettysburg, and its impact on the outcome of the Civil War is described as follows in the National Register of Historic Places Registration Form:

> *"In the larger scheme of the Civil War, the Battle of Gettysburg has national significance for its impact upon the Confederate war strategy and for its role in the ultimate preservation of the Union with a government, as President Abraham Lincoln stated in his Address, "of the people, by the people, and for the people." For many Americans, the fields and woods surrounding the small town of Gettysburg, Pennsylvania, represent much of the meaning of the Civil War. This is due in part to the immensity and impact of the battle fought there on July 1, 2, and 3, 1863. By carrying the war into Union territory, the South believed that a victory over the Union Army of the Potomac would garner needed supplies, destroy the Northern will to continue the war, and bring European recognition of the Confederacy. Confederate President Jefferson Davis agreed with this proposal by his most noteworthy field commander—General Robert E. Lee. Thus was set in motion an invasion into the North that had the possibility of ending the war with a major strategic Confederate victory. However, the subsequent Southern loss at Gettysburg at the hands of the Army of the Potomac (commanded by Major General George G. Meade), forced the Confederates to adopt a defensive strategy against United States forces, a strategy that ultimately led to attrition and defeat. Although the Battle of Gettysburg did not conclude the Civil War, the three-day struggle on the ridges and valleys in and around the small agricultural village brought it world attention and a lasting notoriety. The significant dates for the Battle of Gettysburg are July 1-July 4, 1863."* [1]

This is considered the period of significance for the Battle Era of the park.

The nomination continues:

> *"In addition, civilians and military participants shared their own unique vision of preserving the battlegrounds as a means to commemorate the*

Map 16:
1868 Warren Survey with Existing Conditions Overlay (11 x 17)

battle and to testify to the survival and supremacy of the Union. In 1864, the Commonwealth of Pennsylvania granted a charter to the Gettysburg Battlefield Memorial Association to undertake those purposes. In 1893, the United States Congress initiated measures that would expand the scope of preservation activities to include Confederate positions. These early efforts eventually led to the establishment of a national military park at Gettysburg in 1895. The original administrators of these national military parks regarded Gettysburg as the most significant of the battlefields commemorating the Civil War in the Eastern Theater of operations. In 1896, the United States Supreme Court agreed that Government preservation and protection of the Gettysburg battlefield was essential in promoting the continuance of the American nation. The ensuing memorial tradition promoted by the veterans, endorsed and generously funded by a grateful people, and formalized by a lasting national park, ultimately elevated Gettysburg's battle to the position of the defining and quintessential Civil War event. (It was no coincidence that the national organizations of Civil War veterans selected the battle anniversary of Gettysburg and the Gettysburg battlefield for their landmark 50th reunion in 1913.) Veterans of the battle (including among its foremost proponents and designers Daniel E. Sickles, John P. Nicholson, and E. B. Cope) oversaw the memorial process and the development of the park until 1927 when the last of these men died. The commemorative aspect of the national park was best reflected in its designed landscape elements, including monumentation and formal drives and avenues. Subsequent non-Civil War-veteran administrators did not share the memorial fervor embraced by those who participated in and survived the war. Therefore, the significant dates for commemoration of the Gettysburg battlefield fall between 1863 and 1938." [2]

The Cemetery Hill landscape, with its crucial role in the Battle of Gettysburg, its remaining critical pieces of 1863 historic fabric, and its richness of memorials from the Commemorative period, certainly is a key site for the understanding and interpretation of this extraordinary moment in history (see Map 17 - Existing Historic Fabric from the Battle Era, and Map 18 - Existing Historic Fabric from the Commemorative Era).

Circulation

In 1863, circulation within the site was limited. The area was bordered on either side by two major roads: Emmitsburg Road and Taneytown Road. On the eve of the battle, these two dirt roads were primary circulation routes providing direct access between the town of Gettysburg to the north and the towns of Emmitsburg and Taneytown to the south. As regional connectors, these roads were important to the traveling public, although the surrounding rural area was sparsely populated and traffic along these routes was light by

contemporary standards. The secondary routes within the site were farm lanes that led from the major roads to connect to the farm buildings. The Brian Farm Lane entered the site from Emmitsburg Road, running parallel to the Brian Farm Lane fence, until it terminated at the Brian House and Barn. The Leister Farm Lane was a shorter access that entered the site from Taneytown Road and continued past the Leister House and Barn until it ended at the entrance to the Leister Large Field. Access was limited over the remainder of the area because of the grid of walls and fences whose lines traced the rolling terrain. Occasionally a break in a wall or a gate in a fence provided movement for the farm owners among connecting fields. During the battle, the two roads and the two small lanes provided clear areas for the movement of troops and supplies. The open fields provided avenues of approach, while the walls and fences became obstacles to efficient movement across the land.

During the Commemorative Era, there were many changes to the circulation through the site. The two main thoroughfares, Emmitsburg Road and Taneytown Road retained their original alignment, but were upgraded over time to accommodate higher traffic levels. Two notable additions to the site during this time were Hancock Avenue and Meade Avenue, which were part of a system of avenues laid out by the War Department in the late 1800s and which created the first significant change to the landscape character of the 1863 landscape. Hancock Avenue, built in 1895, commenced at the entrance gates at Taneytown Road. The road then ran westward from the entrance gates to the ridge and then turned south along the western edge of Ziegler's Grove. Visitor access was thus provided to several battle landmarks along Cemetery Ridge such as the High Water Mark, The Angle, and the position of the Union Line as a whole. Meade Avenue connected to Hancock Avenue at a right angle, extending east past the Leister Farm and terminating at Taneytown Road. In addition to these two avenues, an electric railway line was built, traveling across the site from Taneytown Road on the east to Emmitsburg Road on the west. This rail line was located north of Hancock Avenue, traversing part of the former Ziegler property. During the Commemorative Era, the alignment of the two 1863 farm lanes remained, but were overlain by the new circulation systems. The electric railway line was built along part of the former Brian Farm Lane, and Meade Avenue was built along the alignment of the former Leister Farm Lane. A modest pedestrian circulation was also added during this period. A narrow walkway was constructed between Hancock Avenue and the observation tower, located near the site of the Brian Farm. This path ran diagonally northeast to southwest and passed through Ziegler's Grove, newly replanted at that time.

Today, the circulation system is expansive, providing access to several large visitor facilities and the majority of the site area, and occupying much of the central portion of the site with paved parking lots and through-traffic circulation. Vehicular circulation is primarily focused around the Visitor Center and Cyclorama. Although the parking lots appear vast, parking is inadequate for the number of visitors during heavy use periods, often causing traffic congestion. The entrance roads, parking areas, and drop-off zones at both buildings are confusing and circuitous. Because both the Visitor Center and

Map 17:
Existing Historic Fabric from the Battle Era
(11 x 17)

Map 18:
Existing Historic Fabric from the Commemorative Era
(11 x 17)

Cyclorama have individual isolated vehicular circulation systems, it is difficult for the visitor to navigate between the two areas. One aspect of the circulation which differs from either the Battle Era or the Commemorative Era is that access is provided across the site between Emmitsburg Road and Taneytown Road. This cross traffic, although it dissects the battle area, provides a useful connection from the park to visitor services in the town of Gettysburg. During the Battle Era, no roads or lanes crossed the site, and during the Commemorative Era, Hancock Avenue connected only to Taneytown Road. In addition to using the roads immediately surrounding the visitor facilities, many visitors also travel one-way south to north on Hancock Avenue, following the Auto Tour route. Traffic along this route is a particular problem, since it carries an average of 1,600 cars per day.[3] The end of Hancock Avenue is a confusing intersection where cars must choose to turn either right or left on the Cyclorama entrance road, but neither direction is signed and no 'main' exit route is given. Historically Hancock Avenue did not end at this point but continued, curving eastward, north of what is today the Cyclorama parking lot, until reaching its end at Taneytown Road. In addition to this missing northern section of Hancock Avenue, Meade Avenue and the electric railway line are also Commemorative Era features which no longer exist.



Figure 110. Meade Avenue view east, 1898. (#3264, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 111. Existing view of former Meade Avenue. (Rhodeside & Harwell, March 2002).

The Battle Era farm lanes still exist in some form, although difficult to decipher. The alignment of the Brian Farm Lane is delineated by a fenceline on one side and a figurative gate opening at either end of the lane, but the lane itself is not differentiated from the surrounding field in any way. Without prior knowledge of its existence, it is nearly impossible to identify the historic lane location. The Leister Farm Lane is even more unrecognizable, since it currently serves as the location for part of the High Water Mark Trail. The trail follows the alignment of this historic lane, but it is barely discernable because of the absence of other historic features such as fencing and field boundaries. Although these two lane alignments have remained partially intact in their current condition they offer little interpretive value. The larger regional roadways, Emmitsburg Road

and Taneytown Road, follow the same alignments today as they did historically. Over time they have been widened and updated for use by automobiles, but they continue to maintain a significant degree of historic integrity.



Figure 112. Taneytown Road near National Cemetery, 1905. (#3274, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 113. Existing view of walkway adjacent to Taneytown Road near National Cemetery. (Rhodeside & Harwell, August 2002).

Not only is more vehicular circulation present today than in the past, but the amount of pedestrian circulation has also increased dramatically. The path through Ziegler's Grove, laid out during the Commemorative Era, no longer exists, while a new system of walkways, used for convenience of passage among more recent facilities, has now been built on much of the site. While the High Water Mark Trail does pass several important battle landmarks and includes interpretive elements, its layout is not related to any circulation found in the Battle Era landscapes. The other paths on the site are also modern, constructed only to provide pedestrian access between parking and visitor facilities.



Figure 114. Trail through Ziegler's Grove looking south, 1897. (#2959, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 115. Existing view looking south of concrete walkways in Ziegler's Grove. (Rhodeside & Harwell, August 2002).

Because of this amalgam and quantity of parking, walkways, and roads, much of the significant area of the battlefield has been paved, and a confusing arrangement of hard surfaces, signs, and vehicles hides the rolling agricultural fields of 1863.

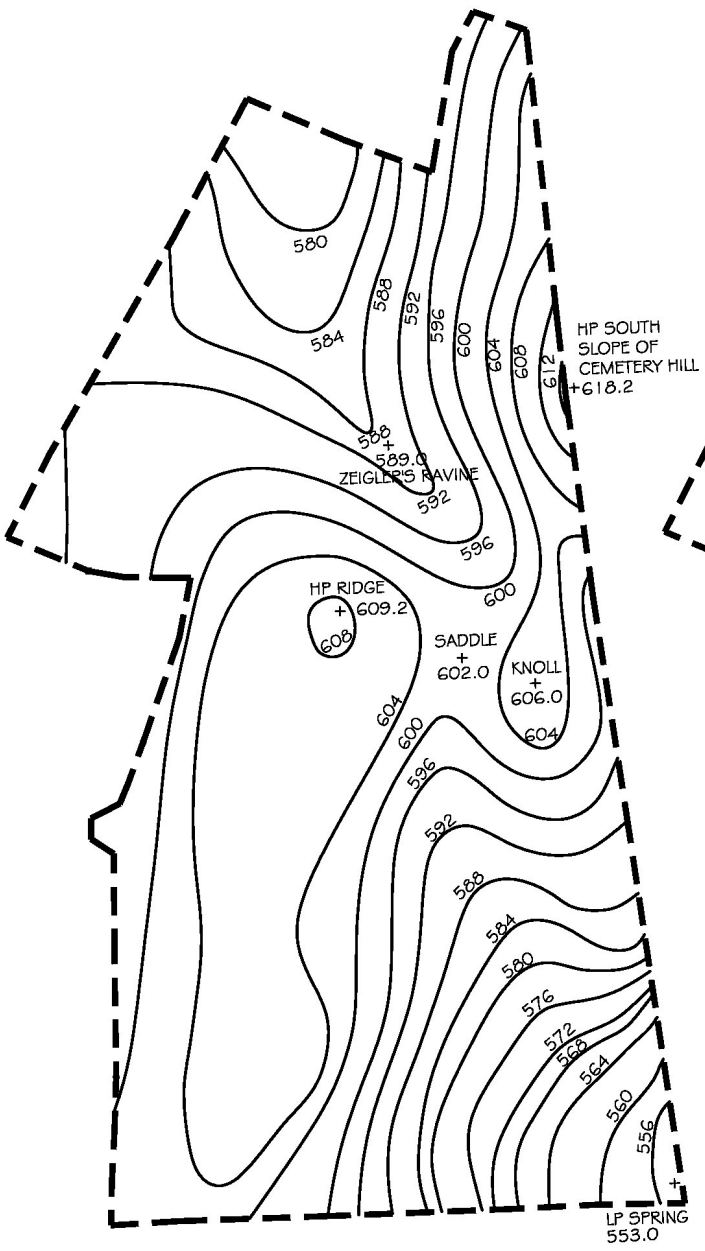
Topography & Drainage

In 1863, the general, large-scale topographic structure of the site was similar to the landform that exists today. Cemetery Ridge stretched north-south terminating at a high point of 609.2 at the north end. Its high position extending for a long distance offered excellent opportunities for observation during the battle, while its rear slope to the east provided cover and concealment to troops. Because the combination of these factors was so influential in the outcome of the battle, this ridge was considered key terrain. The land sloped away from the ridge on all sides, draining to the north into Ziegler's Ravine, a low area which collected water from the ridge and the adjacent Cemetery Hill. This area was approximately 21 feet lower in elevation than the high point on the ridge. Thus, troops were able to move more freely between their positions on Cemetery Hill and Cemetery Ridge, protected by the cover and concealment the ravine provided. Northeast of the ravine, the land gently rose up again, forming the south slope of Cemetery Hill. As the highest point on the site, this feature was also viewed as key terrain because its elevation of 618.2 enabled observation and the ability to protect the nearby forces of the Union line. Extending south from this slope was a knoll, which at elevation 606, was also one of the highest areas found on the site. South of this knoll the terrain sloped gradually downward, drained by a swale originating from the 'saddle' between Cemetery Ridge and the knoll. This eventually led southeast to the Leister Spring, the low point of the site at elevation 552.

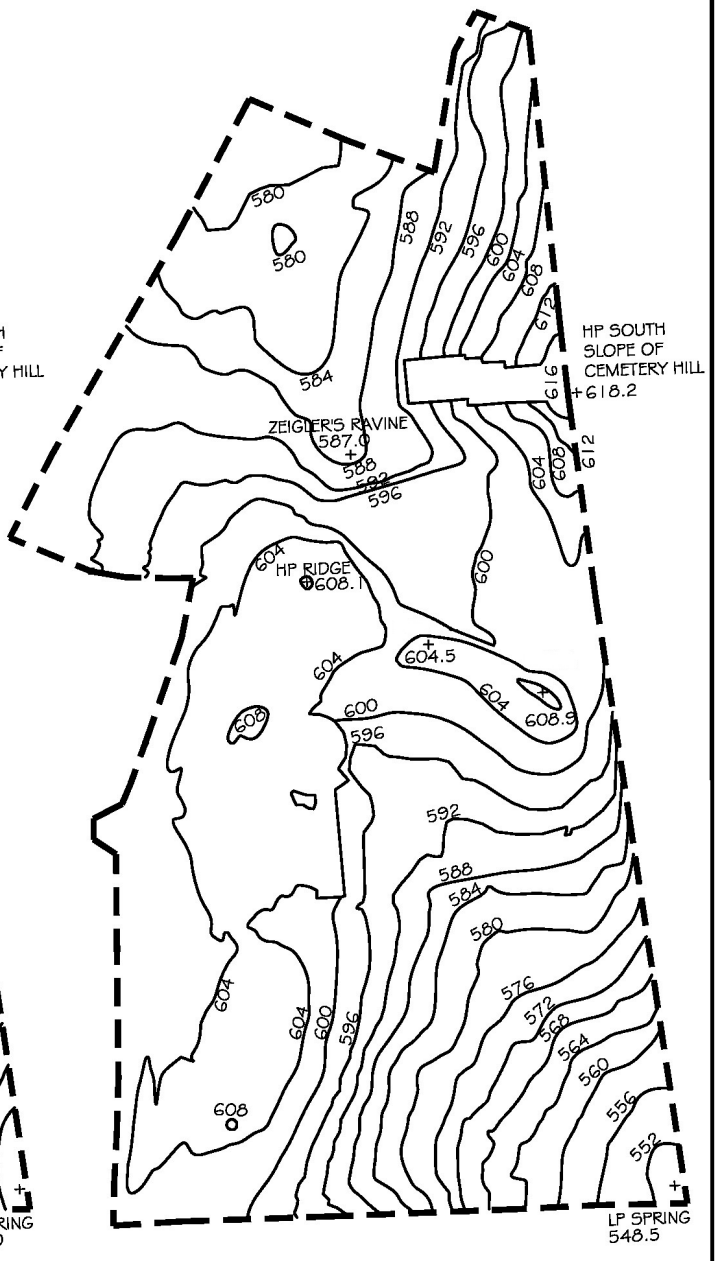
During the Commemorative Era, very few topographic changes occurred. According to the 1901 Park Commission Map, the terrain seems to have remained almost identical to that found at the time of the battle. Grading changes that were likely to have occurred, but were too minor to appear on the map, are related to the construction of the two new avenues on the site. Meade Avenue required only minimal changes to the terrain, since it followed the existing downward slope of the east side of Cemetery Ridge. Hancock Avenue was located along the ridgeline itself, with minimal grading performed to level the road surface and provide adequate drainage. The most questionable area is where Hancock Avenue, as well as the electric railway line to the north, crossed the low area of Ziegler's Ravine. It is unclear whether water was allowed to flow directly across the road and rail, or if some kind of culvert was installed beneath these routes to maintain the drainage flow. Although historic photographs of Hancock Avenue do not appear to show any kind of bridge to facilitate this crossing, the drainage of Ziegler's Ravine may have been manipulated from its original configuration to accommodate these new circulation systems. Additionally, it is very likely that some excavation occurred to provide clay as part of the Pfeffer brickyard operations in the northernmost area of the site. The extent to which this area was excavated and then later filled in is unknown.

Although much of the general form of the land remains the same today as it did historically, several critical areas have undergone significant changes which have impacted the integrity of the original terrain that was such an essential part of the battle action. Although the Warren Commission map is crude by today's topographic mapping standards, a comparative analysis of the elevations shown clarifies where major terrain changes have taken place[4] (see Map 19 - Topography Analysis Diagrams). The most notable differences between the topography of the site today and that of the Battle Era can be found around the Cyclorama Center. On a large scale, it appears that two features have been noticeably altered: the location of the swale to the southeast of the Cyclorama, and the configuration of the northern terminus of Cemetery Ridge. The swale to the southeast originally ran north-south, while today its northern end has been shifted to the northwest in order to accommodate drainage from the Cyclorama building. Additionally, the high plateau at the northern end of Cemetery Ridge, formerly extending much further east than it does today, was regraded as part of the Cyclorama construction (see Map 20 - Cyclorama Center Grading Plan). The greatest difference in elevation at a single point within the site occurs at the low point directly east of the Cyclorama drum. The elevation at this point during the battle era was about 604, while currently its elevation is 595, thus it is 9 feet lower today than it was historically. This great difference is due to the overall regrading of the area which occurred to accommodate new facilities, and which essentially obliterated the gentle roll of the saddle between Cemetery Ridge and Cemetery Hill that existed at the time of the battle. In addition, the entire southeastern section of Ziegler's Ravine has also been completely lost due to the construction of the Cyclorama Center parking lot. To create such a flat area in the midst of such varied existing terrain, roughly 5 feet of fill was required at the northwest side of the lot, while 4.5 feet of cut was removed along the southeast side from the knoll extending from the south slope of Cemetery Hill. In addition, the high point of the knoll, located just south of the corner of the parking lot, is 2.9 feet higher today than it was at the time of the battle. Historically, Ziegler's Ravine sloped evenly downward from southeast to northwest at a 4% gradient, while today the parking lot in its place is a flat 1.5%, disguising any trace of the ravine that played an important role in the battle.

In some areas where it might seem that the topography would have been dramatically altered, there is a surprising resemblance to the conditions found in the past. For example, the high point on Cemetery Ridge is located only 60 feet northwest of its historic location and is only 1.1 feet higher in elevation, even though this area was certainly affected by the construction of the Cyclorama Center and its associated entrance roads and parking areas. Also, even though the majority of Ziegler's Ravine was filled in to construct the Cyclorama parking lot, the elevation of the low area today is just 1 foot lower than it was at the time of the battle in the same location. However, the current centerline of the swale is was pushed approximately 50 feet west of its historical location to accommodate the Visitor Center parking lot. North of the Cyclorama parking lot, the topography of the site has also remained similar to its condition in the past. Even though the Visitor Center building and its associated parking lot now occupy the south slope of Cemetery Hill, the terrain itself has remained reasonably intact. The highest



Topography - 1863



Topography - 2002

MAP 19

GETTYBURG NATIONAL MILITARY PARK
Defense of Cemetery Hill - Phase 1

TOPOGRAPHY ANALYSIS DIAGRAMS

NORTH

Source: Rhodeside & Harwell, Incorporated, October 2003. Used 1868 Warren Survey and Existing Condition Plan for Contour information.

0' 175' 350'

Study Area Boundary

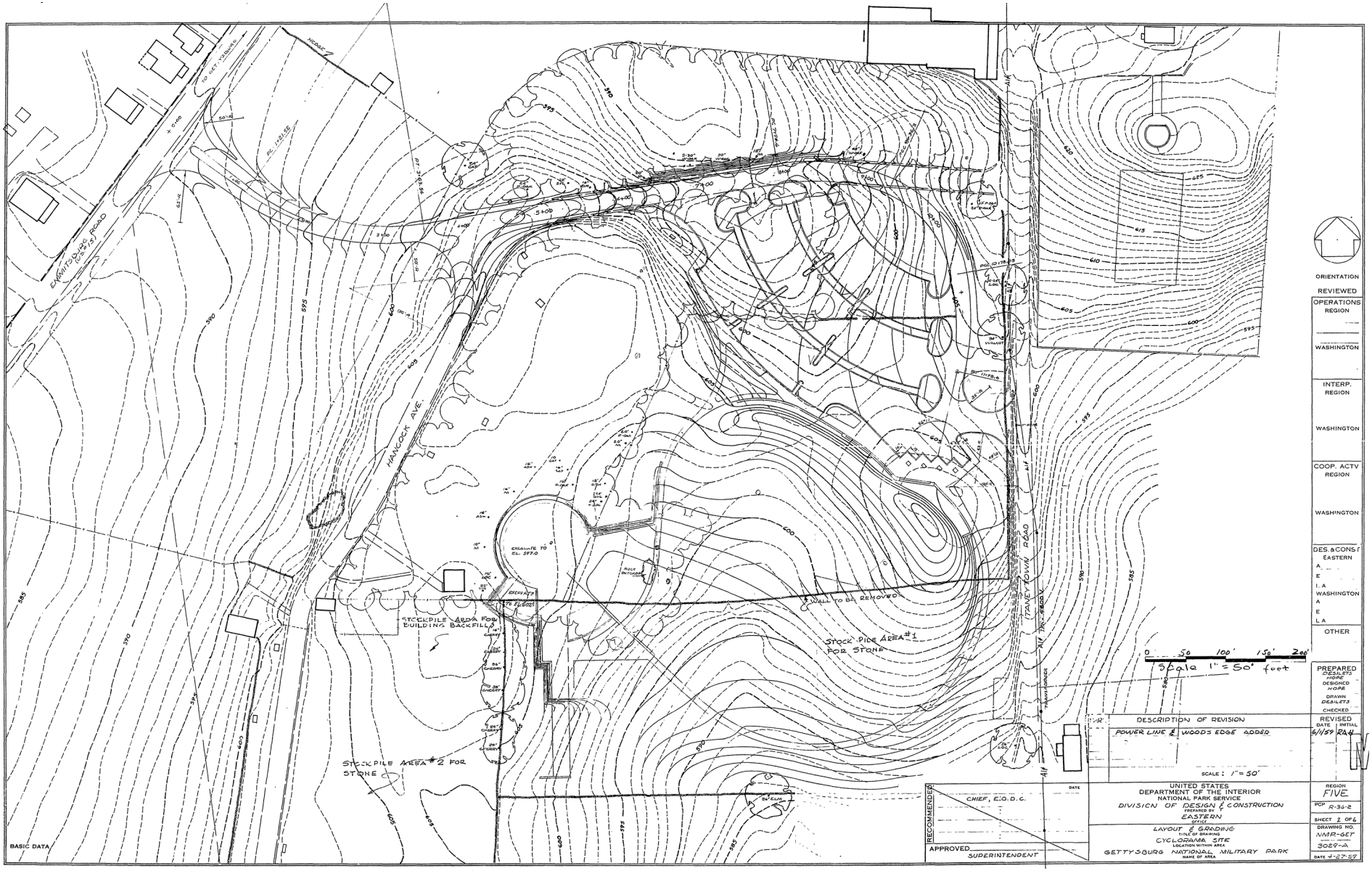
Prepared By Rhodeside & Harwell, Incorporated on October 27, 2003

point of the site can still be found at approximately the same location and is only 1.2 feet higher today than it was historically. The south side of Cemetery Hill sloped at 7.3% at the time of the battle; today, the parking lot slopes at a comparable 7%. The topography of the open area just west of the parking area is also similar to its historic condition as it forms the continuation of Ziegler's Ravine, draining in a gentle swale from southeast to northwest. The difference today is that the area collects much more storm water because of the increase in runoff from the adjacent impervious parking lots. Since this quantity of water could not be sufficiently absorbed and drained by sheet flow, a storm sewer line was installed along the swale with a series of drains to collect the excess water. The low point of the site continues to be located in the southeast corner of the study area at the Leister Spring. Today, a culvert has been installed beneath Taneytown Road at this location, making the low point of the site 3.5 feet lower than it was historically. The elevation of the wet area around the spring, however, has remained constant, at approximately elevation 552. The elevation difference on the site as a whole between the highest point and the lowest point has also not changed dramatically over time. In 1863 the difference in elevation between the highest point on the south slope of Cemetery Hill and the lowest point at the Leister Spring was 65 feet, while today it has increased to 69.7 feet.

Overall, although the general topographic organization of the site has retained much of its integrity over time, those specific areas of terrain critical to understanding and revealing the battle landscape have been either significantly altered or completely erased from the surface of the landscape.

Vegetation

The types of vegetation found on the site in 1863 contributed to its open, agricultural landscape character. The most notable stand of vegetation at the time was Ziegler's Grove, a woodlot located along the edges of David Ziegler's north and south fields consisting of tall, deciduous trees. The species of these trees in 1863 is unknown, but it is likely that the grove consisted of a mix of species native to Pennsylvania and commonly found in the woods of the surrounding region. The age composition of the trees and the type of understory found in the grove is also unknown, but information from historic photographs taken at the time of the battle reveals that the trees in the grove were very tall, seemingly mature, and primarily deciduous. The Warren Map documents the shape of the grove, cut at a sharp right angle on the southeast side to create the Ziegler Large Meadow, and extending to form a more natural mass shape to the west and north. Just to the east of the grove, along Ziegler's Grove Stone Wall, South Boundary, was another small mass of vegetation identified as Ziegler's Hedgerow. Also present on the site were three orchards, the largest owned by Abraham Brian located south of the Brian Farm, a medium-sized planting owned by Peter Frey located on the Frey property adjacent to Taneytown Road, and a small orchard owned by Lydia Leister located south of the Leister Farm. Little is known about the condition or composition of these orchards, except that



MAP 20: Cyclorama Center Grading Plan

in historic photographs the Frey Orchard appears to have consisted of mature trees while the Leister Orchard appears to have been planted with both cherries and apples and made up of slightly younger trees. Other individual trees found on the site at the time were Doubleday's Headquarters Tree located southeast of Ziegler's Hedgerow, and the two large deciduous trees located in the vicinity of the Brian Farm Lane. Although at the time of the battle, the percentage of the site covered by trees was small, those that did exist served to provide cover and concealment to Union troops, especially in the case of Ziegler's Grove. In addition, Ziegler's Hedgerow and the Frey Orchard were likely to have been obstacles to troop movement across the site. The majority of the site was covered by vegetation characteristic of agricultural land. One of Peter Frey's fields may have been planted with either hay or wheat, while the type of crops being grown in the remaining fields is unknown. There were also several large fields maintained as meadow, and one area south of the Leister Farm maintained as pasture. Even though there is very little information regarding the specific types of vegetation grown in the series of fields and meadows found throughout the site, it is known that this vegetation was low growing and was most likely mown or harvested once or twice per year.

During the Commemorative period, some vegetation from the Battle Era was removed and some new vegetation was planted on the site. Although not shown on maps of that era, photos and reports indicate that the majority of the large trees in Ziegler's Grove in 1863 were removed, with just a small area of original trees remaining to the north of Hancock Avenue. The rest of the grove was replanted with small trees by the Gettysburg National Park Commission sometime around 1897. The mix of species included: white oak, scarlet oak, pin oak, oriental buttonwood, honey locust, sweet gum, tulip tree, catalpa, maple, hickory, peach, black ash, and ailanthus.[5] Some of these trees were designated as 'temporary' and some as 'permanent', but the plans do not indicate which species were used for which purpose. The 'temporary' trees were faster growing species and were meant to serve as placeholders in the landscape until the 'permanent' trees were established. The shape of Ziegler's Grove also changed during this time perhaps due to the process by which these parcels of property were originally acquired by the Gettysburg Battlefield Memorial Association. The eastern boundary of the grove was moved further east and laid out on a diagonal instead of extending directly northward from the Brian Stone Wall, Eastern Boundary, as it did historically. For the most part, the orchards on the site remained intact. Half of the southern part of the Brian Orchard was removed, but significant quantities of both the Frey Orchard and the Leister Orchard remained in their historic location. In addition, a new orchard was planted within the area at the site of the Pfeffer farm. This was a relatively large orchard, which bordered the Pfeffer house on the north side and extended southeast across the electric railway line. Other new vegetation added to the site included a series of street trees planted in several locations along Taneytown Road. For the most part, the fields and meadows retained much of their historic character even though the specific types of vegetation grown in them were most likely changed and the configuration of some field boundaries was altered.

Today there is significantly more vegetation found on the site than at the time of the battle. The size and spacing of the trees in Ziegler's Grove today suggests that none of the original vegetation still exists. Many trees have been planted in the area to represent the location of this historic grove and to provide shade for visitors to the Cyclorama Center. While conditions today reflect the historic presence of the grove in a general sense, the actual boundaries as well as the character of the grove have been significantly changed since the time of the battle. A large portion of the area north and east of the Cyclorama drum is currently vegetated, while in 1863 the area was part of the Ziegler large meadow, with the right angle of its western and northern boundaries forming the edge of the grove. Also, the majority of the northeastern half of the grove no longer exists because of the presence of the Cyclorama entrance road and parking area. The character of the grove today consists of large trees that are open beneath, with manicured lawn found throughout the ground plane. At the time of the battle this area may have had some understory present, but during the Commemorative Era it was kept mown and open below. There are also several non-native species of trees, such as ginkgos, that have been planted in this area over time, which has changed the composition of what historically consisted of only native plants. While Ziegler's Grove suggests its historic location today, much of its integrity has been lost due to changes in the shape and composition of this significant battle feature over time.

Two of the orchards found on the site at the time of the battle do currently continue to exist in their historic locations. Because they have remained in much of the same layout as they were historically, both the Brian Orchard and the Leister Orchard possess a high degree of historic integrity, even though they have been replanted over time. Unfortunately, the Frey Orchard no longer exists, having been replaced by lawn. Of the specimen trees that were present at the time of the battle, one tree exists at the head of the Brian Farm Lane, while the other one is missing. Doubleday's Headquarters Tree is also missing. Some fields and meadows have been preserved, especially in the southern section of the site. The Frey Small Meadows, the Leister Pasture, the Leister Small Field and the Leister Large Field continue to be maintained as open meadows, retaining much of their historic character. On the northern section of the site however, almost no trace of the fields that formerly existed remains. This area, which historically consisted of Ziegler's North Field, Ziegler's South Field, Ziegler's Large Meadow, the Frey Hay or Wheatfield and the Frey Orchard, has all been converted into manicured lawns surrounding the Visitor Center and Cyclorama facilities and parking lots. In addition, many trees have been planted throughout this historically open area. This is especially true in the areas formerly known as Ziegler's Large Meadow, Ziegler's North Field, and Ziegler's South Field. Portions of all three of these sites are now heavily vegetated by large deciduous trees. In general, the percentage of the site covered by trees has nearly doubled since the time of the battle. While a few areas of vegetation within the study area do retain much of their historic integrity, the majority of the present vegetation is non-historic and the altered landscape hinders the understanding of the battle.

Views

In 1863 the site contained several notable topographic features which rose to high elevations, offering a wide range of views to Union troops located within the area. The highest point of the site on the south slope of Cemetery Hill was a key location for observation to the west and south, offering views across the open fields of the Confederate troops beyond. This view, although partially obscured by Ziegler's Grove, was extremely important since this location was a key position of the Union Army. The other area offering significant long distance views was Cemetery Ridge. This position atop the ridge commanded unobstructed panoramic views both to the west and the south which proved invaluable to the Union troops examining Confederate movements on the other side of the ridge. From the Confederate position, most views into the site were blocked by the imposing presence of Cemetery Ridge, as well as the mass of vegetation at Ziegler's Grove, which partially obscured the view of Cemetery Hill from the west.

The views from the site were altered, but not dramatically changed during the Commemorative period. Long distance views still existed from both Cemetery Hill and Cemetery Ridge to the west and south. From Cemetery Hill the view west changed somewhat with the addition of the Pfeffer orchard and the relocation and expansion of the Pfeffer brickyard, but these additions did not hinder the long distance views to the farms beyond. The main difference that occurred during this time was the removal of the large trees in Ziegler's Grove. These were replaced with small trees, creating more open vistas across an area that formerly obstructed views from both the east and the west. In general the remainder of the site remained mostly open, retaining its historic views. With the construction of Hancock Avenue, visitors were able to gain an even better understanding of the views from Cemetery Ridge encountered by soldiers during the battle. In addition, an observation tower was constructed during this period in the south end of Ziegler's Grove, enabling visitors to see an extensive panorama of the battlefield in all directions.

While some major views from the site continue to exist today, many historic views are now obstructed by the presence of non-historic structures and vegetation. The vista from the south slope of Cemetery Hill has changed significantly because of the location of the Visitor Center building and parking lot. Today, instead of looking over open fields to the valley beyond, the view west from this location reveals a rambling modern structure, expansive asphalt parking area, and large trees beyond. In addition, the distant view west beyond the limits of the study area is blocked by the dense commercial development along the west side of Emmitsburg Road. From this same location on Cemetery Hill, the view southwest across Cemetery Ridge is also almost completely obscured by the presence of large trees and the Cyclorama structure. The Cyclorama building also blocks views across Cemetery Ridge from both the east and the west. Since there is also a much greater amount of vegetation contained within the Ziegler's Grove area today than there was historically, the extent to which views are obscured by this feature has also increased. Thus, the views over the terrain that were so critical to planning and execut-

ing battle strategies are altered or obstructed. The views which have retained the most integrity are those looking to the west and to the south from Cemetery Ridge. These panoramic vistas have remained unobstructed, and the landscape found within this particular view corridor continues to posses a large degree of its historic character.

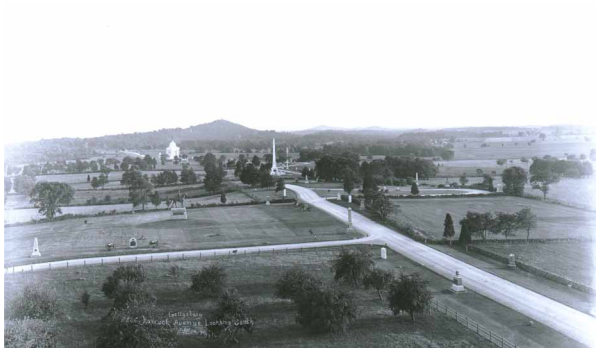


Figure 116. View from Observation Tower looking south, 1910. (#2414, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 117. Existing view from Cyclorama deck looking south. (Rhodeside & Harwell, March 2002).

Site Use

At the time of the battle in 1863, the site was used in a significantly different manner than today. The site was almost completely agricultural, consisting of a series of fields used for growing crops. Some of these fields were cultivated with hay and wheat, while others were maintained simply as meadow or pasture. There were also three fruit orchards, and the grove of trees on the Ziegler property. Residential use of the site included the three farmhouses and their associated buildings, also located within in the area. The houses at the Ziegler, Brian, and Leister farms were all occupied and provided human shelter, while their associated barns housed farm animals and stored crops.

During the battle itself, farming was halted as the landscape was transformed into a battlefield, and the land which nurtured crops took on a different purpose. The topography of Cemetery Ridge and Cemetery Hill became key terrain critical to the observation of battle action; fences formerly used to define field boundaries and contain animals became obstacles to troop movement or were torn down to serve as defenseworks, woodlots became protected areas for cover and concealment, and open fields became unobstructed avenues of approach. The bloody military action within the area was so enormous that it not only changed the meaning associated with the land, but also resulted in dramatic differences in future land use.

The interpretation and 'monumentation' of the site began almost immediately after the battle. In the fall of 1863, a group of local citizens formed the Gettysburg Battlefield Memorial Association, dedicated to preserving and protecting the gigantic burial ground where so many soldiers had fallen. Previously held as farms by private owners, the majority of the site was purchased by the Gettysburg Battlefield Memorial Association

and was transformed into Gettysburg National Military Park. Thus, though the use of the site at that time remained largely agricultural, visitation and interpretation of the battlefield were already beginning. The construction of Hancock and Meade Avenues facilitated visitor access to the site; monuments, built as memorials to the events, also served as interpretive elements. Tours conducted on the electric railway line traversing the site provided additional educational opportunities for visitors. However, the majority of the former Ziegler Farm in the northern part of the site did retain its previous use, and was owned and operated by Frederick Pfeffer. Some of the Ziegler property on the southeast became part of the new park, some remained as farm fields, and the northernmost field became the site of the Pfeffer brickyard. With its significant availability of clay soil, this location was well suited for making bricks and Pfeffer operated it as a brickyard for 18 years, until it was condemned in 1903.[6]

Today, the entire study area lies within the park boundary and is used primarily for visitation and interpretation of battle events. Visitation to the park, and to this site in particular, is extremely high, causing tremendous strain on current facilities. As noted in the GMP, the current Visitor Center and Cyclorama building and their associated parking areas are no longer adequate to handle the number of visitors coming to the site each year.[7] During peak months, facilities are overcrowded, parking lots are overflowing and the northern part of the site as a whole is congested. Although visitation has been an important use of the site historically, the current level of use is causing significant degradation to this important battle landscape.

The interpretation of battle events continues to be an important activity in this area of the park. Despite explanations in signage and from battle guides, the presence of the two large buildings and their dominating parking areas and roads greatly hinders the ability of the visitor to understand the military action that occurred within this part of the site. Instead of the battle era farmhouse, fields, and fences that Union and Confederate troops encountered in 1863, this modern landscape presents an appearance completely unrelated to the military events that occurred on its rolling terrain. Further south, two historic farm complexes do still exist: the Brian Farm and the Leister Farm. Both of these farms offer an interesting glimpse into the types of farmhouses and barns existing on the site at the time of the battle and the role they played in the battle itself. Since their condition and configuration have not changed greatly since the time of the battle, these structures offer valuable opportunities for interpretation. The High Water Mark Trail is another interpretive tool which helps visitors to understand more about the climactic action that took place on the site during the 3rd day's battle. Although the trail passes by many important places, its looping configuration has little congruence with either the Battle Era or the Commemorative Era landscape. The result is a confusing experience for the visitor in trying to understand battle events and movement that have little relation to the existing visible landscape. One series of interpretive elements that contributes greatly to the understanding of the battle and its significance within the area is the collection of monuments found on the site. Because the locations of these monuments usually relate to a battle position or event and are personal in nature, these markers

often offer great insight into the experience of the battle and the significance of the sacrifice involved.

While the functions of the site today differ from those at the time of the battle, the historic Battle Era uses of some portions of the site can still be understood and interpreted. This is especially true in the southern section of the site where the visible landscape has changed less severely over time. Though these fields and meadows no longer actively farmed, and animals are no longer housed in the barns or pastured here, one can still gain a reasonable understanding of the scale of landscape and the features encountered by troops during the battle. The influence of these parts of the landscape on battle events can be understood. In the northern area of the site, however, the current use for visitor services has become so dominating that it is very difficult, if not impossible, to relate the present landscape to the one encountered historically.

Structures

At the time of the battle, there were a variety of small structures present on the site in the form of farm buildings, walls, and fences. Three farms were located on the site: the Ziegler Farm, the Brian Farm, and the Leister Farm. The Ziegler Farm was located in the northwestern area of the site adjacent to Emmitsburg Road and consisted of a house, a large barn, and various outbuildings. The Brian Farm included a small house and a barn, as did the Leister Farm, which also contained one or more outbuildings. These various buildings were all wood frame structures that provided cover to troops during the battle. The Brian House was reputably used as Alexander Hays' headquarters, while the Leister House served both as a signal station and as the headquarters for General Meade. Later this structure was used as a war hospital to treat soldiers wounded in battle. In addition to buildings, a large number of walls and fences were present on the site at this time. Types of stone walls located here included the stone rubble wall, stone wall with rider, and stone wall with post and rail. There were also several fence types present, including post and rail, post and board, Virginia worm, and yard fencing. All of these various walls and fences were used to define property lines and field boundaries, and presented obstacles to troop movement during the battle. One other type of structure built on the site during the battle was Baxter's Defenseworks. This feature, which no longer exists, was built haphazardly to provide additional cover to Union troops located on the west side of Ziegler's Grove. It consisted of a conglomeration of rails, stones, earth, and other building materials.

During the Commemorative Era, no dramatic changes were made to the historic structures, however a few new buildings were added, and many fences and walls were either removed or replaced. In the area of the Ziegler property, owned during the Commemorative Era by Frederick Pfeffer, several additional outbuildings were constructed and it is possible that a larger two-story frame cross-gable house replaced the original Ziegler house. There were also at least two new large structures built adjacent to the Pfeffer

brickyard, presumably used for brickyard operations. After the Pfeffer property was condemned in 1903 and placed under the management of the Gettysburg National Park Commission, all of the structures within this area were gradually removed. According to historic photographs, the house structure was not removed until sometime after 1913. Another new structure added to the site during the Commemorative period was the observation tower located on Cemetery Ridge, near the southern end of Ziegler's Grove. This tower, consisting of a series of stairs leading up to a covered platform high above the ground, was one of several built within the park at this time to allow greater views of the park and an aerial vantage point to allow a better understanding of the battle action. The Brian Farm and Leister Farm buildings remained relatively unchanged during this period.

Changes were also made to the historic fences and walls within the site during this time. Those removed or altered included the following: the Ziegler-Bishop Virginia Worm Fence (replaced with post and rail), the Ziegler Yard Fences (relocated to new locations), the Ziegler Post and Rail Fence (new post and rail fences were built to separate the north and south fields), the majority of the Ziegler's Grove Stone Wall, South Boundary, the entire Ziegler's Grove Stone Wall, East Boundary, the Brian Farm Lane Fence (replaced by post and pipe fences on either side of the electric railway line), the Ziegler's Large Meadow Post and Rail Fence (alignment was retained, but post and rail was replaced with a stone wall and a small section of Virginia worm fence), Frey Orchard Virginia Worm Fence and Frey Small Meadows Virginia Worm Fence (both completely removed), the Frey Orchard Post and Rail Fence (alignment remained the same, but replaced with stone wall), Brian-Leister Post and Rail fence and Frey-Leister Post and Rail Fence (alignment remained the same but was replaced by post and pipe fence along Meade Avenue). In addition, new post and pipe Commemorative Era fencing was also added along the eastern side of Hancock Avenue and along the eastern boundary of Ziegler's Grove.

The major contribution of the Commemorative Era to the structures on the site was the construction of battle monuments. Over the course of this 64-year period, at least 69 monuments were built within the study area, memorializing specific battle events and the soldiers that fought at these locations. The design of these structures varied greatly in size, material, lettering style, and scale, and represented very personal expressions of both pride and sorrow. Included in these monuments was the 160 foot high MOLLUS flagpole, which was highly visible in the park. The addition of these structures to the site added a new layer of meaning to the battle landscape.

Today there are two new buildings on the site, as well as several remaining historic buildings. The brick Visitor Center building and the equally large concrete Cyclorama building have been the most significant additions to the site during modern times. These buildings are both large and dominating and can be seen from almost all points on the site. The Visitor Center is located in what was historically Ziegler's North Field, while the Cyclorama is sited on Cemetery Ridge, within the former Ziegler's Large Meadow. In its

May 14, 1999 Memorandum, "A Problem of Common Ground," the Advisory Council on Historic Preservation clearly explained that the significance of the battle events that occurred on the site far outweighs the significance of this building designed by Neutra. It stated that, "the rehabilitation of this key battlefield site so that the battlefield can properly be interpreted must be regarded as a historic mission of the highest order." In addition it pointed out that "there are other Neutra buildings; there is only one Gettysburg Battlefield." For these reasons, both the Advisory Council on Historic Preservation and the Pennsylvania Historical and Museum Commission (PHMC) have concurred that this building must be removed from the site.

In comparison, the historic Brian House and Barn and the Leister House and Barn, which all date to 1863, are small wooden structures appropriate to this preserved battle landscape. Both of these farms are missing some small elements, such as the grape arbor at the Brian Farm and the outbuildings at the Leister Farm, but have remained otherwise intact. The only major structures that were present in 1863 but are currently missing are the Ziegler House, barn and outbuildings. The area where these historically significant structures were located during the battle is now part of the open tree and lawn landscape found between the Visitor Center and Cyclorama Center entrance roads on Emmitsburg Road. The observation tower built during the Commemorative Era was removed after the construction of the Cyclorama Center in 1961.



Figure 118. View of Meade's HQ (Leister Farm) from Observation Tower, 1899. (#4882, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 119. Existing view of the Leister Farm from Cyclorama deck. MOLLUS flagpole no longer exists. (Rhodeside & Harwell, March 2002).

Only about one-third of the battle era walls and fences remain on the site today. In the northern half of the site, all historic walls and fences have been completely removed, except for a very small portion of stone wall along Taneytown Road east of the Cyclorama parking lot. The rest of the remaining walls and fences present during the battle era are located in the southern section of the site. They include: the Frey Orchard Post and Rail and Stone Fence (stone wall exists, post and rail is missing), the Taneytown Road-Frey Orchard Stone Wall with Post and Rail Fence (post and rail fence remains, stone wall is now continuous instead of intermittent), the Taneytown Road-Frey Meadow Stone Wall with Post and Rail Fence (only historic alignment remains, stone is now continuous instead of intermittent and post and rail fence exists in place of post and board),

Frey Orchard Post and Rail Fence (only historic alignment remains, stone wall exists in place of post and rail), Frey Hay or Wheatfield Stone Wall (historic condition remains), Brian Stone Wall, Eastern Boundary (historic condition remains), Taneytown Road-Leister Farm Stone Wall (historic condition remains), Leister Pasture Stone Wall (historic condition remains except for small section removed for drain installation), Leister Fields Boundary Wall (stone wall remains but rider has been added), Leister Farm Lane Post and Rail Fence (only historic alignment remains, stone wall with rider exists in place of post and rail), Leister Yard Fencing (historic condition remains), Leister South Boundary Stone Wall (stone wall exists with rider added), Leister-Arnold's Battery Stone Wall (historic condition remains), Brian Stone Wall with Rider (historic condition remains), and Brian Stone Wall with Post and Rail Fence (stone wall exists, post and rail is missing). All other Battle Era walls and fences not listed above are no longer existing within the study area. While a handful of walls and fences do remain in their historic condition, the majority have been either completely removed from the site, or significantly altered. This greatly reduces the ability of the visitor to understand the historic layout of the farm fields and the fences and walls that existed on the site at the time of the battle.

While some monuments within the site area have been relocated over time, the majority of monuments placed during the Commemorative Era remain in their original locations today. Only three monuments, the Grand Army of the Republic Memorial (1956), the Maryland State Monument (1994), and the Delaware State Monument (2000) have been added to the site since the Commemorative period. All the other 69 historic monuments can still be found on the site, albeit in varying physical conditions. Some materials used for the construction of the monuments have been degraded over time, while some remain in excellent condition despite their age. Even though the current condition of these monuments varies, their significant contribution to the meaning and understanding of the park's battle landscape continues to be extremely valuable even today.

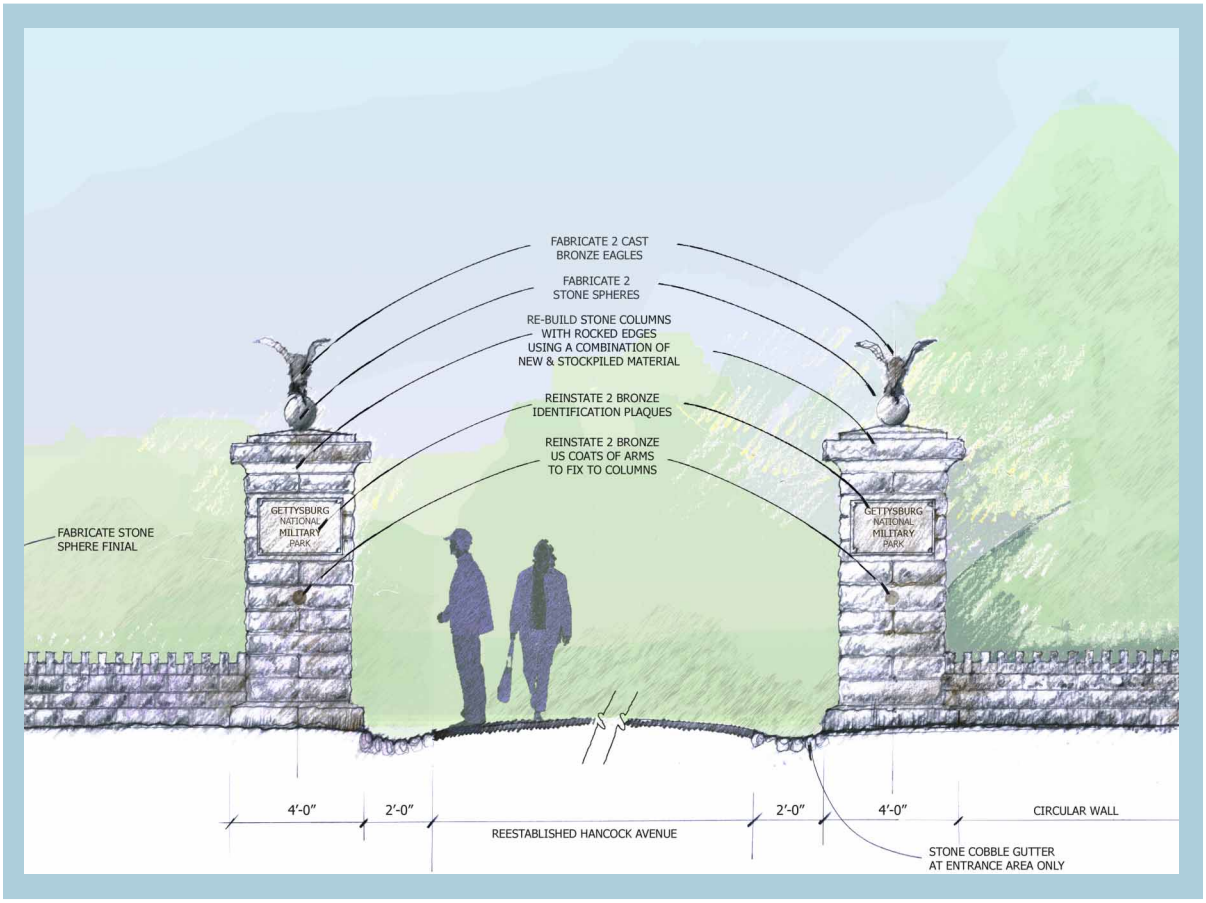


Figure 120. Hancock Avenue looking north, 1896. Note presence of monuments. (#3214, William H. Tipton Photographic Prints, Gettysburg NMP).



Figure 121. Existing view of Hancock Avenue looking north. The historic monuments continue to exist today. (Rhodeside & Harwell, March 2002).

Part II: Treatment



Chapter 4: Treatment Plan



Overview

The treatment of the Defense of Cemetery Hill site will be a crucial component of the rehabilitation of Gettysburg National Military Park in accordance with the GMP. The Treatment Plan that follows was selected from among three alternatives considering the mission of the park as well as the need for modern amenities. The approach reflects the GMP recommendation that the significance for the site is the Battle Era (July 1 - 3, 1863). While Commemorative Era features are also considered historic, they are not of primary significance. The overall approach rehabilitates as many Battle Era features as possible so that the park may more closely represent the character of the landscape encountered by soldiers during the Battle of Gettysburg in 1863 (see Map 21: Treatment Plan).

Planning parameters for the site were clearly established and contained in the GMP. These guided the development of the Treatment Plan and include the following:

- The existing Visitor Center and Cyclorama Center buildings and their associated parking lots will be removed, as stated in the GMP. [1]
- There will be limited parking provided in the vicinity of this rehabilitated area, in accordance with the GMP.[2]
- The parking should be of the same limited size and scope as that needed in other high traffic areas of the park. Spaces for four buses and thirty cars are considered by NPS to be reasonable.
- There should be no new construction of elements that were not part of the Battle or Commemorative Eras.
- There will continue to be a paved vehicular connector between Taneytown Road and Emmitsburg Road.
- Existing curb cuts will be used for access to Taneytown Road and Emmitsburg Road.

The Treatment Plan includes the program elements above, required by the GMP. Additional treatment recommendations for the site address vehicular circulation, pedestrian circulation, and rehabilitation of historic features. The following approach has been taken regarding treatment of historic features:

- All existing Battle Era features will be preserved.
- When funding permits, missing Battle Era features will be reconstructed to the fullest extent possible within the framework of the proposed vehicular circulation and parking previously described.
- Existing Commemorative Era features, primarily monuments, will also be preserved, but missing Commemorative Era features will not be restored to the site until further formal evaluation of these features has been made.

Map 21:
Treatment Plan
(11 x 17)

Circulation

Much of the existing vehicular circulation system will remain in its current alignment and condition. The cross-connector between Taneytown Road and Emmitsburg Road will follow the existing Cyclorama entrance road alignment, entering and exiting the site at the location of current curb cuts. Constituting perhaps the most striking change at the site, this road will be regraded as it passes through Ziegler's Ravine, to reveal the ravine topography of the Battle Era. The Visitor Center access road will be completely removed, allowing for partial rehabilitation of much of Ziegler's North Field. Hancock Avenue will remain in its current Commemorative Era location, running one-way south to north. Historically Hancock Avenue turned eastward to connect to Taneytown Road, and the cross-connector roadway still follows part of this alignment. However, the historic alignment's connection to Taneytown Road and the grand gate that served as a park entry during the Commemorative Era are currently missing. Both of these features will be rehabilitated, with the road segment to be used as a broad pedestrian promenade connecting the site to the National Cemetery. A small parking lot will be provided for thirty cars and four buses (with two accessible spaces), located south of the cross-connector road. This lot uses part of the existing Cyclorama parking lot, with portions of its paving and parking space layout, eliminating the need for any new paving construction other than transitions to the regraded section of roadway. This lot will serve visitors to this portion of the battlefield as well as the adjacent Soldiers' National Cemetery.

The proposed pedestrian circulation differs quite dramatically from the existing system. Paved walkways will be reduced in number, while still providing a loop trail system for visitors exploring the site on foot.

Circulation - General Recommendations:

- Do not add any new vehicular circulation to the site.
- Remove all non-historic pedestrian circulation except that remaining on Treatment Plan.
- Provide a minimal level of new pedestrian circulation in the form of a paved pedestrian loop trail, using historic road, lane, and path alignments to the greatest extent possible.
- New asphalt paths should be porous asphalt, wherever possible.

Circulation - Specific Recommendations:

Vehicular Circulation

- Remove existing Visitor Center Entrance Road and associated parking lot, and remove existing curb cuts.
- Maintain existing Cyclorama Entrance Road as vehicular cross-connection between Emmitsburg Road and Taneytown Road, and maintain existing curb cuts.

- Regrade section of cross-connector roadway to reflect the Battle Era topography. Speed limits should be set at 20-25mph.
- Remove approximately one-half of existing Cyclorama parking lot (west side), while maintaining the other half (east side) as parking for thirty cars and four buses.
- Maintain existing Hancock Avenue.
- Provide painted crosswalks at all pedestrian crossings.

Pedestrian Circulation

- Maintain existing asphalt walkway west of Hancock Avenue, crossing to the east side of the road at the Brian Farm.
- Provide paved path following the historic alignment of the Commemorative Era pathway through Ziegler's Grove and Ziegler's Large Meadow. Recommended material: asphalt.
- Provide pedestrian path following the historic alignment and width of Hancock Avenue where it intersected with Taneytown Road. Reconstruct Commemorative Era (GNP) gate (See Walls & Fences - Specific Recommendations).
- Provide paved asphalt path parallel to Taneytown Road from the crosswalk at the Soldier's National Cemetery to the crosswalk near the Leister Farm. Path should be located on the west side of all walls and fences, separating it from Taneytown Road. Pavement markings provide a crosswalk across Taneytown Road to the Fantasyland site.
- Maintain existing asphalt path running east-west along the Commemorative Era alignment of Meade Avenue. Remove existing asphalt path where it diverges from this alignment and provide new asphalt path continuing west along historic alignment of Meade Avenue until it reaches Hancock Avenue.
- Extend existing asphalt path along east side of Hancock Avenue to intersect with proposed path following Meade Avenue alignment.

Emmitsburg Road (Battle Era Feature #10)

- Maintain current width and alignment of existing roadway.

Taneytown Road (Battle Era Feature #26)

- Maintain current width and alignment of existing roadway.

Leister Farm Lane (Battle Era Feature #75)

- Preserve and maintain existing Leister Farm Lane alignment. Retain in current condition until further research can be conducted to determine the historic limits of this lane. Then rehabilitate the lane to achieve the appearance of a farm field access route.

Brian Farm Lane (Battle Era Feature #15)

- Preserve and maintain existing Brian Farm Lane alignment. Remove existing lawn and rehabilitate the lane to achieve the appearance of a farm field

access route, consistent with its use by one subsistence farmer. Because it will not be serving equestrian or vehicular uses, this lane should be rehabilitated to its historic look of a working farm lane (somewhat unkempt with tall grasses, ruts, etc.).

Topography & Drainage

One of the crucial aspects to be addressed in creating an understandable Battle Era landscape at Cemetery Hill is the restoration of historic topography. Though it is not possible to regrade the site completely to recreate the terrain exactly as it was at the time of the battle, it is necessary to rehabilitate key areas that have been changed the most dramatically over time, so that these areas of terrain can be interpreted effectively. A large percentage of the site still closely resembles the Battle Era topography, and these areas will be preserved in their current state. Grading is recommended at Ziegler's Ravine, in the vicinity of the current Cyclorama parking lot, and Cemetery Ridge, in the vicinity of the Cyclorama Center building. The site of the current Visitor Center will also require regrading when the building is removed, but in general the slope direction and general surface grades in this area are similar to the Battle Era conditions of the south slope of Cemetery Hill. When the building and parking area are removed, minor adjustments to the terrain in this area will result in a close resemblance to the historic topographic conditions.

In the area of Ziegler's Ravine, the current grades are the most significantly different from those that existed historically. The construction of the Cyclorama entrance road and the Cyclorama parking lot created areas of fill approximately five feet deep that have obscured the terrain of the Battle Era. The location of the Cyclorama entrance road will remain the same as part of the required vehicular cross-connection, but approximately half the area of the existing parking lot will be removed, allowing for restoration of significant areas of topography in this area. Slightly further to the south it will also be possible to partially restore the terrain of the historic "saddle" area. The roadway itself will also be substantially regraded to reflect the historic ravine area, a change in grade of about four feet. Another area where significant grade changes are proposed is along Cemetery Ridge in the area surrounding the current Cyclorama Building. When this building is removed the grades around the footprint of the building, as well as the areas just to the north and east of the building, will be rehabilitated to the fullest extent possible to match the historic terrain of Cemetery Ridge. These grading changes will be a primary method of rehabilitating and revealing the terrain of the Battle Era.

Topography & Drainage - General Recommendations:

- Preserve and maintain all existing topography that retains its historic grades.
- In large areas where existing features are being removed and grades disturbed, rehabilitate the historic topography as much as physically possible.

Topography & Drainage - Specific Recommendations:

See proposed grading shown on Treatment Plan for more details.

South Slope, Cemetery Hill (Battle Era Feature #35)

- Rehabilitate historic grades of the south slope of Cemetery Hill in the vicinity of the existing Visitor Center building and parking lot. The grade should slope away from Taneytown Road at a slope of about 7%.

Cemetery Ridge (Battle Era Feature #34)

- Rehabilitate historic grades of Cemetery Ridge in the vicinity of the existing Cyclorama Center building.

Ziegler's Ravine (Battle Era Feature #2)

- Partially rehabilitate historic grades of Ziegler's Ravine in the western half of the existing Cyclorama parking lot, north of the cross-connector road, and along the alignment of the cross-connector roadway itself.

Leister Spring (Battle Era Feature #74)

- Preserve and maintain existing spring in southeast corner of Leister Pasture. Maintain grades surrounding the spring so that the drainage of this area will not be altered.

Vegetation

The vegetation of the site has changed significantly over time. Dramatic action is required in order to restore it to its historic condition. In accordance with the GMP and the NPS Treatment Philosophy, all existing non-historic vegetation will be removed. This includes tree screens such as those located along Emmitsburg Road and along the northern boundary of the site. In areas where vegetation existed in that particular location historically, the stand of vegetation will remain, even if species are not consistent with historic record. In the proposed parking lot, existing shade trees will remain to aid in screening and softening the appearance of the parking and to provide shade for vehicles. As far as presently known, none of the vegetation currently on the site dates to the Battle Era. Thus, all of the vegetation, both existing and proposed, will be representative of what existed at the time of the battle and will not be an exact replication.

One of the most significant areas of vegetation to be rehabilitated is Ziegler's Grove. While a grove of trees does currently exist in the general location, the boundaries are ill-defined and the species make-up of the grove is different from its Battle Era condition. For the treatment of this area, the accurate limits of the grove will be reestablished, and the species diversity and density will be altered to more closely reflect a forest grove likely to have been encountered by soldiers during the battle. The exact species found in the grove are unknown, but it is known that non-native ornamentals would not have

existed in this area. However, it is possible to interpret what would have grown there at the time based on what was known to be typically found in surrounding woodlots. While the vegetation of the grove would have been slightly more dense than it is today, it is also clear from historic sketches that the grove remained open below, allowing for the movement of troops. Historically there also was a lane opening through the grove, connecting Ziegler's North Field to Ziegler's Large Meadow. This lane will be rehabilitated to its historic location and appearance as shown in 1863 photographs.

Other areas of special landscape character in the battle landscape were the Brian, Frey, and Leister orchards. The Brian Orchard still exists with very similar limits, composition, and density to what was present historically and will continue to be preserved as such. The Frey Orchard is completely missing and will be replanted. As seen in historic photographs, there were approximately seven rows of fruit trees planted east-west and ten rows planted north-south within the boundaries of the Frey Orchard plot. The exact species that was grown in the orchard is unknown, but a representative fruit tree, such as apple, will be used to create the orchard character of the landscape. Like the Brian Orchard, the Leister Orchard also remains in a similar state to its battle era condition and will continue to be preserved.

The remaining vegetation on the site is the groundcover layer - crops that were grown in the fields, and grasses found in the pastures and meadows. This is one of the most challenging areas of treatment, since most of the exact species grown in these areas are unknown. Generally, all the fields, meadows, and pastures on the site will be replanted to represent the overall character of the agricultural landscape present in 1863. It is known that one of the Frey-owned fields consisted of hay or wheat, but other crops cultivated in these fields are unknown. Therefore, fields will be planted with representative grass or grain crops. Meadows and pastures will be planted with typical meadow grasses used elsewhere in the park. The meadows and crop fields will eventually be placed in the CREP (Conservation Reserve Enhancement Program) and mown as 'Class C', or once per year. The commemorative areas within the project area will continue to be maintained as 'Class A', mown as often as necessary to maintain a grass height of 2 ½ - 3". These areas include the Meade Equestrian Monument, all of Ziegler's Grove, and the corridor on both sides of Hancock Avenue, including the monument groupings and artillery batteries.

Vegetation - General Recommendations:

- Remove existing vegetation in any areas where vegetation did not occur at the time of the battle (except at proposed parking lot).
- Use species native to the region for all new tree and shrub plantings.
- Identify any potential witness trees and core, age, and preserve those that date to the Battle Era.

Vegetation - Specific Recommendations:

See proposed plantings shown on Treatment Plan for more details.

Parking Area

- Where possible, preserve existing trees in the parking islands to remain.
- Preserve the four existing trees east of the parking area bordering the proposed pedestrian path.
- Plant new trees in parking islands where needed to provide shade for vehicles.
- Plant a vegetative screen on the south side of the parking area. Type and height of vegetation to be determined during design phase of project.

Ziegler's Grove (Battle Era Feature #1)

- Preserve the deciduous character of the grove and any existing trees of native species that are found within the historic limits of the grove.
- Rehabilitate the historic limits of the grove by removing any vegetation outside the historic limits and planting new vegetation in areas where none currently exists.
- Rehabilitate the composition and density of the grove to include large mature shade trees while maintaining the open character of the understory layer.
- Rehabilitate the historic lane opening through the grove between Ziegler's North Field and Ziegler's Large Meadow.
- Maintain groundcover layer as 'Class A' mown lawn.
- Control and eliminate any invasive exotic vegetation.

Brian Orchard (Battle Era Feature #12)

- Preserve and maintain this existing orchard.
- Remove select individual trees at the south end of the orchard that extend beyond the post and rail fence defining the historic limits of this area.

Brian Grape Arbor (Battle Era Feature #60)

- Reconstruct this missing feature.
- Replant grapevine on arbor and locate in its historic location south of the Brian House (see historic photographs). Foliage should be allowed to droop over arbor, concealing views between the Brian House and Barn.

Brian Specimen Trees (Battle Era Feature #59)

- Preserve one existing tree at head of Brian Farm Lane.
- Do not restore the missing tree since its historic location is unknown.

Frey Orchard (Battle Era Feature #22)

- Replant this missing orchard.
- Replant orchard with disease-resistant apple trees, with seven rows running east-west and 10 rows running north-south as seen in historic photograph.

Leister Orchard (Battle Era Feature #73)
- Preserve and maintain this existing orchard.

Ziegler's North Field (Battle Era Feature #5)
- Remove existing non-historic tree screens on western and northern boundaries of this area.
- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation (including parcel located north of the Ziegler-Bishop Virginia Worm Fence).
- Plant field with grass or grain crops and maintain its agricultural use through the NPS CREP program.

Ziegler's South Field (Battle Era Feature #6)
- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation (field extends beyond study area).
- Plant field with grass or grain crops and maintain its agricultural use through the NPS CREP program.
- Protect potential archeological resources associated with the Ziegler Clay Pits and Kiln.

Ziegler Yards (Battle Era Feature #4) [GETT #FN03, IDLCS #81254][3]
- Rehabilitate the historic size and appearance of this homestead site through the installation of fencelines and vegetation.
- Plant meadow grasses and mow periodically to maintain yard appearance.
- Locate interpretive signage within the yard area to indicate the historic presence of the Ziegler House and Barn.
- Protect potential archeological resources associated with the former farm buildings.

Ziegler's Large Meadow (Battle Era Feature #21)
- Rehabilitate the historic field size and appearance through the installation of fencelines and vegetation. This meadow can only be partially rehabilitated due to the location of the proposed parking lot.
- Plant meadow grasses and maintain meadow appearance.

Frey Hay-Wheatfield (Battle Era Feature #23)
- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation.
- Plant hay or wheat to reflect historic crops planted here and maintain its agricultural use through the NPS CREP program.

Frey Small Meadow (West) (Battle Era Feature #24)
- Rehabilitate the historic field size and appearance through the installation of fencelines and vegetation.

- Plant meadow grasses and maintain meadow appearance.

Frey Small Meadow (East) (Battle Era Feature #25)
- Rehabilitate the historic field size and appearance through the installation of fencelines and vegetation.
- Plant meadow grasses and maintain meadow appearance.

Leister Large Field (Battle Era Feature #47)
- Rehabilitate the historic field size and appearance through the installation of missing fencelines and vegetation.
- Preserve existing meadow on the eastern side of this field.
- Maintain existing lawn on the western side of this field, from Hancock Avenue to the Meade Equestrian Monument. The dividing line runs from Batteries F & K, 3rd U.S. Artillery Tablet (Turnbull's Battery), south to the 114th Pennsylvania Infantry Monument. West of this line the field should be mown as Class 'A', and east of this line it should be maintained as Class 'C' meadow.

Leister Small Field (Battle Era Feature #46)
- Preserve and maintain existing meadow.

Leister Pasture (Battle Era Feature #45)
- Preserve and maintain existing meadow.

Leister Yards (Battle Era Feature #44)
- Preserve and maintain existing yards surrounding the Leister House.

Views

Much of the treatment for the restoration of historic views is related to treatment of site vegetation. As the vegetation treatment recommendations listed above are implemented, historic views will also be reestablished. The site today lacks its historically open character, significantly reducing the number of views representative of the time of the battle. Long vistas continue to exist from Cemetery Ridge. However, vistas across the site that would have been seen by soldiers from their positions on Cemetery Hill have been compromised dramatically. In order to reestablish the views from this key Union position, significant amounts of existing vegetation as well as existing structures and parking must be removed to recreate the open agricultural fields that existed during the Battle Era. Although the views from Cemetery Hill will be somewhat compromised by the retention of a portion of the existing Cyclorama parking lot, the majority of the long vistas observed from this location will be revealed.

In addition to the area around Cemetery Hill, the views from Cemetery Ridge must also be addressed. The existing long vistas to the south and west of the ridge will be pre-

served through maintaining the open character of the surrounding fields. Views to the east will be restored through the reestablishment of the field sizes, fencelines, and vegetative cover. With the removal of the Cyclorama Center building, the northernmost portion of the ridge will be regraded to the land form of the Battle Era, allowing crucial views both to and from the ridge to be restored.

Views - General Recommendations:

- Rehabilitate historic views and fields of fire within the site through the removal of non-historic vegetation and the restoration of the open character of the land.

Views - Specific Recommendations:

- Preserve and maintain existing panoramic views from Cemetery Ridge to the west and south.
- Rehabilitate views from Cemetery Hill into the site through the removal of non-historic vegetation along Emmitsburg Road, the restoration of the historic limits of Ziegler's Grove, and the removal of the Visitor Center building, Visitor Center parking lot, Cyclorama Center building, and a portion of the Cyclorama Center parking lot.

Structures

The types of structures present on the site both historically and today include buildings, fences and walls, and monuments. While several Battle Era buildings still exist within the study area, there are also two large modern buildings that presently dominate the site, the Visitor Center and Cyclorama buildings. Both of these buildings will be removed, in accordance with the GMP and the Memorandum of Agreement with the Advisory Council regarding the demolition of the Cyclorama Building. These structures will be replaced by the new Visitor Center Complex located between Taneytown Road and Baltimore Pike. With the removal of these non-historic structures, only the battle-era buildings of the Brian and Leister Farms will remain. This will allow the landscape to be more fully restored to its Battle Era character, and to be much more easily interpreted. Both the Brian House and Barn and Leister House and Barn retain much of their historic integrity and will be preserved and maintained in their Battle Era appearance. No buildings remain from the historic Ziegler Farm, and there are no plans or photographs that reveal the original locations or appearance of this house and barn. In accordance with similar situations elsewhere in the park, these structures will not be reconstructed. Instead, the area of the farm will be defined by yard fencing and interpretive signage will be placed within the area so that visitors may understand the site as a former farmstead.

One of the most significant components of site treatment is the reconstruction of missing historic fences and walls that defined the Battle Era fields and were an integral part of this formerly agricultural landscape. Not only were these structures integral to creating the special character of the 1863 landscape, but also many of them had material influences on the outcome of the battle. Some historic walls and fences, especially in the southern portion of the site, remain, and these will be preserved and maintained in their Battle Era appearance. Others among them retain their historic alignment, but their appearance has been altered over time. These fencelines will be rehabilitated to reflect their original Battle Era configuration and material. The majority of the historic fencelines, however, are currently missing. All of these walls and fences will be reconstructed, to the fullest extent known and possible, to reflect their Battle Era locations and appearance. In areas where visitors pass near fences and walls, care will be taken to design the sizes and proportions in such a manner that park users are safe from any protruding fence elements. While the presence of the proposed cross-connector roadway and the remaining portion of the Cyclorama parking lot preclude the full reconstruction of all of the fencelines, the majority of these features can be reestablished. A few breaks in the fencelines are proposed in order to accommodate the modern needs of vehicular roadways and pedestrian crossings. The existing retaining wall along the Cyclorama parking lot will be removed and the area regraded, so that a retaining wall is no longer necessary. The Treatment Plan also calls for the reconstruction of Baxter's Defenseworks along its historic alignment, with interpretive signage to explain the evolving nature and use of this feature during the battle. Two breaks in the wall will be required in order for Hancock Avenue and the cross-connector roadway to pass between wall segments. The wall will be brought as close to the curb line as possible at these points so that its previous long continuous arc can be perceived. In addition, Ziegler's Grove and Meadow Stone Wall, which was used during the battle to construct Baxter's Defenseworks, will be represented in a partially dismantled state, reconstructed so that it continues to convey its pre-battle function as a field boundary between Ziegler's Grove and Ziegler's Large Meadow.

Many Commemorative Era monuments exist on the site. In general, all these historic monuments will be preserved and maintained so that they can be interpreted by park visitors. Some of these monuments require attention to improve their condition and integrity. Under the Treatment Plan, any missing components of these monuments or battery guns and carriages will be replaced, and any broken features repaired. One missing commemorative era monument, the Meade's Headquarters MOLLUS flagpole, will be restored to the site. Several existing monuments have been relocated over time. With the removal of a portion of the Cyclorama parking lot, most monuments can be restored to their original locations. These monuments will be removed and stored by the park during the parking lot removal and regrading operations, and then reset in their historic locations.

Structures - General Recommendations:

- Preserve and maintain all existing historic structures.
- Remove all existing non-historic structures from the site.
- Do not construct any new non-historic structures on the site.
- Preserve and maintain existing historic buildings as a representation of their Battle Era appearance.
- Reconstruct all missing walls and fencelines present prior to the battle, in order to reflect the landscape encountered by soldiers during the battle.
- Reconstruct all missing walls and fencelines in their historic style so that their qualities of cover and concealment and as obstacles can be interpreted.
- Preserve and maintain or rehabilitate all existing historic walls and fencelines to reflect their Battle Era appearance.
- Preserve and maintain all existing historic monuments.
- Preserve and maintain all existing battery guns and carriages.
- Rehabilitate all monuments with missing components or broken, aging features to their Commemorative Era configuration.
- Apply appropriate maintenance and agricultural practices to protect monuments from future damage.

Buildings - Specific Recommendations:

Visitor Center

- Remove existing Visitor Center building (new Visitor Center complex to be built between Taneytown Road and Baltimore Pike).

Cyclorama Center

- Remove existing Cyclorama Center building (Cyclorama painting to be moved to new Visitor Center complex to be built between Taneytown Road and Baltimore Pike).

Brian House (Battle Era Feature #14) [GETT #022, IDLCS #04456]

- Preserve and maintain existing house structure as a representation of this Battle Era house.

Brian Barn (Battle Era Feature #13) [GETT #020, IDLCS #04464]

- Preserve and maintain existing barn structure as a representation of this Battle Era barn.

Leister House (Battle Era Feature #43) [GETT #0073, IDLCS #00457]

- Preserve and maintain existing house structure as a representation of this Battle Era house.

Leister Barn (Battle Era Feature #42) [GETT #074, IDLCS #00458]
- Preserve and maintain existing barn structure as a representation of this Battle Era barn.

Walls & Fences - Specific Recommendations:

Hancock Avenue Entrance Gateway (Commemorative Era Feature #74)
- Reconstruct missing Commemorative Era stone gateway and flanking curved walls at historic intersection of Hancock Avenue and Taneytown Road.
- Reconstruct gateway to reflect its appearance as constructed in 1923, using as much of the original material from NPS storage as possible.

Ziegler-Emmitsburg Road Virginia Worm Fence (Battle Era Feature #52)
- Reconstruct missing Virginia Worm fence along historic alignment.
- Continue fencing all the way to intersection of Emmitsburg Road and the vehicular cross-connector and then continue fencing on the south side of the entrance for a minimum of fifty feet.

Ziegler Yard Fences (Battle Era Feature #4)
- Reconstruct missing post and rail fence surrounding the former site of the Ziegler house and barn.
- Reconstruct picket fence in the section fronting on Emmitsburg Road.

Ziegler-Emmitsburg Road Post and Rail Fence (Battle Era Feature #53)
- Reconstruct missing post and rail fence along historic alignment.

Ziegler-Bishop Post and Rail Fence (Battle Era Feature #78)
- Reconstruct missing post and rail fence along historic alignment.

Ziegler-Bishop Virginia Worm Fence (Battle Era Feature #79)
- Reconstruct missing Virginia Worm Fence along historic alignment.

Taneytown Road Stone Wall (Ziegler Farm) (Battle Era Feature #30)
- Reconstruct missing stone wall along historic alignment.
- Allow for small break in wall at pedestrian crossing to Soldier's National Cemetery.

Ziegler Post and Rail Fence (Battle Era Feature #33)
- Reconstruct missing post and rail fence along historic alignment.
- Allow for break in fence where it meets the cross-connector roadway, while bringing fence as close to the curb line as possible.

Baxter's Defenseworks (Battle Era Feature #9)

- Reconstruct missing defenseworks along historic alignment, as it appeared in photographs and maps made following the battle.
- Allow for break in defenseworks where it crosses Hancock Avenue and the cross-connector roadway, while bringing it as close to the curb lines as possible.
- Erect signage similar to that created by the War Department at Little Round Top and Vincent Spur to indicate the evolving nature and use of the breastworks throughout the battle.

Ziegler's Grove and Meadow Stone Wall (Battle Era Feature #61)

- Partially reconstruct missing stone wall along historic alignment.
- Place segments of stone wall intermittently along this historic alignment to communicate that parts of this wall were removed in order to build Baxter's Defenseworks, while still providing enough wall so that the field boundary can be identified.
- Erect signage similar to that created by the War Department at Little Round Top and Vincent Spur to indicate the evolving nature and use of this wall throughout the battle.

Ziegler's Stone Wall, South Boundary (Battle Era Feature #7)

- Reconstruct missing stone wall and stone wall with stake and rider along historic alignment.
- Reconstruct stone wall on western side, allowing for break in wall where it intersects the proposed Commemorative Era path.
- Allow for small historic break in wall just east of Commemorative Era path.
- Reconstruct stone wall with stake and rider on eastern side (after historic break), ending at the parking area.

Taneytown Road Post and Rail Fence (Battle Era Feature #62)

- Remove any existing stone wall along this alignment.
- Reconstruct missing post and rail fence along historic alignment.

Brian Farm Lane Post and Board Fence (Battle Era Feature #16) [GETT #FN45, IDLCS #81429]

- Preserve and maintain existing post and board fence.
- Remove existing stone wall at end of existing fence and extend post and board fence along historic alignment to existing specimen tree.

Brian-Ziegler Post and Board Fence (Battle Era Feature #70)

- Reconstruct missing post and board fence along historic alignment.
- Conduct further research to verify the 1863 appearance of this fence before constructing as recommended above.

Ziegler Large Meadow Post and Rail Fence (Battle Era Feature #68)

- Remove portion of existing stone wall on eastern side of this historic alignment.
- Reconstruct missing post and rail fence along historic alignment.

Frey Orchard Post and Rail and Stone Fence (Battle Era Feature #66) [GETT #WA46, IDLCS #81010]

- Preserve and maintain existing stone wall along historic alignment.
- Reconstruct missing post and rail fence behind wall, following historic alignment. Post and rail fence should continue along same alignment as the Ziegler Large Meadow Post and Rail Fence.
- Conduct further research to verify the 1863 appearance of this fence/wall before constructing as recommended above.

Brian Stone Wall with Post and Rail Fence (Battle Era Feature #17)

- Preserve existing stone wall along historic alignment.
- Remove existing stake and rider added to wall.
- Reconstruct post and rail fence on the west side of the existing stone wall.
- Reconstruct stone wall from north side of Brian Barn to south side of Brian Farm Lane.

Brian Stone Wall with Stake and Rider (Battle Era Feature #18)

- Preserve and maintain existing stone wall with stake and rider along historic alignment.

Brian-Leister Post and Rail Fence (Battle Era Feature #65)

- Reconstruct missing post and rail fence along historic alignment.

Brian Stone Wall - Eastern Boundary (Battle Era Feature #19)

- Rehabilitate existing stone wall along historic alignment. This wall may be disturbed during demolition of the Cyclorama Center. Reconstruct any missing portions of wall and rehabilitate disturbed areas.

Frey Hay or Wheatfield Stone Wall (Battle Era Feature #67)

- Preserve and maintain existing stone wall along historic alignment.

Frey-Leister Post and Rail Fence (Battle Era Feature #64)

- Reconstruct missing post and rail fence along historic alignment.

Frey Orchard Virginia Worm Fence (Battle Era Feature #77)

- Reconstruct missing Virginia worm fence along historic alignment.

Frey Small Meadows Virginia Worm Fence (Battle Era Feature #76)

- Reconstruct missing Virginia worm fence along historic alignment.

Frey Orchard Post and Rail Fence (Battle Era Feature #66)
- Remove existing stone wall.
- Reconstruct post and rail fence along historic alignment.

Frey-Leister Stone Wall with Stake and Rider (Battle Era Feature #63)
- Reconstruct missing stone wall with rider along historic alignment.

Taneytown Road Stone Wall with Post and Rail Fence (Frey Orchard) (Battle Era Feature #29)
- Preserve and maintain existing post and rail fence along historic alignment.
- Remove portions of existing stone wall so that it is intermittent rather than continuous.

Taneytown Road Stone Wall with Post and Rail Fence (Frey Small Meadows - East) (Battle Era Feature #28)
- Preserve existing post and rail fence.
- Remove portions of existing stone wall so that it is intermittent rather than continuous.

Leister-Arnold's Battery Stone Wall (Battle Era Feature #39)
- Preserve and maintain existing stone wall along historic alignment.

Leister South Boundary Stone Wall (Battle Era Feature #71) [GETT #WA81, IDLCS #81255]
- Preserve and maintain existing stone wall along historic alignment.
- Remove existing stake and rider added to wall.

Leister Fields Boundary Wall (Battle Era Feature #40)
- Preserve and maintain existing stone wall along historic alignment.
- Remove existing stake and rider added to wall.

Leister Farm Lane Post and Rail Fence (Battle Era Feature #72)

For section of wall west of the Leister Barn:
- Remove existing stone wall with stake and rider.
- Reconstruct post and rail fence along historic alignment.

For section of wall east of the Leister Barn and west of the Leister House:
- Preserve existing stone wall.
- Remove existing stake and rider added to wall.

Leister Pasture Boundary Wall (Battle Era Feature #41)
- Preserve and maintain existing stone wall along historic alignment.

Leister Yard Fences (Battle Era Feature #44) [GETT #FN03, IDLCS #81254]

- Preserve and maintain all existing picket fencing and slit palings surrounding the Leister House.

Taneytown Road Stone Wall (Leister Pasture) (Battle Era Feature #27)

- Preserve and maintain existing stone wall along historic alignment.

Monuments - Specific Recommendations:

(Further condition assessments may be required for more specific condition-related recommendations)

136th New York Infantry Monument (Commemorative Era Feature #3) [GETT #MN827-B, IDLCS #09693]

- Protect monument during demolition and regrading of Visitor Center parking lot.

136th New York Infantry Left Flank Marker (Commemorative Era Feature #4) [GETT #MN827-B, IDLCS #09693]

- Protect marker during demolition and regrading of Visitor Center parking lot.

90th Pennsylvania Infantry Right Flank Marker (Commemorative Era Feature #5) [GETT #MN206C, IDLCS #09727]

- Uncover this partially buried Commemorative Era marker.
- Reset marker as close to original location as possible after regrading operations in the Ziegler's Ravine area are complete.

12th Massachusetts Infantry Position Marker (Commemorative Era Feature #7) [GETT #MN008-D, IDLCS #09817]

- Remove and store or otherwise protect this monument during removal of western portion of parking lot and regrading operations, and then reset in its historic location.

88th Pennsylvania Infantry Position Marker (Commemorative Era Feature #8) [GETT #MN9E IDLCS #09725]

- Remove and store or otherwise protect this monument during removal of western portion of parking lot and regrading operations, and then reset existing marker and boulder on which it rests to historic location in the northwestern corner of the current Cyclorama parking lot.

1st Massachusetts Sharpshooters Position Marker (Commemorative Era Feature #9) [GETT #MN218-A, IDLCS #09829]

- Remove and store or otherwise protect this monument during removal of

western portion of parking lot and regrading operations, and then reset in its historic location, south of where it exists today.

Battery G, 2nd US Artillery Tablet (Butler's Battery) (Commemorative Era Feature #18) [GETT # MN669-A, IDLCS #81266]

- Remove and store or otherwise protect this monument during removal of western portion of parking lot and regrading operations, and then reset in its historic location.
- Add a reproduction of a cannon carriage and replica 12-pounder Napoleon to complete the Battery G, 2nd US Artillery monument group.

Battery F, 5th US Artillery Tablet (Martin's Battery) (Commemorative Era Feature #19) [GETT #MN685-B, IDLCS #80553]

- Remove and store or otherwise protect this monument during removal of Cyclorama building and regrading operations, and then reset in its historic location in the area of the current Cyclorama building.

Hancock Avenue War Department ID Tablet (Commemorative Era Feature #22) [GETT #ID18, IDLCS #81170]

- Relocate existing marker to original location along alignment of Hancock Avenue gateway at intersection of Taneytown Road.

Meade's Headquarters MOLLUS Flagpole (Commemorative Era Feature #81) [GETT # MN811, IDLCS #81150]

- Reconstruct this Commemorative Era feature in its original location in the Leister yards.

Grand Army of the Republic (GAR) Memorial, Albert Woolson Statue [GETT # MN212, IDLCS #09948]

- Remove existing plaza surrounding this memorial.

Maryland State Monument [GETT #MN830, IDLCS #82138]

- Protect this monument during removal of western portion of parking lot and regrading operations.
- Provide paved pedestrian access to the monument.

Delaware State Monument [GETT #MN832, IDLCS #228979]

- Protect this monument during removal of western portion of parking lot and regrading operations.
- Remove stone wall behind existing monument, but retain existing plaza surrounding the monument.
- Provide paved pedestrian access to the monument.

Utilities

Utilities will be adjusted and capped off as required during removal of buildings and roadways. Specific treatment of utilities will be developed during detailed design of various site restoration efforts.

Conclusion

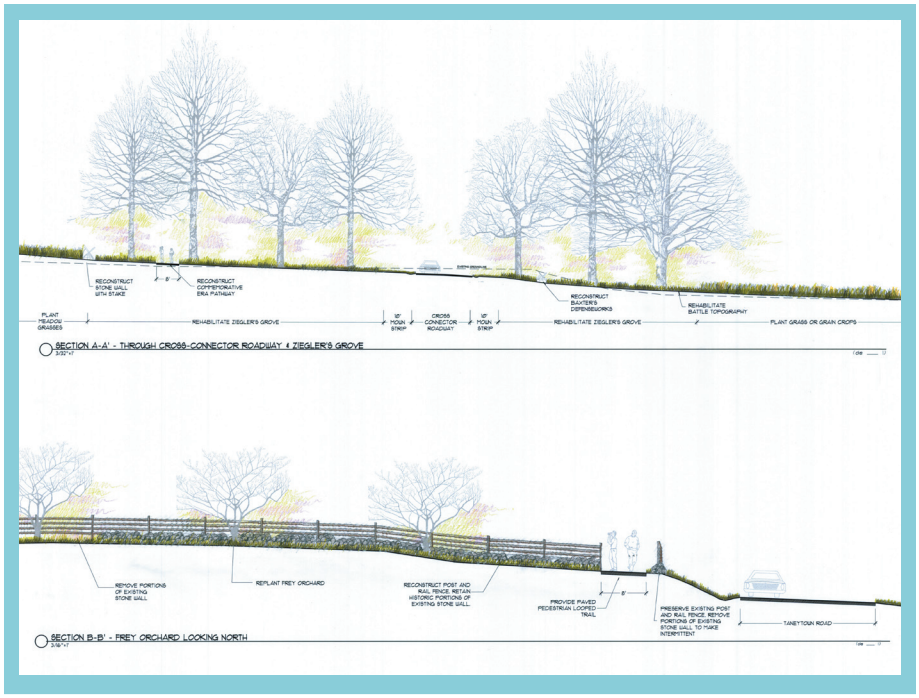
Today, it is virtually impossible for visitors to Gettysburg National Military Park to develop even a vague understanding of the 1863 landscape of Cemetery Hill and Cemetery Ridge.

With implementation of the Treatment Plan for the Defense of Cemetery Hill, the many existing layers of today's setting will be gradually peeled away. Ultimately, the battle setting with its rolling, sometimes wooded, sometimes open landscape, criss-crossed by a web of fences and walls, will be clearly revealed.

When the work is complete, visitors will be able to experience the scene described by Col. John Bachelder in 1873:

> *"No person can stand on Cemetery Hill, and from its commanding summit survey the field on which the Army of the Potomac and the Army of Northern Virginia met to decide the fate of human liberty, without being impressed with the remarkable beauty of the landscape view, and its peculiar fitness for a great battlefield."*[4]

Chapter 5: Cost Estimate



Cost Estimate Summary

This report includes a Class 'C' Cost Estimate for the selected Treatment Plan, in order to establish order of magnitude costs for budgeting purposes. The table below shows the cost summaries, while the following pages show the itemized costs. This cost estimate has been prepared in general accordance with NPS guidelines for cost estimating, with one exception. The 'Design Services' contingency, as shown in the table below, has been set at 15%, versus a standard NPS amount of 10%. This change is in response to the highly detailed nature of the design effort that will be required for the Defense of Cemetery Hill site, as this site is a very precious resource, in an archeological area, and will likely utilize no 'standard' detailing. This cost estimate was calculated in 2003 dollars with no inflation factor.

Item				Total Cost
SUMMARY				
Mobilization	4% of Contract Total			$210,020
Erosion & Sediment Control	10% of Earthwork Total			$131,100
Demolition				$3,041,980
Site Clearing				$242,600
Earthwork				$1,311,000
Paving & Surfacing				$121,630
Site Improvements				$198,500
Plantings				$191,120
Concrete				$7,000
Masonry				$5,590
		Subtotal:		**$5,460,540**
Direct Costs				**$5,460,540**
Overhead & Profit	40%			$2,184,220
General Conditions	8%			$436,840
Design Contingencies	20%			$1,092,110
NET CONSTRUCTION COSTS				$9,173,710
Construction Supervision	8%			$733,900
Construction Contingencies	10%			$917,370
GROSS CONSTRUCTION COST				$10,824,980
Pre-Design Services	5%	of NET		$458,690
Supplemental Services	2%	of NET		$183,470
Design Services	15%	of NET		$1,376,060
TOTAL PROJECT COSTS				**$12,843,200**

Itemized Class 'C' Cost Estimate

Item	Unit	Qty	Unit Cost	Total Cost
DIVISION 2 - SITE WORK				
Demolition				
Removal of Visitor Center building	CF	457,400	$0.44	$201,260
Removal of Visitor Center parking lot	SY	12,667	$11.00	$139,330
Removal of Visitor Center entrance road	SY	1,326	$11.00	$14,590
Removal of ex.entrance signs	EA	1	$500.00	$500
Removal of Cyclorama building	CF	1,055,880	$0.44	$464,590
Removal of 1/2 of Cyclorama parking lot	SY	4,746	$11.00	$52,210
Removal of 350 feet of existing cross-connector roadway	SY	9,770	$11.00	$107,470
Removal of concrete wall at parking lot	SF	223	$12.50	$2,790
Removal of concrete path	SY	6,059	$7.70	$46,660
Removal of concrete steps	SY	24	$7.70	$190
Removal of asphalt path	SY	1,488	$6.00	$8,930
Removal of brick sidewalk	SY	567	$6.65	$3,770
Removal of existing benches	EA	27	$200.00	$5,400
Removal and salvage of existing non-historic stone wall	CF	1,845	$2.26	$4,170
Removal and salvage of existing non-historic post and rail fence	LF	240	$8.00	$1,920
Removal and salvage of non-historic stake and rider finish on stone wall	LF	2,230	$2.46	$5,490
Removal and storage of 8 monuments during rehabilitation	EA	8	$1,000.00	$8,000
Capping/removal of existing utilities	ALLOW	1	$50,000.00	$50,000
Miscellaneous demolition	ALLOW	1	$5,000.00	$5,000
Hauling and Disposal (up to 10 miles)	CY	37,365	$2.00	$74,730
Buildings - Asbestos Abatement	SF	30,554	$30.00	$916,620
Buildings - Asbestos Pipe Removal (10% of total SF)	LF	4,899	$27.00	$132,270
Lead-based Paint Removal	SF	48,990	$16.25	$796,090
			Subtotal:	**$3,041,980**
Site Clearing				
Tree Protection Fencing	LF	1,390	$3.00	$4,170
Clearing & Grubbing - removal of lawn areas	AC	19	$2,500.00	$47,930
Selective clearing of exotic species within historic limits of Ziegler's Grove	ALLOW	1	$3,500.00	$3,500
Tree Removal & Grubbing	EA	340	$550.00	$187,000
			Subtotal:	**$242,600**

Item	Unit	Qty	Unit Cost	Total Cost
Earthwork				
Earthwork (Total Cut and Fill)	CY	48,927	$8.10	$396,310
Net Fill required	CY	30,051	$20.00	$601,020
Hauling and Transport (10 miles)	CY	30,051	$10.00	$300,510
Finish grading	SY	54,693	$0.14	$7,660
Site restoration - former Brian Farm Lane	ALLOW	1	$3,000.00	$3,000
Site restoration - former Leister Farm Lane	ALLOW	1	$2,500.00	$2,500
			Subtotal:	**$1,311,000**
Paving & Surfacing				
Curb & gutter - concrete	LF	150	$25.00	$3,750
Asphalt roadway - new, two lane (22')	LF	350	$170.00	$59,500
Asphalt roadway - patching	SY	196	$25.00	$4,900
Paint striping for painted crosswalks	LF	2,000	$1.50	$3,000
Concrete paving	SF	855	$6.00	$5,130
Trails - asphalt surface, 5' width	SY	1,506	$27.00	$40,650
Trails - stone dust surface	SY	188	$25.00	$4,700
			Subtotal:	**$121,630**
Site Improvements				
Post and rail fence using salvaged material	LF	240	$4.05	$970
New post and rail fencing	LF	3,455	$14.00	$48,370
Post and board fencing	LF	480	$13.80	$6,620
Virginia worm fencing	LF	960	$18.00	$17,280
Picket fencing	LF	120	$12.35	$1,480
Dry-laid stone wall using salvaged material	CF	1,845	$7.00	$12,920
New dry-laid stone wall	SFF	1,710	$28.00	$47,880
New dry-laid stone wall with stake and rider	SFF	980	$28.00	$27,440
Baxter's Defenseworks	SFF	680	$28.00	$19,040
Wayside exhibits	EA	5	$800.00	$4,000
Directional / parking signage	ALLOW	1	$3,000.00	$3,000
Trash receptacles w/o pad, standard	EA	3	$500.00	$1,500
Resetting of 8 monuments in historic locations	EA	8	$1,000.00	$8,000
			Subtotal:	**$198,500**
Plantings				
4" cal. Shade trees - deciduous parking and Ziegler's Grove	EA	40	$1,000.00	$40,000
3" cal. Apple trees - disease resistant (Frey Orchard)	EA	70	$700.00	$49,000
2" cal. Shade trees - deciduous (parking screen and Ziegler's Grove)	EA	85	$500.00	$42,500
36" Shrubs (parking screen)	EA	100	$190.00	$19,000
Plant fields with grass or grain crops	MSF	569	$46.00	$26,170
Plant meadow grasses	MSF	280	$42.50	$11,900
Seeded Lawn	SF	9,800	$0.26	$2,550
			Subtotal:	**$191,120**

Item	Unit	Qty	Unit Cost	Total Cost
DIVISION 3 - CONCRETE				
Concrete				
Structural wall footings - 8" - 12" (Hancock Avenue Gateway)	LF	70	$100.00	$7,000
			Subtotal:	**$7,000**
DIVISION 4 - MASONRY				
Masonry				
Reconstruct Hancock Avenue Gateway -labor using existing material (60%)	CF	86	$25.00	$2,150
Hancock Avenue Gateway -new stone material (40%)	CF	57	$60.00	$3,440
			Subtotal:	**$5,590**
			SUBTOTAL:	$5,119,420

ABBREVIATIONS:

AC = Acres
CF = Cubic Feet
CY = Cubic Yards
EA = Each
LF = Linear Feet
MSF = Thousand Square Feet
SF = Square Feet
SFF = Square Feet of Face
SY = Square Yards

Endnotes



Introduction

[1] Herb Crumb, ed., *The Eleventh Corps Artillery at Gettysburg, The Papers of Major Thomas Ward Osborn, Chief of Artillery* (Edmonstone Publishing, Inc., Hamilton, New York, 1991) p. 31.
[2] USDI National Park Service, *Final General Management Plan and Environmental Impact Statement.* (USDI National Park Service, Washington, DC, 1999) p.7.

Chapter 1: Site History

[1] Edwin B. Coddington, *The Gettysburg Campaign, A Study in Command* (Charles Scribner's Sons, New York, 1968) pp. 262-288. Coddington's book is considered to be the definitive study of the battle.
[2] United States War Department, *War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*, 70 vols. in 128 parts (Government Printing Office, Washington, D. C., 1880-1901), series 1, pt. 1, p. 702 (Maj. Gen. O. O. Howard)(hereafter cited as *OR*. All subsequent citations are from series 1).
[3] *OR*, pt. 1, p. 702, 703 (Maj. Gen. O. O. Howard). The battery ordered to Cemetery Hill to support von Steinwehr was Capt. Michael Wiedrich's (I, 1st New York).
[4] *OR*, pt. 1, pp. 368 (Maj. Gen. Winfield Hancock), 704 (Maj. Gen. O. O. Howard).
[5] *OR*, pt. 1, pp. 367, 368 (Maj. Gen. Winfield Hancock), 704, 705 (Maj. Gen. O. O. Howard); Francis Walker, *History of the Second Army Corps in the Army of the Potomac* (Charles Scribner's Sons, New York, 1886), p. 267; Luther B. Mesnard, "Reminiscence," (May 6, 1901), in Civil War Miscellaneous Collection, USAMHI. Smith's right rested along the Emmitsburg Road, just north of its intersection with the Taneytown Road, and then extended southward behind the stone wall along the east side of the Taneytown Road. His regiments were positioned, from north to south, 55th Ohio, 73rd Ohio, 136th New York and 33rd Massachusetts. The skirmishers Smith deployed belonged to the 55th Ohio Infantry and were positioned in the open field northwest of the intersection of the Taneytown Road and Emmitsburg Road to counteract the Confederate skirmishers and sharpshooters who had occupied the buildings along the southern edge of town.
[6] *OR*, pt. 1, pp. 252 (Maj. Gen. Abner Doubleday), 290 Brig. Gen. John Robinson), 367, 368 (Maj. Gen. Winfield Hancock), 702 (Maj. Gen. O. O. Howard, 927 (Brig. Gen. John Buford).
[7] *OR*, pt. 2, pp.307, 318 (Gen. Robert E. Lee), 444-445 (Lt. Gen. R.S. Ewell), 607 (Lt. Gen. A.P. Hill); Coddington, *The Gettysburg Campaign,* pp. 261-322. The second "commanding" elevation Lee mentioned was Culp's Hill, located southeast of Cemetery Hill.
[8] *OR*, pt. 1, pp. 115 (Maj. Gen. George G. Meade), 368 (Maj. Gen. Winfield Hancock), 701, 704, 705 (Maj. Gen. O. O. Howard).
[9] Coddington, *The Gettysburg Campaign,* pp. 330-332; *OR*, pt. 1, pp. 231, 232 (Brig. Gen. Henry Hunt), 721 (Brig. Gen. Adolph von Steinwehr), 748-749 (Maj. Thomas Osborn).
[10] *OR*, pt. 1, pp. 368 (Maj. Gen. Winfield Hancock), 702 (Maj. Gen. O.O. Howard), 730 (Maj. Gen. Carl Schurz), 749 (Maj. Thomas Osborn).
[11] *OR*, pp. 258 (Maj. Gen. Abner Doubleday), 749 (Maj. Thomas Osborn).
[12] *OR,* pt. 1, pp. 116 (Maj. Gen. George Meade), 232 (Brig. Gen. Henry Hunt); Henry Hunt, "The Second Day of Gettysburg," Robert U. Johnson & Clarence C. Buel, editors, *Battles and Leaders of the Civil War*, vol. III, (The Century Company, New York, 1884-1887), p. 417.
[13] *OR*, pt. 1, pp. 308 (Baxter), 453 (Brig. Gen. Alexander Hays). The wall Hays was describing was located just west of the ridge's crest and ran southward from the Brian barn toward the Copse of Trees. The condition of this wall was apparently poor. Lt. John Dent, 1st Delaware, described it as "a fallen wall" and a member of the 14th Connecticut remembered it as "a loosely constructed stone wall." (see *OR*, pt. 1, p. 469 and Charles

Page, *History of the Fourteenth Regiment, Connecticut Vol. Infantry* [Horton Printing Co., Meriden, Connecticut, 1906], pp. 140-141).

[14] George Gordon Meade, *With Meade at Gettysburg* (War Library and Museum of the Military Order of the Loyal Legion of the United States, Philadelphia, Pennsylvania, 1930), p. 96

[15] *OR*, pt. 1, pp. 724 (Col. Orland Smith) 726 (Col. James Wood), 927-928 (Brig. Gen. John Buford); Luther B. Mesnard, "Reminiscence," (May 6, 1901) in Civil War Miscellaneous Collection, United States Army Military History Institute, Carlisle Barracks, Pennsylvania (hereafter cited as USAMHI). At first light, Confederate skirmishers along the south end of town and along Long Lane caught the skirmishers from the 55th Ohio in a deadly cross fire which forced them to retire. Shortly after, the Union skirmishers counter attacked and regained their original line northwest of the Emmitsburg and Taneytown road intersection (see, Mesnard, "Reminiscence.")

[16] *OR*, pt. 1, pp. 290 (Brig. Gen. John Robinson), 456 (Col. Samuel Carroll), 464 (Col. Thomas Smyth), 472 (Lt. Col. James Bull). Col. Thomas Smyth's brigade of Hays' division arrived first, around 4:00 a.m. The remainder of the division was in place by 8:00 a.m.

[17] *OR*, pt. 1, pp. 464 (Col. Thomas Smyth), 469 (Lt. John Dent), 472 (Lt. Col. James Bull); pt. 2, pp. 614 (Maj. Gen. Richard Anderson), 621 (Brig. Gen. William Mahone), 633 (Brig. Gen. Carnot Posey), 658 (Maj. Joseph Engelhard); 671 (Col. William Lowrance). The first regiment to send out skirmishers was the 1st Delaware of Smyth's brigade. They took up positions along the east side of the Bliss orchard.

[18] *OR*, pt. 1, pp. 464-465 (Col. Thomas Smyth), 469 (Lt. John Dent), 470 (Maj. John Hill); pt. 2, pp. 633-634 (Brig. Gen. Carnot Posey), 634 (Col. N. H. Harris); John Brady to John Bachelder, May 24, 1886 as transcribed in David and Audrey Ladd, eds., *The Bachelder Papers, Gettysburg in Their Own Words*, vol. 3 (Morningside Press, Dayton, Ohio, 1995), pp. 1387-1390. Northern troops from Smyth's brigade first occupied the area around the Bliss buildings shortly after daylight. The first Confederate push occurred at approximately 9:30 a.m. New Yorkers from Willard's brigade quickly regained the buildings around 10:00 a.m. only to lose them to a Confederate advance one and a half hours later (approximately 11:30 a.m.) Troops from Smyth's and Willard's brigades soon launched a counter thrust and regained the farmstead shortly after noon. A large Confederate push along this entire area occurred between 3:30 and 4:00 p.m. and troops from the brigades of Brig. Gen. William Mahone and Brig. Gen. Carnot Posey recaptured the buildings. This was followed almost immediately by a Union advance, lead by troops from Smyth's brigade, which drove the Confederate soldiers from the farmstead around 5:00 p.m. The next Confederate advance on July 2 was part of a general attack against the Union center around 7:00 p.m. This attack lead to the final capture of the buildings that day as troops from Posey's brigade drove out the Union defenders during their attack toward Cemetery Ridge.

[19] Mesnard, "Reminiscence," (May 6, 1901) in Civil War Miscellaneous Collection, USAMHI; Samuel Hurst, *Journal History of the Seventy-third Ohio Volunteer Infantry* (Chillicothe, Ohio, 1866) pp. 68-70; L. A. Smith, "Recollections of Gettysburg," *War Papers Read Before the Michigan Commandery of the Military Order of the Loyal Legion of the United States* (James H. Stone & Co., Detroit, 1898), pp. 300-301. This ridge, and the open farm fields located upon it, have been totally covered today by residential and commercial development.

[20] For the Army of the Potomac this included: **First Corps**, Col. Chapman Biddle's brigade (121st and 142nd Pennsylvania) and Brig. Gen. George Stannard's brigade (16th Vermont), **Second Corps**, 1st Company, Massachusetts Sharpshooters (unattached), Col. Samuel Carrol's brigade (4th and 8th Ohio, 14th Indiana), Col. Thomas Smyth's brigade (14th Connecticut, 1st Delaware, 12th New Jersey), Col. George Willard's brigade (39th, 111th, 125th and 126th New York), and **Eleventh Corps**, Col. Orland Smith's Brigade (136th New York, 55th and 73rd Ohio). For the Army of Northern Virginia the sources are not as detailed and thus the exact regiments are not known. The brigades that were involved in this fighting were: **Second Corps**, Brig. Gen. Junius Daniel, Brig. Gen. Alfred Iverson, Brig. Gen. George Doles, Brig. Gen. S. D. Ramseur, Col. E. A. O'Neal, **Third Corps**, Brig. Gen. William Mahone, Brig. Gen. Carnot Posey, Col. Abner Perrin, Brig. Gen. Edward Thomas and Brig. Gen. A. M. Scales.

[21] *OR*, pt. 1, pp. 369 (Maj. Gen. Winfield Hancock), 478 (Capt. John Hazard); pt. 2, pp. 671 (Col. William Lowrance). The Confederate units involved in this attack were probably men from Brig. Gen. Carnot Posey's

brigade (Anderson's division) and Brig. Gen. A. M. Scales brigade (Pender's division).

[22] *OR*, pt. 1, pp. 457 (Col. Samuel Carroll), 460 (Lt. Col. Leonard Carpenter), 461 (Lt. Col. Franklin Sawyer); pt. 2, pp. 633 (Brig. Gen. Carnot Posey), 663 (Col. Abner Perrin), 665 (Brig. Gen. James Lane); Franklin Sawyer, *The 8th Ohio at Gettysburg, An Address by General Franklin Sawyer* (8th Ohio Regimental Association, Washington, 1889), p. 4. In reaction to the first Confederate threat at 11:30 a.m., men from the 12th New Jersey, 1st Delaware and one company of the 16th Vermont were all ordered out. Following the Southern advance at 3:30 p.m., the entire 8th Ohio was sent to the skirmish line, where it remained throughout the rest of the battle. In both the 1868-9 and 1872 Warren Maps the owner of the farmstead along the Emmitsburg Road and northwest of Ziegler's Grove is Emanuel Trostle. The farm was actually owned by David Ziegler, who rented it to Trostle.

[23] *OR*, pt. 1, pp. 457 (Col. Samuel Carroll), 467 (Maj. Theodore Ellis); pt. 2, pp. 556 (Maj. Gen. Robert Rodes), 614 (Maj. Gen. Richard Anderson), 622-624 (Brig. Gen. A. R. Wright), 634-635 (Col. N. H. Harris), 665-666 (Brig. Gen. James Lane), 671-672 (Col. William Lowrance). The two brigades of Anderson's division attacking the Union center were commanded by Brig. Gen. Ambrose Wright and Brig. Gen. Carnot Posey. In reaction to this advance the 121st and 142nd Pennsylvania, of Col. Chapman Biddle's First Corps brigade, were sent out to the skirmish line northwest of Ziegler's Grove.

[24] *OR*, pt. 1, pp. 372 (Maj. Gen. Winfield Hancock), 457 (Brig. Gen. Alexander Hays), 457 (Col. Samuel Carroll), pt. 2, pp. 470-471 (Maj. Gen. Jubal Early). The Confederate attack on East Cemetery Hill was made by the brigades of Brig. Gen. Harry Hays and Col. Isaac Avery of Maj. Gen. Jubal Early's division. Carroll led three regiments to East Cemetery Hill (14th Indiana, 4th Ohio and 7th West Virginia), where they remained throughout the rest of the battle. The 8th Ohio, which had been sent to the skirmish line along the Emmitsburg Road earlier in the day, was left behind. Smith also sent the 136th New York to East Cemetery Hill at this same time.

[25] *OR*, pt. 1, pp. 467 (Maj. Theodore Ellis), 473 (Lt. Col. James Bull), 726 (Col. James Woods); pt. 2, pp. 556 (Maj. Gen. Robert Rodes), 663 (Col. Abner Perrin), 666 (Brig. Gen. James Lane), 668-669 (Brig. Gen. Edward Thomas); Charles Richardson to John Bachelder, May 8, 1868, as transcribed in Ladd, eds., *Bachelder Papers*, vol. 1, p. 340. Willard's brigade returned to the northern end of Cemetery Ridge around 10:00 p.m. 136th New York, detached and sent to East Cemetery Hill, returned to its position along the Taneytown Road near this same time. Early on July 3rd the 126th New York was re-positioned in Ziegler's Grove north of the Brain house. For the Confederates, Brig. Gen. Junius Daniel's and Col. E. A. O'Neal's brigades were detached and sent to Culp's Hill.

[26] *OR*, pt. 1, p. 454 (Brig. Gen. Alexander Hays), 465 (Col. Thomas Smyth), 467 (Maj. Theodore Ellis), 470 (Maj. John Hill). The first effort to recapture the Bliss farmstead, made by detachments from the 1st Delaware and 12th New Jersey, was made at 7:00 a.m. and was repulsed. A second attack, by half of the 12th New Jersey, came around 8:00-8:30 a.m. and retook the buildings. They in turn were driven out around 9:30 a.m. Hays ordered his last attack on the farmstead around 10:00 a.m. Two attacks were launched, both consisting of four companies from the 14th Connecticut, between 10:00 and 10:30 a.m., which drove back the Confederates. The buildings were burned around 11:30 a.m.

[27] *OR*, pt. 1, pp. 461 (Lt. Col. Franklin Sawyer), 724 (Col. Orland Smith), 726 (Col. James Woods); pt. 2, pp. 556-557 (Maj. Gen. Robert Rodes), 663 (Col. Abner Perrin), 666 (Brig. Gen. James Lane), 668-669 (Brig. Gen. Edward Thomas).

[28] *OR*, pt. 2, pp. 308, 320 (Gen. Robert E. Lee), 359 (Lt. Gen. James Longstreet).

[29] Crumb, ed., *Eleventh Corps Artillery at Gettysburg*, pp. 69, 70.

[30] Crumb, ed., *Eleventh Corps Artillery at Gettysburg*, p. 70.

[31] Crumb, ed., *Eleventh Corps Artillery at Gettysburg*, pp. 69, 70.

[32] *OR*, pt. 1, p. 476 (Capt. Aaron Seeley); Mrs. Arabella M. Willson, Prepared by the Historical Committee of the Regiment, *Disaster, Struggle, Triumph: The Adventures of a 1000 "Boys in Blue"* (The Argus Company, Printers, Albany, New York, 1870) p. 181.

[33] Crumb, ed., *Eleventh Corps Artillery at Gettysburg*, p. 32.

[34] Benjamin W. Thompson, "Recollections of War Times" (Minneapolis, Minnesota: Unpublished manuscript, 1910), photocopy in GNMP Library, p. 42; *OR*, pt. 1, p. 373 (Maj. Gen. Winfield Hancock). During the bombardment Maj. Osborn called for reinforcements from the Artillery Reserve and also shifted some existing batteries into better locations. Along Cemetery Ridge Lt. Fred Brown's Battery B, 1st Rhode Island was forced to withdraw. He was replaced by Capt. Andrew Cowan's 1st New York Light Artillery. Lt. George Woodruff's Battery I, 1st U. S. was forced to pull its guns back into the cover of Ziegler's Grove.

[35] Crumb, ed., *Eleventh Corps Artillery at Gettysburg*, p. 71, 73; *OR*, pt. 1, p. 750 (Maj. Gen. O. O. Howard). The Confederate divisions making up the assault force were Maj. Gen. George Pickett's, Maj. Gen. Henry Heth's (commanded temporarily by Brig. Gen. J.J. Pettigrew), and two brigades of Maj. Gen. Dorsey Pender's division (commanded temporarily by Maj. Gen. Isaac Trimble).

[36] Crumb, ed., *Eleventh Corps Artillery at Gettysburg*, pp. 76, 77.

[37] *OR*, pt. 2, pp. 651 (Brig. Gen. Joseph Davis); Capt. S. A. Ashe, "The Pickett-Pettigrew Charge," in Walter Clark, *Histories of the Several Regiments and Battalions from North Carolina in the Great War 1861-1865* (E. M. Uzzel, Raleigh, 1901), vol. 5, pp. 143-144.

[38] *OR*, pt. 1, pp. 462 (Lt. Col. Franklin Swayer), 750 (Maj. Thomas Osborn); Franklin Swayer, *The 8th Ohio at Gettysburg, Address by General Franklin Swayer* (The 8th Ohio Regimental Association, Washington, 1889), p. 7.

[39] Crumb, ed., *Eleventh Corps Artillery at Gettysburg*, pp. 77; .

[40] Diary of Charles Belknap, Company H, 125th New York Volunteers, transcript in GNMP Library; Willson, *Disaster, Struggle, Triumph*, p.184. Hancock reported this fire "had no material effect" upon the Confederates. What he probably meant was that both Arnold and Woodruff were low on ammunition and could not maintain a rapid fire. Arnold's guns themselves soon limbered up and withdrew (see, *OR*, pt. 1, p. 373, 480).

[41] *OR*, pt. 1, p. 454 (Brig. Gen. Alexander Hays); Charles Belknap Diary; *New York at Gettysburg*, vol. 2, p. 907; Willson, *Disaster, Struggle, Triumph*, p.186. This movement included part or all of the 126th and 108th New York, possibly the 1st Massachusetts Sharpshooters and a section of Lt. Woodruff's battery.

[42] *OR*, pt. 1, p. 373 (Maj. Gen. Winfield Hancock), 454 (Brig. Gen. Alexander Hays), 750 (Maj. Thomas Osborn).

[43] Kathleen Harrison memo, "Estimated Strengths and Losses of Military Units Defending the Site of the Cyclorama and Visitor Center Developments," December 12, 1997, Historian's Office, GNMP.

[44] Kathleen Harrison memo, "Estimated Strengths and Losses of Military Units Defending the Site of the Cyclorama and Visitor Center Developments," December 12, 1997, Historian's Office, GNMP; Thompson, "Recollections," p. 46.

[45] USDI National Park Service, *Final General Management Plan and Environmental Impact Statement*. (USDI, National Park Service, Washington, DC, 1999) p.4.

[46] OR, pt. 2, pp. 359, 360 (Lt. Gen. James Longstreet).

[47] The study area only encompasses the west slopes of Cemetery Hill and the northern extension of Cemetery Ridge. Meade's headquarters was located at the Lydia Leister farmstead on July 2 and 3, 1863.

[48] These changes include, but are not limited to, construction of the Visitor Center, Cyclorama Center, park avenues, parking lots, walking paths, sidewalks, the erection of monuments and memorials, planting of non-historic tree screens, the modern improvements to adjacent roads (Taneytown Road, Emmitsburg Road), expansion of southern boundaries of the Gettysburg borough, and the destruction of historic vegetation, walls and fences throughout the study area.

[49] Property Ownership Map, Historians' Office, GNMP. The five farmsteads that had land located within the study area were owned, from north to south, by William H. Duttera, David Ziegler, Peter Fry, Abraham Brian and Lydia Leister.

[50] The Taneytown Road marked the eastern boundary while the Emmitsburg Road (now Steinwehr Avenue) set the area's northwestern edge.

[51] 1868-69 Warren Map; 1872 Corrected Warren Map; "KOCOA Features—Cyclorama and Visitor Center Project" Map, hand drawn by Kathy Harrison, January 2002, Historians' Office, GNMP; *OR*, pt. 1, p. 478, 480 (Capt. John Hazard); George H. Washburn, *A Complete Military History and Record of the 108th New York Volunteers*, (Press of E.R. Andrews, Rochester, New York, 1894), p. 50, 52.

[52] Property Ownership Map, Historians' Office, GNMP. The remainder of Ziegler's farm was located on the west side of the Emmitsburg Road.

[53] Property Ownership Map, Historians' Office, GNMP. Lydia Leister's last field marked the extreme western end of her farm and is located just outside of the study area.

[54] 1868-69 Warren Map; 1872 Corrected Warren Map; Property Ownership Map, Historians' Office, GNMP; George Gordon Meade, *With Meade at Gettysburg* (War Library and Museum of the Military Order of the Loyal Legion of the United States, Philadelphia, Pennsylvania, 1930), p. 96; Greg Coco, *A Vast Sea of Misery, A History and Guide to the Union and Confederate Field Hospitals at Gettysburg, July 1-November 20, 1863* (Thomas Publications, Gettysburg, Pennsylvania, 1988), pp. 62-63; Historic Photographs #23S-0250B, #23S-0252, #23S-0254, Archives, GNMP; "KOCOA Features—Cyclorama and Visitor Center Project" Map, hand drawn Kathy Harrison, January 2002, Historians' Office, GNMP. Small scale features associated with the Leister farmstead included a privy, hog pen, bake oven and a dog or chicken house. The well appears in Historic Photograph #23S-0250B.

[55] The only fence styles that were not present in the study area were Sawn Board and Plank or Slab Board. An approximation of the lengths of the various styles are as follows: Virginia worm-1115 feet, Post-and-Rail-3720 feet, Stone Wall/Stone-and-Rider/Stone-and-Rail-6145 feet, Stacked Rails-less than 100 feet.

[56] "KOCOA Features—Cyclorama and Visitor Center Project" Map, hand drawn by Kathy Harrison, January 2002, Historians' Office, GNMP.

[57] Luther B. Mesnard, "Reminiscence" (May 6, 1901), in Civil War Miscellaneous Collection, United States Army Military Historic Institute, Carlisle Barracks, Pennsylvania, pp. 34-35; Sawyer, *The 8th Ohio at Gettysburg,* pp. 4, 5; Page, *History of the Fourteenth...Connecticut,* p. 151; *OR*, pt. 1, p. 459 (Capt. Nathan Willard).

Chapter 2: Existing Conditions

[1] USDI National Park Service, *Final General Management Plan and Environmental Impact Statement.* (USDI National Park Service, Washington, DC, 1999) Section 1.6.3, p.15.

Chapter 3: Analysis & Evaluation

[1] USDI National Park Service. *National Register of Historic Places Registration Form*. (USDI National Park Service, Gettysburg, Pennsylvania, 2002) pp.144-145.

[2] Ibid.

[3] USDI National Park Service. *General Management Plan and Environmental Impact Statement*. (USDI National Park Service, Washington, DC, 1999) p. 199

[4] Grades on the Warren Map have been interpreted to correspond with the topographic system of today's mapping standards. Thus, 485.2 on the Warren Map = 609.2 on the modern map.

[5] Gettysburg National Park Commission. *Map showing the location of trees etc. in Ziegler's Grove on the Gettysburg Battlefield.* (Gettysburg National Park Commission, Gettysburg, Pennsylvania, no date).

[6] Harrison, Kathy. *History of Ziegler/Pfeffer Property*. (USDI National Park Service, Gettysburg, Pennsylvania, 2002) pp. 1-2.

[7] USDI National Park Service. *General Management Plan and Environmental Impact Statement*. (USDI National Park Service, Washington, DC, 1999) Section 1.6.3, p. 15.

Chapter 4: Treatment Plan

[1] USDI National Park Service, *Final General Management Plan and Environmental Impact Statement*. (USDI National Park Service, Washington, DC, 1999) p.92.

[2] USDI National Park Service, *Record of Decision, Final General Management Plan and Environmental Impact Statement*. (USDI National Park Service, Washington, DC, 1999) p.15.

[3] GETT # = Gettysburg National Military Park Building Number, IDLCS # = List of Classified Structures Number.

[4] Bachelder, John B., *Gettysburg: What to See, and How to See It*. (John B. Bachelder, Boston, 1873) pp. 44-45.

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