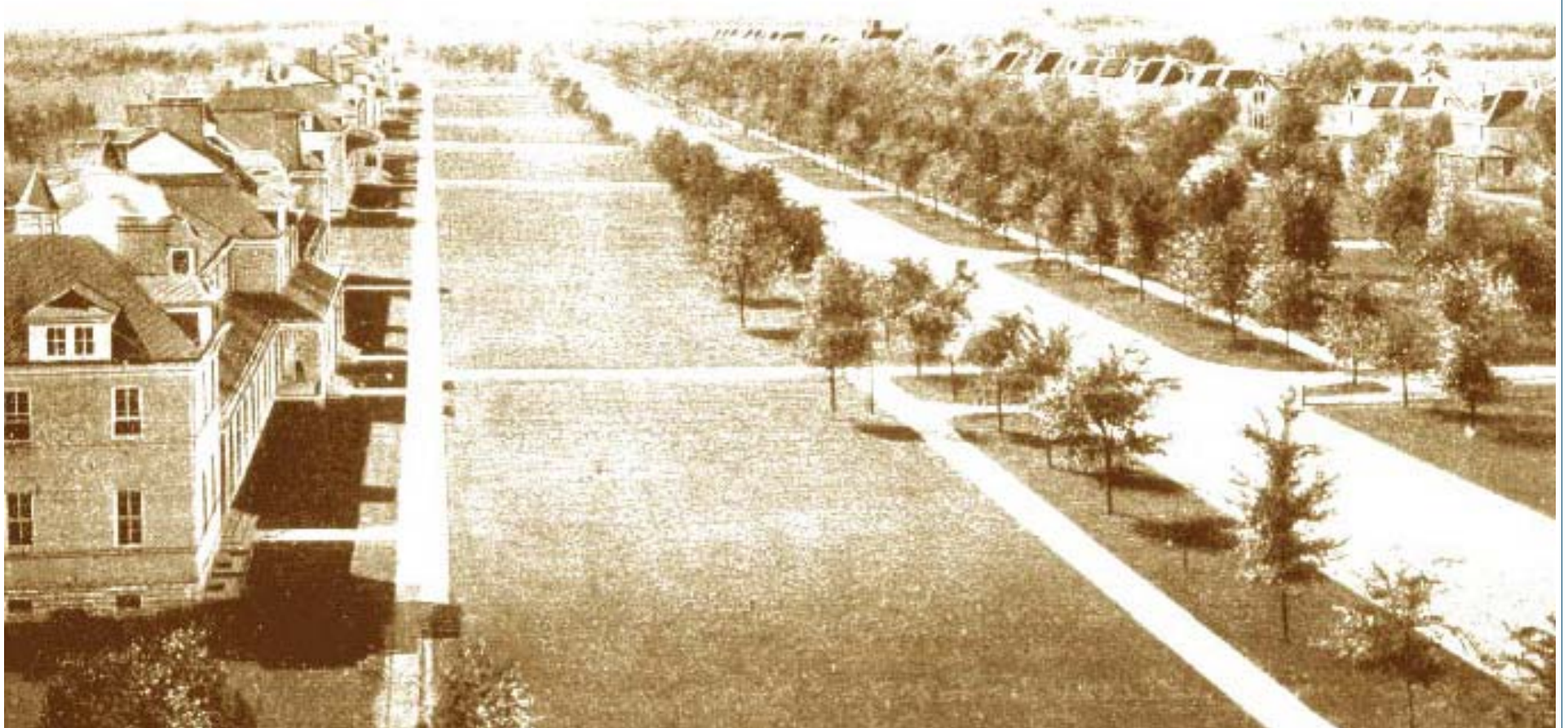


Fort Snelling Upper Post Open Space & Landscape Development Guidelines

Summer 2008



This project has been funded in part by a Johanna Favrot Fund for Historic Preservation grant from the National Trust for Historic Preservation.

*This project has been funded in part by a Johanna Favrot Fund for Historic Preservation grant
from the National Trust for Historic Preservation and with support from Hennepin County.*

Historical Photographs are from the collection of the Minnesota Historical Society.



Fort Snelling Upper Post Open Space & Landscape Development Guidelines

Prepared for the

Minnesota Department of Natural Resources & Hennepin County

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Completed Summer 2008



Upper Post Open Space & Landscape Development Guidelines

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Fort Snelling Upper Post Development Guidelines

Preface

Hennepin County wishes to thank the National Trust for Historic Preservation award of this Johanna Favrot grant which has allowed us to focus historic preservation attention on Fort Snelling Upper Post open space and landscape issues.

This grant has enabled us to make recommendations and propose guidelines for the open spaces and landscape preservation at the Fort Snelling Upper Post, as well as appropriate locations, orientation, and massing for new structures. The goal of the guidelines and recommendations are to maintain the sense of place engendered by the military presence at the Fort Snelling Upper Post. This report is the first step toward a land use plan to guide the redevelopment and reuse process.

With the Fort Snelling Upper Post lying entirely within unincorporated Hennepin County, the County in 2006 updated the 1998 Fort Snelling State Park “Upper Bluff” Reuse Study as part of its Fort Snelling Base Relocation and Alignment Closure (BRAC) Grant. This work led Hennepin County to begin building stabilization efforts in partnership with the Minnesota Department of Natural Resources using Hennepin County Sentence to Serve crews. In 2006 Hennepin County received a National Park Service *Save America’s Treasures* (SAT) Grant to continue these building stabilization efforts, again partnering with the Minnesota Department of Natural Resources and Hennepin County “Sentence To Serve” crews.

Additional interest and assistance in the efforts to facilitate reuse of the site has come from the Minnesota Historical Society, and the offices of Senator Norm Coleman and Former Senator Mark Dayton and Congressman Martin Olav Sabo. In 2008 Hennepin County received \$500,000 from the Minnesota Legislature to continue and expand stabilization efforts on the Upper Post.

The efforts at the site are growing in momentum, and the Favrot Grant has allowed that momentum to continue and move to implementation.

Patrick R. Connoy
Senior Administrative Manager
Hennepin County

Guidelines Introduction

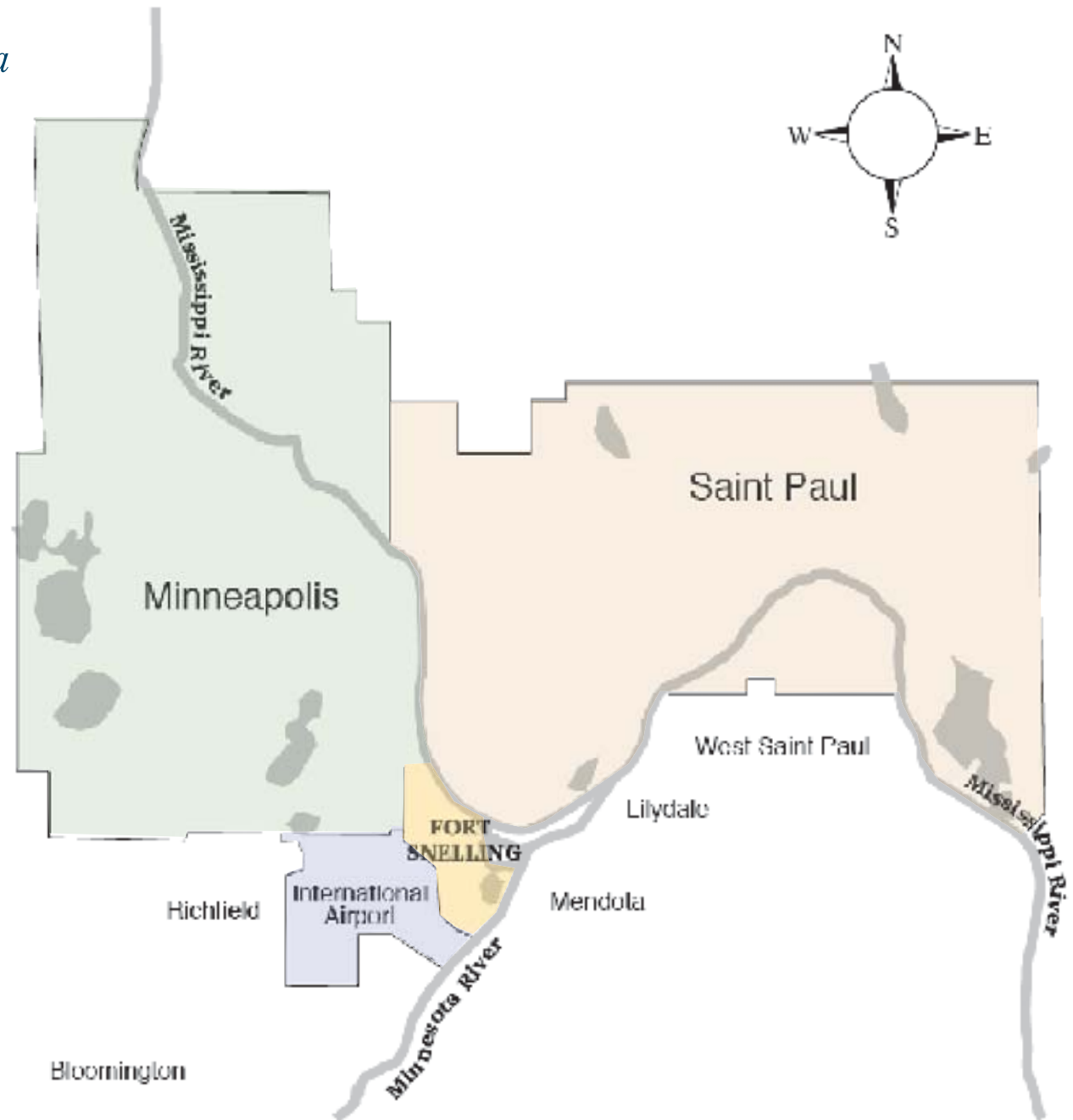
Fort Snelling State Park's Upper Post area, composed of Area J, Officers' Row, the Polo Grounds, and the Golf Course, possesses a variety of building materials and treatments, but the diversity is often difficult to discern given the formal layout of the linear site. One need only walk the grounds to see a spectrum of architectural renderings in carved stone and brick, pressed metal and wood-tooled cornices, decorative copper downspouts, a variety of decorative and utilitarian roof ventilators, and varied roof treatments, both in shape and covering.

Previous guidelines for the Upper Post have dealt primarily with restoring or rehabilitating the buildings, with only generalized information regarding the site or landscape. This publication is intended to provide preservation, restoration, rehabilitation, and development information for the grounds of the Upper Post, specifically addressing the landscape and open space features to be retained; where new development could take place; and the siting, massing, density, and other characteristics of such new development.

All renovation and new construction work on the buildings, as well as modifications to the grounds of the Upper Post, will undergo a review and approval process. These guidelines will be applied within that review system as established by the National Park Service, the Minnesota Department of Natural Resources, and the State Historic Preservation Office (SHPO) of the Minnesota Historical Society. While the guidelines are designed to address the majority of rehabilitation questions that may arise in the early phases of development, the document also provides direction to securing more technical information from the Technical Preservation Services Division of the U.S. Department of the Interior and valuable reference information through the MnDNR and SHPO.

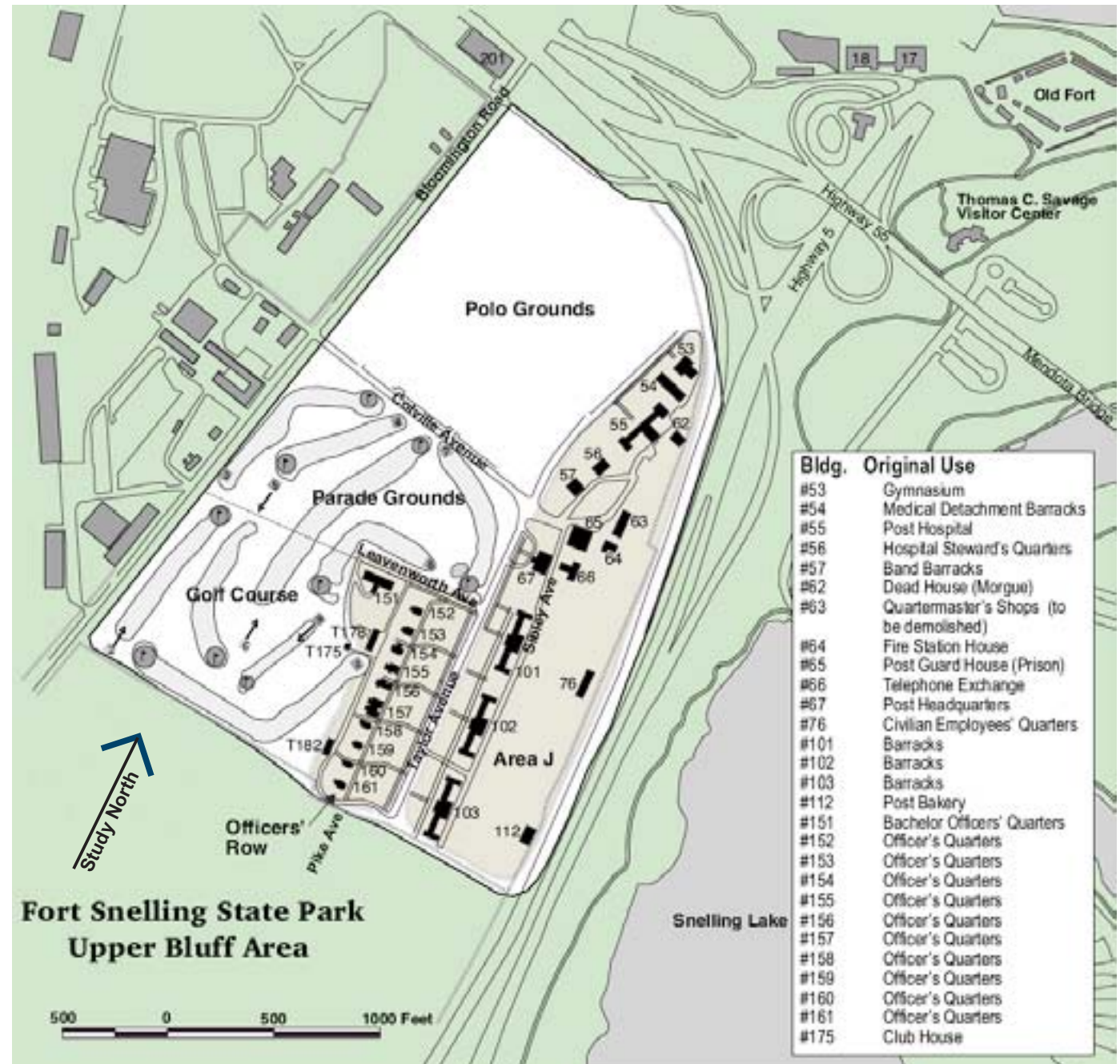


*Fort Snelling State Park
& the Metropolitan Area*



Upper Post Site Map

There are 28 extant buildings in the Upper Post study area that are considered historically significant or important to its recreational uses. This site map lists the structures of Area J and Officers' Row by name and building numbers



*Fort Snelling's
Landscape and
Enduring Historic
Character*

FROM THE UPPER MISSISSIPPI.
**Magnificence of the West—Growth of New
Towns—Splendid Crops—Lake Pepin—
Fabulous Speculations—General Prosperity—No Fear of Failures, &c.**
STEAMER GREY EAGLE, UPPER MISSISSIPPI, }
THURSDAY, Aug. 23, 1857. }

New York Times report from the Upper Mississippi. Published October 9, 1857. Note communication delay between the correspondent's submission and publication date.

Throughout its history, the blufftop siting of Fort Snelling held a sense of romance and fascination for artists and travelers. In October 1857, the *New York Times* published a letter "From the Upper Mississippi," from its correspondent on the Steamer Grey Eagle. Traveling northward from Dubuque, the reporter arrived at Fort Snelling at the moment when the Lower Fort was no longer required as a frontier bastion. His account is one of the first to note the Fort's scenic value as "an interesting locality... much frequented by parties of pleasure."

At that time, the West was still seen as a wild or recently tamed land, tinged with the sublime romance of a lost innocence. Into this scene, the Fort and the growing mills and shipping of Minnesota's cities set a new note of progress. "How different is the scene presented now to the voyager on the Upper Mississippi," the article begins:

"from that which he would have beheld in the same localities only a few years ago! Where the surface of the mighty river was then broken by now human agency but the dip of an Indian's oar, and the occasional keel of the fur-trader it is now lashed into boiling foam by fleets of busy steamers; where the primeval silence of Nature over millions of acres of prairie and wild meadow was then broken only by the howl of wild beasts, and the more dreaded yell of the savage, the voice of civilization and the hum of busy industry now fall pleasantly on the ear...."

Today, we consider such writing both over-wrought and culturally intolerant. Yet, such journalism tells us how the Eastern seaboard of the United States saw the landscape of the Upper Midwest, or perhaps, *wanted to believe* about it. There is a sense of wonder and hubris in such travel writings that, soon afterwards in the U.S.-Dakota War, would be challenged.



Round Tower by Moonlight Painter:
Alexis Jean Fournier (1865-1948)
_Art Collection, Oil ca. 1888
_Location no. AV1988.45.4 _Negative
no. 40366

In the mid-1880s, just as the Upper Fort was nearing a peak of operation as the headquarters for the Department of Dakota, parts of the old Lower Fort fell into picturesque disuse. The bluffs, the river views and bluff top oak savannas created a landscape that drew one of Minnesota's most accomplished impressionists, Alexis Jean Fournier (1865-1948) to paint the old Round Tower by Moonlight. Now in the Minnesota Historical Society, this painting captures a sense of beauty that still remains at Fort Snelling today.

At the end of the 19th Century, the booming mills and towns of Minnesota fascinated the American press. The regions' rivers and bluffs, streams and waterfalls supporting this growth remained an inseparable part of the picture. In 1885, around the time when Fournier visited Fort Snelling, *Harper's Weekly* published an illustrated feature article on Minneapolis and Saint Paul in which almost every image of industry, the mills, cityscapes or Fort Snelling, include a river bluff.



"Sketches from St. Paul, Minnesota"
Artist: Charles Graham (1852-1911)
MHS Art Collection 1885 _Location no.
MR2.9 SP1e p14 _Negative no. 29625

With the invention of the motorcar, the Fort continued as a popular tourist destination. This 1905 postcard illustrates the striking views of the Minnesota River Valley as seen from the old Commandant's quarters near the Lower Post.



People seated in car next to the Commandant's Quarters view the Mississippi River Valley. _Photographer:
Sweet _Photograph Collection 1905 _Location no. MH5.9 F1.4CQ.p

Building the Upper Fort

During the Lakota Wars, the Fort Snelling post served as a base of operations with 22,000 troops funneled into the U.S.-Dakota War and the Civil War. In 1866, General Alfred H. Terry, who ultimately would guide the construction of much of the Upper Fort that survives today, initiated the Department of Dakota at the Fort. Over the next twenty years, the Fort would become a staging area for the execution of the Indian Wars in the region, most notably the excursions of General Custer that ultimately ended in the Battle of Little Big Horn. The demands of military control over a vast territory required significantly expanded facilities at Fort Snelling.

In January, 1883, Secretary of War, Robert Todd Lincoln submitted a letter to Congress requesting funds for new construction at several Forts including Fort Leavenworth, Kansas, Fort Wayne, Michigan and Fort Snelling.* Listed under “Buildings at Fort Snelling, Minn, the request of \$112,500.00 was by far the largest among the group. Handwritten letters and drafts in the National Archives reveal the acute level of cost-estimating and planning ultimately expressed in request signed by Fort Snelling’s Commander, Brigadier-General Alfred H. Terry. This 1883 request is helpful in considering how to preserve and steward the Upper Fort today, because it marks the first time when the Army began to consider building the “new Fort” for long-term permanence and with the campus-scale that was fully achieved by WWI.

Terry’s letter opens: “SIR, In obedience to verbal instructions from the Lieutenant-General commanding, I have caused to be prepared plans and estimates for the conversion of Fort Snelling into a post capable of accommodating a complete regiment of infantry.” He adds that, since receiving the orders, “a mounted battery of artillery has been added to the garrison of the post,” for which added plans for barracks and stables are included. Much of the Upper Fort that exists today including the Officers’ Houses, the Administration Building and the Cavalry Barracks are included in this request.

In order of their description, facility construction or expansion projects listed are:

Commanding Officer’s Quarters

Quarters for Field Officers

Quarters for Company and Regimental Staff Officers, One Assistant Surgeon, and A Chaplain

Quarters of the non-Commissioned Staff

Barracks

Building for Offices

Hospital

Storehouses

Bakery

Artillery Stables and Gun-Shed

Water Closets, Fuel Sheds, Fencing, Removing Cemetery, Laying down Walks, Grading, building Roads, and Removing Rubbish

In the last item mentioning the cemetery, Terry writes, “In order to make room for new buildings it is proposed to remove the cemetery to a distant points of the reservation and to cut down the elevation it now occupies.” It is likely that this original location became part of the new Barracks area. This request also marks the creation of the Drill Field and possibly the later Artillery Field: “It is proposed to grade a drill-ground of sufficient size to permit the maneuvering of a regiment of infantry and a battery of artillery.”

Many of the project descriptions refer to the rapid and inexpensive construction of the quarters during the 1870s. For example, under the heading “Quarters for Company and Regimental Staff Officers,” Terry praises the thick stone walls and sound construction of the six sets of quarters next to the commanding officer’s house strung along the Minnesota River bluff. Yet, he adds that, “the wood work of the interior and of the roof is very old and so much decayed that the quarters are rally unfit for occupation.” Equally dire in condition were the eight double houses for Officers that “were built hurriedly in 1878, when there was a pressure for additional shelter for the troops in the department and very little money to build with.... They rest on wooden piles, which are now decaying.”

Gen. Terry’s letter provides a fascinating glimpse into how the Army justified facility investments to Congress in the late 19th century. The poor conditions of existing buildings needing upgrades or replacement are verbally documented in great detail. One of the most significant outcomes of this request, the Administration Building that is a centerpiece of the Upper Fort today, replaced a particularly dismal building. Terry claimed that it afforded, “miserable and utterly insufficient accommodations, and is, moreover, in a very decayed state.... It should be pulled down and the materials which it contains used in other new constructions.”

Along with the ample correspondence leading up to this request, there are numerous hand-written cost estimates and ink drawings of the proposed buildings on vellum. These durable drawings were made into blueprints (also in the Archives) and ultimately reproduced to illustrate the request. Renderings for the Officer’s Houses and the Administration Building include floor plans and elevations. Most likely drawn by the Army’s Quartermaster Corps in Washington and similar to projects at other western posts, these plans tell us that the Upper Fort was largely built as intended. Durable stone defines its character and brick materials, consistent building setbacks, sophisticated grading, and utility systems.

* Letter from the Secretary of War relative to the construction of buildings at certain military posts. 47th Congress, 2nd Session, House of Representatives. Ex. Doc. No. 61. January 26, 1883—Referred to the committee on Appropriations and ordered to be printed.

By the late 1880s, the completed Officer's Quarters stood out against the carefully graded Taylor Avenue. Their brick materials, porches and roofs closely reflect the original drawings prepared for General Terry's submission. Note the original wrought iron fencing, the straight alignment of Taylor Avenue, and the presence of young trees in the yards and along the curb. The tallest house at the center was the "new" Commandant's House reached by a curving drive.

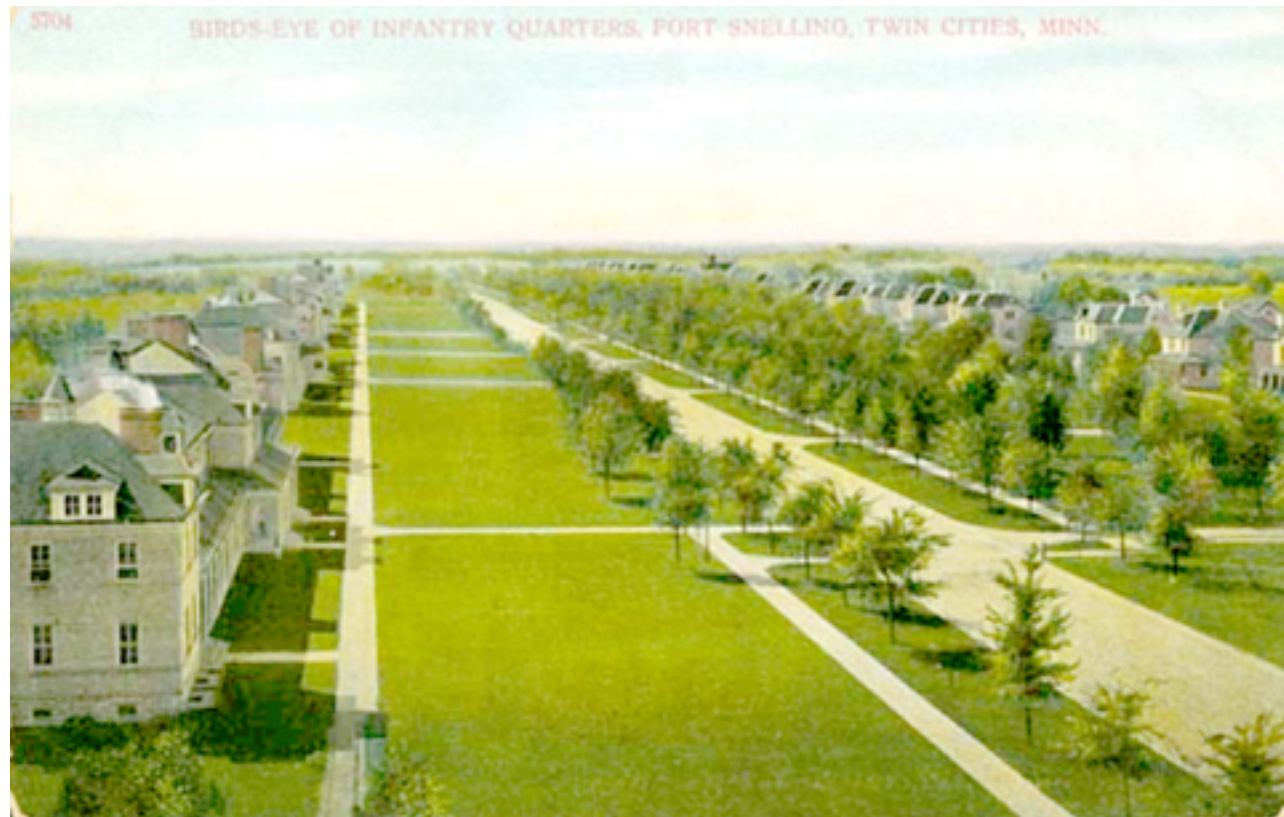


*View of officers' residences
on Taylor Avenue._
Photographer: Elmer
& Tenney _Photograph
Collection ca. 1880
_Location no. MH5.9 F1.3
r54 _Negative no. 18845*



*Sophisticated Gardening
and Site Planning 1900.*

“BIRDS-EYE OF INFANTRY
QUARTERS, FORT SNELLING,
TWIN CITIES, MINN.” 1908



The Greening of the
Upper Fort: 1885-1900

Tennis players, Fort Snelling. _Photograph Collection ca.
1885 _Location no. GV3.18 r21 _Negative no. 77224



1900: *The Post Headquarters (Building #67) as it appeared at the beginning of the 20th century. Looking northeast.*



1905: *The barracks along Taylor Avenue looking to the northeast.*

*The “Country Club”
Landscape in the
20th Century*



Fort Snelling Blacks polo team. _Photograph Collection
ca. 1930 _Location no. GV3.213 r1 _Negative no. 65529

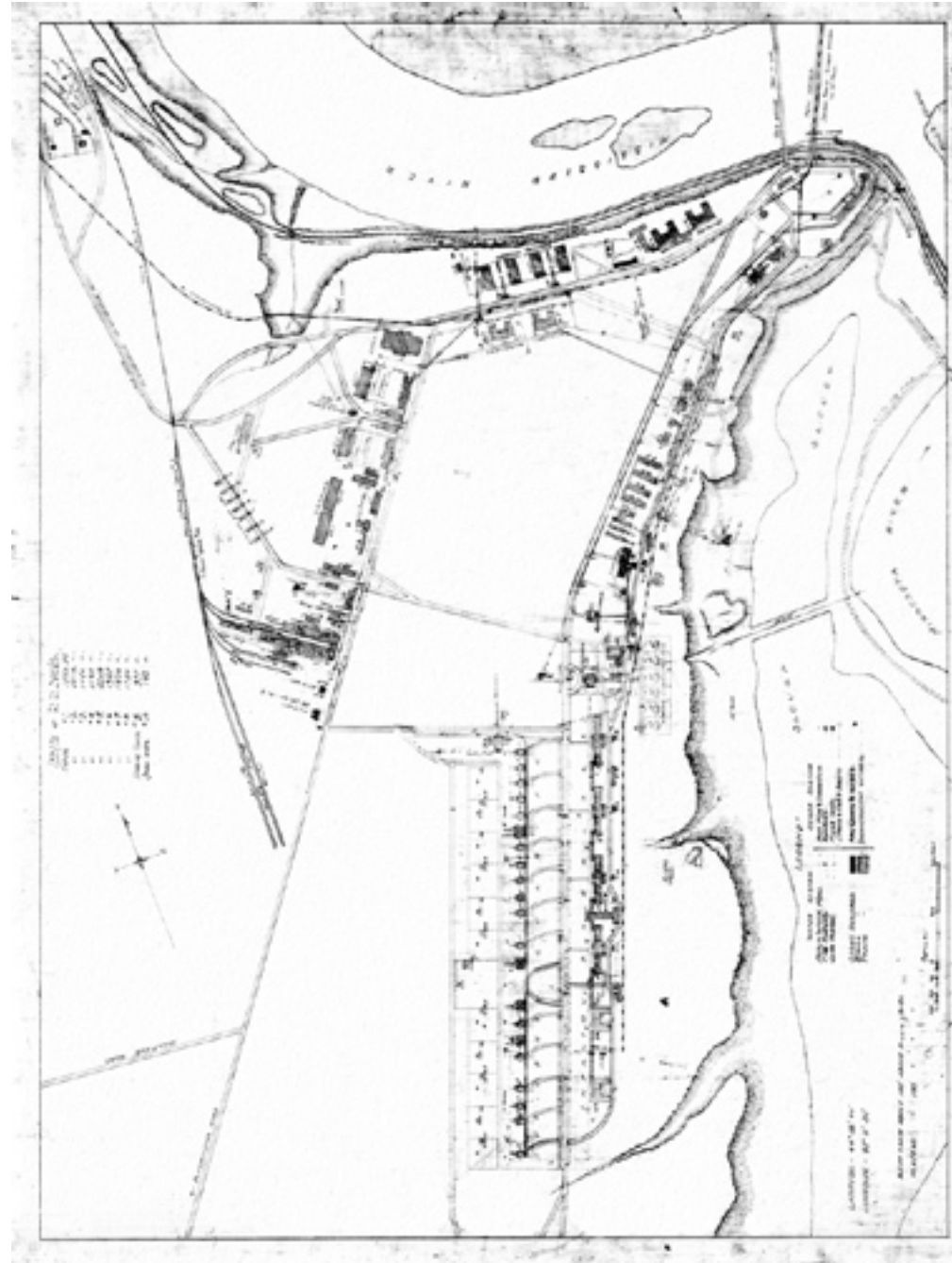
In the twentieth century, the Upper Fort's relevance and functions continued to mirror American foreign policy and advancing military technologies. Most of the 118,500 Minnesotans who served in World War I were processed at Fort Snelling. After the War, from 1921-31, the first federally recognized Air National Guard unit, the 109th Aerial Observation Squadron, was based at the Fort in an airfield now encompassed by the Minneapolis-St. Paul Airport. During this time, the Fort continued to be a tourist attraction and regional beauty spot. With easy streetcar access and the increasing popularity of the motorcar as a recreational pursuit, thousands of Twin Cities were likely drawn to the Upper fort in from 1928-30 to witness re-enactments of World War I battles. During this time and through the 1930's the Fort was home to polo matches that were also likely a popular draw.



All of these activities reflect the flexibility of the Upper Fort to host a myriad of events for military and public involvement. With its variety of open spaces, broad drives, and groomed fields, this flexibility remains today for recreation-related development.

Woman riders, mounted, in pinks at Fort Snelling horse show. _Photograph
Collection ca. 1940 _Location no. GV3.214 r3 _Negative no. 766

1905 Site Plan



1938 Site Plan



- Parade Grounds
- Open Space
- Polo Fields (north)
- Golf Course (south)
- Administrative and Service Buildings inside the study area
- Administrative and Service Buildings outside of study area
- Residential Buildings



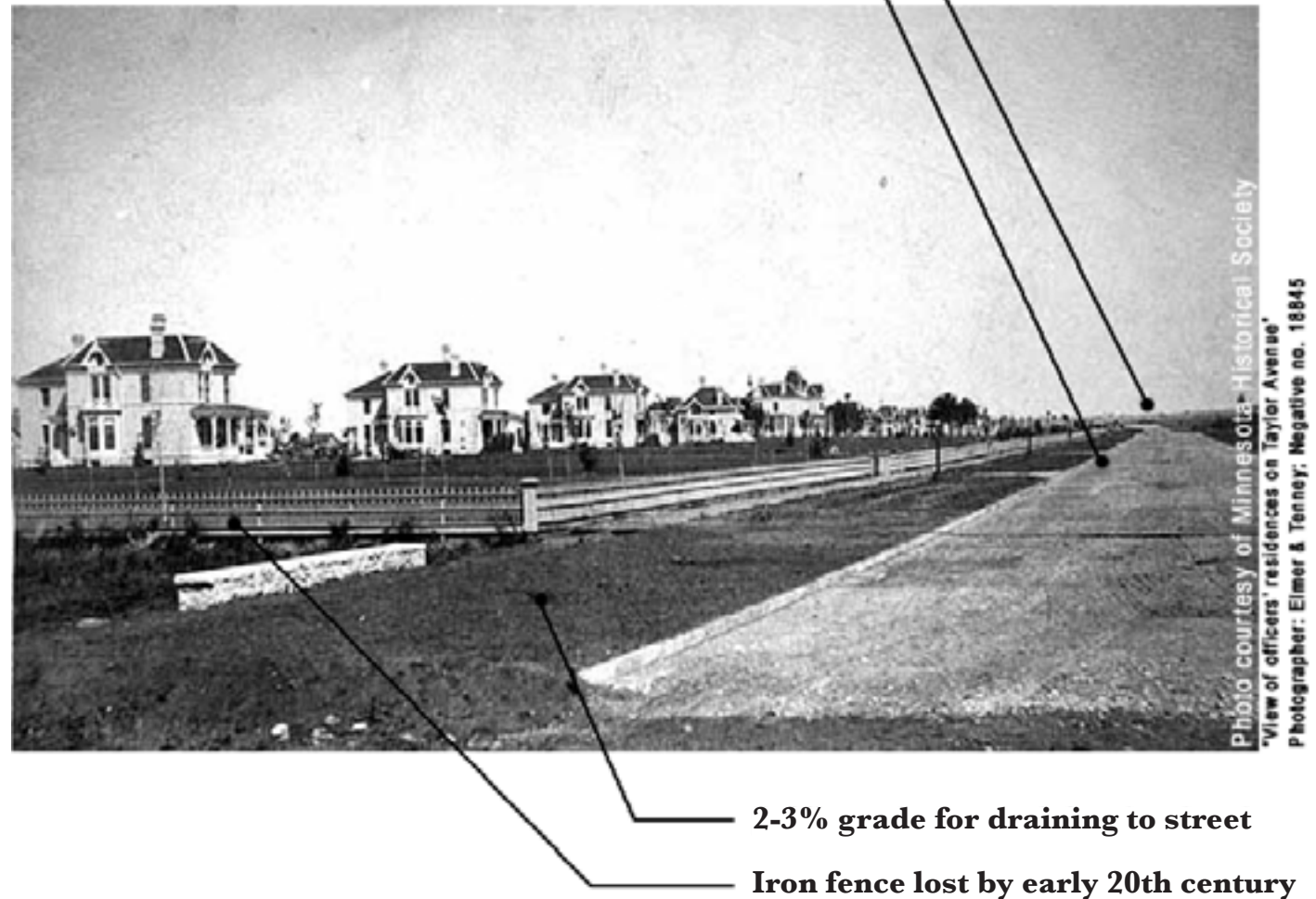
Aerial view from the south, 1936 showing the Upper Post at the height of its development as a campus for housing, training, administration and recreation.



Aerial of Fort Snelling officers' houses along Taylor Avenue._
 Photographer: Minneapolis Star Journal Tribune _Photograph
 Collection 1936 _Location no. MH5.9 F1.3 p68

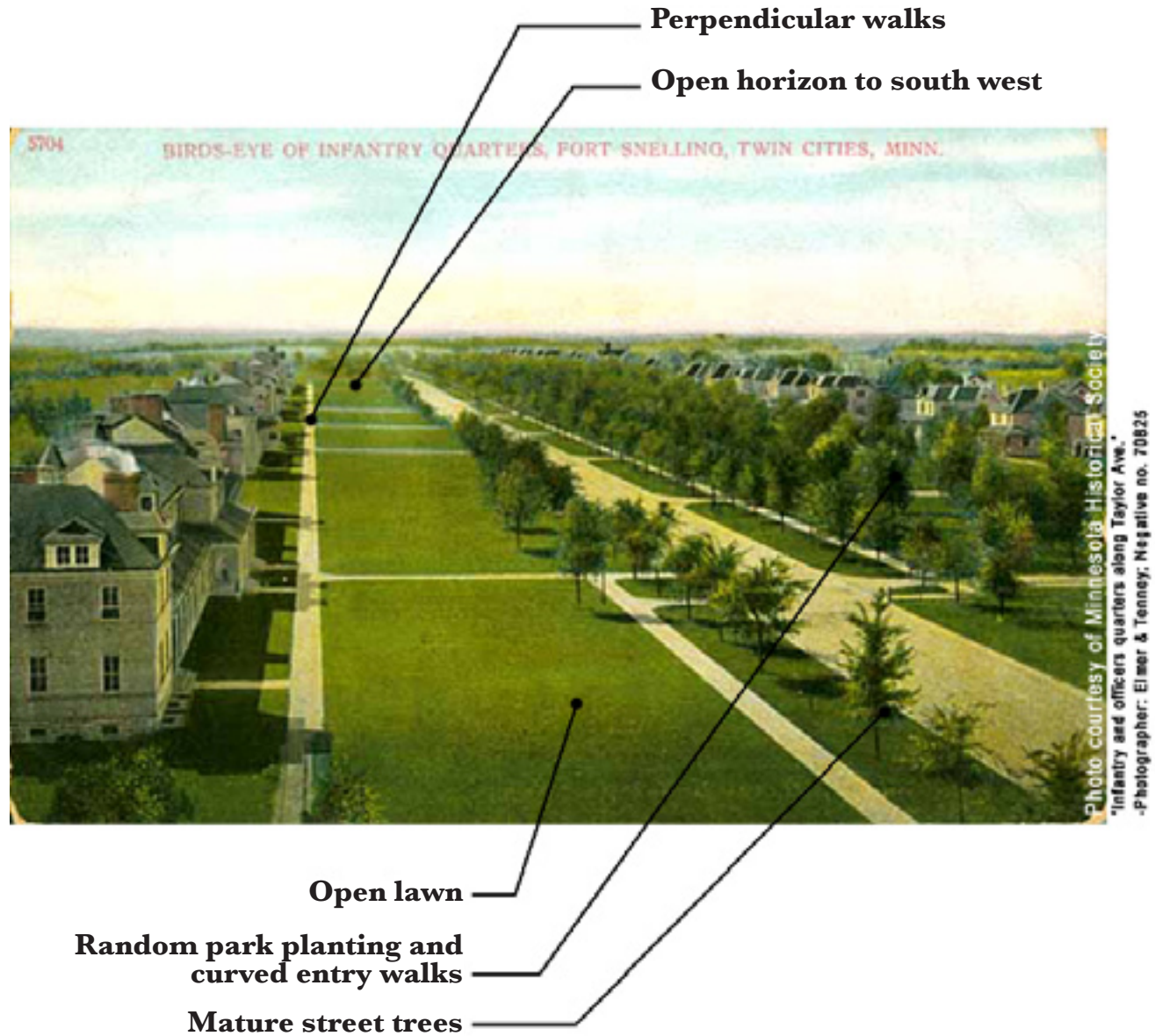
*Character Defining
Features of the
Landscape*

1880



Shortly after completion, this 1880 view shows the new brick officers' row. Note the sharp perpendicular geometry of Taylor Avenue and the early parkland planting of trees in the front yards to the north.

1895/1908



Although printed in 1908, this tinted postcard shows the Upper Post as photographed in 1895 looking south west. Note the smooth lawns in front of the barracks to the south and their contrast with the 15 year old plantings in front of Officers' Row.

1908

Circa 1908; 25 year old street trees



The view looking east at Taylor and Leavenworth shoes the maturing canopy and urban boulevard linearity of Taylor Avenue and the Upper Post in the early 29th Century.

1930

The southwest quadrant was likely hayed to feed horses



Photo courtesy of Minnesota Historical Society
"View of officers' residences on Taylor Avenue" - Photographer: Elmer & Tenney; Negative no. 18845

Mature parkland canopy at Officers' Row

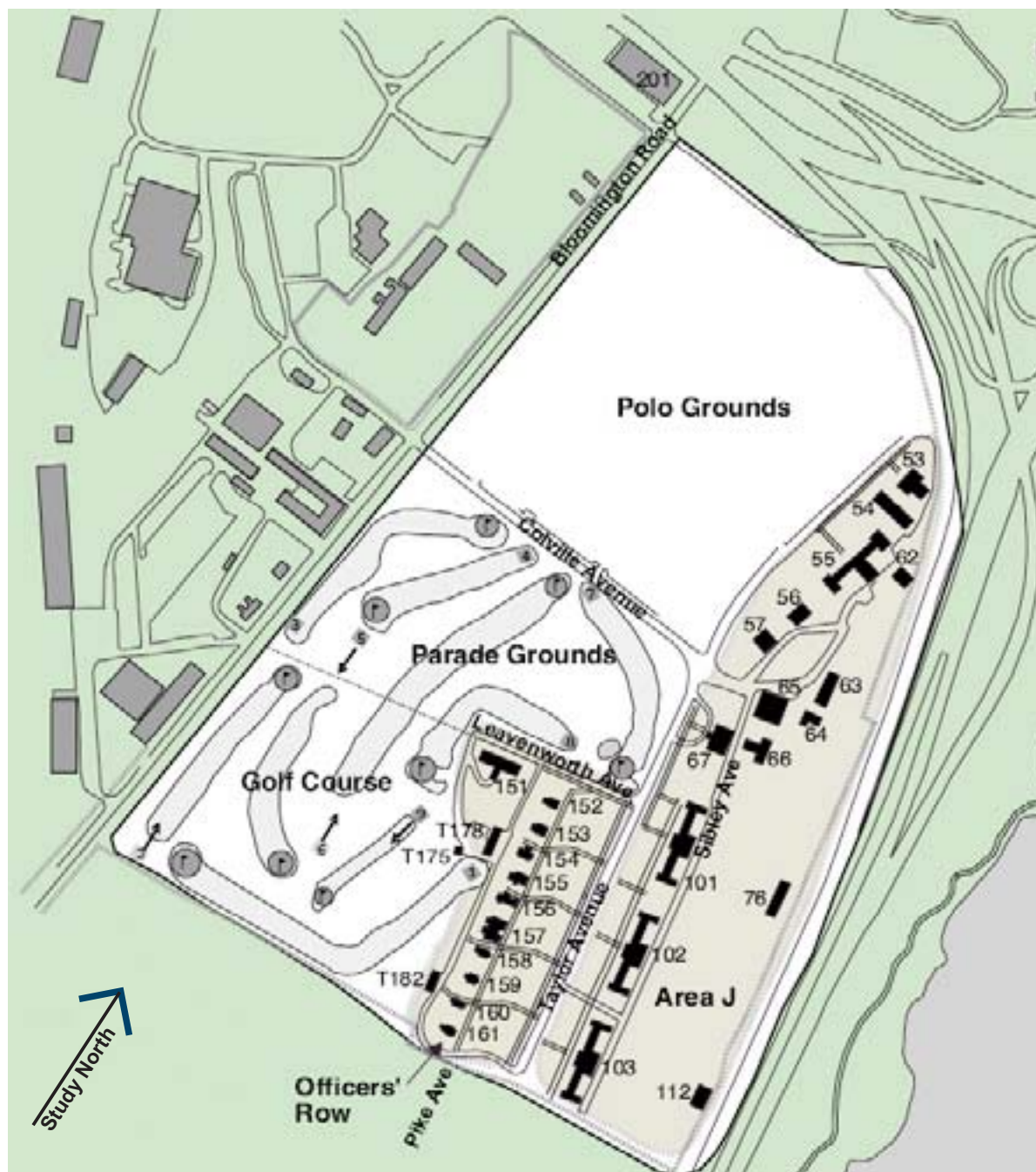
Mature street trees at Minnehaha Avenue

The Fort Snelling Upper Post at its zenith. By the late 1930's the Upper Post resembled an urban park or college campus with its mature street trees, elegant sidewalks and precinct of local streets.

Upper Post Site Map

Bldg. Original Use

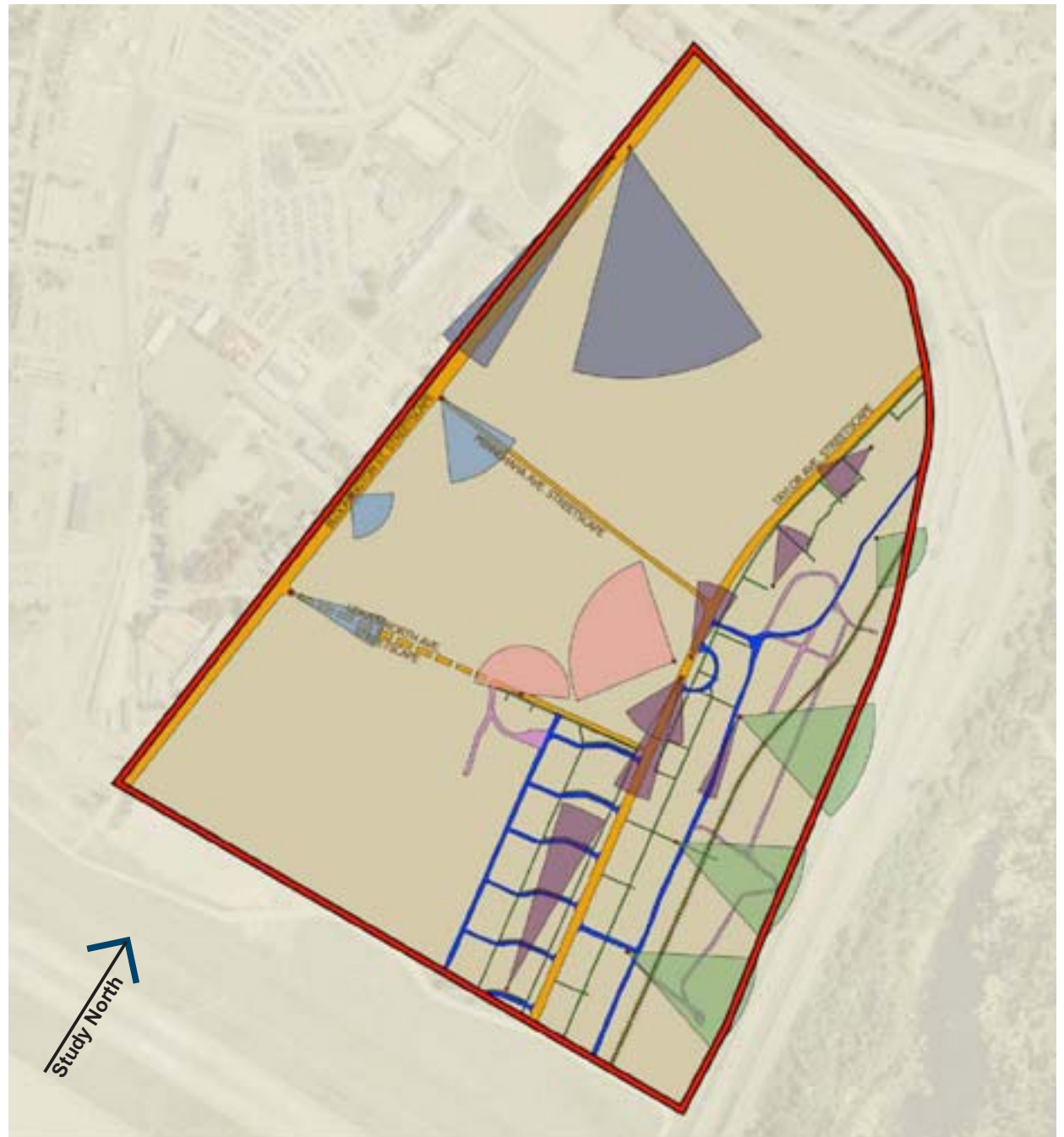
#53	Gymnasium
#54	Medical Detachment Barracks
#55	Post Hospital
#56	Hospital Steward's Quarters
#57	Band Barracks
#62	Dead House (Morgue)
#63	Quartermaster's Shops (to be demolished)
#64	Fire Station House
#65	Post Guard House (Prison)
#66	Telephone Exchange
#67	Post Headquarters
#76	Civilian Employees' Quarters
#101	Barracks
#102	Barracks
#103	Barracks
#112	Post Bakery
#151	Bachelor Officers' Quarters
#152	Officer's Quarters
#153	Officer's Quarters
#154	Officer's Quarters
#155	Officer's Quarters
#156	Officer's Quarters
#157	Officer's Quarters
#158	Officer's Quarters
#159	Officer's Quarters
#160	Officer's Quarters
#161	Officer's Quarters
#175	Club House



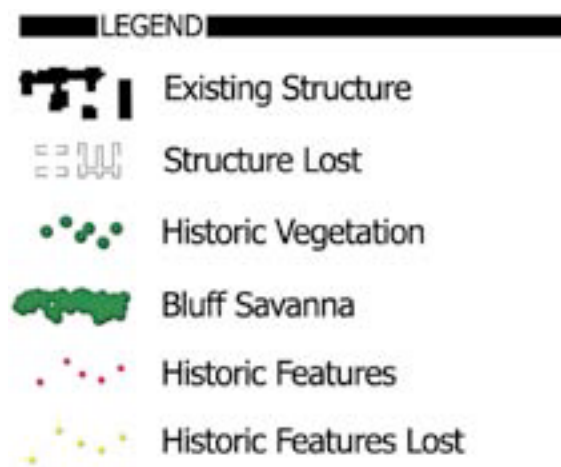
Treatment Zones



Circulation & Views



Vegetation & Historic Features



The Upper Post's Historic Landscape Zones:

Existing Conditions

Fort Snelling's Upper Post grew over many decades between the 1870s and WW II. Its architecture, landscapes and even the streetlights reflect changing design styles. By the early 20th Century, the Upper Post resembled a college campus with a chapel, dormitory housing (the Barracks), a gymnasium, an administration building with clocktower, and numerous recreational fields. Taylor Avenue served as an organizing boulevard that linked these buildings and the Upper and Lower Posts.

Today, the Upper Post's wide variety of building sizes, outdoor spaces, and campus-scale streets offer diverse opportunities for new activities and investment. The following pages summarize the historic character of each zone and sub-zone at the Upper Post. These zones are determined by their coherence of scale, period of construction, and circulation.

The Development Zone Guidelines section includes summary recommendations for landscape preservation and new construction, and specific vegetation palettes are in Appendix III.

Polo Grounds (former Artillery Field)

With its proximity to former Cavalry barracks and stables, this landscape initially developed as artillery and cavalry drill areas. A 1902 plan of the entire fort titles the area as the "Artillery Parade." The Polo Grounds supplanted Artillery uses in the 1930s. As the largest open field in the post, the Polo Grounds served multiple recreational functions in the 20th Century including World War I Battle reenactments in the late 1920s, a track and field, equestrian events and polo tournaments.

Spatial Patterns: The introduction of high field lights and fences visibly disrupts the level open space that once defined this area's use and character. These intrusions were allowed under the Memorandum of Understanding between the National Park Service and the Minnesota Department of Natural Resources when the MPRB ball fields were developed. To mitigate the intrusions, the Memorandum of Understanding called for an Interpretive Plan to be developed for the Upper Post. This was completed by Thomas R. Zahn & Associates in November, 2006.

Topography: Because the area's activities are still recreation and sports fields, the original flat grade remains.

Circulation: New recreational uses have introduced pedestrian access. There is minimal change to surrounding paved roads.

Vegetation: Natural turf.

Structures, Features, Objects: Light towers, fences, and backstops are adverse effects on the original character of the space. In the early 2000s, Buildings 205 and 206, former artillery sheds, were moved from their original sites across Bloomington Road, where the tennis center was developed by the MPRB, to the north end of the Polo Grounds. It is the intent that they will eventually serve as concession and restroom facilities for the ball field complex.

Water Features: None

Environmental Considerations: Field irrigation and the use of herbicides and pesticides can have adverse effects on surrounding groundwater and runoff.

Parade Grounds

In the 1883 budget request to expand the Upper Post, General Terry specifically mentioned the need “to grade a drill-ground of sufficient size to permit the maneuvering of a regiment of infantry and a battery of artillery.” It is likely that this area included the Polo Grounds and the Parade Grounds. A 1902 plan of the entire fort titles the area as the “Infantry Parade.” Today, the Parade Grounds remain one of the most important central open spaces of the Upper Post. It is framed by the two main entry drives from Bloomington Road and, as it did in the 1880s, provides a first view of the Upper Post’s administrative buildings. The Parade Ground’s current use as part of the golf course, relocated in the 1960s, introduces changes to the topography and scattered plantings that would not have been part of the area’s flat and open character from the 1880s through WW II.

Spatial Patterns: Disrupted by the introduction of ornamental trees and shrubs for the golf course.

Topography: Altered by terrain changes for golf course fairways, tees and greens.

Circulation: Altered by new cart paths.

Vegetation: During the period of significance of the Parade Grounds through WW II, there would have been no vegetation in this area except for lilac hedges along the entry avenues (as shown in the 1939 site plan) and evenly spaced elm trees along surrounding streets on all four sides. This condition is today altered with the loss of street trees and by the introduction of ornamental trees and shrubs for the golf course.

Structures, Features, Objects: Addition of benches and other objects for golf course. Loss of street lamps from the early 20th Century.

Water Features: The small pond located within the Parade Grounds near Leavenworth and Taylor Avenues is not original.

Environmental Considerations: Golf course irrigation and the use of herbicides and pesticides can have adverse effects on surrounding groundwater and runoff.

Golf Course

With the expansion of the airport, the Upper Post's 18-hole golf course was reduced to 9 holes. Historically, this zone was the northern part of the larger course. A rifle practice range also existed on the northwest corner near Bloomington Road. In the 1960s, this area was reconfigured and the course expanded to the former Parade Grounds to the east. With the possible exception of some greens, virtually none of this area's landscape survives from before 1946.

Spatial Patterns: Altered golf course links in reconfiguration.

Topography: Altered for golf course reconfiguration.

Circulation: Entirely altered after 1946.

Vegetation: Loss of mature elms. General overstory vegetation is less than 50 years old.

Structures, Features, Objects: Addition of benches and other objects for golf course.

Water Features: Minimal golf course related water features.

Environmental Considerations: Golf Course and green irrigation and the use of herbicides and pesticides could have adverse effects on surrounding groundwater and runoff.

Officers' Housing

The Officers' Housing zone grew during the period 1880 to 1915 with the completion of the Bachelors' Officers' Quarters (Building 151). Today, with airport expansion, only ten of the Officers' Row Houses remain along the west side of Taylor Avenue. The somewhat neo-classical style Bachelors Officers' Quarters facing the Parade Grounds is surrounded by historic spruce groves that likely date from the time of its construction. Original sidewalks and later "improvements" from the WPA projects of the 1930s, also survive. Along Officers' Row, a significant canopy of spruce, cedars and oaks endures to lend a sense of the parkland character of the lawns that once existed along Taylor's west edge.

Subzone: Bachelor Officers' Quarters (Building 151 - BOQ)

At the corner of Taylor and Leavenworth, this sub-zone contains some of the most historic planted vegetation in the Upper Post. With direct views to the Administration Building and over the Parade Grounds, the BOQ's balconies and front steps help to connect architecture and the parkland landscape of the Fort.

Spatial Patterns: Intact.

Topography: Intact.

Circulation: Leavenworth Avenue was partially replaced by the golf course to the west. Sidewalks are still present, but in poor condition. Remnant curbs exist from the gravel access road behind buildings.

Vegetation: Contributing spruce groves to east. Surviving shrubs at front of building.

Structures, Features, Objects: Surviving stone bench hidden under spruce grove to east.

Water Features: None.

*Subzone: Officers' Row Side/
Back Yards*

When the Officers' Row Houses were built in the 1870s and 1880s, this subzone was planned as a service area in the rear and as an extension of the front lawn parkland between the houses. Originally, deliveries of coal, ice and other items would have occurred from this area with stables for occupant use. In the 1930s, WPA workers replaced the stables with garages that remain today.

Spatial Patterns: Intact with addition of auto garages during the WPA era contributing to pattern.

Topography: Level and intact.

Circulation: The service drive remains intact.

Vegetation: Some spruce and foundation plantings survive in the side yards. They were likely planted after 1920.

Structures, Features, Objects: Some 19th century remnants including a concrete carriage stoop remain behind the houses.

Water Features: None.

*Subzone: Officers' Row
Front Yards*

Subzone: Officers' Row Front Yards. Extending from the front porches of Officer's Row to Taylor Avenue, this area is one of the most elegantly designed landscapes of the Upper Fort. Future reuse of the houses will benefit from a restoration of the parkland setting that existed in this area at the end of the 19th century. Whereas the Parade grounds and the lawns in front of the barracks across Taylor were open planes of grass bounded by straight avenues and sidewalks, the front yards of Officers' Row were planted with scattered elms, oaks, spruce, and pines. In plan view, the house entry sidewalks curved in a consistent arc to the south. At the Center of the Row, the Commandant's House was highlighted by a curving entry drive that expressed its importance.

Spatial Patterns: Intact.

Topography: Intact.

Circulation: Remnants of unpaved, curved drives remain at most houses, along with corresponding curb cuts at Taylor Avenue. Sidewalks are in poor condition but still present.

Vegetation: Contributing lines of spruce paralleling front sidewalk. Scotch Pines to east.

Structures, Features, Objects: Surviving light fixture near Building 156.

Water Features: None.

*North Taylor Avenue
Campus*

*Subzone: Hospital &
Gymnasium Area*

The capital requests for the development of the Upper Post in the 1880s make specific mention of hospital facilities. Throughout much of its history, Fort Snelling was an important training center for doctors and nurses. The Hospital, Dead House, Medical Detachment Barracks, and Hospital Steward's Quarters form a medical campus within the larger Upper Post that offers significant reuse opportunities.

Spatial Patterns: Intact building pattern framed by oak canopy.

Topography: Level and intact.

Circulation: Sidewalks still present but in poor repair. Roads to rear in poor repair. Abandoned streetcar alignment still somewhat visible.

Vegetation: Oak canopy with scattered conifers.

Structures, Features, Objects: Gateposts to rear, possibly used for lighting.

Water Features None.

Subzone: Hospital Lawn

As the front yard for the Fort's medical complex, this area is one of the few in the entire Fort that is both smoothly graded and scattered with mature oaks and other hardwoods. Before construction of the nearby freeways, this area would have been the center of Taylor Avenues with views along its course northward toward the Chapel and southward to the end of Officer's Row. To the west, one could see the activities of the Polo Grounds and visitors arriving from Bloomington Road.

Spatial Patterns: Intact.

Topography: Intact.

Circulation: Intact. Sidewalks in poor repair.

Vegetation: Intact.

Structures, Features, Objects: Intact.

Water Features: None.

Subzone: Administration

Located near the junction of Minnehaha and Taylor Avenues, the Administration zone offered broad views over the Parade Grounds and more filtered views toward the Minnesota River Valley. Photos from the 19th and early 20th centuries show the prominence of the Taylor Avenue location with a central flagpole and siren that was likely added before WW II.

Spatial Patterns: Intact.

Topography: Intact.

Circulation: Intact. Sidewalks in poor repair. Abandoned streetcar alignment somewhat visible at east side.

Vegetation: Intact.

Structures, Features, Objects: Intact.

Water Features: None.

Subzone: Administration Lawn **Spatial Patterns:** Intact.

Topography: Intact.

Circulation: Intact.

Structures, Features, Objects: Intact flagpole and siren.

Water Features: None.

Subzone: Southwest Quadrant Bounded by the river bluff and the Sibley Avenue drive behind the Barracks, this area is one of the most heavily forested of the Upper Post. As the Upper Post developed, this zone provided functional services such as the Post Bakery and Civilian Employees' Quarters. It was also likely a site for storage and deliveries.

Spatial Patterns: Altered by growth of vegetation and understory trees since the site has been unoccupied.

Topography: Intact.

Circulation: Sidewalks exist but are in poor repair. The streetcar line is somewhat visible. Gravel paths have been lost.

Vegetation: Intact overstory.

Structures, Features, Objects: Remnant scalloped metal lamps along path/streetcar alignment.

Water Features: None.

*Subzone: West Sibley Avenue/
Streetcar Line* **Spatial Patterns:** Intact.

Topography: Intact.

Circulation: Remnant scalloped metal lamps along path/streetcar alignment.

Vegetation: Intact.

Structures, Features, Objects: Remnant scalloped metal lamps along path/streetcar alignment.

Water Features: None.

Subzone: Barracks Side Yards Subzone: Barracks Side Yards. In contrast to the open lawns in front of the Barracks, the side yards were covered with an oak canopy. Sidewalks running perpendicular to Taylor Avenue ran directly back to Sibley Avenue. Today, remnants of these sidewalks remain.

Spatial Patterns: Intact.

Topography: Intact.

Circulation: Intact.

Vegetation: Intact.

Structures, Features, Objects: Intact.

Water Features: None.

Subzone: Barracks Lawn In contrast to the parkland lawns of Officers' Row, the lawn extending southward from the Headquarters Building to the end of Taylor Avenue was designed to be flat, open and linear. A subtle and sophisticated grading program created a gentle drainage slope from the elevation of the Barracks down to Taylor Avenue. The grading across the avenue in front of Officers' Row mirrored this slope.

Spatial Patterns: Intact.

Topography: Intact.

Circulation: Intact.

Vegetation: Street elms have been lost.

Structures, Features, Objects: Street lamps remain.

Water Features: None.

Streetscapes

Taylor Avenue Streetscape

Spatial Patterns: Intact.

Topography: Intact.

Circulation: Intact.

Vegetation: Street elms have been lost.

Structures, Features, Objects: Street lamps remain.

Water Features: None.

Bloomington Road Streetscape **Spatial Patterns:** Intact.

Topography: Intact.

Circulation: Intact.

Vegetation: Street elms have been lost.

Structures, Features, Objects: Street lamps remain.

Water Features: None.

Leavenworth Avenue Streetscape **Spatial Patterns:** Intact.

Topography: Altered by golf course expansion.

Circulation: Closed by golf course expansion.

Vegetation: Street elms have been lost.

Structures, Features, Objects: None.

Water Features: None.

Bluff Buffer Zone **Spatial Patterns:** Altered by freeway construction.

Topography: Altered by freeway construction.

Circulation: None.

Vegetation: Altered by freeway construction.

Structures, Features, Objects: None.

Water Features: None.

Potential Development Zones

SUMMARY OF POTENTIAL DEVELOPMENT ZONES

Zones	Acres	Description
A- Golf Course		
A ₁	3.6	Golf course- Bloomington Road.
A ₂	5.0	Golf course- Leavenworth Avenue.
A ₃	11.5	Golf course- Interior.
B- Officers Quarters		
B ₁	9,000 SF	Building 151 expansion footprint.
B ₂	3.2	Buffer and parking zone.
C- Area J		
C ₁	10.9	Barracks to Bluff.
C ₂	.93	Behind buildings 64, 65, 66 trolley right of way.
C ₃	8,000 SF	Reconstruction/ Expansion of Building 63. (4,000 SF existing/ 4,000 SF proposed)
D- Polo Grounds/ Athletic Fields		
D	40.56	Existing uses to remain per long-term lease.
E- Parade Grounds		
E	19.58	Recreation of Leavenworth Ave. and regrading of parade grounds required.



DNL Noise Contour Map

Noise generated by the adjacent MSP International Airport will have an impact on uses at the Upper Post. To help understand that impact, the aerial photograph shown here represents the DNL Noise Contours measured in 2006. Note that in the cities that surround the airport, residences that fall in areas above the 60 DNL line may qualify for varying levels of sound mitigation work under various Metropolitan Airport Commission's sound abatement programs. Only the Medical Detachment Building and the Gymnasium are outside of the 60 DNL line, so sound mitigation will be an important aspect for the reuse of any of the available developable property.



Development Zone Guidelines – Favrot Grant Open Space Study

Approach to the future level of development at the Upper Post

These guidelines recognize the fact that redevelopment of the historic buildings at the Upper Post may require some additional incentives to make that goal financially feasible. To that end, the open space portions of the site have been reviewed for where and how new development could appropriately take place to provide the additional density that may be necessary. Five potential development zones have been identified, and approximately 32 acres in two of those zones have been shown to be favorable for new development. It is important that these areas of new development be somehow linked to the historic buildings, so that those entities utilizing them can take advantage of development of the open space to help make it feasible. One or two parties should not be given rights to the most developable land, leaving others to struggle with the rehabilitation of the historic buildings without financial enhancements.

One of the clues for determining what an appropriate level of development for this site could be is found in the past. An analysis of the most highly developed area of the Upper Post, that east of Taylor Avenue, reveals the following:

- 52% of the Taylor Avenue Streetscape has building facades facing the street. The longest building façade facing Taylor Avenue is the Barracks buildings that are roughly 300 feet long.
- 9% of the land has buildings constructed on it.

These two facts have been incorporated into the guidelines below to serve as a guide as future areas of the Upper Post are developed. Parking and drive aisles are not included in this calculation. The result should reflect a similar level of development to the Historic Upper Post and insure a harmonious fit between old and new.

In addition, new building massing and materials at the Upper Post need to respect the existing buildings on the site, which generally consist of limited types and colors of masonry, along with hip or gable roofs of red, black, or gray slate or asphalt shingles. New development can creatively interpret how that palette may be used, and new construction should be “of its time” so as to not lead someone to believe that it is part of the historic fabric of the site. It must follow the Secretary of the Interior’s Standards for additions and new construction within an historic district so as to not compromise the existing historic integrity, and these are reproduced in full in Appendix I for guidance.

Development Zone A Golf Course



Development Zone A is an area of the south portion of the current golf course that would be available for development. This zone has a large amount of green space and rolling topography characteristic of a golf course. There are 20.1 acres of land that could potentially be developed. Three development sub-zones have been identified within Zone A: A1, A2 & A3.

Site Development Standards

Allowable Land Uses:

Zone A would be available for a wide range of potential uses. Uses must be compatible with other uses within the Upper Post, with those uses across Bloomington Road, and with the activities on the adjacent MSP Airport property.

Building Placement, Density, and Setbacks: The footprint of all proposed structures within the entire Zone A should not exceed 10% of the entire acreage. This calculation is for structures only and does not include parking and drives.

Zone A1 is 250 feet deep along its frontage with Bloomington Road, in order to allow for buildings and related parking. Further guidelines are as follows;

- North Setback: None.
- East Setback: None.
- West Setback: Equal with the back of curb to the face of building front yard setback of the existing building immediately across Bloomington Road. Buildings should be built to the setback, comprise no more than 52% of the street frontage, and be no longer than 300 feet.
- South Setback: 50 feet.

Zone A2 is 250 feet deep along its frontage with Leavenworth Avenue, in order to allow for buildings and related parking. Further guidelines are as follows;

- North Setback: Equal with the back of curb to the face of Building 151 setback dimension along Leavenworth Avenue. Buildings should be built to the setback, comprise no more than 52% of the street frontage, and be no longer than 300 feet.
- East Setback: 100 feet from the west façade of Building 151
- West Setback: Equal with the front yard setback for buildings along Bloomington Road, as outlined in Zone A1.
- South Setback: None

Zone A3 is comprised of the remaining land within Zone A. Further guidelines are as follows;

- North Setback: None
- East Setback: None
- West Setback: None

- South Setback: 50 feet from the MSP Airport property line.

Building Height and Materials:

Zone A1: For a flat roof structure, no higher than the existing building immediately across Bloomington Road. For a pitched roof structure, the eave line should be no higher than the existing building immediately across Bloomington Road, the roof pitch should match Building 151, and the ridge line should be no higher than that on Building 151. Pitched roofs should be slate or asphalt shingles that imitate slate.

Zone A2: For a flat roof structure, no higher than the eave line of Building 151. For a pitched roof structure, the eave line should be no higher than the eave line of Building 151, the roof pitch should match Building 151, and the ridge line should be no higher than that on Building 151. Pitched roofs should be slate or asphalt shingles that imitate slate.

Zone A3: Roofs of buildings within Zone A3 may have flat or pitched roofs. Heights may be up to six-story maximum or 90 feet, except they shall be subject to review and approval by the Metropolitan Airports Commission (MAC) and the Federal Aviation Administration (FAA) so as to not conflict with the function of the airport, its radar systems, and other operations.

Parking Strategies:

Parking shall be located on the interior of the site and should be buffered from potential views from Leavenworth Avenue, Bloomington Road, and Officers' Row. Parking, drive lanes, and other paved areas shall not comprise more than 60% of the site. Parking structures are encouraged if needed to accommodate the parking needs of specific building uses and stay within the 60% guideline. Although the site is not within the City of Minneapolis, refer to its Zoning Ordinance for guidance with regard to the number of parking stalls required for a particular building use.

Street Presence:

Buildings facing Leavenworth Avenue or Bloomington Road shall have pedestrian entrances facing the streets. Buildings shall be articulated with windows and/or architectural elements to complement other existing Upper Post structures. First floor building elevations should be slightly higher than the adjacent roadway but should not require a slope greater than 5% from the top of curb elevation to the floor.

Streetscape/Landscape Standards:

Appropriate boulevard trees should be planted along Leavenworth Avenue and Bloomington Road to be consistent with historical documents, and front yard landscaping should be predominantly turf and relatively simple to be consistent with the historical Upper Post landscape. Shrub plantings at foundations and at building entries are allowed, with coniferous tree massings between buildings. Parking lots can be recessed into grade but should not be screened using earthen berms. Landscaping is preferred for screening parking from view from outside the development zone. See Appendix III for recommended plant species.

Development Zone B Officers Row



Zone B is the area that encompasses the Bachelor Officers Quarters (BOQ – Building 151) and Officers Row (Buildings 152 to 161). It is bounded by Leavenworth Avenue on the north, Taylor Avenue on the east, a line 50 feet west of Building 151 and projected southward to the MSP Airport property line on the west, and the MSP Airport property line on the south.

Site Development Standards

Allowable Land Uses:

Zone B buildings would be available for uses compatible with their size. Uses must also be compatible with other uses within the Upper Post, with those uses across Taylor Avenue, and with the activities on the adjacent MSP Airport property.

Building Additions:

The only additions allowed to buildings within Zone B would be as follows:

Officers Row: On the rear (secondary) facades.

Building 151: An addition may be constructed at the rear of the existing building that would attach at the south end of the existing central wing of the building, be no wider in the east-west direction than the existing building, and be no deeper in the north-south direction than the main body of the existing building.

Parking Strategies:

Parking shall be located in Zone B2 behind the buildings. Parking, drive lanes, and other paved areas shall not comprise more than 60% of the Zone B2 site. Parking structures are encouraged if needed to accommodate the parking needs of specific building uses and stay within the 60% guideline. Although the site is not within the City of Minneapolis, refer to its Zoning Ordinance for guidance with regard to the number of parking stalls required for a particular building use.

Streetscape/Landscape Standards:

Appropriate boulevard trees should be planted along Leavenworth and Taylor Avenues to be consistent with historical documents, the parkland canopy should be rehabilitated using appropriate species, and front yard landscaping should be consistent with the historical Officers Row landscape. Shrub plantings at foundations and at building entries are allowed, with coniferous tree massings between buildings. Fencing is not required for screening of parking, but if proposed for security purposes, it should be based on historical precedent from the site. Sidewalks should be rehabilitated using appropriate materials, and should be widened only to the minimum accessible width. Sidewalk lighting along the front of the houses should be recreated based on the surviving “General Electric” fixture near Building 156. See Appendix III for recommended plant species.

Development Zone C
Barracks —
Administration —
Hospital



Zone C is the area between the Minnesota River bluff and Taylor Avenue on the east side of the site. The Taylor Avenue Streetscape with adjacent front yards should remain undisturbed. Three potential development zones (C1, C2, and C3) comprising 12 acres have been identified between the bluff edge and the buildings.
Site Development Standards

Building Placement, Density, and Setbacks:

Zone C1 extends from the east facades of Buildings 101, 102, and 103 to the bluff line at the property line with Minnesota State Highway 5. Appropriate infill additions within the courtyards formed by the main bodies of Buildings 101, 102, and 103 and their north and south wings could be considered. No other building construction should be allowed until east of the trolley line. Further guidelines are as follows:

- North Setback: Equal with the north face of Building 101
- East Setback: 30 feet from the delineated bluff line
- West Setback: 30 feet from the centerline of the historic trolley right-of-way.
- South Setback: Equal with the south face of Building 103
- The footprint of all proposed structures within Zone C1 should not exceed 10% of the buildable area. This calculation is for structures only and does not include parking.

Zone C2 extends from the trolley line right-of-way east of Buildings 64, 65, and 66 to the bluff line at the property line with Minnesota State Highway 5. Further guidelines are as follows:

- North Setback: Equal with the north face of Building 65
- East Setback: 30 feet from the delineated bluff line
- West Setback: 30 feet from the centerline of the historic trolley right-of-way
- South Setback: Equal with the south face of Building 66.

Zone C3 comprises the existing footprint of Building 63 and an identical footprint adjacent to and east of it. An appropriate new building up to twice the footprint of Building 63 could therefore be considered. Further guidelines are as follows:

- North Setback: Equal with the north face of Building 63
- East Setback: Twice the width of existing Building 63 from the west face of the existing building.
- West Setback: Equal to the west face of Building 63.
- South Setback: Equal with the south face of Building 63

Building Height and Materials:

Zone C1 (Building Infill): For flat roof structures, no higher than the existing eave line of Buildings 101, 102, and 103. For a pitched roof structure, the eave line should be no higher than the existing eave line of Buildings 101, 102, and 103, the roof pitch should match the buildings, and the ridge line should be no higher than on these buildings. Pitched roofs should be slate or asphalt shingles that imitate slate.

Zone C1 (West Half – See Potential Development Zones Map): For flat roof structures, no higher than the existing eave line of Buildings 101, 102, and 103. For a pitched roof structure, the eave line should be no higher than the existing eave line of Buildings 101, 102, and 103, the roof pitch should match the existing buildings, and the ridge line should be no higher than on these buildings. Pitched roofs should be slate or asphalt shingles that imitate slate.

Zone C1 (East Half – See Potential Development Zones Map): For flat roof structures, no higher than the existing eave line of Buildings 76 and/or 112, whichever is higher. For a pitched roof structure, the eave line should be no higher than the existing eave lines of Buildings 76 and/or 112, the roof pitch should match the existing building, and the ridge line should be no higher than on these buildings. Pitched roofs should be slate or asphalt shingles that imitate slate.

Zone C2: For flat roof structures, no higher than the existing eave line of Building 64. For a pitched roof structure, the eave line should be no higher than the existing eave line of Building 64, and the roof pitch and ridge line should match the existing building. Pitched roofs should be slate or asphalt shingles that imitate slate.

Zone C3: Roofs of a building constructed on the site of Building 63 should be the same height and pitch as the existing building.

Parking Strategies:

General Zone C Parking Guidelines: Parking shall be buffered from potential views from Taylor Avenue. Parking structures are discouraged in other than Zone C1. Depending on the proposed uses of existing buildings and uses of new buildings in Zone C, alternative means, such as shuttles from remote lots, should be explored to limit the amount of on site parking needed. Refer to the City of Minneapolis Zoning Ordinance for guidance with regard to the number of parking stalls required for a particular building use. Parking, drive lanes, and other paved areas shall not comprise more than 60% of the area. Existing or historic drive lanes should be used wherever possible to provide access to parking areas.

Zone C1: Parking in this zone should occur on grade between Buildings 101, 102, and 103 and the trolley line

right of-way while respecting the historic alignment of Ramsey Street. Low parking structures could be allowed east of the trolley line if needed to accommodate the parking needs of specific building uses and/or to stay within the 60% site coverage guideline.

Zone C2: Parking in this zone should occur between Buildings 64, 65, 66, and the trolley line, and/or within development zone C2.

Zone C3: Parking in this zone may occur along and in small parking bays on either side of Ramsey Street in the vicinity of Building 63. Existing or historic drive lanes should be used wherever possible to provide access to parking areas.

The Remainder of Zone C: Parking in the remainder of Zone C needed for uses in Buildings 53 through 62 should occur along and either side of Ramsey Street in the vicinity those buildings. Existing or historic drive lanes should be used wherever possible to provide access to parking areas.

Street Presence:

Buildings shall have pedestrian entrances facing the streets or street-like drive lanes. First floor building elevations should be slightly higher than the adjacent roadway but not require a slope greater than 5% from the top of curb elevation.

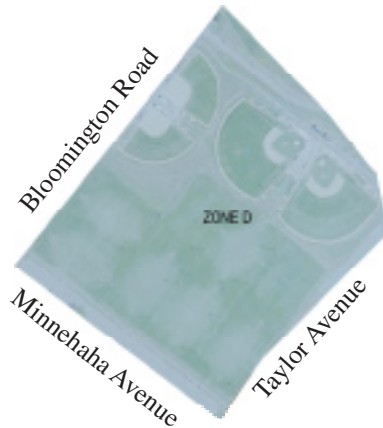
Streetscape/Landscape Standards:

Future development should preserve and maintain the mature oak savanna vegetation and bluff top views of the Minnesota River Valley from within this development zone. This area should also be maintained with future interplantings of appropriate overstory trees. Zone C1 offers significant opportunities for the clearing of underbrush and potential new development to take advantage of river views. Appropriate boulevard trees should be planted along Taylor Avenue to be consistent with historical documents, and front yard landscaping should be consistent with the historic Taylor Avenue streetscape. Shrub plantings at foundations and at building entries are allowed, with coniferous tree massings between buildings. See Appendix III for recommended plant species.

Fencing is not required for screening of parking, but if proposed for security purposes, it should be based on historical precedent at the site. Sidewalks, particularly those that run along Taylor Avenue and to building entries, should be restored or rehabilitated using appropriate materials and should be widened only to the minimum accessible width. The curving symmetrical entry drive off Taylor Avenue to Building 67, the historic street lighting, the flagpole, the siren, and other site amenities should be rehabilitated or restored. No new site objects or plantings should be placed in the front yards along Taylor Avenue.

Development Zone D

Polo Grounds



The Polo Grounds was historically an area of open space and is currently used for various outdoor sports. No development should occur in this area including additional parking lot uses.

Site Development Standards

Allowable Land Uses:

Open space, green space, athletic events.

Building Use and Additions:

Buildings 205 and 206 at the north end of Development Zone D were moved from across Bloomington Road in the early part of the 21st Century. They should be rehabilitated for use as restroom and/or concession facilities for the ball fields. No additions to them should be allowed.

Parking Strategies:

Surface parking for athletic events and use of green space.

Street Presence:

Street presence is important as Taylor Avenue, Bloomington Road, and Minnehaha Avenue define the boundaries of the Polo Grounds.

Streetscape/Landscape Standards:

Appropriate boulevard trees shall be planted along Minnehaha, Bloomington and Taylor Avenues to be consistent with historical documents. See Appendix III for recommended plant species.

Development Zone E

Parade Ground



This area is the historic Parade Grounds for the Upper Post and should be restored as a large open plain. It is possible to use this area for storm water management for development but its visual appearance will remain as a large open plain. The existing golf course will be removed.

Site Development Standards

Allowable Land Uses:

Open space, green space.

Building Use and Additions:

NA

***General Sustainable
Design Strategies for
the Entire Upper Post***

Parking Strategies:

NA.

Street Presence:

Street presence is important as Leavenworth, Minnehaha, and Taylor Avenues and Bloomington Road define the boundaries of the Parade Grounds.

Streetscape/Landscape Standards:

Species appropriate boulevard trees will be planted along Leavenworth, Minnehaha, Taylor Avenues and Bloomington Road to be consistent with historical documents. The rest of the area will be turf. The area should appear generally flat, with slopes between 2% and 5%.

Sustainable design principles should be used throughout any development in any zone within the Ft. Snelling Upper Post Historic District. However, the sustainable strategies utilized must be sympathetic with the historic character of the site. For example, appropriate sustainable site design strategies might include porous pavements, rainwater harvesting and reuse, underground storage, infiltration systems, green roofs, and similar methods that do not impose a design aesthetic that has never existed at the Upper Post such as rain gardens, bioswales, storm water streetscaping, etc.

Likewise, new construction at the Upper Post should be sympathetic to and in scale with the existing buildings at the site, yet “of its time”. Sustainable strategies may include solar orientation; daylighting; small scale vertical wind generators; photovoltaics; ground source energy systems; thermal displacement ventilation; grey water recycling; carbon reduction; use of materials based on a first cost, life-cycle cost, long-term environmental impact, energy conservation and pre- and post-construction emissions basis; using materials based on their recycled content and/or recyclability in the future; specifying a strict recycling program during construction; etc.

Rehabilitation of the existing buildings should also utilize any of the sustainable design strategies that are appropriate to the particular building but sympathetic to its historic character. The act of rehabilitating the buildings and utilizing their embodied material, cultural, and historical energy is a significant sustainable act in itself. Remember, historic preservation is the “queen of green”.

APPENDIX I — Secretary of the Interior's Standards for Rehabilitation

The following standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old design, color, texture, and other visual qualities and where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Resources

The following publication contains more detailed information about the Standards.

- Weeks, Jay D. and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Illustrated Guidelines for Preserving, Rehabilitating, Restoring, and Reconstruction Historic Buildings*. Washington, D.C.: Heritage Preservation Services, U.S. Department of the Interior, 1995. 188 pp.
- Birnbaum, Charles A., FASLA, and Christine Capella-Peters, Editors, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. Washington, D.C.: Heritage Preservation Services, U.S. Department of the Interior, 1996. 148 pp.

APPENDIX II — *National Park Service Guidelines for the Treatment of Cultural Landscapes*

The following definitions and texts are drawn from the National Park Service Guidelines for the Treatment of Cultural Landscapes. These Guidelines inform the recommendations and site-specific development parameters in this report for stewardship and future investment at Upper Fort Snelling.

The full *Cultural Landscape Guidelines* are available on-line at:
http://www.nps.gov/history/hps/hli/landscape_guidelines/

Defining Landscape Terminology

Character-defining feature - a prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character. Land use patterns, vegetation, furnishings, decorative details and materials may be such features.

Component landscape - A discrete portion of the landscape which can be further subdivided into individual features. The landscape unit may contribute to the significance of a National Register property, such as a farmstead in a rural historic district. In some cases, the landscape unit may be individually eligible for the National Register of Historic Places, such as a rose garden in a large urban park.

Cultural landscape - a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes.

Ethnographic landscape - a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, sacred religious sites, and massive geological structures. Small plant communities, animals, subsistence and ceremonial grounds are often components.

Feature - The smallest element(s) of a landscape that contributes to the significance and that can be the subject of a treatment intervention. Examples include a woodlot, hedge, lawn, specimen plant, allee, house, meadow or open field, fence, wall, earthwork, pond or pool, bollard, orchard, or agricultural terrace.

Historic character - the sum of all visual aspects, features, materials, and spaces associated with a cultural landscape's history, i.e. the original configuration together with losses and later changes. These qualities are often referred to as character-defining.

Historic designed landscape - a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, engineer, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition. The landscape may be associated with a significant person, trend, or event in landscape architecture; or illustrate an important development in the theory and practice of landscape architecture. Aesthetic values play a significant role in designed landscapes. Examples include parks, campuses, and estates.

Historic vernacular landscape - a landscape that evolved through use by the people whose activities or occupancy shaped it. Through social or cultural attitudes of an individual, a family, or a community, the landscape reflects the physical, biological, and cultural character of everyday lives. Function plays a significant role in vernacular landscapes. This can be a farm complex or a district of historic farmsteads along a river valley. Examples include rural historic districts and agricultural landscapes.

Historic site - a landscape significant for its association with a historic event, activity or person. Examples include battlefields and presidential homes and properties.

Integrity - the authenticity of a property's historic identity, evinced by the survival of physical characteristics that existed during the property's historic or prehistoric period. The seven qualities of integrity as defined by the National Register Program are location, setting, feeling, association, design, workmanship, and materials.

Significance - the meaning or value ascribed to a cultural landscape based on the National Register criteria for evaluation. It normally stems from a combination of association and integrity.

Treatment - work carried out to achieve a particular historic preservation goal.

Organizational Elements of the Landscape

Spatial Organization and Land Patterns refers to the three-dimensional organization and patterns of spaces in a landscape, like the arrangement of rooms in a house. Spatial organization is created by the landscape's cultural and natural features. Some form visual links or barriers (such as fences and hedgerows); others create spaces and visual connections in the landscape (such as topography and open water). The organization of such features defines and creates spaces in the landscape and often is closely related to land use. Both the functional and visual relationship between spaces is integral to the historic character of a property. In addition, it is important to recognize that spatial relationships may change over time due to a variety of factors, including: environmental impacts (e.g. drought, flood), plant growth and succession, and changes in land use or technology.

Character-Defining Features of the Landscape

There are many character-defining features that collectively contribute to the historic character of a cultural landscape. These are as follows:

Topography, the shape of the ground plane and its height or depth, is a character-defining feature of the landscape. Topography may occur naturally or as a result of human manipulation. For example, topographic features may contribute to the creation of outdoor spaces, serve a functional purpose, or provide visual interest.

Vegetation features may be individual plants, as in the case of a specimen tree, or groups of plants such as a hedge, allee, agricultural field, planting bed, or a naturally-occurring plant community or habitat. Vegetation includes evergreen or deciduous trees, shrubs, and ground covers, and both woody and herbaceous plants. Vegetation may derive its significance from historical associations, horticultural or genetic value, or aesthetic or functional qualities. It is a primary dynamic component of the landscape's character; therefore, the treatment of cultural landscapes must recognize the continual process of germination, growth, seasonal change, aging, decay, and death of plants. The character of individual plants is derived from habit, form, color, texture, bloom, fruit, fragrance, scale and context.

Circulation features may include, roads, parkways, drives, trails, walks, paths, parking areas, and canals. Such features may occur individually or be linked to form networks or systems. The character of circulation features is defined by factors such as alignment, width, surface and edge treatment, grade, materials, and infrastructure.

Water features may be aesthetic as well as functional components of the landscape. They may be linked to the natural hydrologic system or may be fed artificially; their associated water supply, drainage, and mechanical systems are important components. Water features include fountains, pools, cascades, irrigation systems, ponds, lakes, streams, and aqueducts. The characteristics of water features and reflective qualities; and associated plant and animal life, as well as water quality. Special consideration may be required due to the seasonal changes in water such as variations in water table, precipitation, and freezing.

Structures, site furnishings, and objects may contribute to a landscape's significance and historic character. Structures are non-habitable, constructed features, unlike buildings which have walls and roofs and are generally habitable. Structures may be significant individually or they may simply contribute to the historic character of the landscape. They may include walls, terraces, arbors, gazebos, follies, tennis courts, playground equipment, greenhouses, cold frames, steps, bridges, and dams. The placement and arrangement of buildings and structures are important to the character of the landscape; these guidelines emphasize the relationship between buildings, structures, and other features which comprise the historic landscape. For additional and specific guidance related to the treatment of historic buildings, please consult the *Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*.

Site furnishings and objects generally are small-scale elements in the landscape that may be functional, decorative, or both. They can include benches, lights, signs, drinking fountains, trash receptacles, fences, tree grates, clocks, flagpoles, sculpture, monuments, memorials, planters, and urns. They may be movable, used seasonally, or permanently installed. Site furnishings and objects occur as singular items, in groups of similar or identical features, or as part of a system (e.g. signage). They may be designed or built for a specific site, available through a catalog, or created as vernacular pieces associated with a particular region or cultural group. They may be significant in their own right, for example, as works of art or as the work of an important designer.

Preservation Planning Careful planning prior to treatment can help prevent irrevocable damage to a cultural landscape. Professional techniques for identifying, documenting, and treating cultural landscapes have advanced over the past twenty-five years and are continually being refined.

As described in the National Park Service publication, *Preservation Brief #36: Protecting Cultural Landscapes*, the preservation planning process for cultural landscapes should involve: historical research; inventory and documentation of existing conditions; site analysis and evaluation of integrity and significance; development of a cultural landscape preservation approach and treatment plan; development of a cultural landscape management plan and management philosophy; development of a strategy for ongoing maintenance; and, preparation of a record of treatment and future research recommendations.

In all treatments for cultural landscapes, the following general recommendations and comments apply:

Before undertaking project work, research of a cultural landscape is essential. Research findings help to identify a landscape's historic period(s) of ownership, occupancy and development, and bring greater understanding of the associations that make them significant. Research findings also provide a foundation to make educated decisions for project treatment, and can guide management, maintenance, and interpretation. In addition, research findings may be useful in satisfying compliance reviews (e.g. Section 106 of the National Historic Preservation Act as amended).

Although there is no single way to inventory a landscape, the goal of documentation is to provide a record of the landscape as it exists at the present time, thus providing a baseline from which to operate. All component landscapes and features that contribute to the landscape's historic character should be recorded. The level of documentation needed depends on the nature and the significance of the resource. For example, plant material documentation may ideally include botanical name or species, common name and size. To ensure full representation of existing herbaceous plants, care should be taken to document the landscape in different seasons. This level of research may most often be the ideal goal for smaller properties, but may prove impractical for large, vernacular landscapes.

Assessing a landscape as a continuum through history is critical in assessing cultural and historic value. By analyzing the landscape, change over time—the chronological and physical “layers” of the landscape—can be understood. Based on analysis, individual features may be attributed to a discrete period of introduction, their presence or absence substantiated to a given date, and therefore the landscape’s significance and integrity evaluated. In addition, analysis allows the property to be viewed within the context of other cultural landscapes.

In order for the landscape to be considered significant, character-defining features that convey its significance in history must not only be present, but they also must possess historic integrity. Location, setting, design, materials, workmanship, feeling and association should be considered in determining whether a landscape and its character-defining features possess historic integrity.

Preservation planning for cultural landscapes involves a broad array of dynamic variables. Adopting comprehensive treatment and management plans, in concert with a preservation maintenance strategy, acknowledges a cultural landscape’s ever-changing nature and the interrelationship of treatment, management and maintenance.

Landscape Treatment Approaches

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic

APPENDIX III— Recommended Species for Planting in the Historic District

The following species are recommended for use in proposed developments in the Ft. Snelling Upper Post National Landmark Historic District. All plantings in the district should be based on their suitability to the historic character of the campus rather than on easy availability.

Conifers

Austrian Pine
Black Hills Spruce
Black Spruce
Eastern Red Cedar
Norway Spruce
Ponderosa Pine
Scotch Pine
White Spruce

Street Trees

‘Accolade’ Elm
‘Cathedral’ Elm
‘Discovery’ Elm
Hackberry
‘New Harmony’ Elm
‘Valley Forge’ Elm

Overstory Trees

American Linden
Bitternut Hickory
Bur Oak
Elm (see above varieties)
Ginko (male)
Hackberry
Kentucky Coffeetree (male)
Mancana Ash
Ohio Buckeye
Seedless Cottonwood

Understory Trees

Crabapple
Gray Dogwood
Hawthorn
Ironwood
Japanese Tree Lilac
Ornamental Plum
Pagoda Dogwood
Red Berried Elder
Serviceberry
Tartarian Maple

Ornamental Shrubs

Bridal-wreath Spirea
Caragana
Compact American Cranberry Bush
Cotoneaster
Currant
Dwarf Ninebark
Highbush Cranberry
Hydrangea Arborescens
Hydrangea Pee Gee
Lilac
Mockorange
Nannyberry
Red Twigged Dogwood
Spirea, Gold-leaved, Anthony
Waterer, Ash-leaved
Tartarian and Morrows Honeysuckle

Ural False Spirea

Viburnum

White Snowberry

Winged Euonymus (Burning Bush)

Shaded Ground-Level Plantings

Astilbe
Bleeding Heart
Lady Fern
Lamium Groundcover
Lily-of-the-Valley
Pennsylvania Sedge
Woodland Phlox

Ornamental Perennials, Annuals, Bulbs

Arctotis
Aster
Astilbe
Candytuft
Canna
Centaurea
Chrysanthemum
Clematis
Columbine
Coreopsis
Cosmos
Daffodil

Dahlia

Daisy

Delphinium

Gladioli

Helichrysum

Hollyhock

Iris

Lady’s Slipper

Lily

Marguerite

Marigold

Nasturtium

Nigella

Peony

Petunia

Phlox

Pinks

Plume poppy

Poppy

Rose

Scabiosa

Snapdragon

Sweet pea

Tulip

Verbena

Yarrow

Zinnia