CHAPTER TWO:
Potential Significant Impacts
CHAPTER TWO: POTENTIAL SIGNIFICANT IMPACTS

2.1 Stormwater Management

2.1.1 West Campus Site Stormwater Management

a. Environmental Setting

According to the New York State stormwater management design manual issued by the Department of Environmental Conservation, October 2001, the present hydrologic character of land within the bounds of west campus can best be described as ultra urbanized. Roughly 52% of the site is comprised of impervious soil cover including surface parking lots, connected building rooftops, driveways, sidewalks and recreational hardscape. Within pervious lawn areas the topsoil is generally 2 to 8 inches thick. Underlying the topsoil is a heterogeneous mixture of silts and clays. According to the soils investigation report it is evident that most of the subsurface soils have been disturbed from past site development. Overburden depths above bedrock range from zero to 20 feet.

Generally, the site slopes from east to west with an average slope of 12%. The site does contain four large terraces benched into the site slope creating flatter runoff catchments within the watershed.

As illustrated by Figure 2.1.A the west campus site has been subdivided into three sub-watersheds which reflect the land areas draining into three separate City of Ithaca storm sewer systems: Lake Street, University Avenue and Stewart Avenue. Land areas and soil cover conditions for the present west campus are summarized in Table 2.1.A: Present Condition, West Campus for each of the three sub-watersheds.

<table>
<thead>
<tr>
<th>Sub-Watershed</th>
<th>City System Impacted</th>
<th>Total Area (Acre)</th>
<th>Soil Cover (Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pervious</td>
</tr>
<tr>
<td>WC-1</td>
<td>Lake Street</td>
<td>6.16</td>
<td>2.90</td>
</tr>
<tr>
<td>WC-2</td>
<td>University Ave</td>
<td>10.09</td>
<td>4.91</td>
</tr>
<tr>
<td>WC-3</td>
<td>Stewart Ave</td>
<td>6.88</td>
<td>3.29</td>
</tr>
</tbody>
</table>

The storm sewer system within west campus is the traditional collection and transmission design with direct connections of building rooftops and parking lots to the sewer mains. There are no apparent stormwater management practices for controlling rates of runoff and no formal practices for treatment. Within the flatter terraces some filtering of sidewalk runoff through lawn areas is occurring.

Known or perceived existing deficiencies in the downstream city storm sewer system include:

- Surcharging of storm sewer manholes on Lake Street in the vicinity of Gun Hill Apartments.
- Surcharging of storm sewer manholes on Stewart Avenue in the vicinity of the Stewart Avenue bridge.
- Deteriorated invert of the 24-inch corrugated metal pipe on Cornell Avenue.
Figure 2.1.A: Existing Site Watersheds
WCRI
The estimated peak rates of runoff for customary design storms are summarized in Table 2.1.B: Present Condition Runoff, West Campus for the present west campus condition. Detailed calculations, analysis methodology and parameters are found in Appendix A: Stormwater.

### Table 2.1.B: Present Condition Runoff, West Campus

<table>
<thead>
<tr>
<th>Sub-Watershed</th>
<th>City System Impacted</th>
<th>Design Storm and Peak Rates of Runoff (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2-year</td>
</tr>
<tr>
<td>WC-1</td>
<td>Lake Street</td>
<td>11</td>
</tr>
<tr>
<td>WC-2</td>
<td>University Ave</td>
<td>17</td>
</tr>
<tr>
<td>WC-3</td>
<td>Stewart Ave</td>
<td>12</td>
</tr>
</tbody>
</table>

**b. Impacts to Stormwater**

**Stormwater Quantity:**

Based on the current comprehensive plan for west campus, re-development will likely decrease the area of impervious surfaces, or remain equal to present conditions. The principal impact of the proposed development is the re-distribution of drainage areas to the three city systems. New proposed building configurations and associated site grading will alter the former routes of the west campus storm sewers. Figure 2.1.B delineates the future sub-watershed boundaries and potential storm sewer layout. The combination of new soil cover conditions and new storm sewers results in the following watershed characteristics (Table 2.1.C: Future Condition, West Campus).

### Table 2.1.C: Future Condition, West Campus

<table>
<thead>
<tr>
<th>Sub-Watershed</th>
<th>City System Impacted</th>
<th>Total Area (Acre)</th>
<th>Soil Cover (Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pervious</td>
</tr>
<tr>
<td>WC-1</td>
<td>Lake Street</td>
<td>5.65</td>
<td>2.62</td>
</tr>
<tr>
<td>WC-2</td>
<td>University Ave</td>
<td>13.08</td>
<td>7.26</td>
</tr>
<tr>
<td>WC-3</td>
<td>Stewart Ave</td>
<td>4.40</td>
<td>1.64</td>
</tr>
</tbody>
</table>

The estimated peak rates of runoff for each design storm are summarized in Table 2.1.D: Future Condition Runoff, West Campus for the future west campus condition.

### Table 2.1.D: Future Condition Runoff, West Campus

<table>
<thead>
<tr>
<th>Sub-Watershed</th>
<th>City System Impacted</th>
<th>Design Storm and Peak Rates of Runoff (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2-year</td>
</tr>
<tr>
<td>WC-1</td>
<td>Lake Street</td>
<td>10</td>
</tr>
<tr>
<td>WC-2</td>
<td>University Ave</td>
<td>21</td>
</tr>
<tr>
<td>WC-3</td>
<td>Stewart Ave</td>
<td>9</td>
</tr>
</tbody>
</table>

Both the Lake Street and Stewart Avenue systems realize a decrease in drainage area and lower peak rates of runoff. The known deficiencies in these two systems will not be exacerbated by future conditions. Conversely, the portion of west campus draining to the University Avenue system increases by three acres and generates higher discharge rates for all storm events.
2. POTENTIAL SIGNIFICANT IMPACTS

Figure 2.1.B: Proposed Site Watersheds

WCRI
Identified negative impacts to stormwater quantity are listed below:

- Discharge through the city’s 24-inch storm sewer along Cornell Avenue, which connects the outlet of WC-2 to the University Avenue main, will increase. The estimated full-flow capacity of this pipe is approximately 53 cfs, therefore, the 100-year design storm discharge from WC-2 will slightly exceed the present pipe capacity.

**Stormwater Quality:**
The substantial reduction in on-site surface parking in the comprehensive plan for west campus greatly reduces pollutant loads from the west campus watershed that presently discharge to Fall Creek. Improved water quality is a positive impact of the project. The quality of roof runoff is not expected to differ from present conditions.

c. **Mitigation Measures for Stormwater**

**Stormwater Quantity:**
If the increases in peak rates of runoff from WC-2 are considered significant, it is possible to incorporate several stormwater practices in the west campus site design to attenuate peak flows to present rates. The preferred practices could include the following:

- Disconnect rooftop runoff from the storm sewers and utilize longer overland flow paths.
- Utilize porous pavements and other infiltration techniques.
- Construct above or below grade storage volume with controlled discharge.

**Stormwater Quality:**
There are no negative impacts to water quality which need mitigation on the west campus.

d. **Unavoidable Impacts to Stormwater**

While possible to attenuate peak rates of runoff with on-site practices, the total increase in volume of runoff to watershed WC-2 as a result of redistribution will be unavoidable.

2.1.2 University Avenue Stormwater Management

a. **Environmental Setting**
The site of the proposed University Avenue parking lot is a mix of lawn and woods comprised of small to medium-sized trees. The “woods” are deemed to provide a good hydrologic condition. Based on the soils investigation report the topsoil is a “thin veneer” ranging between zero and six inches in depth. Beneath the topsoil is a glacial till of compact silts and sands averaging three to four feet thick. Across the site bedrock was encountered anywhere between two and seven feet below the surface.

The site slopes generally down to the west-southwest between 12 and 15%.

For the purpose of evaluating hydraulic impacts, all of the sub-watersheds contributing runoff to the city system on University Avenue were delineated. In addition to the west campus watershed there are three other distinct drainage areas served by the University Avenue sewer: McGraw Place (UA-1), Llenroc Court (UA-2) and the City Cemetery (UA-3). Figure 2.1.B depicts the location of the proposed parking lot within Sub-watershed UA-2. The discharge point for the University
Avenue system is Cascadilla Creek at the intersection with Linn Street. The present conditions within each University Avenue sub-watershed are summarized in Table 2.1.E: Present Condition, University Avenue.

<table>
<thead>
<tr>
<th>Sub-Watershed</th>
<th>Total Area (Acre)</th>
<th>Soil Cover (Acre)</th>
<th>Pervious-Wood</th>
<th>Pervious-Lawn</th>
<th>Impervious</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA-1</td>
<td>13.23</td>
<td></td>
<td>2.12</td>
<td>5.54</td>
<td>5.57</td>
</tr>
<tr>
<td>UA-2</td>
<td>17.88</td>
<td></td>
<td>4.12</td>
<td>9.52</td>
<td>4.24</td>
</tr>
<tr>
<td>UA-3</td>
<td>18.56</td>
<td></td>
<td>1.25</td>
<td>14.91</td>
<td>2.40</td>
</tr>
</tbody>
</table>

Only UA-2 will be impacted by the proposed parking lot project. According to the city’s Streets and Facilities Department there are no known deficiencies in the University Avenue storm sewer system, however, no formal investigation of pipe condition and capacity has been conducted. Small diameter piping at the lower end of UA-1 suggests there could be a capacity problem on Stewart Avenue.

The estimated peak rates of runoff for customary design storms are summarized in Table 2.1.F: Present Condition Runoff, University Avenue for the present condition of each University Avenue sub-watershed. Detailed calculations, analysis methodology and parameters are found in Appendix A: Stormwater.

<table>
<thead>
<tr>
<th>Sub-Watershed</th>
<th>Design Storm and Peak Rates of Runoff (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-year</td>
</tr>
<tr>
<td>UA-1</td>
<td>18</td>
</tr>
<tr>
<td>UA-2</td>
<td>23</td>
</tr>
<tr>
<td>UA-3</td>
<td>20</td>
</tr>
</tbody>
</table>

b. Impacts to Stormwater

Stormwater Quantity:
Completion of the parking lot converts a total of approximately 1.56 acres of woods and lawn into pavements. The estimated peak rates of runoff for each design storm are summarized in Table 2.1.G: Future Condition, University Avenue for the future condition of UA-2. UA-1 and UA-3 are not altered.

<table>
<thead>
<tr>
<th>Sub-Watershed</th>
<th>Design Storm and Peak Rates of Runoff (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-year</td>
</tr>
<tr>
<td>UA-2</td>
<td>26</td>
</tr>
</tbody>
</table>

A comparison of present and future conditions shows marginal increases (13% and 6% for the 2-year and 100-year storms, respectively) in peak rates of runoff for UA-2. For a thorough understanding of cumulative hydraulic impacts on the University Avenue system, it was necessary to perform a time-based routing analysis. Junction nodes, or common points of analysis, were selected at the boundary of UA-2/UA-3 and also at Cascadilla Creek. Details of the routing analysis are
included in Appendix A: Stormwater, and the results summarized in Table 2.1.H: Comparison of Present and Future Runoff, University Avenue.

<table>
<thead>
<tr>
<th>Junction Node</th>
<th>Contributing Sub-watersheds</th>
<th>Design Storm (Type II – 24 hr)</th>
<th>Present Condition Peak Rate (cfs)</th>
<th>Future Condition Peak Rate (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UA-1, UA-2, WC-2</td>
<td>2-year</td>
<td>55</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10-year</td>
<td>102</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50-year</td>
<td>143</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100-year</td>
<td>168</td>
<td>185</td>
</tr>
<tr>
<td>2</td>
<td>UA-1, UA-2, UA-3, WC-2</td>
<td>2-year</td>
<td>72</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10-year</td>
<td>136</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50-year</td>
<td>194</td>
<td>208</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100-year</td>
<td>230</td>
<td>245</td>
</tr>
</tbody>
</table>

Based on field observations the majority of the existing storm sewer piping is shallow in depth and generally parallels the centerline slope of University Avenue. The largest diameter recorded is 24 inches. Given these parameters the theoretical full-flow capacity of the existing 24-inch storm sewer between junction node one and two is approximately 42 cfs. Both present and future watershed conditions significantly exceed this capacity for all of the rainfall events evaluated. Comparatively, a pipe capable of discharging runoff from the ten-year and 100-year events would have to be minimally 30 and 36 inches in diameter, respectively.

An identified negative impact on stormwater quantity is listed below:

- Analysis of the University Avenue system under present watershed conditions suggests the existing piping configuration (i.e. diameters and materials) is not capable of discharging flows from the two-year design storm. Surcharging of storm manholes or drain inlets, although not specifically identified by the city, must occur during the less frequent rainfall events. Completion of the proposed parking lot will exacerbate the current hydraulic condition.

Stormwater Quality:

Depending on size, age and vehicle turnover, parking lots generate a diverse pollutant load in stormwater runoff. Generally, parking lot runoff contains concentrations of trace metals (i.e. cadmium, copper, lead and zinc) greater than the national stormwater mean in addition to oil and grease. The proposed use of the University Avenue site is primarily for long-term residential parking. Runoff with high concentrations of hydrocarbons, from vehicles leaking oil and grease, can be expected. During winter months the use of de-icing salts and sand greatly increases the concentrations of chlorides and sediment in the snowmelt runoff.

Identified negative impacts to stormwater quality are listed below:

- The University Avenue surface parking will replace existing parking to be removed from west campus. Although the overall impact should be no greater than currently exists, because runoff will be redistributed, the pollutant loading to Cascadilla Creek, primarily in the form of trace metals and hydrocarbons, will increase. A proportionate increase in water quality to Fall Creek should occur.
c. Mitigation Measures for Stormwater

Stormwater Quantity:
If the increases in stormwater discharges from UA-2 were considered significant, it would become necessary to construct above or below grade storage volume with controlled discharge to attenuate peak flows to present rates. This site-specific measure does not improve, but neither impairs, the downstream hydraulic condition. Alternatively, the existing University Avenue storm sewer system beginning at the Cornell Avenue intersection could be re-constructed with adequately sized pipe.

Stormwater Quality:
The University Avenue parking lot project will be required by New York State Department of Environmental Conservation to obtain a SPDES permit for stormwater discharge. The permit can require the construction of stormwater management practices aimed at reducing significant levels of pollutants commonly found in parking lot runoff. Such practices include ponds, wetlands, infiltration, filters and open channels. An initial list of filter techniques deemed suitable for the site include:

- Surface and Underground Sand Filters
- Bioretention

Design and construction of these filter systems in accordance with the NYSDEC Stormwater Management Design Manual will fulfill the permit requirements with respect to water quality.

d. Unavoidable Impacts to Stormwater
While possible to attenuate peak rates of runoff with on-site practices, the total increase in volume of runoff will be unavoidable.
2.2 Natural Resources: Vegetation

The following sections describe existing vegetation on the sites included in the West Campus Residential Initiative Project. A discussion of the potential impacts to vegetation based on proposed conditions is included along with plans for mitigating any impacts. Section 2.2.1 describes vegetation at the west campus housing site, and section 2.2.2 describes vegetation for the University Avenue parking site.

2.2.1 West Campus Site Vegetation

a. Existing Vegetation at West Campus Site
Existing vegetation on the west campus site consists of approximately 10.65 acres of lawns and landscape plantings, and approximately one acre of volunteer brush and trees, primarily along Stewart Avenue. Table 2.2.A: Summary of Trees by Size, West Campus, indicates the number of existing trees by size, the number of trees expected to be removed, and trees that could potentially be relocated. Figure 2.2.A: Existing Vegetation, West Campus, illustrates the location and size of existing vegetation to remain and be removed. Appendix E: Vegetation, contains a species list of existing west campus vegetation keyed to Figure 2.2.A.

<table>
<thead>
<tr>
<th>Tree Size (dbh)</th>
<th>Total</th>
<th>To Remain</th>
<th>To be Removed</th>
<th>Potentially Relocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-10”</td>
<td>137</td>
<td>49</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>11-18”</td>
<td>58</td>
<td>22</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>19-24”</td>
<td>30</td>
<td>23</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>25-30”</td>
<td>19</td>
<td>12</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>31”+</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>249</td>
<td>109</td>
<td>79</td>
<td>61</td>
</tr>
</tbody>
</table>

b. Impacts to Vegetation at West Campus Site
There will be little to no alterations to the vegetation in the northeast and southern portions of the project site. The northeast area of the site includes the mature landscaping along University Avenue and West Avenue adjacent to the Gothics, as well as the landscaping between those buildings and the existing Class Halls. In the southern area of the site, the existing landscaping on the grounds of Delta Tau Delta, Phi Kappa Psi, Psi Upsilon and Sigma Phi fraternities will be minimally impacted by the proposed action.

The largest proportion of the vegetation to be removed within the project site will be from the center of the project area, surrounding the Class Halls, Noyes Center and the surface parking at the corner of University and Stewart avenues. Almost all shrubs and small ornamental trees in the area now occupied by the class halls and Noyes Center are expected to be removed as part of the proposed project. Most of the volunteer growth along Stewart Avenue will remain.

Table 2.2.A tabulates the number of trees by size to be removed.

c. Mitigation Measures
The landscape plan for the West Campus Residential Initiative will integrate extensive new plantings with the design of each proposed house, the recreation center and the proposed parking
Figure 2.2.A: Existing Vegetation
West Campus
and vehicular circulation facilities. These new plantings will enhance the overall living environment for residents of the new houses and mitigate the removal of existing vegetation.

Many of the new landscape plantings will be comprised of native plant species and will provide habitat for animal species in the area. Trees to be planted as part of the proposed project will include species which are long-lived and which will, in time, achieve the size and stature similar to the original trees.

d. Unavoidable Impacts
Unavoidable impacts with will be manifested in the visual difference between an existing landscape dominated by relatively mature trees, and a landscape comprised of younger, substantially smaller trees.

2.2.2 University Avenue Site Vegetation

a. Existing Vegetation at University Avenue Site
Volunteer brush and trees cover much of the University Avenue site. The site was previously the main lawn of the former Treman houses to the east. A landscape plan was prepared for the Tremans in the early 1900’s. Photographs from the 1930’s show the site as being a lawn with some scattered shade trees (see section 2.4.1.2, Historical Resources, University Avenue Site). Sometime in the later 1900’s, it ceased to be maintained as a lawn, and invasive species began to abundantly reproduce on the site. Cornell Plantations has identified the site as Redbud Woods, “…an excellent place to consider the impacts of human activity, horticulture, and the effects of invasive plants on native vegetation.” Appendix E: Vegetation, includes Cornell Plantation’s description of the vegetation on the site.

Predominant species of trees include black walnut, redbud and tree of heaven. Other, less numerous tree species include shagbark hickory, mulberry, maple, purple beech, white pine, oak, American linden, box elder and hackberry. Beneath the canopy grows a mixture of scrub species made up of virginia creeper, sumac, elderberry, honeysuckle, privet, wisteria and multiflora rose. The site shows relatively young growth and more than 50% of the canopy trees in this area are young black walnuts, 8-10" dbh.

There are a few specimen trees of age, probably remnants of the Treman gardens. These include a 30"+dbh pignut hickory, a 30"+dbh black walnut, a 24-30" purple beech, a 24-30" yellow oak, and a 30"+ oak. These specimens have served as parent trees, re-seeding the site and producing much of the volunteer growth found.

Much of the vegetation on site is non-native and invasive. Native species include American linden, redbud and black walnut. Two of the species are at the northern edge of their range: hackberry (locally scarce), and the yellow oak, which was no doubt planted, is locally rare. Nearly all of the undergrowth is invasive species, common to disturbed or abandoned sites. There are a few plants found in this area that are remnants of the Treman gardens. Small sections of snowdrops, wisteria, daylilies, lily of the valley and other patches of ornamentals dot the site, nearly buried in undergrowth.

Figure 2.2.B illustrates the existing vegetation on the University Avenue site and documents vegetation to be removed.
Vegetation in this area are to be removed.

Continuous band of vegetation to remain

TREE SYMBOL KEY:
dbh: diameter at breast height

٬ Voluntary tree/shrub growth
○ 2"-10" dbh
〇 11"-18" dbh
△ 19"-24" dbh
□ 25"-30" dbh
□ 31" dbh or greater

Figure 2.2.B:
Existing Vegetation
University Avenue
b. Impacts to Vegetation at University Avenue Site

Construction of the proposed parking lot will result in the removal of approximately 50% of the volunteer trees and shrubs on this portion of the site. A continuous band of existing vegetation will be maintained along the south, west, and northern perimeter of the parking to serve as a buffer. This buffer zone of vegetation will maintain a visual barrier.

The parking lot and site grading have been configured to preserve some of the largest existing trees. These include several 30"+dbh black walnuts, and a 24-30"dbh purple beech. Two specimen trees, the 30+ dbh pignut hickory, and the 24-30"dbh yellow oak will be removed. The yellow oak is suffering from severe decline and 40% of its tree canopy is currently dead.

c. Mitigation Measures

The parking lot has been sited and graded to preserve as many of the existing large trees as possible, as well as to maintain a buffer of existing vegetation along University Avenue and between the site and Llenroc to the south. New plantings will be installed to supplement and reinforce the buffer, and to provide screening from 660 Stewart and the Kahin Center and the parking lot. Native species are proposed for their naturalized volunteer growth areas. Consideration will be given to selecting species for the lawn that are consistent with historic horticultural plantings in this area.

d. Unavoidable Impacts

The loss of approximately 2.5 acres of deciduous voluntary trees and brush on the site, and a number of large trees, including the yellow oak, is an unavoidable impact of the project. The program requirements for the parking area cannot be met within reasonable cost without the use of the underlying land.
2.3 Visual Resources

This section contains descriptions of existing and post-development views of the project sites from selected viewpoints. Photographs of existing conditions were taken during early December. The photographs were taken at a time of year when the leaves are off the trees so that maximum visual impact is apparent. Drawings of the proposed structures have been superimposed on the photographs to create a photo collage of the proposed view for each viewpoint. 2.3.A: Visual Assessment Viewer Locations is a diagram which shows the location and direction of view for each of the photographs.

The photo collages show the height, massing, and scale of the proposed development in relationship to existing buildings and the site. New tree plantings and landscaping will filter views of the new buildings to a greater degree than is actually shown in the photo collages. Very little of the proposed landscaping is actually shown on the photo collages.

Following are detailed descriptions of each existing view and a description of the view after project completion the west campus residential block, and the University Avenue surface parking site. The view by view description is followed by a summary of overall visual impacts for each site area.

2.3.1 Visual Resources on the West Campus Site

a. Existing and proposed views from Libe Slope Looking West (Figure 2.3.B)

existing view
Presently, the view from the top of Libe Slope is of a spacious, sloping lawn, crisscrossed with asphalt pedestrian paths. At the base of the slope, West Avenue can be seen, lined by an architectural street wall created by the Gothics. Beyond this West Hill is visible. McFaddin Hall, the War Memorial, and Lyon Hall currently frame a view which is terminated by Noyes Center.

proposed view
In the proposed view, there is no change to Libe Slope or West Avenue. There are no changes to the existing Gothics. McFaddin Hall, the War Memorial and Lyon Hall frame an opened vista of West Hill as a result of the removal of Noyes Center. New rooflines of the proposed west campus Houses can be seen above Mennen Hall, Lyon Hall, the War Memorial, and McFaddin Hall. The end of House 3 is visible at the southern edge of the photograph. The façade and roof treatment of the proposed buildings is visually compatible with the existing Gothics.

a. Existing and proposed views from Corner of University and Stewart (Figure 2.3.C)

existing view
In the foreground, one can see the sidewalk along University Avenue connecting the east side of Boldt Hall to a bus stop situated at the top of a set of steps on the corner of University Avenue and Stewart Avenue. Beyond the sidewalk to the south is a 130 car parking lot. In the background, the modern architecture of Class of ’22 and Class of ’28 residence halls can be seen. To the east, (left-hand edge of the photograph), Boldt Tower and Boldt Hall can be seen.

proposed view
In the proposed view, the class halls and large, surface parking lot no longer exist. There are no changes to Boldt Tower and Boldt Hall. The stairs at the corner of Stewart Avenue and University Avenue have been eliminated and the sidewalk along University Avenue is handicapped accessible.
Key to Figure Numbers
1 - Figure 2.3.B: View From Libe Slope, Looking West
2 - Figure 2.3.C: View from Corner of University and Stewart
3 - Figure 2.3.D: View from 660 Stewart, Looking West
4 - Figure 2.3.E: View from Llenroc, Looking North
5 - Figure 2.3.F: View from University Avenue, Looking East
6 - Figure 2.3.G: View from Intersection of Lake Street and University Avenue Intersection

Figure 2.3.A:
Visual Assessment
Viewer Locations
The new diagonal central walkway through west campus, is visible as it passes under House 1. Limited handicap parking and House 1 faculty parking is provided along University Avenue. The roof line of House 1 does not rise above the profile of Boldt Tower. The east end of House 1 steps down adjacent to Boldt Tower, adding visual prominence to Boldt Tower. The façade and roofing materials on the proposed House 1 building are compatible with the neighboring Gothics.

b. Summary of impacts to view
Views of west campus will be impacted by the removal of the class halls and construction of new buildings on the site. Brick and stone materials and colors on the new buildings have been selected to be visually compatible with the existing Gothics. Height, massing, and scale of the new buildings will relate to the existing Gothics as well. A positive impact to views on west campus is that prominent views to the west will be opened by the removal of Noyes Center.

c. Mitigation measures
Visual impacts on west campus have been mitigated through the site layout which preserves important views and re-introduces previously blocked views through the site. In addition, materials, colors and building heights are compatible with the existing structures to remain on site.

d. Unavoidable impacts
An unavoidable visual impact of this project is that the class halls and Noyes Center will no longer exist on site. A positive, unavoidable impact of this project is that views to the west and east will be opened.
2. POTENTIAL SIGNIFICANT IMPACTS

Figure 2.3.B: View From Libe Slope, Looking West

Existing View

Proposed View
Figure 2.3.C: View From Corner of University & Stewart Avenues

Existing View

Proposed View

Boldt Tower
Class Halls
2.3.2 Visual Resources at the University Avenue Parking Site

Four views, one from each cardinal direction surrounding the site, were chosen to illustrate the visual impact of the proposed project. The view that would be most strongly impacted by the proposed development was selected from each direction.

a. Existing and proposed views from 660 Stewart, Looking West (Figure 2.3.D)

existing view
Looking west from a location directly behind 660 Stewart, the foreground view is of a sloping lawn. There are scattered large shade trees in the lawn. Further down the slope the lawn terminates, and is backed up by brush and forested area. In winter conditions, glimpses of houses along University Avenue and west hill can be seen through the vegetation.

proposed view
The foreground view of lawn will remain unchanged. Large trees within the lawn will also remain. The middle-ground view will be significantly altered. The upper terrace of the parking lot will be visible. The sidewalk, pavement, curb, and parked cars will be visible. New plantings at the eastern edge of the lot, as well as the existing large trees will help screen the view, particularly when the trees are in leaf. Due to the topography, the second terrace of parking will not be visible. Tree removal will open up views of west hill beyond. The tops of some of the houses across the street on University Avenue will become visible as well.

Historically, western oriented views across the site and beyond were open, but over the years, invasive tree species have colonized the west end of the property, effectively blocking those views. Reopening the historic vista to the west can be considered a positive impact of the project.

a. Existing and proposed views from Llenroc, Looking North (Figure 2.3.E)

existing view
Standing at the northwest corner of Llenroc, looking north, the view is of a large, open lawn with a densely vegetated background. Glimpses of houses along University Avenue can be seen through the vegetation. A large white oak tree is prominent in the lawn.

proposed view
The development of a surface parking lot at the University Avenue site maintains a buffer of vegetation between the lot and the northside of Llenroc. The existing view will be altered by the creation of minimal openings in the tree canopy. The parking lot will not be visible from this point. Cars traveling along the entry drive may be visible through the trees.

a. Existing and proposed views from University Avenue Looking East (Figure 2.3.F)

existing view
The photograph of the existing view is taken from the west side of University Avenue, approximately midpoint through the site, looking east. In the foreground the viewer can see University Avenue, parked cars and a telephone pole along the east side of the street. Beyond that is a steep, rocky embankment, covered in brush. On the top of the topographical rise sits an area covered by brush and trees, which is thin enough in places to view glimpses of 660 Stewart and Von Cramm beyond the vegetation.
proposed view
The surface lot is sited on top of the embankment, between 30 and 80 feet away from the edge of the pavement on University Avenue. A buffer of vegetation will remain between the lot and University Avenue, maintaining partial screening of views into the site. Views into the site will be opened, and one will be able to see 660 Stewart and Von Cramm more clearly. The parking lot itself is proposed to be sited on two terraces, with an embankment between them. Because of this topographical separation, the surface of the lot will not be seen from University Avenue. The tops of parked cars, and a landscaped embankment will be visible. The building facades of 660 Stewart Avenue and Von Cramm will become much more visible.

a. Existing and proposed views from Intersection of Lake Street and University Avenue (Figure 2.3.G)

existing view
The existing view from the intersection of Lake Street and University Avenue shows sidewalk, lawn and young street trees in the foreground, with more mature trees and brushy vegetation in the middle ground. Glimpses of Von Cramm and the dark outline of 660 Stewart can be seen through the vegetation in the winter months.

proposed view
In the proposed view, an entrance drive to the surface lot will be visible where it intersects with University Avenue (blue car in Figure 2.3.G marks the entrance drive). Vegetation in the site interior will be removed, allowing glimpses of the parking lot and the driveway between the two parking lot terraces. Partial views of the cars on the upper parking terrace will be visible. A significant buffer of middle ground vegetation will remain, screening parked cars. The foreground vegetation, which includes the lawn, sidewalk and street trees, will remain unchanged.

b. Summary of impacts to view
Overall, views of the parking lot will remain largely screened by existing vegetation, and hidden by topography. Siting the parking lot within the existing vegetation and out of the lawn areas, and using topography to create two levels of parking minimizes the visibility of the lot. Re-planting disturbed areas at the edges of the parking lot will further screen views into the site. Landscaping between 660 Stewart and the parking lot will partially screen views of the lot and parked cars, while leaving open vistas of West Hill. Particularly sensitive views from the historic resource, Llenroc, will be completely screened. Night time lighting of the parking lot is expected to be barely visible. It will be mitigated by sharp cut-off fixtures, landscaping and existing high light levels along University Avenue. Existing light levels along University Avenue are greater than proposed light levels for the parking lot.

c. Mitigation measures
Mitigating measures to reduce visual impact of the parking lot include:

- Siting the lot to retain as much of a vegetative buffer as possible around its perimeter
- Using topography to create parking terraces minimize how much of the lot is seen
- Providing landscaping where an existing vegetative buffer can not be maintained
- Using sharp cut-off fixtures and plantings so that lights do not cause glare or trespass onto adjacent properties


d. Unavoidable Impacts
An unavoidable visual impact of this project is that one will see a mix of landscaping and parked cars where there was once only volunteer vegetation growth.
2. POTENTIAL SIGNIFICANT IMPACTS

Figure 2.3.D: View From 660 Stewart, Looking West

Existing View

Proposed View

West Hill
Parking Lot
Sidewalk
New Planting
Openings in canopy created by tree clearing on site interior

Existing View

Proposed View

Figure 2.3.E: View From Llenroc, Looking North
Figure 2.3.F: View From University Avenue, Looking East

Existing View

Proposed View

Cars parked on upper terrace

Cars parked on lower terrace

Landscape island

University Avenue

Von Cramm

660 Stewart

Cars parked

Trowbridge & Wolf Landscape Architects

May, 2002
2. POTENTIAL SIGNIFICANT IMPACTS

Figure 2.3.G: View From Intersection of Lake Street & University Avenue

Existing View

Proposed View

Trowbridge & Wolf Landscape Architects

May, 2002
2.4 Cultural Resources

The following sections examine the existing cultural resources potentially affected by the West Campus Residential Initiative Project. Section 2.4.1 deals with historic resources, and section 2.4.2 addresses archaeological resources.

2.4.1 Historic Resources

This section summarizes the existing historic resources, analyzes the potential impacts to those resources, discusses mitigation measures, and identifies unavoidable impacts of the proposed West Campus Residential Initiative Project. Section 2.4.1.1 examines historic resources on and adjacent to the west campus site. Section 2.4.1.2 examines historic resources on and adjacent to the University Avenue site. Appendix B: Historic Resources includes a description of the study’s methodology, an historic context narrative, and a detailed inventory with photographs and narrative of every building examined in the study. Appendix B: Historic Resources also contains a set of historic design considerations adopted by Cornell for the West Campus Residential Initiative to help inform design and mitigate impacts to historic resources. Figure 2.4.A maps the location of all buildings and landscape areas included in the study of historic resources for the WCRI.

2.4.1.1 West Campus Site Historic Resources

The proposed new west campus residence halls are to be constructed near the west edge of the Cornell University campus in the block below Libe Slope bounded by West Avenue on the east, Campus Road on the south, Stewart Avenue on the west and University Avenue on the north. The new buildings are to be constructed in the northwest/central section of the block, west of the existing Baker/War Memorial residence hall complex and north of four existing fraternity houses. The ca. 1954 Class Halls and the ca. 1967 Noyes Community Center which are currently located on the site will be demolished. A number of architecturally and/or historically significant resources are located adjacent to the project site.

Baker/War Memorial Residence Hall Complex

The Baker/War Memorial residence halls, commonly known as the “Gothics,” are a Collegiate Gothic complex located between the proposed new buildings and the lower western edge of Libe Slope. The complex incorporates a varied ensemble of residential halls and towers unified by consistent proportions, massing, materials, and detailing. Exterior walls of the buildings are constructed of locally quarried Llenroc stone laid in coursed squared-rubble. The steeply pitched gable roofs are clad with large gray and purple slates. The buildings share many decorative elements characteristic of the Collegiate Gothic style, including buttresses, battlements, tall multi-flue brick chimneys, cut limestone stringcourses, shed dormers, gable-roof dormers, vertical plank doors with wrought metal strap hinges, and pointed arch doorway openings with limestone surrounds. The predominantly regular fenestration consists of leaded rectangular-light casement windows, set in cut limestone random quoinned surrounds. The complex contains both picturesque and formal exterior spaces incorporating a series of stairs and terraces, coursed squared-rubble retaining walls with quoinned piers, and rusticated cast stone balustrades.

The oldest buildings of the complex are located at the northeast corner of the block. The buildings in this area are organized around the six-story, crenellated Baker Tower and a diagonal axis extending southwest from the intersection of University and West Avenues through an open vaulted passage in the base of the tower to a pair of cascading grass terraces. A stair connects the upper terrace with the lower terrace named Baker Court. This rectangular courtyard is enclosed on three
2. POTENTIAL SIGNIFICANT IMPACTS

Figure 2.4.A:
Historic Resources Inventory
WCRI

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- Buildings included in study
- Buildings not included in study
- Areas included in study which are not associated with buildings
- Area surveyed for possible inclusion in study
- Building listed on the National Register of Historic Places

Project boundaries
sides by the upper terrace retaining wall, 3-1/2-story South Baker Hall and 2-1/2-story North Baker Hall. At the open side of the court, another stair descends to the Class Halls residential complex.

Founders and Boldt halls are 2-1/2 and 3-1/2-story residence halls which are located parallel to West and University avenues. At the lower west end of Boldt Hall is Boldt Tower, a five-story square tower which was the last section of the complex to be constructed.

The south section of the Gothics was constructed almost two decades after the first buildings and consists of two L-plan dormitory buildings (Lyon and McFaddin Halls), linked by an arced covered walkway. Each dormitory includes a 7-story residential tower connected to a gable-roof 4-1/2-story dormitory wing. The two towers are sited symmetrically about the east/west axis of McGraw Tower, Cornell’s most visible landmark located to the east, just above the crest of Libe Slope.

From the west opening of the arcade, a wide exterior stair descends to a broad grass terrace enclosed on three sides by Lyon Hall, the War Memorial arcade, and McFaddin Hall. At the west side of the terrace is a balustrade above a retaining wall and a second stair leading to the lawn below. The War Memorial functions as an important pedestrian gateway leading into the center of the Cornell campus.

The Baker/War Memorial residence hall complex is an outstanding example of early twentieth-century Collegiate Gothic architecture. The complex is also an excellent example of the Collegiate planning movement which swept the nation’s college campuses during the first half of the twentieth century.

**Class Halls and Noyes Community Center**

The Class Halls complex consists of six residence hall buildings constructed in the early 1950s. The buildings were designed pragmatically and economically in what was termed the “engineering” style. Although approaching fifty years in age, the six identical brick-clad, five-story, hip-roof buildings lack architectural distinction and do not possess significant associations with either historic persons or events.

Noyes Community Center was constructed in 1967 in the Brutalist Modern style. Although symmetrically aligned with the McGraw Tower axis, the building’s entrances, circulation, proportions, materials and detailing have little in common with its historic neighbors. Although the building constitutes a representative example of its style, it does not constitute a historic resource due to its age.

**West Campus Fraternities**

A group of four twentieth-century fraternities are located within the west campus block, immediately south of the project site.

Located at the southwest corner of the block are Delta Tau Delta and Phi Kappa Psi, two brick-clad fraternity houses dating from the 1960s. Delta Tau Delta is an example of the California or Modern Contemporary style. Phi Kappa Psi was expanded and redesigned within the Post-Modern style during the 1990s. Although both buildings are representative examples of their respective styles, because they are less than fifty years old, neither appears eligible for listing on the National Register of Historic Places.

Near the southeast corner of the block are the ca. 1936 Sigma Phi and Psi Upsilon. These two
fraternities, similar in scale and design were designed by the same architect. The houses were constructed to replace older houses demolished to allow construction of Myron Taylor Hall. As was intended by their designer, the houses harmonize in form, style and detailing with the nearby Baker War/Memorial dormitory buildings. Exhibiting a high level of quality in craftsmanship, detailing, materials and design, the houses are outstanding examples of the creative interpretation of the Jacobean style.

**Libe Slope**
Libe Slope is a sloping lawn which divides the Arts Quad, Cornell’s historic and symbolic center at the crest of East Hill, from the west campus residential area at its base. The slope is a 1500 foot-long greensward which rises nearly ninety feet across its 400 foot width and is generally open except for scattered specimen trees. Libe Slope provides spectacular views of Cayuga Lake, the city of Ithaca and the Cayuga Inlet Valley. The slope also provides sweeping panoramas for multiple vantage points at the top of the hill. Libre Slope is significant as one of several landscape features that define the physical character of the Cornell University campus. Used as a pasture and a quarry in the nineteenth century, the site’s present park-like character was established in the first decades of the twentieth-century. The informal landscaping of the slope contrasts with the symmetrical groups of buildings located adjacent to its lower and upper boundaries.

**North Side of University Avenue**
North of the project site, the block of University Avenue between Stewart and West avenues contains an eclectic group of structures. Two of the houses have special architectural significance. Phi Sigma Kappa is a grand ca. 1903 example of the domestic interpretation of the Neoclassical style. Theta Delta Chi defers to the English Gothic Revival style of the nearby Baker/War Memorial Complex with a sophisticated interpretation of the Tudor Revival style. Many elements of the house, such as random width multi color slates, coursed rubble native stone cladding, buttresses, tall and narrow multi-light steel casement windows, and steeply pitched roofs punctuated by dormers, echo the forms and materials of the nearby residence halls.

Southwest of the intersection of Stewart and University avenues is located Belleayre Apartments. This ca. 1930 Tudor Revival style, five-story apartment building is one of the earliest large-scale apartment buildings built around the periphery of Cornell. Like several of the nearby fraternities this building defers to the English-derived Gothic style of the Baker/War Memorial complex through the use of Tudor Revival style details.

**Stewart Avenue**
Opposite the project site, the 600 block of Stewart contains a variety of residential structures. At the southwest corner of University and Stewart Avenues is the ca. 1900 Italian Renaissance style Alpha Tau Omega fraternity house. Immediately to the south, set well back from the street, are the Elizabeth Treman Van Cleef House (ca.1902) and the Robert H. Treman house (ca.1901) designed by William H. Miller, Ithaca’s most well known architect designer of the period. The remainder of the block is lined with an eclectic group of five residential buildings dating from the first two decades of the twentieth century. The five buildings represent a variety of early twentieth-century architectural styles. The facades of the three northern members of the group have been compromised by incompatible alterations.

At the northwest corner of the Stewart/Cornell Avenue intersection is a vacant lot. South of Cornell Avenue, the City Cemetery abuts Stewart Avenue. The cemetery, developed as a Rural
Movement cemetery in the 1840s, features a picturesque landscape incorporating mature trees, curvilinear drives, Romantic funereal architecture, a ravine, rock outcroppings, and undulating hillside terrain. Llenroc, a national historic register structure, is described in Section 2.4.1.2 University Avenue

b. Analysis of Impacts to Historic Resources from West Campus Housing
This section of the historic resources evaluation analyzes the effects of the project on the adjacent historic resources. This section is not intended to be an architectural critique of the proposed design. Comments are limited to issues which may impact the existing historic resources including buildings landscapes, views circulation patterns, etc. They do not relate to design decisions made on the basis of other, equally important factors such as program, architecture or landscape. From a historic preservation perspective, a successful project is one that balances programmatic requirements and architectural expression with sensitivity to the historic context.

The analysis included the following steps:

1. An inventory of buildings in the project area was studied. The historic resources were identified and their significance evaluated (see Appendix B).
2. Design considerations, intended to mitigate impacts to historic resources, were established (see Appendix B).
3. The actual proposed design was analyzed based on the design considerations

Below, each design consideration is listed in italics. Following the italics is an assessment of how the proposed design responds to the design consideration.

1. Baker and the War Memorial towers frame important vistas from the Old Stone Row (White, McGraw, and Morrill halls). Libe Slope, and University Avenue provide a picturesque foreground for distant views. These views should be protected and enhanced.

The project respects the relationship between the towers and the surrounding landscape by opening the axes from Baker Tower and the War Memorial Court which were obstructed by construction of the Class Halls and Noyes Community Center. Because the ridgeline of the new buildings will not exceed the horizontal datum set by the existing ridges of Lyon and McFadden Halls, the visual prominence and “framing” effect of the current towers will be preserved.

2. The profile of Baker, Army and Navy Towers against the green backdrop of Libe Slope should remain visible from points within the valley and West Hill. New construction should respect the visual and spatial relationships linking the academic buildings at the crest of East Hill, Libe Slope, the Baker/War Memorial complex and the view from the valley.

Because the ridge heights of the new residence halls will be at approximately the same height as the roofs of the Baker/War Memorial buildings, the hierarchical position and visibility of the War Memorial and Baker towers will not be adversely affected by construction of the new buildings.

3. Due to changes in the programming of residence halls, building code requirements, technology, materials, and standard construction practice, an exact replication of the historic designs is not feasible. Although study of the historic documents is an appropriate aspect of site analysis, duplication of the historic plans is usually discouraged because doing so may create a false sense
of history.

The existing Baker/War Memorial buildings create a continuous street wall, punctuated by monumental entrances at Baker Tower and the War Memorial arcade. Within the block, the individual buildings create small courtyard spaces. The existing buildings along the site’s perimeter are oriented parallel to the adjacent streets. At the corner of University and West Avenues, Baker Tower and the adjacent buildings are organized symmetrically about a 45 degree axis.

The new residence halls are sited in a less formal fashion incorporating varied skewed geometries. The linear student housing wings are oriented in a roughly east/west direction. Although the new buildings’ pattern of site design differs from the adjacent historic buildings, the design responds to several of the most important site features including the views and axes centered on Baker Tower and the War Memorial.

4. The courtyards, terraces, stairways and other site features of the historic residence halls should be preserved. New exterior spaces created between the existing buildings and new construction should be compatible in terms of size, proportion, scale, and orientation with existing spaces. Existing organizational devices, including axes, entrances, framed views, and massing hierarchies, should not be compromised by new construction.

The new construction respects and does not intrude into the existing exterior spaces of the Baker/War Memorial complex.

5. The historic pedestrian routes through west campus should be maintained. New pathways should link to the existing Baker/War Memorial pedestrian routes, maintaining the symbolic and experiential importance of the complex’s architectural and site features.

The proposed design maintains and improves the historic pedestrian routes through west campus. The new pathways generally link to the existing Baker/War Memorial pedestrian routes. This can be considered a positive impact of the project.

At the west side of the War Memorial, the existing stair connecting the arcade with the lawn to the west is proposed to be reoriented ninety degrees. By redirecting pedestrians ninety degrees, the altered stair will cause pedestrians moving through the War Memorial arcade to pause at the head of the stair with a view of the new open lawn extending through the block to Stewart Avenue. The change will provide a direct emergency vehicle access route across this portion of the site.

The proposed plan for west campus recreates a court-like space adjacent to the west side of the War Memorial and an open lawn traversing the block along the McGraw Tower axis. In many respects, the proposed design is similar to the never-executed early twentieth-century designs for the area.

Although the original treads of the current stairs have been replaced, the existing stair’s arrangement and relationship to the rest of the War Memorial complex are an original component of Charles Klauder’s design of the War Memorial complex.

The proposed change to the existing stair compromises the historic configuration of this area and truncates the War Memorial gateway from the two primary diagonal paths leading through the new residence hall area. This change may lessen the War Memorial’s role as a physical and symbolic gateway along an important campus pedestrian route by diverting people around rather than
through the center archway.

Although the proposed plan incorporates new pedestrian routes traversing the west campus block, at this level of design development, it does not include a direct link to the Treman carriage path leading to the University Avenue surface parking facility.

6. Use buildings and/or trees to spatially define streets. The siting and orientation of new construction should respect spatial patterns and building patterns existing within the area.

The orientation of the new residence halls is distinct from the Baker/War Memorial complex. The existing residence halls are organized by local symmetries, defined street walls, and created internal courtyards. The new buildings have a less formal layout consisting of east/west oriented linear buildings conforming to random skewed geometries. The less formal character of the new buildings makes the existing Baker/War Memorial Complex seem hierarchically more important due to its monumental towers, high level of articulation, formality, elaborate passages, and position fronting on Libe Slope.

Despite the obvious differences in site strategies, the new buildings, by gently bending to conform to the predominant spatial features of the existing complex, create compatible neighbors. The new buildings:

- Respect the axes of Baker Tower and the War Memorial.
- Create appropriately scaled spaces between the new buildings and the existing complex.
- Complete the University Avenue street wall.

Following the tradition of the Collegiate Movement, the Baker/War Memorial complex presents a solid wall to Libe Slope, broken by monumental portals at Baker Tower and the War Memorial. According to the “Secretary of the Interior’s Standards for Rehabilitation,” new construction shall not alter the spatial relationships that characterize a historic property. The eastward facing U-shape courtyard of residence hall 3 violates the established historic spatial relationship between Library Slope and the Baker/War Memorial complex. By placing a void where a solid was planned, the new open courtyard diminishes the War Memorial’s symbolic and visual importance and makes the monumental portal effect of the towers and arcade ambiguous.

7. The use of brick or stone masonry materials on new buildings is appropriate. New masonry construction should employ a compatible unit masonry material of comparable quality and durability to the Llenroc stone used on the historic residence hall complex.

The dominant cladding of the new buildings will be brick, similar in color to the stone cladding of the existing Baker/War Memorial complex. The end towers of the new residential halls will be clad in a matching local stone. Limestone accents will also be used. While utilizing traditional materials, the exterior wall detailing (without masonry lintels), the large areas of glass at the first floor, and the seemingly arbitrary meeting of materials within the window bay articulate the exterior cladding as a contemporary hung skin rather than a traditional load bearing wall. Although detailed in a contemporary style, the use of unit-masonry cladding relating to the color, texture, and scale of the existing context will create a strong visual relationship between the new and existing west campus residence halls.
8. The historic Collegiate Movement dormitories of Cornell contain intimately scaled courtyard spaces. At the Baker and War Memorial complexes, intimate spaces are juxtaposed with monumental towers. Continuing the traditional spatial patterns of Cornell’s residential halls, incorporating a variety of forms and scales, is appropriate.

The new construction respects the existing exterior spaces of the Baker/War Memorial complex.

Building 5 and Building 3 loosely align with Mc Fadden and Lyon halls to complete a court at the west side of the War Memorial Arcade. From the west side of the court an open sloping lawn descends to Stewart Avenue, restoring the view through the block of both McGraw Tower and the War Memorial. At Baker Court, the view to the southwest along the Baker Tower axis, now blocked by the Class of ‘28 Hall, will be reopened.

The spaces created by the new buildings have a decidedly different character than those in the existing buildings. The linear east/west orientation of the housing wings, the skewed geometries, and the glassy one-story dining halls create more loosely defined and informal spaces. Because the new buildings do not intrude into the historic spaces and respect the important existing site features, they form compatible neighbors.

9. Continuing the program of a small house system is appropriate on west campus.

Continuing the program of a small house system is compatible with the existing residence hall buildings.

10. Where walls are constructed of masonry, new construction should respect the proportions, window/wall relationship and void/solid ratio of the existing buildings.

The proportions, window/wall relationship and void/solid ratio of the new buildings’ windows recall those of the wood and leaded casements of the adjacent historic residence halls. The simplified mullion pattern, and irregular glazing pattern are clearly contemporary, and distinguish the new from the old. The large areas of glazing are also clearly modern although the use of large glazed areas at the stairs have a strong precedent in the stair bays of historic Gothic and Tudor buildings. The fenestration in the proposed new west campus residence hall is appropriate because it balances modern articulation with proportions, spacing and scale that relate to the adjacent historic context.

11. New construction should respect the general rule of using the heavier materials and detailing at the base of facades.

The new buildings consciously break this traditional principal. The buildings are detailed and designed to express their modern structural form with the cladding serving as a hung skin rather than a load bearing wall. Successful compatible new construction within a historic context requires a balance between design similarity and difference to allow contemporary architectural expression. Because materials, massing, roof articulation, proportions, texture and other qualities have been used to relate the new residence hall buildings to the historic Baker/War Memorial complex, the modern articulation of the new buildings’ exterior is appropriate.

12. Roof massing, roof slope and roofing materials are important elements of the historic dormitories and other buildings at Cornell. In addition, within the Baker/War Memorial com-
plex, dormers, towers, cross-gables and other elements interrupt the mass of the roof and reduce the apparent scale of the building. Using these or other features to achieve the same general effect on new construction is appropriate.

The new buildings incorporate gable roofs of a similar slope and form to the roofs of the existing buildings. The roofs of the new buildings are distinguished from the existing by the use of metal roofing materials rather than slate. Like other qualities of the new buildings, the roof treatment incorporates an appropriate balance between contemporary and contextual forms.

13. Although the method of articulation may differ, adjacent new construction should retain the intimate scale of surface, relief, and space found within the historic residence hall complex.

Although the vocabulary of articulation differs, the new residence halls utilize varied materials and surface treatment to organize large facades and articulate exterior spaces. An exact duplication of articulation of the Baker/War Memorial complex is not necessary to maintain a contextual dialog between the new and old building groups.

14. Stewart Avenue marks a line of transition between the larger scale of west campus and the smaller scale residential section of East Hill, containing fraternities, student apartments and other uses. Acknowledgment of this edge with landscape or other architectural features is appropriate.

Currently most of the Stewart Avenue frontage of the west campus site consists of a steep bank planted with grass and scattered shrubs. The bank increases in height from approximately six feet at the north end of the site to twenty feet at the southern end. Elevated above the bank, from north to south, are a large asphalt parking lot, Class of ‘22 Hall, Noyes Community Center, and Class of ‘18 Hall. A truck loading dock servicing Noyes community center is located near the center of the site’s Stewart Avenue frontage. Though the east side of Stewart Avenue is lined with on-street parking spaces, it lacks a sidewalk.

The proposed design will entirely reshape the Stewart Avenue streetscape. South of the corner of University Avenue, Stewart Avenue will be lined with an alternating rhythm of the narrow ends of the new residence halls interspersed with open lawns. The western portion of the residence halls near Stewart Avenue are typically 6-1/2 stories tall. The ends of the wings facing the street are articulated as projecting bays. The reduced height and width of the bays acknowledges the importance of the street edge and mediates between the larger scale of the residence halls and the smaller residential buildings across the street. An entrance at the foot of the bank will lead to a new delivery area concealed below grade. A sidewalk will be installed along the east side of Stewart Avenue.

The new residence halls will be approximately one story higher than the 5-1/2-story Class Halls. Despite the increase in scale, reconfiguration of building mass within the project area will provide a more open street frontage along Stewart Avenue. Currently the fortress-like collective mass of Class of ‘22 Hall, Noyes Community Center, and Class of ‘18 Hall forms a barrier isolating Stewart Avenue from the Cornell campus. The new plan, by locating a series of courtyards and a central lawn along Stewart Avenue, spatially connects the street with the interior of the block. The plan opens up the center of the block, reestablishing the axes and views leading to Baker tower and the War Memorial. Although the bank along Stewart Avenue will remain, the proposed plan will integrate the street much more with the west campus area.
c. Mitigation Measures

The goal of the mitigation measures discussed here is to preserve the general character, setting and views of the site’s existing historic resources and to ensure new construction is compatible in terms of design, scale, and massing. The suggested mitigation measures are intended to lessen any potential adverse effects of the project on historic resources.

- The Treman carriage path will be linked with the west campus pedestrian circulation system.
- Because it involves the interface of multiple significant historic resources, the Baker/War Memorial complex and the edge of Libe Slope require a more compatible and contextual design solution than is necessary at Stewart Avenue edge of the project site. An important feature of the design of the Baker/War Memorial complex is its relationship to both Libe Slope and the historic buildings at the crest of the hill. Because House 3 and the proposed recreation building will complete the street wall defining West Avenue, they will become part of the context which frames the War Memorial when viewed from Library Slope, the Old Stone Row and other vantage points located along the crest of East Hill. (Refer to discussion under item 6 of the “Analysis of Impacts” section above.)

A possible mitigation measure to preserve the historic role of the War Memorial as a monumental portal in the street wall defining the lower edge of Libe Slope include landscaping along the west side of West Avenue to reinforce the spatial definition of the western edge of Libe Slope and includes a break to acknowledge the significance of the War Memorial.

- To protect nighttime views, lighting will be designed to minimize glare, unnecessary light spillage, and light pollution caused by up-lighting. Cut-off luminaries will be used for security lighting. Poles will be compatible with the traditional scale of pedestrian oriented areas, meaning that in most cases fixtures should not exceed fourteen feet in height. Lighting should be of a consistent color. Mercury vapor and metal halide lighting sources provide better color rendition than the more common orange/pink high pressure sodium fixtures. Building-mounted floodlights or “wallpacks,” such as those currently mounted at the top of Baker Tower, create glare and prevent the viewing of building profiles and other architectural features. More uniform lighting provided by pole-mounted fixtures can enhance rather than conceal architectural features.

- The prominence of the Gothics will be preserved by maintaining ridge heights of the new buildings at approximately the same height as the Gothics, orienting new buildings to re-establish historic vistas, and maintaining separation between new construction and the existing buildings.

- Unit masonry cladding will be compatible with the visual qualities of the stone of the existing Gothics.

- The proportions, window/wall relationship and void/solid ratio of the new buildings’ windows will recall those of the Gothics and will create a compatible adjacency.

- The gable roofs of the new buildings will be of a similar slope and form to the roofs of the existing buildings.

d. Unavoidable Impacts

Due to its program and resulting size, the west campus residential halls will impact the landscape, setting and views of the west campus area. Several impacts of the project appear unavoidable:
The project will require the demolition of the six Class Halls and the Noyes Community Center. Because these buildings are less than fifty years old and lack architectural distinction, they do not constitute historically significant resources. The removal of the buildings will restore the visual axes centered on Baker Tower and the War Memorial arcade. This can be considered a positive impact of the project.

The scale of the new residence halls will be somewhat larger than the existing Class Halls. Despite the increase in scale, careful distribution of the mass of the buildings will offset the increase in building height. The regular rhythm of alternating narrow buildings and open lawns proposed along Stewart Avenue is an improvement over the current loading dock and fortress-like massing of the existing buildings. The design of the project takes advantage of the site’s slope, keeping the tallest buildings at the lowest part of the site, thus minimizing the impact of the project on the sight lines of the existing Baker/War Memorial complex. The profile of the new buildings will be significantly lower than the towers of the Baker/War Memorial complex and the ridge line of the new buildings will not exceed the horizontal datum established by the gable roofs of Lyon and McFadden halls.

The project will be visible within numerous historic viewsheds on campus and throughout the city of Ithaca. The use of compatible architectural forms, materials, roof architecture, and building massing will minimize the project’s impact on these views. Opening spaces along the Baker Tower and War Memorial axes will restore views into and through the site which have been lost. This can be considered a positive impact of the project.

2.4.1.2 University Avenue Site Historic Resources

a. Existing Historic Resources on the University Avenue Site
The University Avenue surface parking facility is proposed for a 10-1/2-acre property bounded on the west and north by University Avenue, on the east by Stewart Avenue and on the south by Llenroc (now Delta Phi), the mid-nineteenth-century estate of Ezra Cornell.

The project involves the construction of a 195-car asphalt parking lot on the western section of the property adjacent to University Avenue. Occupying approximately 2-1/2 acres (1.7 acres of asphalt), the lot is to be located at the base of the common sloping lawn overlooked by the historic Robert H. Treman house (Kahin Center), the Elizabeth Treman Van Cleef house (660 Stewart Avenue), and a student cooperative residence, Von Cramm.

Treman Site
The proposed University Avenue surface parking facility is to be constructed on the western portion of the former Treman family property, adjacent to University Avenue. The site includes three existing buildings: the Italian Renaissance style Elizabeth Treman Van Cleef house, the Tudor Revival style Robert H. Treman House, and the Tudor style Von Cramm, a student housing cooperative.

The two remaining former Treman houses are outstanding examples of early twentieth-century domestic architecture. Both are the work of William H. Miller, Ithaca’s most renowned designer of the period. Although altered to accommodate institutional use, the houses retain a high level of integrity and an outstanding level of craftsmanship and detail. The houses have historic significance for their long association with the Treman family, one of Ithaca’s most prominent families during the nineteenth and early twentieth centuries. Robert H. Treman is an Ithaca figure notable for his role as a local business leader and for his gifts of land which established an outstanding
collection of State Parks in Tompkins County.

Von Cramm, built in the late 1950s on the site of the third Treman house which burned, is neither architecturally distinguished nor historically significant.

The Treman property was developed according to a landscape design prepared by Boston landscape architect Warren Manning. The primary landscape elements of Manning’s plan, including grass terraces, a stone retaining wall, a winding carriage drive, and a central open lawn, survive. These features contribute to the historic character of the two remaining historic Treman houses. The grounds have suffered some loss of integrity due to the installation of parking, the disappearance of the Japanese garden, obstruction of the view of the valley from secondary tree growth, the general unchecked growth of brush and trees along all perimeters of the property, and the loss of the third Treman House. The neighboring Dutch Colonial Alan H. Treman House (115 Llenroc Court), built by Robert H. Treman for his son, contributes to the architectural and historic significance of the Treman complex.

Figure 2.4.B shows a photograph of the Treman complex and landscaping in the 1930’s.

Llenroc
South of the Treman site is Llenroc, a large stone Gothic Revival house set on a spacious open hillside site, overlooking Ithaca. The house is listed on the National Register of Historic Places. Llenroc is historically significant as the last extant building in Tompkins County associated with the personal life of Ezra Cornell, inventor, industrialist, philanthropist and co-founder of Cornell University. Designed jointly by the Albany-based architecture firms of Nichols and Brown and Thomas Fuller, the house is significant as Ithaca’s finest Gothic Revival residence. The house is distinguished by outstanding stone carving and craftsmanship. Although the original nine-acre site has been subdivided, the building’s setting, primary site features, and expansive view remain intact. Used as a fraternity since 1911, the building retains a high level of architectural integrity in the primary interior rooms of the first floor.

University Avenue
Two early twentieth-century houses are located across University Avenue, north of the proposed parking site. Both houses have suffered a significant loss of architectural integrity. The Kappa Sigma fraternity house, designed by William H. Miller, is one of the more sophisticated examples of Cornell’s group of early twentieth-century fraternity houses designed in the Italian Renaissance style. The appearance of the house’s primary facade has been compromised by the incompatible enclosure of the first floor porch. The house at 614 University Avenue is a late example of the Shingle Style. Converted into apartments, changes to the house’s fenestration and other features have compromised its historic appearance.

Directly opposite the proposed lot, the opposite side of University Avenue is lined with an eclectic group of late nineteenth-century residences. Most of the houses have been subdivided into rental apartments and have suffered a loss of integrity due to alterations.

b. Analysis of Impacts to Historic Resources from the Proposed University Avenue Surface Parking
This section of the historic resources evaluation analyzes the effects of the project on the adjacent
Figure 2.4.B:  
Historic Photograph (1930’s) 
University Avenue Site
historic resources. Comments are limited to issues which may impact the existing historic resources including buildings landscapes, views circulation patterns, etc. They do not relate to design decisions made on the basis of other, equally important factors such as program, architecture or landscape. From a historic preservation perspective, a successful project is one that balances programmatic requirements and architectural expression with sensitivity to the historic context.

The analysis included the following steps:

1. An inventory of buildings in the project area was studied. The historic resources were identified and their significance evaluated (see Appendix B).
2. Design considerations, intended to mitigate impacts to historic resources, were established (see Appendix B).
3. The actual proposed design was analyzed based on the design considerations.

Although the proposed parking lot has been located in the least obtrusive location available on the property, the project will alter the landscape of the former Treman family compound and will change the views from the two remaining historic Treman houses. The property’s most important extant historic landscape features will remain even as the site’s open area is reduced. (Views into the site, from surrounding architecture, are discussed in Section 2.3, Visual Resources.)

The current state of the property is very different from its historic configuration. Landscape architect Warren Manning sited the three Treman houses on a grass terrace overlooking a sloping western lawn. The open areas of lawn originally formed a “V” framing a view of Cayuga Lake to the northwest and the view of the inlet valley and surrounding hills to the southwest. The small bank above University Avenue at the base of the property was planted with flowering bushes and small trees which screened the street, but did not obstruct the views. The former quarry was landscaped with wildflowers, a pergola, and a Japanese garden. Today, only the center area of lawn, below the Van Cleef house, remains. Over the nearly sixty years since the properties were acquired from the Treman family, the framed views have been blocked and the lawns truncated by the growth of brush and trees. The western third of the property and the swale along its southern boundary have grown into scrubby woods.

The proposed parking lot will be located almost entirely on areas of the property overtaken by secondary invasive growth. Although a few specimen trees remain, most of the current wooded area consists of non-indigenous invasive species, including tree-of-heaven, European buckthorn, privets, Norway maple, and a few self-seeded native tree species such as black walnut. The lower western border of the lawn is loosely defined by a row of six walnut trees. The edge of the new lot will be located from twelve feet to fifty feet west of these trees. Although the trees’ foliage will seasonally soften the view of the lot, the parking facility will be visible from the lawn, the terrace, and the primary first-floor porches and windows of the VanCleef and Treman houses.

The winding drive and the central lawn are historically significant landscape features that will be impacted by the project.

The winding drive originally linked the Treman houses with private garages, located on the west side of University Avenue. The former drive has been used for many years as a pedestrian link between residential areas at the base of East Hill and the Cornell campus. The drive is paved with asphalt which is deteriorated. Concrete drainage gutters are located along each edge of the drive
over the eastern two-thirds of its course. Originally, the drive meandered through open lawn and scattered trees. Today the upper section of the drive borders the remaining Treman lawn and a small wooded swale, while the western lower section traverses dense growth of brush and trees.

Construction of the parking lot will require realignment of a 150-foot section of the drive. The drive’s lower south curve will be extended to swing around the south end of the proposed parking lot. The relocated section of drive will be separated from the parking lot by a four-foot wide median strip and a retaining wall. The development of the parking and retaining wall will significantly alter the physical setting and visual character of the drive and interrupt the continuity the landscape experienced along its route.

During the Treman family’s period of residence, two small concrete and stone basins, containing a cascading water feature, were located just south of the drive. Today the basins are dry, partially filled with sediment, and are densely overgrown with naturalized lilies, privet bushes, and other brush.

The relocation of the drive will require the elimination of one of the two basins. Although the basins are an historic feature of the property their value is diminished because all elements of the garden which once surrounded them have disappeared. Because they are visually concealed from both the drive and the nearby lawn, the loss of one of the basins will have little impact on the visual character of the drive or the property.

The design of the proposed parking facility incorporates several features intended to lessen the visual impact of the project. The lot is sited on the section of the property most changed from its historic condition and most remote from the historic Van Cleef and Treman houses. By configuring the parking, particularly at the north end of the site, to follow a natural break in the slope of East Hill, the proposed design minimizes the amount of excavation and brush removal required. The proposed plan maintains a continuous band of trees to buffer the lot from University Avenue. The use of a single entrance drive minimizes the disturbance to the street frontage. Parking spaces have been sacrificed to minimize fill and to preserve large existing trees.

c. Mitigation Measures

The goal of the mitigation measures discussed here is to preserve the site’s existing historic features and to minimize the visual obtrusiveness of the new parking facility.

Providing a landscaped buffer between the central lawn and the east edge of the parking lot could reduce the visual impact of the lot on the views from lawn, terrace, and Treman houses. Planting shrubs and small trees rather than full-size trees would provide screening without blocking distant views. The historic mix of plants originally located along the bank above University Avenue may provide a model for the appropriate treatment of this area. If the row of existing walnut trees at the base of the lawn is to be maintained, plants will need to be selected that are immune to black walnut phytotoxins. As an alternative, the smaller walnuts could be replaced with other, less noxious, historically appropriate species such as beech, yellow oak or hickory. Applying a similar treatment to the sloped bank between the two terraced parking levels will lessen the apparent scale of the parking area when viewed from the historic houses on the slope above. Replanting trees in disturbed areas and allowing the remaining wooded area to grow up to the edges of the lot will help buffer it and reduce its apparent scale.

The reduction in the size of the lawn caused by the parking project could be offset by restoring the southwest viewshed once commanded by the two historic houses. Selectively thinning the trees in
the area of the former quarry south of the carriage drive could restore the view to the Llenroc lawn and the Cayuga Inlet Valley and the surrounding hills beyond. In selecting trees to remove, care must be taken to maintain foliage screening the parking lot from the Treman houses and Llenroc. Restoring the northwest view of Cayuga Lake is less feasible because it would eliminate trees needed to screen the north end of the parking lot.

The impact of the parking area on the former carriage drive could be lessened by increasing the width of the landscaped strip between the drive and the parking area. Enlarging this strip from the current four feet to ten feet would allow planting a more adequate buffer of trees and shrubs. Although a planted buffer will not completely conceal the lot, it would maintain the continuity of the drive’s landscape enclosure and reduce the loss of its scenic quality. Although widening the space between the lot and the drive will increase the drive’s deviation from its historic route, the relocation will have less impact on the character of the drive than the intrusion of the proposed parking facility.

Lighting should be designed to be as unobtrusive as possible, thus:

- Poles should be located at the center of the lot rather than the edges.
- Cut-off luminaires should be used.
- Poles should be compatible in scale with the property and should not exceed fourteen feet in height.
- Light poles are not an historic element of the property. Poles should be of a simple unobtrusive contemporary design.

\(d\). Unavoidable Impacts

Due to its program and resulting size, the University Avenue parking facility will impact the landscape, setting and views of the historic Treman properties. Several impacts of the project appear unavoidable:

- The parking lot will reduce the size of the lawns surrounding the two remaining historic Treman houses.
- Sensitive appropriate planting can mitigate the impact of the lot, but entirely screening the lot would be both impractical and would have a further adverse impact on other significant features and physical characteristics of the site.
- Construction of the lot will require relocating a 150-foot section of the former carriage drive and removing one of two remaining stone and concrete basins.
- Although a continuous band of trees, varying in width from ten to thirty-five feet, is being retained between the University Avenue curb and the proposed parking lot, the remaining trees, even after the foliage has recovered from construction, will not entirely screen the lot from University Avenue. The parking lot will be visible from University Avenue during the winter months.
- A positive impact of the project is that historic views to West Hill will be restored.
2.4.2 Archaeological Resources

This section summarizes the existing archaeology resources, analyzes the potential impacts to those resources, discusses mitigation measures, and identifies unavoidable impacts of the proposed West Campus Residential Initiative Project. Section 2.4.2.1 discusses archaeological resources on the west campus site and section 2.4.2.2 examines archaeological resources on the University Avenue site. Please refer to Appendix C: Archaeological Resources for the detailed archaeology studies conducted for this project.

2.4.2.1 West Campus Site Archaeological Resources

a. Existing Archaeological Resources on West Campus
A Phase 1, archaeological site examination was conducted for the west campus site by the Binghamton Public Archaeology Facility in August and November of 2001. The examination consisted of a site files check (literature research), a site walkover, and subsurface testing (digging shovel test pits where appropriate). No archaeological sites were found during the investigation of west campus.

b. Impacts to Archaeological Resources on West Campus
Development of the west campus site poses no potential impacts on archaeological resources.

c. Mitigation Measures
No mitigation measures are necessary.

d. Unavoidable Impacts
There are no impacts of any kind to archaeological resources for west campus.

2.4.2.2 University Avenue Site Archaeological Resources

a. Existing Archaeological Resources on University Avenue Site
A Phase 1, archaeological site examination was conducted for the University Avenue site by the Binghamton Public Archaeology Facility in August of 2001. The examination consisted of a site files check (literature research), a site walkover, and subsurface testing (digging shovel test pits at specific intervals where appropriate). The literature search revealed a building once stood on the western edge of the site along University Avenue. Shovel test pits near and on the site of the former structure contained artifacts from the mid to late 19th century. The archaeology team titled this area the “E. Cornell site”. A Phase 2 archaeological site examination was recommended for the E. Cornell site. No other archaeological sites were located in the University Avenue study area.

A Phase 2 archaeological site examination was conducted for the E. Cornell site by the Binghamton Public Archaeology Facility in November of 2001. This investigation included further literature research, and field work including excavation of 14 test pits, 1 meter by 1 meter in size. Findings on the site indicate that the building was built between 1857 and 1866 and stood until sometime between 1898 and 1904. It was a wooden household structure, occupied mainly by an Irish immigrant family by the name of Carney. The site measures approximately 172 feet by 66 feet and is located on one of the largest flat parcels of land in the immediate vicinity. No site features were found, such as privies, building foundation, or wells, but over 4,000 artifacts were unearthed and catalogued. The artifacts consisted mainly of architectural items (nails, glass) and tableware. The diverse assemblage of artifacts found is typical of a domestic site. Due to the high density of artifacts, the Phase 2 site examination report recommends the E. Cornell site as eligible for the National Register of Historic Places.
b. Impacts to Archaeological Resources on University Avenue Site
Construction of the University Avenue surface lot would negatively impact the archaeology re-
sources at the E. Cornell site if the resources were not first recovered. The university is moving
forward with the full recovery of artifacts, which is standard procedure for archaeological sites
proposed for development.

c. Mitigation Measures
A Phase 3 data recovery site excavation will be conducted for the E. Cornell site prior to construc-
tion on the University Avenue site. A Phase 3 investigation will exhaust the site’s research potential
and collect and catalog all of the available artifacts, leaving the site free for development. A data
recovery plan has been developed and submitted to the New York State Office of Parks, Recreation
and Historic Preservation for approval.

d. Unavoidable Impacts
The university is moving forward with the full recovery of artifacts, which is standard procedure
for archaeological sites proposed for development. There are no unavoidable impacts to archaeo-
logical resources from the proposed development.

Figure 2.4.C: E. Cornell Archaeology Site