CONNECTICUT ENVIRONMENTAL POLICY ACT (CEPA) COMPARATIVE PROJECT EVALUATION NORTH CAMPUS MASTER PLAN EIE

TENNIS COURT RELOCATION

UNIVERSITY OF CONNECTICUT Storrs, Connecticut

OCTOBER 15, 2004



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TABLE OF CONTENTS

SECT	<u>ION</u>	PAGE
1.0	INTRODUCTION	1
2.0	PROJECT DESCRIPTION	1
3.0	SUMMARY OF PROJECT AREA RESOURCES	3
4.0	COMPARATIVE ANALYSIS OF IMPACTS	4
5.0	CONCLUSION	7
6.0	REFERENCES	9
TABL	ES	PAGE
1 2	Development Scenarios for Parcels E and G in the North Campus Master Plan EIE Summary Comparison of Potential Environmental Impacts	2 5
APPE	NDICES	END OF REPORT
A B C	Project Location Map Conceptual Facility Design Plan Correspondence with State Historic Preservation Office	

1.0 INTRODUCTION

This document is an evaluation comparing the impacts of relocating the existing tennis courts that will be displaced by the proposed Burton Family Football Complex and Mark R. Shenkman Training Center to a site at the North Campus against those of the projects that were originally identified for this site in the approved North Campus Master Plan Environmental Impact Evaluation (EIE). This comparative evaluation is consistent with the previous correspondence between the University of Connecticut (UConn) and the Connecticut Office of Policy and Management (OPM) in July/August 2001 regarding the CEPA process for future site-specific projects at the North Campus.

The environmental constraints and related development costs associated with relocating the existing tennis courts to the wooded area south and east of the Ice Arena Parking Lot, as originally proposed in the EIE prepared for the Burton Family Football Complex and Mark R. Shenkman Training Center dated August 2, 2004, along with Athletic Master Planning activities, led to a re-evaluation of potential tennis court relocation sites at the North Campus. As a result, the preferred location for relocating the tennis courts is an undeveloped site on the west side of the North Hillside Road Extension, consisting of portions of Parcels E and G as identified in the North Campus Master Plan EIE (Frederic R. Harris, Inc., February 2001). A location map of the proposed tennis court relocation site is provided in <u>Appendix A</u>.

Approval of the North Campus Master Plan EIE by the Connecticut Office of Policy and Management (OPM) required that site-specific projects proposed for development within the North Campus Master Plan area be reviewed by OPM to ensure that impacts are substantially equivalent to or less than those identified for that site in the Master Plan EIE. Because the tennis court relocation will be within the North Campus Master Plan area, a site-specific comparative evaluation is required.

2.0 PROJECT DESCRIPTION

2.1 Proposed Project

UConn proposes to relocate the existing tennis courts along Stadium Road to a site at UConn's North Campus in Storrs, Connecticut. Relocation of the existing tennis courts is necessary to accommodate the construction of the proposed Burton Family Football Complex and Mark R. Shenkman Training Center at the site of the existing tennis courts along Stadium Road, as well as to provide a suitable facility for the UConn intercollegiate tennis teams to practice and compete. The proposed tennis court relocation site consists of portions of Parcels E and G as identified in the North Campus Master Plan EIE. The site is located on the west side of the North Hillside Road Extension approximately 1800 feet north of North Eagleville Road, north of the UConn wastewater treatment plant, and east of a former UConn landfill. The project area and proposed facilities are shown on the figure in Appendix B.

The relocated tennis courts will consist of 6 competition tennis courts and 4 practice tennis courts, both surrounded by approximately 18-foot high vinyl-coated chain link fencing. The 4 northern tennis courts may be converted to indoor courts in the future by constructing an

enclosure over the courts. The current design does not include lighting for play at night. An approximately 30-foot by 40-foot building will house coaches offices, locker rooms, and bathrooms served by sanitary sewer and water from the existing utilities along North Hillside Road Extension. A small paved parking area with approximately 10 parking spaces will be located at the facility. The tennis court parking area will be accessible from the proposed landfill parking access road. Spectator viewing stands will be relocated from the existing tennis courts. The site will be graded as necessary to accommodate the tennis courts and to be handicapped accessible, while minimizing land disturbance on the site. Stormwater will be managed by capture of overland flow in vegetated swales and downgradient basins or bioretention areas to replicate the hydrologic conditions of the site (peak runoff flow rates, runoff volume and groundwater recharge, and runoff quality) as it existed when the North Campus Master Plan EIE was prepared (i.e., primarily forested).

2.2 <u>North Campus Master Plan EIE</u>

The North Campus Master Plan EIE, which refers to the plan for the North Campus that is contained within the University's Outlying Parcels Master Plan, identified the following alternative development scenarios for Parcels E and G:

Table 1. Development Scenarios for Parcels E and G in the North Campus Master Plan EIE

Parcel	Priority	Proposed Land Use	Parcel Area	Net Buildable	Total Site Coverage	Building Floor	Parking Spaces
			(Acres)	Area (Acres)	(Acres)	Area	(Each)
Г	D .	T 1 1 /D 1	10.0		0.7	(gsf)	(22
Е	Primary	Technology/Research	19.9	14.7	8.5	190,000	633
	Secondary	Residential			8.5	114,000	380
	Secondary	Special Academic			8.5	190,000	475
	Secondary	Recreation			0.4		50
G	Primary	Convenience/Retail	6.3	3.1	1.7	10,000	100
	Secondary	Technology/Research			1.7	50,000	167
	Secondary	Remote Parking			3.1		450
	Secondary	Residential			1.7	22,500	75
	Secondary	Recreation			3.1		12

Source: University of Connecticut, North Campus Master Plan EIE, Frederic R. Harris, Inc., February 2001.

The Master Plan indicates that the ideal land uses for the North Campus area consist of university-related research, student residential housing, remote parking, and special academic and residential support services, including recreational facilities. According to the Master Plan, "primary land uses" are recommended as optimal uses of the respective parcels. However, "secondary land uses" are also allowable alternatives. As indicated in <u>Table 1</u>, the respective primary land uses for Parcels E and G are Technology/Research and Convenience/Retail. Recreation was identified as an allowable alternative land use for both parcels. The total proposed site coverage ranges from 0.4 to 8.5 acres for Parcel E and 1.7 to 3.1 acres for Parcel G. In addition, the North Campus Master Plan EIE assumed that only one of the alternative land uses could be accommodated within a single parcel. However, based on review of the information presented in the EIE and shown in <u>Table 1</u> above, the 0.4-acre proposed site

coverage associated with the Recreation land use for Parcel E is not believed to accurately reflect the minimum site coverage required for the recreational facilities and associated parking that were originally envisioned under this scenario.

3.0 SUMMARY OF PROJECT AREA RESOURCES

Existing conditions at the proposed site of the relocated tennis courts are essentially unchanged from those described in the North Campus Master Plan EIE, with the exception of some site clearing that occurred during utility installation associated with the initial extension of North Hillside Road and a manmade intermittent watercourse at an outfall of the North Hillside Road Extension storm drainage system. Resources in the vicinity of the project area are summarized below.

3.1 <u>Natural Environment</u>

Soils across the project area consist of well-drained Canton and Charlton fine sandy loams. No Prime Farmland Soil or Additional Farmland of Statewide Importance is located in the project area. The site is characterized by gently sloping to moderate topography, and there are no significant geologic features in the proposed project area. Groundwater in the proposed project area is classified as GA, which is presumed to be suitable for drinking without treatment. The proposed project area is located to the east of the stratified drift aquifer that underlies the inactive UConn landfill and outside the 100-year floodplain of Cedar Swamp Brook. The stratified drift aquifer no longer serves as a public or private drinking water source due to impacts from the landfill. The proposed project area is within the Cedar Swamp Brook subwatershed. Cedar Swamp Brook flows in a southwesterly direction to its confluence with Eagleville Pond and the Willimantic River.

As indicated in the North Campus Master Plan EIE, wetlands in the North Campus project area were originally field delineated and evaluated as part of the 1994 Technology and Research Park EIE prepared by Frederic R. Harris, Inc. (1994 EIE). Isolated emergent wetlands were identified on the northwest portion of Parcel E. Wetlands in the vicinity of the proposed project area were re-evaluated in October 2004, including a field-delineation performed by Richard Snarski, Certified Wetlands Scientist, Professional Wetlands Scientist, Certified Sediment and Erosion and Control Specialist. The only wetlands in the vicinity of the project area that were identified during the October delineation are associated with a manmade intermittent watercourse (i.e., an excavated ditch) at the outfall of the North Hillside Road Extension road drainage system. This ditch was delineated as a manmade intermittent watercourse because there were several obligate wetland plant species that were growing in the ditch, which indicates that the ditch is groundwater supported and/or flows in the ditch may persist between storm events.

With the exception of the manmade intermittent watercourse noted above, the majority of the proposed project area currently consists of a disturbed upland clearing bordered to the north, west, and south by mature hardwood forest and to the east by North Hillside Road Extension.

3.2 Physical Environment

The physical environment in the vicinity of the proposed project area is essentially unchanged from the description presented in the North Campus Master Plan EIE. The major exception is the construction of the initial extension of North Hillside Road in the late 1990s and associated utilities that were installed in 2002. Water, sanitary sewer, electrical, natural gas, and telecommunications are available along the existing North Hillside Road Extension roadway adjacent to the proposed project area.

In the north Campus Master Plan EIE, the southern portion of Parcel E and the central portion of Parcel G were identified as having moderate to high potential for prehistoric sites, thereby requiring visual assessment of these areas by a professional archaeologist to further evaluate the potential for cultural resources.

3.3 Socioeconomic

Socioeconomic conditions in the vicinity of the proposed project area are similar to those described in the North Campus Master Plan EIE. The following planning documents are applicable to the proposed project:

- Recommended Conservation and Development Polices Plan for Connecticut 2004-2009 (OPM, 2004)
- Windham Region Land Use Plan 2002 (WINCOG, 2002)
- Regional Transportation Plan for the Windham Region (WINCOG, 2001 update)
- Mansfield Plan of Development
- *University of Connecticut, Outlying Parcels Master Plan, Final Report* (also referred to as *UConn North Campus Master Plan*) (Smith Group JJR, 2000).

The current land uses adjacent to the proposed project area include a former UConn landfill to the west, the UConn wastewater treatment plant to the south, North Hillside Road Extension and additional undeveloped land to the east, and undeveloped forest to the north. As described in Section 2.2, recreation was identified as an allowable alternative land use for both parcels E and G in the North Campus Master Plan EIE.

4.0 COMPARATIVE ANALYSIS OF IMPACTS

<u>Table 2</u> summarizes unavoidable adverse impacts, irreversible and irretrievable commitment of resources, and cumulative impacts for 1) the primary development scenarios for Parcel E and G (i.e., Technology/Research and Convenience Retail land uses) presented in the North Campus Master Plan and 2) the proposed tennis court relocation project. The information presented in <u>Table 2</u> provides a concise comparison of the anticipated impacts for the original development scenario and proposed project.

Table 2. Summary Comparison of Potential Environmental Impacts

	North Campus Master Plan EIE Parcels E and G	Proposed Tennis Court Relocation Project	Comparison of Impacts to North Campus Master Plan EIE	Comments
Unavoidable Adverse Impacts	1. Additional impervious surface (up to 10.2 acres) on presently undeveloped areas, potentially impacting runoff quality and quantity	Additional impervious surface (2± acres) on presently undeveloped areas, potentially impacting runoff quality and quantity	Less	Impervious surfaces associated with the proposed tennis court facilities are substantially less than the primary development scenario for Parcels E and G in the Master Plan EIE. The quality of runoff from the tennis courts and limited parking area will be significantly cleaner than runoff from the Technology/Research and Convenience Retail land uses proposed in the Master Plan EIE.
	2.Potential for direct wetland impacts	None	Less	The proposed project will avoid impacts to the manmade intermittent watercourse associated with the North Hillside Road Extension storm drainage outfall
	3. Potential impacts to wildlife habitat by development of upland forest or grassland areas	Potential impacts to existing wildlife habitat in the proposed project area	Equivalent or less	The proposed project will be located in a previously cleared area along North Hillside Road, avoiding development of the adjacent upland forest and maintaining contiguous forested area. The proposed project will result in the development of substantially less land area than the Technology/Research and Convenience Retail land uses proposed in the Master Plan EIE.
	4. Aesthetic character of the site	Aesthetic character of the site	Less	The proposed tennis court facilities will be significantly smaller in footprint and height than the industrial and commercial facilities proposed in the Master Plan EIE. The parking area associated with the proposed tennis courts (approx. 10 spaces) will be significantly smaller than parking requirements (up to 733 spaces) associated with the Technology/Research and Convenience Retail land uses in the Master Plan EIE. Overall impacts to aesthetic character and viewsheds will be less.
	5. Additional traffic and associated air quality impacts	Additional traffic and associated air quality impacts	Less	The proposed tennis court facility will generate significantly less additional traffic than the proposed Technology/Research and Convenience Retail land uses in the Master Plan EIE. Limited parking at the site will encourage pedestrian access to the tennis courts. Consequently, traffic-related air quality impacts will also be significantly less.

Table 2. Summary Comparison of Potential Environmental Impacts

	North Campus Master Plan EIE Parcels E and G	Proposed Tennis Court Relocation Project	Comparison of Impacts to North Campus Master Plan EIE	Comments
	6. Temporary construction impacts – dust, noise, erosion and sedimentation, construction vehicle traffic	Temporary construction impacts – dust, noise, erosion and sedimentation, construction vehicle traffic	Less	Construction duration, land disturbance, and overall size of the proposed tennis court relocation project will be less than that of the proposed Technology/Research and Convenience Retail land uses in the Master Plan EIE.
	7. Moderate to high potential for impacts to prehistoric resources	Moderate to high potential for impacts to prehistoric resources	Equivalent or less	Land disturbance associated with the proposed tennis courts will be less than that of the proposed Technology/Research and Convenience Retail land uses in the Master Plan EIE.
Irreversible and Irretrievable Commitment of Resources	Same as items 1 through 4 above	e		
Cumulative Impacts	Not evaluated in the North Campus Master Plan EIE	Additional demand for utilities and services in combination with future proposed development of the North Campus	Less	The demand for utilities and services associated with the proposed tennis court facilities will be significantly less than that of the proposed Technology/Research and Convenience Retail land uses in the Master Plan EIE
		Additional traffic and parking demand in combination with future proposed development of the North Campus	Less	The proposed tennis court facility will generate significantly less additional traffic than the proposed Technology/Research and Convenience Retail land uses in the Master Plan EIE. Limited parking at the site will encourage pedestrian access to the tennis courts.
		Impacts to hydrology and water quality associated with new impervious surfaces and stormwater pollutant sources	Less	Impervious surfaces associated with the proposed tennis court facilities are substantially less than the primary development scenario for Parcels E and G in the Master Plan EIE. The quality of runoff from the tennis courts and limited parking area will be significantly cleaner than runoff from the Technology/Research and Convenience Retail land uses proposed in the Master Plan EIE.
		Long range planning	Equivalent or less	The proposed project is consistent with recreational use, which was identified as an allowable land use in the North Campus Master Plan.

5.0 CONCLUSION

As summarized in <u>Table 2</u>, the potential environmental impacts of the proposed tennis court relocation to the North Campus are equivalent to or less than the potential impacts identified in the previously approved North Campus Master Plan EIE. The proposed tennis court facility is consistent with recreational usage, which the North Campus Master Plan has identified as an allowable land use for Parcels E and G. The proposed design of the relocated tennis courts will result in substantially smaller environmental impacts than the Technology/Research and Convenience/Retail land uses originally identified for Parcels E and G in the North Campus Master Plan due to:

- Significantly less impervious area, site coverage, and land disturbance during construction
- Substantially cleaner stormwater runoff due to much smaller parking demand and traffic generation, as well as absence of commercial or industrial stormwater pollutant sources
- Avoidance of direct impacts to the manmade intermittent watercourse on the proposed site
- No development within the adjacent upland forest
- Lower demand for utilities (water, sewer, electrical) and services.

The North Campus Master Plan EIE identified mitigation measures to reduce or offset the potential adverse impacts associated with development of the North Campus. In addition to the general mitigation measures that were identified in the North Campus Master Plan EIE, the following project-specific mitigation measures have been identified for the proposed relocation of the tennis courts to Parcels E and G at the North Campus, based on the results of this comparative evaluation:

- *Hydrology and Water Quality*: The proposed stormwater management system for the site will be consistent with the requirements for DEP Flood Management Certification, the University policy regarding no net increases in peak runoff for projects not included in the *UConn Campus-wide Stormwater Management Study*, and the design criteria in the CTDEP's *Connecticut Stormwater Quality Manual*. The project will not result in increases in peak runoff over the wooded condition that existed at the site prior to the clearing for the roadway and utility installation for storms up to and including the 100-year storm. To the extent possible, the proposed stormwater management system for the project site will be designed to mimic the hydrologic conditions that existed at the site at the time the North Campus Plan EIE was prepared (i.e., primarily forested), including drainage patterns, runoff volume, groundwater recharge, and runoff quality. The proposed stormwater management system will consist of the following elements, which are designed to mitigate potential stormwater quantity and quality impacts:
 - ➤ Capture of overland flow from the tennis courts, surrounding grass areas, and parking area in vegetated swales and downgradient stormwater basins or bioretention areas. The basins or bioretention areas (also known as rain gardens)

- will serve to attenuate peak flows, reduce runoff volumes through infiltration, and improve stormwater quality.
- ➤ Riprap scour protection will be provided at the basin outlet or bioretention overflow locations, which will discharge to an upland area via a level spreader upgradient of the adjacent forest.
- Construction Mitigation Measures: During construction, the following Best Management Practices will be implemented to minimize noise, air quality, and water quality impacts:
 - Construction sediment and erosion controls in accordance with the CTDEP Construction Stormwater General Permit and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (CTDEP, 2002)
 - ➤ Construction best management practices to limit fugitive dust impacts
 - ➤ Prohibition of excessive construction equipment idling and the use of air pollution control devices (e.g., oxidation catalysts and particulate filters) and clean fuels for the project construction where appropriate.
 - Appropriate traffic management techniques during construction, including prohibition of construction traffic on designated local roads, which will be incorporated into the final project plans and specifications.
 - ➤ Conformance with Connecticut noise regulations
 - ➤ Limiting construction to daytime hours
 - > Proper maintenance of construction equipment
 - Advance notification to nearby receptors if construction activities may produce temporary excessive noise levels
 - > Maintaining existing wooded buffers between the proposed project and adjacent parcels to the north, west, and south.
- Aesthetics and Viewsheds: Existing forested areas will be maintained as buffers to the adjacent off-campus areas.
- Vegetation and Wildlife: The North Campus Master Plan EIE identified the potential presence of several state-listed avian species at the North Campus. Although none of these species were observed during field investigations performed in support of the North Campus Master Plan EIE, the EIE recommended performing a field investigation of those areas of the North Campus with grassland bird habitat, namely agricultural land and maintained lawn areas. Much of the proposed tennis court relocation site was forested when the North Campus Master Plan EIE was prepared and did not contain the type of bird habitat discussed in the EIE. In general, these bird species prefer grasslands with a minimal habitat size of approximately 25 acres. The proposed project limits at Parcels E and G consist of an approximately 4-acre upland clearing, which was disturbed during installation of the utilities along North Hillside Road Extension. This area is not believed to provide suitable grassland bird habitat, and no further field investigation of the project area is planned.

• *Cultural Resources*: The North Campus Master Plan EIE identified the need to conduct a reconnaissance survey to identify and evaluate archaeological resources which may exist within the proposed project limits, based on scoping comments on the North Campus Master Plan EIE by the Connecticut Historical Commission. However, recent correspondence with the State Historic Preservation Office regarding the UConn Landfill Closure Plan (see <u>Appendix C</u>), which includes the landfill parking area and associated access road that crosses Parcel G (in an area originally identified as having prehistoric potential in the North Campus Master Plan EIE), indicated that the proposed project will have no effect on historic, architectural, or archaeological resources. Since the proposed landfill parking access road crosses the area of prehistoric potential that also overlaps the western portion of the proposed tennis court facilities, it is presumed that construction of the proposed tennis courts will also have no impact on cultural resources.

6.0 REFERENCES

Connecticut Council on Soil and Water Conservation and the Connecticut Department of Environmental Protection, 2002, 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, DEP Bulletin 34.

Connecticut Department of Environmental Protection (DEP). Draft. Connecticut Stormwater Quality Manual.

Frederic R. Harris, Inc. (1994). State Actions Associated with a Research and Technology Park, Mansfield, Connecticut – Connecticut Environmental Policy Act, Environmental Impact Evaluation. May 1994.

Frederic R. Harris, Inc. (2001). University of Connecticut, North Campus Master Plan, Mansfield, Connecticut - Connecticut Environmental Policy Act, Draft Environmental Impact Evaluation. February 2001.

Office of Policy and Management. (2004). Recommended Conservation and Development Policies Plan for Connecticut 2004-2009.

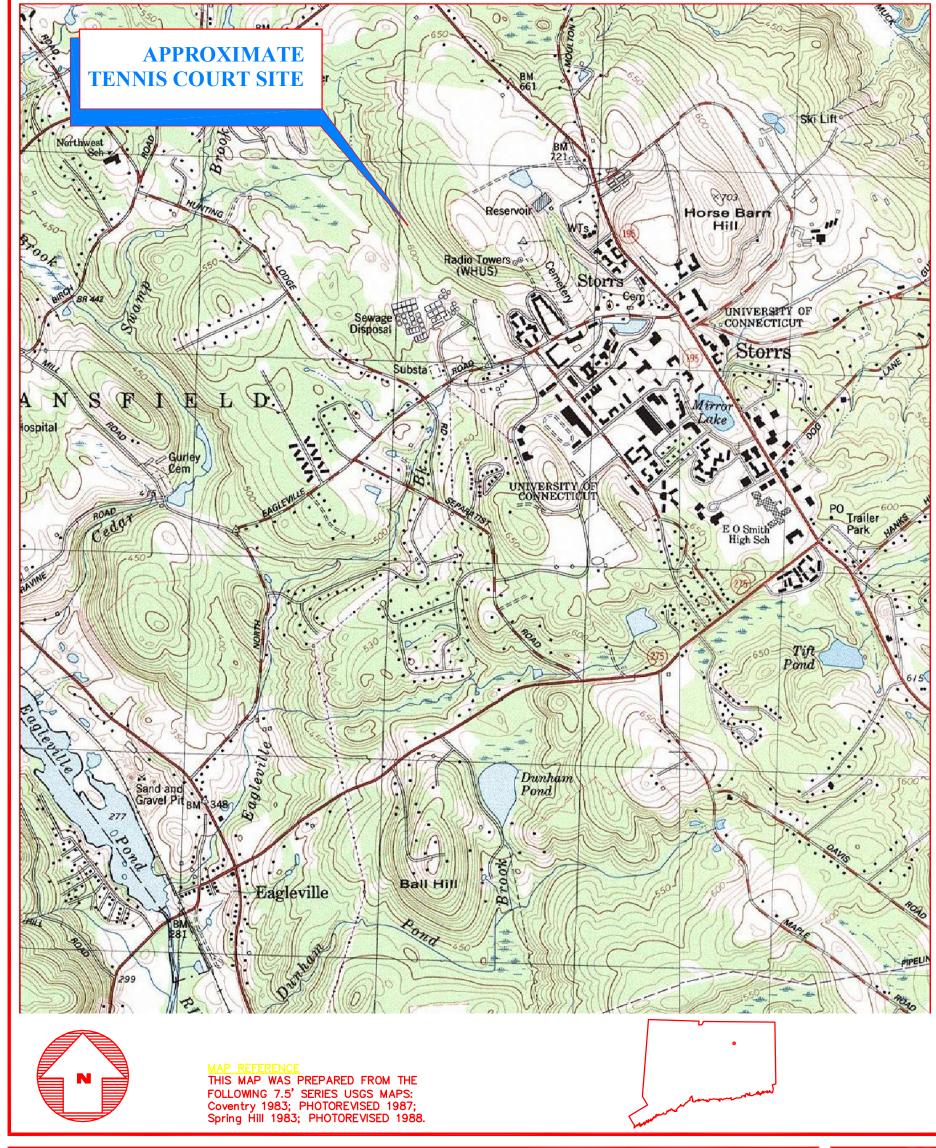
Smith Group JJR. (2000). University of Connecticut, Outlying Parcels Master Plan, Final Report. June 2000.

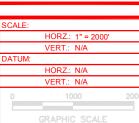
Town of Mansfield. (1993). Plan of Development. Mansfield, Connecticut.

Windham Region Council of Governments (WINCOG). (2001). Regional Transportation Plan for the Windham Region, 2001 Update.

Windham Region Council of Governments (WINCOG). (2002). Windham Region Land Use Plan 2001.

APPENDIX A PROJECT LOCATION MAP







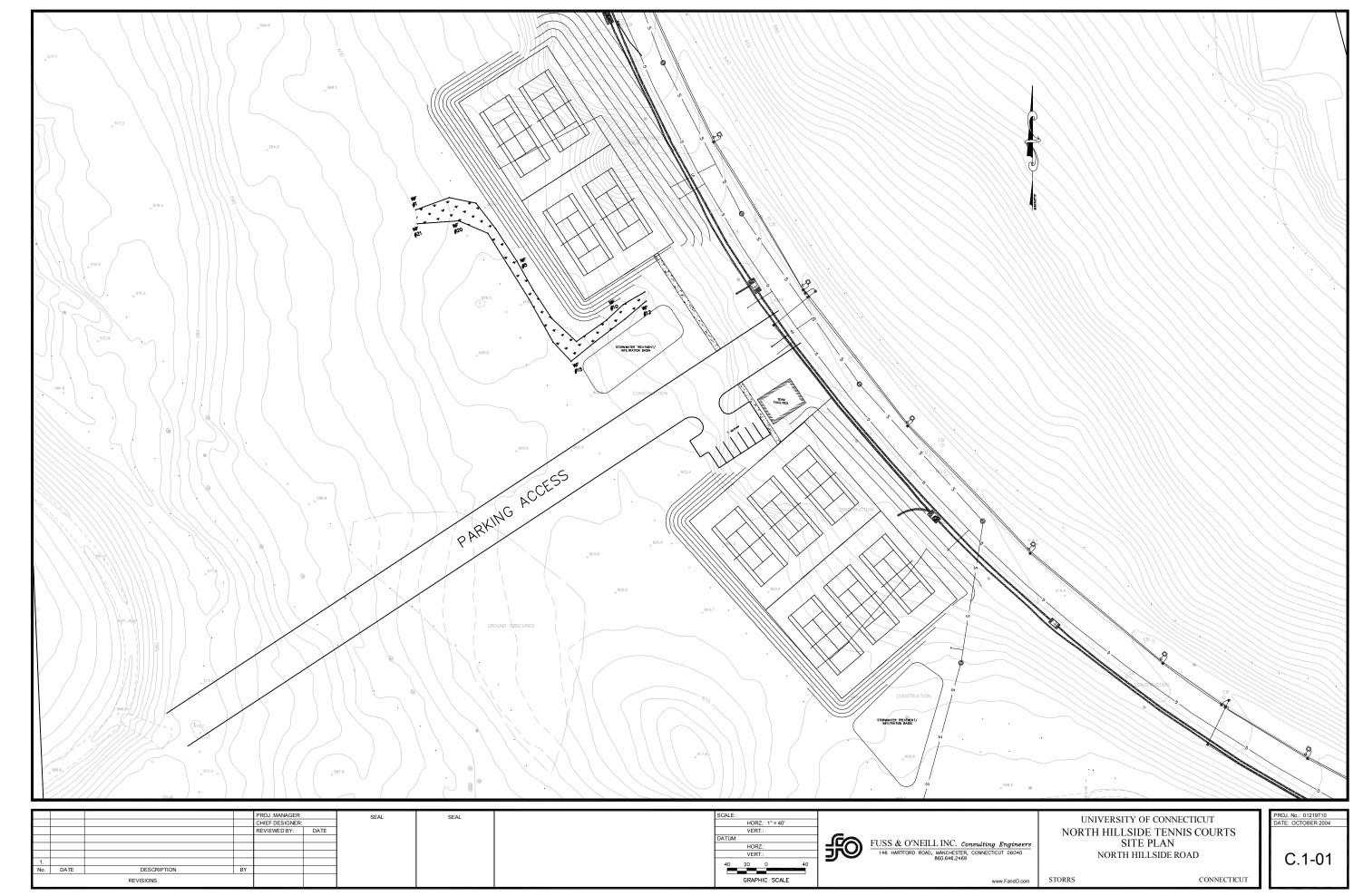
UNIVERSITY OF CONNECTICUT
PROJECT LOCUS

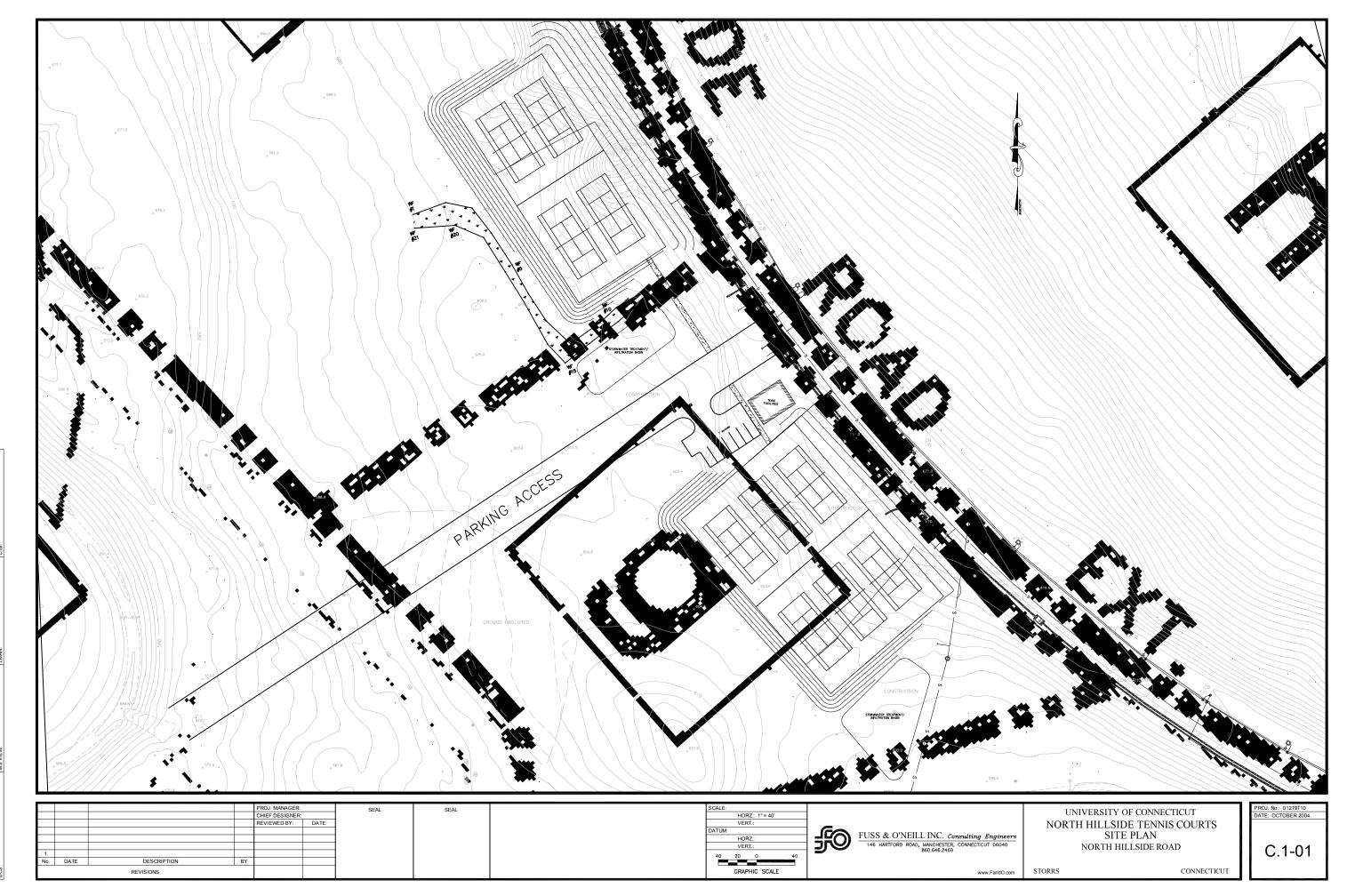
TENNIS COURT RELOCATION
NORTH CAMPUS

DATE: OCTOBER 2004

FIG. 1-1

APPENDIX B CONCEPTUAL FACILITY DESIGN PLAN





APPENDIX C

CORRESPONDENCE WITH STATE HISTORIC PRESERVATION OFFICE



STATE OF CONNECTICUT

State Historic Preservation Office

Commission on Arts, Tourism, Culture, History and Film

10-14-04

May 7, 2004

Mr. Matthew Devlin Mason & Associates Inc. 219 East Main Street, Suite 100B Milford, MA 01757

Subject: Landfill Closure Plan

University of Connecticut

Storrs, CT

Dear Mr. Devlin:

The State Historic Preservation Office has reviewed the above-named project. This office expects that the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking.

We recommend that the responsible agency provide concerned citizens with the opportunity to review and comment upon the proposed undertaking in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Tool Tools

Deputy State Historic Preservation Officer

Post-it® Fax Note 7671	Date 10/14/04 pages > 1				
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