



Natural Resources Board
District #4 Environmental Commission
111 West Street
Essex Jct., Vermont 05452

July 15, 2011

Linda Seavey, Director
Campus Planning Services
University of Vermont
109 South Prospect Street
Burlington, VT 05405

RE: Reconsideration 2 of Jurisdictional Opinion #4-225
Given buildings Curtain Wall, Burlington

Dear Linda:

This jurisdictional opinion is written pursuant to DHP's request to add specific statements to my Jurisdictional Opinion of July 1, 2011 based on your written request from June 17, 2011 to reconsider my Jurisdictional Opinion of March 29, 2011 regarding the applicability of Act 250 jurisdiction over the proposed replacement of the curtain wall on the second level west elevation of the Given buildings. I have based my analysis on your submittals, comments from the State of Vermont Division of Historic Preservation ("DHP"), our site visit of March 24, 2011 and our meeting on June 8, 2011. For the reasons set forth below, I have determined that the proposed project, with the recent revisions is not a Material Change to LUP #4C0506-11. Under the Substantial Change analysis, the removal and replacement of the majority of the original exterior cladding material does have a significant impact on the distinguishing and character-defining historic features of the Given Building. However, with the exact materials specified at the June 8, 2011 meeting, for replacement of the existing elements the impacts have been mitigated. Therefore, with these specific materials the proposed project is also not a Substantial Change and an Act 250 permit is not required.

Facts

1. The Given buildings were built in several phases during the years 1962 to 1966, with the west wing completed in 1968. The original exterior features include the flat roof and curtain walls of black, acid etched precast concrete, as well as a plate glass, hopper window system and white glass spandrels below the hopper system. The buildings were designed by the architectural firm of Skidmore, Owings & Merrill and associate architects Freeman, French, Freeman.
2. The original proposal was to replace the existing window system at the second level west elevation of the Given building with a new insulated curtain wall system. The existing 1960's era, aluminum curtain wall system is significantly deteriorated, resulting in severe condensation that pools on the floors, substantial heating and cooling losses and occupant discomfort. The new



system will match the existing aluminum material, with gray tint glazing on the windows to reduce solar gain and maintain building aesthetic. The lower white spandrel glass panel will be replaced with insulated white spandrel glass panels. It is expected to produce a significant improvement in energy efficiency. The new curtain wall system will install in the same opening and closely match in appearance, size, dimensions and mullion divisions.

3. In your June 17, 2011-letter from the University of Vermont ("UVM"), the project was slightly modified with these changes:
 - a. In response to State Historic Preservation officials' concern regarding the proposed flat curtain wall profile, the University revised the Prevost curtain wall detail to add custom extrusion perimeter and intermediate snap caps to the design. This option provides additional rectangular shapes that are 1/2 inch deep, which adds a shadow line that more closely resembles existing profiles.
 - b. The gray tinted glazing initially proposed was deemed to be slightly darker than the existing solar film. The University now proposes a lighter gray glazing.
 - c. State Historic Preservation officials had asked if the University could retain the original white spandrels and insulate behind them. The University researched this with our consulting architect and the spandrel glass manufacturer. It was found the original white spandrel glass could not be retrofitted into the new curtain wall frame. The single-pane glass was not designed for that purpose and conversely, the proposed air-tight curtain wall system was not designed to accommodate single-pane glass. The glass used in the proposed curtain wall panels must be heat-strengthened or tempered. The major issue is that the existing spandrel glass is not tempered, thereby making it technically (and economically) infeasible to cut to retrofit the existing spandrels. Additionally, the single-pane glass does not meet current University safety standards. Finally, any retrofit of the curtain wall system will void any warranty offered by the manufacturer. The University does require a warranty on all work and products installed at the University.

In addition the letter contained Attachment I with the following specifications:

- I. Curtain Wall - A & D Prevost 3400HP series, "Heavy Duty", High Performance Curtain Wall.
 - a. Curtain wall finish - Class I Clear Anodized
 - b. Snap Caps - Custom Extrusions for perimeter snap caps and intermediate snap caps (See attached drawing)
- II. Glass panels - 1" total thickness
 - a. Outer Lite - PPG 1/4" Solarban RI 00 Low-E coating (second surface) on Solar Gray Tint glass
 - b. Glass Cavity - 1/2"
 - c. Cavity Fill - Argon
 - d. Inner Lite - PPG 1/4" clear glass
- III. Spandrel Panel - MAPES Industries
 - a. Outer Face - PPG 1/4" ceramic white spandrel

- b. Insulation - Polisocyanurate
 - c. Inner Face - Clear anodized aluminum
- 4. DHP provided these comments on the changes to the proposed project in their June 22, 2011-letter:
 - a. The Given buildings' exterior curtain wall system is composed of four materials: aluminum structural members, clear plate glass windows, white glass spandrel panels, and acid-etched precast concrete panels. Following the completion of this project, the only remaining original material on the exterior of the building will be the acid-etched precast concrete panels. The removal and replacement of the majority of the original exterior cladding material will have a significant impact on the distinguishing and character-defining historic features of the Given Building. The original design and function of the curtain wall is also being permanently altered by replacing the existing, operable hopper windows and screens with fixed windows.
 - b. We agree that these significant changes can be mitigated by the careful selection of replacement materials that closely replicate the original materials and design of the building. The proposed curtain wall replacement materials, as detailed in Attachment 1 of UVM's June 20, 2011, letter, are in keeping with the original design of the Given Building and meet the Secretary of the Interior's *Standards for Rehabilitation*.
 - c. Additionally DHP had these clarifications on UVM's June 17, 2011-letter

"...the University agrees to maintain substantially the same glazing tint, custom extrusion snap caps and insulated white spandrel panels, to the extent that they remain available from manufacturers."

It is our [DHP] understanding that as long as the exact replacement materials specified in the revised plans remain available, these materials will be utilized for future phases of the project. The caveat of "substantially the same" is not applicable in this case, as the materials will be exactly the same.

"If the exact products are not available in the future from these particular manufacturers, the University agrees that it will procure curtain wall components as close in appearance, price and performance as the components noted in this agreement."

The appearance of the components used over the next ten to twenty years should be further clarified as to mean including, but not limited to, the material, dimension, color, surface finish and profile of the approved replacement components. If this is not technically or economically feasible for future phases of the project, then UVM will need to consult with DHP on how to proceed with the remainder of the project.
- 5. The District #4 Commission issued land use permit #4C0506-11 for the expansion of the MCHV campus of Fletcher Allen Health Care on March 5, 2001. Condition #24 of the permit states:

The Permittees shall carry out the following mitigation measures recommended by the State Division for Historic Preservation, as more particularly set forth in Exhibit #105 [emphasis added]:

- a. Photographic documentation of the Brown, Burgess, Alumni and Given Buildings, prior to demolition/alteration;
 - b. Development of an exhibit interpreting the history of the hospital;
 - c. Restoration of the Fletcher Building;
 - d. Nomination of Converse Hall to the State Register of Historic Places;
 - e. Retention of as much of the existing north wall of the Given Building as possible;
 - f. **Retention of remaining original exterior features on the west, east and south sides of the Given Building, to the extent reasonably possible;**
 - g. Restoration of the south entrance of the Given Building to original plans; and
 - f. Production of an historic context survey for the Alumni Building, to be conducted by a qualified historic preservation consultant in accordance with the Division's standards.
6. According to National Trust for Historic Preservation "Modernism roughly spans the time between World War I and the early 1970s. What we generally think of as the modernist ethic evolved first in Europe, among such architects as Le Corbusier, Ludwig Mies van der Rohe, and Walter Gropius, the latter two of the German Bauhaus school. The European modernists imbued their work with an inherent morality and social consciousness and were often associated with left-wing politics. Intrigued by the emerging technologies of the day, they embraced concrete, glass, and steel in their revolutionary creations. They eschewed ornament, rejecting what they saw as the frivolous strokes of Victorian and art nouveau styles. Their work was both spare (think of Mies' famous dictum "Less is more") and lyrical. Perhaps above all, they believed in function dictating form, though many architects, such as Le Corbusier, would eventually distance themselves from that tenet." Preservation Magazine May/June 2008.
7. The District Commission found compliance under Criterion 8 for LUP #4C0506-11 because with the proposed mitigation measures, as listed in Condition #24 of the permit, there would not be an undue adverse impact to historical resources from the expansion of the MCHV campus.

Issues

Does the proposed replacement of the curtain wall on the second level west elevation of the Given buildings require a permit or permit amendment from Act 250?

Analysis

The Given buildings were constructed in the 1960s. Therefore, it is considered a pre-existing development pursuant to Act 250 Rule 2(C)(8) - any development in existence on June 1, 1970 and any development which was commenced before June 1, 1970 and completed by March 1, 1971. Proposed modifications or changes to the Given buildings are normally evaluated under Act 250 Rule 2(C)(7) - Substantial Change. Substantial change is defined as any change in a pre-existing development or subdivision which may result in a significant adverse impact with respect to any of the criteria specified in 10 V.S.A. Section 6086(a)(1) through (a)(10).

However, as stated in JO #4-225, LUP #4C0506-11 called out retention of several of the architectural features of the Given buildings as mitigation for impacts under Criterion 8 from the construction of the

Renaissance (FAHC) project. Therefore, proposed changes to the Given buildings should also be evaluated as a Material Change, pursuant to Act 250 Rule 2(C)(6), under LUP #4C0506-11.

Act 250 Rule 3(C)(6) defines a material change as any change to a permitted development or subdivision which has a significant impact on any finding, conclusion, term or condition of the project's permit or which may result in an impact with respect to any of the criteria specified in 10 V.S.A. Section 6086(a)(1) through (a)(10).

The Environmental Board has adopted a two-prong test when applying Rule 34(A): (a) whether alteration (physical change or change in use) has or will take place; and (b) whether alteration has a significant impact on any finding, conclusion, term or condition of the project's permit, and the alteration may affect one or more of the values Act 250 protects. McDonald's Corporation, #1R0477-5-EB, Memorandum of Decision at 9-10 (Vt. Env. Bd. May 3, 2000); *Hiddenwood Subdivision*, Declaratory Ruling #378, Findings of Fact, Conclusions of Law and Order at 9-10 (Vt. Env. Bd. Jan. 12, 2000).

The University of Vermont is proposing to replace almost 80% of the west wall. They would like to make the same changes to all elevations of the Given buildings but at the present time only the west wall changes are proposed. These are physical changes and therefore pass the first test of the Material Change Analysis. Condition #24 of LUP #4C0506-11 specifically offered as mitigation under Criterion 8 "Retention of remaining original exterior features on the west, east and south sides of the Given Building, **to the extent reasonably possible.**" [emphasis added]. Recreating the exact elements of the aluminum paneling is cost prohibitive. UVM has proposed adding a custom extrusion perimeter and intermediate snap caps to the proposed replacement to provide additional rectangular shapes that are ½ inch deep. This modification will add a shadow line that more closely resembles existing profiles. However, even this modification will cost \$239,000 to the entire Givens project. As stated above, re-use of the existing spandrels is also not feasible as the energy efficiency measures desired would be compromised by the use of untempered glass and presents a safety concern. Furthermore, having operable hopper windows will also compromise the energy efficiencies desired by the project. Therefore, I conclude that the proposed revised project (see #3 above with the comments in #4 above and attached figure) retains the original exterior features on the west, east and south sides of the Given Building, to the extent reasonably possible. I conclude that the proposed project, with the recent revisions is not a Material Change to LUP #4C0506-11 as it is in compliance with Condition #11.

Since the Given buildings is a pre-existing development, tests for the requirement for Act 250 jurisdiction must also include the Substantial Change analysis, pursuant to Act 250 Rule 2(C)(7). The test for a Substantial Change is exactly the same as for a Material Change for the first prong and slightly different for the second prong - whether the alteration may result in a significant adverse impact with respect to any of the criteria specified in 10 V.S.A. Section 6086(a)(1) through (a)(10).

As in the Material Change analysis we must first conclude that a physical change will occur and we find in the affirmative. The second prong of the test is whether the proposed physical change will result in a significant adverse impact with respect Criterion 8 (historic) - the only criteria of importance here.

Modernist architecture is characterized by simplistic elements without ornaments. According to DHP, the *"removal and replacement of the majority of the original exterior cladding material will have a significant impact on the distinguishing and character-defining historic features of the Given Building* [emphasis added]. The original design and function of the curtain wall is also being permanently altered by replacing the existing, operable hopper windows and screens with fixed windows. However, DHP

went on to say "that these significant changes can be mitigated by the careful selection of replacement materials that closely replicates the original materials and design of the building." Therefore, I conclude that with the exact materials specified at our June 8, 2011 meeting (see #3 above with the comments in #4 above and attached figure), the proposed project is not a Substantial Change, pursuant to Act 250 Rule 2(C)(6). If the **exact** materials are not available for future phases of this project, then I would have to re-evaluate whether the project with those replacement materials, constitutes a Substantial Change. I want to add that substantially the same is not equivalent to exactly the same.

Conclusions

The removal and replacement of the majority of the original exterior cladding material will have a significant impact on the distinguishing and character-defining historic features of the Given Building. However with the exact materials specified at the June 8, 2011 meeting and submitted in your request for Reconsideration, I conclude that the proposed project is not a Substantial Change nor a Material Change to LUP #4C0506-11 and an Act 250 permit is not required.

This is a jurisdictional opinion issued pursuant to 10 V.S.A. § 6007(c) and Act 250 Rule 3(B). Reconsideration requests are governed by Act 250 Rule 3(B) and should be directed to the district coordinator at the above address. Any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of issuance, pursuant to 10 V.S.A. Chapter 220. The appellant must attach to the Notice of Appeal the entry fee of \$225.00, payable to the State of Vermont. The appellant must also serve a copy of the Notice of Appeal on the Natural Resources Board, National Life Records Ctr. Bldg., Drawer 20, Montpelier, VT, 05620-3201, and on other parties in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at www.vermontjudiciary.org. For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at www.vermontjudiciary.org. The address for the Environmental Court is: Environmental Court, 2418 Airport Rd., Suite 1, Barre, VT 05641-8701. (Tel. # 802-828-1660)

If you have any questions regarding this jurisdictional determination, please call me at (802) 879-5658.

Sincerely,

/s/Peter E. Keibel

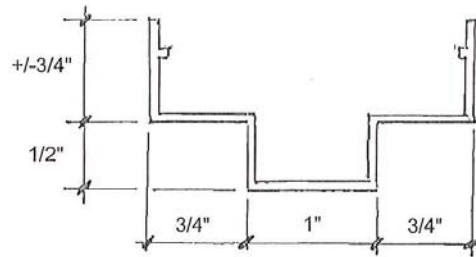
Peter E. Keibel
District #4 Coordinator

cc: Devin Colman, Historic Buildings Specialist, Division of Historic Preservation
Judith Ehrlich, Director of Operations, Division of Historic Preservation
John Collins Esq., Collins, McMahon & Harris, PLLC
Julie Kelliher Esq., Agency of Commerce & Community Development
Shirley Fortier, Assistant Planner, Campus Planning Services, UVM
Lou Borie, Executive Director Natural Resources Board

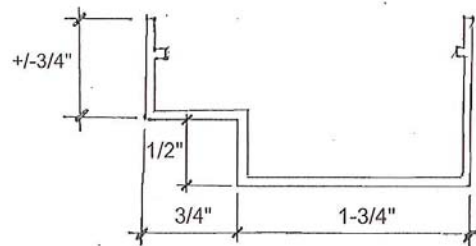
ATTACHMENT 2

BLACK RIVER DESIGN

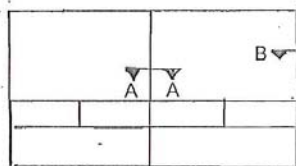
73 MAIN STREET, MONTPELIER, VERMONT 05602



A INTERMEDIATE SNAP CAP
 FULL SCALE



B PERIMETER SNAP CAP
 FULL SCALE



WINDOW ELEVATION

CURTAIN WALL SNAP CAP PROFILES

DATE 06/13/11

SCALE FULL SCALE

GIVEN TWO RESEARCH UPGRADE
 UNIVERSITY OF VERMONT

REV.