

AGENDA ITEM 2010-062H*

TO: Historic Preservation Advisory Board

THROUGH: Kevin Spath, AICP, Senior Planner

FROM: Guy R. Giersch, Historic Preservation Officer

SUBJECT: Conduct a Public Hearing to Consider/Discuss/Act on the Request by Mr. W. R. Livingston, Jr., for Approval of a Certificate of Appropriateness to Remove Original Wood Windows and Install Vinyl Replacement Windows at 801 West Hunt Street.

STAFF RECOMMENDATION: Staff is not recommending approval of the applicant's request to remove the original wood windows and install vinyl replacement windows.

Staff could recommend approval of retaining/repairing/refinishing the existing original wood windows. Additionally, Staff could recommend approval of storm windows installed over the existing wood windows since this method would preserve the historic wood windows while also providing the same or similar R-value as new replacement windows.

Staff has discussed these options with the applicant, but he has not indicated interest in these options. It is also important to note that Staff's recommended options would likely qualify for the City of McKinney Historic Neighborhood Improvement Zone Tax Exemption Program; whereas, the applicant's proposal to remove the original wood windows and install vinyl replacement windows would likely *not* qualify for the tax exemption program.

ITEM SUMMARY: On September 3, 2010, the applicant submitted a request for approval to remove the original wood windows and install vinyl replacement windows with vinyl grills/grids installed between two panes of glass. The applicant has stated that the proposed replacement windows would be similar in size to the original windows. The exterior and interior trims would be maintained as well.

Because these proposed changes would conflict with the principles established by the *Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings*, Staff is not able to recommend approval of the applicant's request.

The Zoning Ordinance states that the Historic Preservation Officer (HPO) has approval authority over Certificate of Appropriateness Applications in the Commercial Historic District and the "H" Overlay District. The subject property is

located in the "H" Overlay District. The Zoning Ordinance states that the HPO cannot deny a Certificate of Appropriateness (COA) and must forward all COA's that he/she is not able to approve to the HPAB for consideration and action. The applicant may request that the decision of the HPAB be forwarded to City Council for final consideration and action. To appeal HPAB's decision, the applicant must file a written application with the City Council through the Director of Planning within 21 days of receipt of the Board's written decision. The appeal application shall be set before the City Council at the first available City Council meeting.

BACKGROUND: The following is excerpted from the Secretary of the Interior's Brief # 9, *The Repair of Historic Wooden Windows*. Please see Exhibit E for the entire report.

"The windows on many historic buildings are an important aspect of the architectural character of those buildings. Their design, craftsmanship, or other qualities may make them worthy of preservation. This is self-evident for ornamental windows.... Evaluating the significance of these windows and planning for their repair or replacement can be a complex process involving both objective and subjective considerations. *The Secretary of the Interior's Standards for Rehabilitation* and the accompanying guidelines call for respecting the significance of original materials and features, repairing and retaining them wherever possible, and when necessary, replacing them in kind."

"This Brief is based on the issues of significance and repair which are implicit in the standards, but the primary emphasis is on the technical issues of planning for the repair of windows including evaluation of their physical condition, techniques of repair, and design considerations when replacement is necessary."

The primary concern, therefore, in considering replacement windows on a historic building is the potential loss of aesthetic and material attributes that cannot be replaced by modern replacement windows. Replacing historic wood windows with new vinyl replacement windows severely diminishes these unique aspects of historic materials and craftsmanship. The inappropriate use of substitute windows is especially dramatic where sufficient care is not taken by the owner or applicator where the original openings could change, casing width or molding profiles altered, resulting in the shadow reveals being reduced and architectural details being lost.

Another major concern is the difference in the reflective quality of the glass. Most low-E windows, because of various coatings, reflect light differently than single pane glass. Quite often, low-E glass will have a green or mirror-like reflectance to it.

While this discussion focuses primarily on the historic character of individual wood frame buildings, of equal importance is the context of buildings that comprise a historic district or neighborhood. Changes to the character-defining features of a building, such as distinctive wood windows, always have an impact on more than just that building; they also alter the historic visual relationship between the buildings in the district. If character-defining windows are replaced on a number of buildings in a historic district, the historic character of the entire district may be seriously damaged. Because of the potential impact some substitute materials have on the character of a neighborhood or district, many communities regulate their use through zoning ordinances and design review boards. These ordinances and review boards usually require review and approval of proposed alterations to a historic building that could potentially impact the historic character of the building or the district.

DECISION CRITERIA: The Zoning Ordinance requires that the following criteria be used to determine the appropriateness of any Certificate of Appropriateness application:

- The *Secretary of the Interior's Standards for the Rehabilitation of Buildings* (see attached Exhibit G)
- Checklist of design elements (see attached Exhibit I)
- Preservation Priority according to the Historic Survey

Checklist of Design Elements: The checklist is one of the tools used to determine the appropriateness of a project. The checklist provides typical architectural features that a historic home would have and the page numbers in parenthesis are the corresponding page numbers to the *Secretary of the Interior's Standards* that can be referenced. The checklist is not intended to be used as a point system or as a specific "check-off" for items, but rather it should be considered generally as a whole and how appropriate the project is based on the items listed on it.

Preservation Priority Rating: The priority rating of the home is based on the Historic Resource Survey. The priority ratings in the current survey include high, medium, low, and non-contributing. This system does not mean that a low priority house has little to no value; it simply means there have been modifications to the house that have diminished the house from a high or medium priority rating.

Proposed changes are evaluated based on their impact on the priority rating and the *Secretary of the Interior's Standards for Rehabilitation*. As such, changes that negatively impact the priority rating or do not conform to the *Secretary of the Interior's Standards* would not be approved. Further changes to buildings only continue to diminish what makes a building historic.

STAFF ASSESSMENT: According to the 1985 Historic Resource Survey, the house at 801 W. Hunt Street is a low preservation priority house built circa 1920.

Low priority buildings contribute to the local history, but alterations have diminished the resource's integrity. The house is a good example of an Arts and Crafts house.

Staff's assessment of the applicant's proposal is based on the following basic principles:

- The original wood windows generally appear to be in a condition that would make repairing and refinishing them a practical consideration. In other words, deterioration of the original windows does not appear to be severe enough to warrant complete replacement.
- The proposed use of vinyl replacement windows on the house would significantly change the architectural integrity of the house by introducing architectural elements visible from the public right-of-way which would not conform to the *Secretary of the Interior's Standards for the Rehabilitation of Buildings*.

The following is a list of the *Secretary of the Interior's Standards* that the proposed project does not meet:

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alterations of features and spaces that characterize a property shall be avoided.
 - In order to retain and preserve the character of a property, it is necessary to retain the historic materials and trims used to finish the exterior of the building. The proposed use of vinyl replacement windows would result in the loss of those features and would introduce new architectural elements that would significantly alter the historic character of the house as viewed from the public right-of-way.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
 - The use of low-E windows introduces a reflective quality that is different than that of single pane glass windows.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
 - Replacing wood windows in this house is not appropriate since the deterioration of the original windows does not appear to be severe enough

to warrant complete replacement. To replace the original windows with vinyl inserts and sandwiched grills does not conform to Standard 6.

Principles 1, 3, 4, 7, 8, 9 and 10 do not apply to this project.

Impact to Surrounding Area: The structure is located in a neighborhood that is characterized by buildings with low, medium, and high priority ratings. Staff's concern is that alterations that negatively influence the priority rating of a structure begin to lead to deterioration of the historic significance of the building. This distracts from the unique historic character of the area.

Dispelling a Common Myth about Energy-Efficiency: The most common misconception and justification given for replacing historic windows are:

"Old windows leak air, and a person will save energy by replacing them with new windows."

However, the most current research indicates the following:

- U-values of a single pane window combined with a storm window are 0.50 while the U-value of a new double pane window is 0.58. The lower U-value of the single pane/storm window combination is 15% more energy-efficient than the new replacement window.
- The energy savings between a historic, single pane window and a new double pane thermal replacement window (on one 3' x 5') window is 625,922 BTU. If the cost for using gas heat is \$0.95/Therm, the savings cost will be \$9.65/year. Typically a decent replacement window will cost approximately \$400/window. It would take 41.5 years to recoup the savings in energy alone.
- Most thermal replacement windows have a life span of 15 to 20 years. One study suggests that 30% of replacement windows will be replaced in 10 years. This means they will not last long enough to pay themselves off.
- If the embodied energy to produce the new window is considered, then the payback time is approximately four more years.
- Storm windows typically cost between \$50 and \$100 per window. The storm window combined with the historic single pane window (one 3' x 5') will use 722,218 BTU. Assuming energy costs are \$0.95/therm, it will take between 4.25 and 8.5 years for payback on this investment.

- Other studies show payback costs of replacing single-pane wood windows with low-e double-pane thermal replacement windows ranging from 77 to 222 years.

ATTACHMENTS:

- Certificate of Appropriateness Application
- Letter of Intent and Proposed Scope of Work
- Exhibit A – Photo of Front Elevation
- Exhibit B - Existing Front, Side, and Rear Elevations
- Exhibit C – Data Sheet for Proposed Window Replacement
- Exhibit D – Data Sheet Concerning Grids/Grilles Between the Glass
- Exhibit E - Preservation Brief # 9, *The Repair of Historic Wooden Windows*
- Exhibit F - *What Replacement Windows Can't Replace: The Real Cost of Removing Historic Windows*
- Exhibit G - Secretary of the Interior's Standards for Rehabilitating Historic Buildings
- Exhibit H – “Old” Wood Window Replacement Window Energy Analysis
- Exhibit I - Priority Checklist

CERTIFICATE OF APPROPRIATENESS

City of McKinney, Texas

APPLICANT:

NAME W. R. LIVINGSTON, JR
COMPANY _____
ADDRESS 801 W. HUNT ST.
CITY, STATE ZIP McKINNEY, TX, 75069
PHONE 972-542-8924
FAX _____
E-MAIL ADDRESS R.LIVINGSTON@TX.PP.COM

PROPERTY OWNER:

NAME SAME
COMPANY _____
ADDRESS _____
CITY, STATE ZIP _____
PHONE _____
FAX _____
E-MAIL ADDRESS _____

STATUS OF APPLICANT (CHECK ONE) Owner Representative Prospective Buyer

ADDRESS OF PROPERTY BEING CONSIDERED: 801 W. HUNT ST.
McKINNEY TX 75069

PLEASE CHECK THE APPROPRIATE CONSTRUCTION ACTIVITY THAT APPLIES:

Restoration / Remodeling New Construction Fencing Demolition Signage Other

Please attach a letter of intent describing all proposed work and materials used in detail.

REQUIRED ATTACHMENTS:

Site Plan (proposed & existing site) Elevations Letter of Intent
N/A *PHOTOS*

ALL ATTACHMENTS SHOULD BE 11" x 17" OR SMALLER.

Certificate of Appropriateness becomes null and void if construction authorized is not commenced within one year. Work proposed in this application may also be eligible for the City's tax exemption program or impact fee waiver program. An approved Certificate of Appropriateness does not constitute a Letter of Eligibility as required by the tax exemption / impact fee waiver program. For more information, please contact the Historic Preservation Officer.

I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified or not. The granting of a Certificate of Appropriateness does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or the performance of construction.

Applicant's Signature: [Signature] Date: 9/1/2010
Property Owner's Signature: [Signature] Date: 9/1/2010

FOR OFFICE USE ONLY:

Type of Project Window repair new

Date Received: 9-3-10

File # 2010-0624

Built Circa: c. 1920

High Low Preservation Priority

September 1, 2010

Mr. Guy Giersch
City of McKinney, Texas
Historic Preservation Office
221 N. Tennessee St.
McKinney, TX 75069

Dear Mr. Giersch,

Attached is the requested paperwork for our Application for the Level 2, HINZ Tax Incentive Program as related to the continued renovation and restoration of our residence.

Since purchasing this property in 1998, we have diligently worked to bring it up to standard while trying to preserve the original style as much as possible both outside and inside.

It is now time to address the issue of the windows. With these economic times, we need to do everything necessary to try to control utility expense, and the old windows are a major factor in both heating and cooling expense.

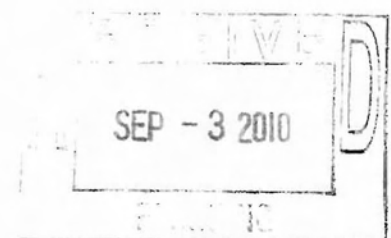
It was suggested that we try to refurbish the original windows and add storm windows as an energy saving measure. We could not obtain contact information for anyone in our area who had done this procedure, and in inquiring from contractors, we found the cost of that method of renovation to be absurdly expensive.

We would prefer to renovate the 34 windows in our home with energy efficient replacement units that would not be discernable from the exterior of the home. All of the original exterior framing and top treatments would be left in place. We have seen many examples of window replacement in this area where one has to look carefully to notice that the windows are new.

Anxiously awaiting your reply.

Sincerely yours


Winfred R. Livingston, Jr.
801 West Hunt Street
McKinney, TX 75069
972 542 8924
f.livingston@tx.rr.com



Cost of 34 replacement windows will be in excess of the \$10,000.00 amount for the level 2 HNIZ tax incentive program.

Attached proposal shows a cost estimate for 31 of 34 replacement windows is \$9,602.11 plus sales tax.



September 17, 2010

Mr. Guy Giersch
City of McKinney, Texas
Historic Preservation Office
221 N. Tennessee St.
McKinney, TX 75069

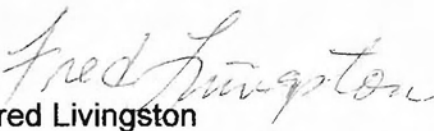
Addendum to my letter of September 1, 2010

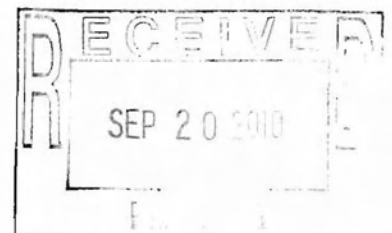
Per my e-mail message, the windows would be clear glass with the grill insert between the two panes of glass. We are specifying the construction with argon gas between the panes for the maximum energy efficiency.

In addition to the Pella photo I sent with my original paperwork, I am including a photo of a "Magnum" style window designed for historic renovation similar to what we would like to use, and a schematic showing the grill between the glass panes.

I am looking forward to meeting with the board on October 7th.

Sincerely yours,


Fred Livingston



SEP - 3 2010
PLANNING



EXHIBIT A



2007/08/



2007/0



EXHIBIT B

SEP - 3

"Pocket" Replacement Single and Double-Hung Vinyl Windows

Applicant's statement.

This style window
appears to be
identical to the
originals.



Remarkably energy-efficient and easy to care for, ThermaStar by Pella windows will help keep your home more comfortable year-round while *creating a better view*. They're available with a variety of glass and grille options. Plus, you get the pride of owning quality products backed by Pella — so you'll enjoy satisfaction for years to come.



- **Maintenance-free vinyl interior and exterior frames never need painting.** The solid color throughout the vinyl keeps minor dings and scratches virtually invisible so the windows stay looking great for years.
- **Extra ventilation.** Double-hung windows can be raised from the bottom and lowered from the top for two levels of ventilation. Single-hung windows can be raised from the bottom.
- **Lower your energy bills.** ThermaStar by Pella 20 Series windows offer the energy-efficient options that will meet or exceed ENERGY STAR® guidelines in all 50 states.
- **One of the best warranties in the business.** All ThermaStar by Pella windows and patio doors are backed by Pella's transferable Limited Lifetime Warranty. Even if you sell your home, products are backed by Pella — no fees required. See written warranty for complete details.
- **There's little hassle or mess.** Trim, paint, wallpaper, plaster and your home's exterior are usually not disturbed.
- **Get an exact fit.** Choose from a wide selection of standard sizes or custom sizes in 1/8-inch increments.
- **10 Series single-hung windows also available.**



E Available in East Region only.
The Best Buy Seal is a registered trademark of Consumers Digest Communications, LLC., used under license.

LES10SH/20SH/20DHP51209



EXHIBIT C



Ultimate Double Hung Magnum Windows

- The Ultimate Double Hung Magnum is designed for large residential areas, commercial applications and historic renovation.

Grilles between the glass (GBG)

With grilles between the glass, you'll enjoy the look of divided lites without any upkeep because they are placed between the two panes of insulating glass. Available with 5/8" flat or 1" contour grilles.

All options are subject to regional availability. Contact your local JELD-WEN dealer for more information.



Flat grille



Contour grille

[Back To Top](#)

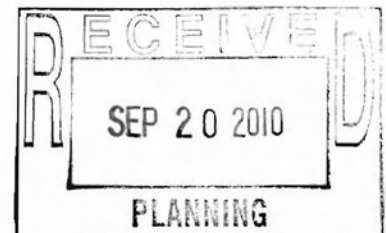


EXHIBIT D

“OLD” WOOD WINDOW/ REPLACEMENT WINDOW ENERGY ANALYSIS

WHAT THOSE HOME IMPROVEMENT ADVERTISEMENTS WON'T TELL YOU!

- ◆ U value of a single pane window (*that old wood window*): 1.10
- ◆ U value of a single pane window combined with a storm window: 0.50
- ◆ U value of an expensive new double pane thermal replacement window: 0.58

(remember that the lower the U value the better. You will note that your old wood window combined with a storm window is about 15% more energy efficient than that new replacement window. Those new windows will cost you, not save you money.)

So I don't have storm windows, the ads say I can save big bucks and lots of energy by replacing those “old” wood windows with replacement windows- right? My “old” windows have beautiful wood and wavy antique glass but they must be costing me a bundle?

- ◆ Yearly energy saving between a single pane window and a new double pane thermal replacement window (on one 3' x 5' window):
625,922 Btu
- ◆ Annual savings per window if using gas heat at \$0.95/therm:
\$9.65/ year
- ◆ Simple payback if you assume a decent replacement window will cost \$400 installed: \$400/ \$9.65 year = **41 ½ years!!**

(Not a good investment. You would do better by putting your money in a bank savings account! Also remember that as most thermal replacement windows will have a life span of 15 to 20 years, they will not last long enough to pay themselves off.)

- ◆ A new window has an embodied energy of about 2,300,000 Btu used to produce that window. This includes only the energy to produce the window, This does not include the considerable additional embodied energy required to mine and deliver the raw materials, shipping and packaging, delivery, the gas used to drive the contractor's pickup truck to the job, and the energy needed to dispose of the old window.

(Embodied energy is the energy used to produce and deliver a building product.)

- ◆ It will take about 4 years for the energy payback if considering only the production embodied energy.

(If you consider the total embodied energy it will take very roughly 6 years before you are saving anybody any energy)

Are storm windows a good investment?

- ◆ Yearly energy saving if a storm window is put over a single pane window (on one 3' x 5' window): 722,218 Btu
- ◆ Annual savings per window if using gas heat at \$0.95/therm: \$11.72/ year
- ◆ Simple payback if you assume a storm window will cost \$50:

$$\$50 / \$9.65 \text{ year} = \underline{\underline{4-1/4 \text{ years}}}$$

(A good investment. Not only do you get to keep those beautiful wood windows with the wavy glass, but also the storm window will help to protect them. The storms don't have to be triple track aluminum; wood storm windows with easy glass/ screen exchangeable sashes are readily available.)

O.K., I already have wood windows and storm windows, but I hear that those super new windows with low-e glass will save me lots of dough, The ads say I'll save enough to put my kids through college!

- ◆ Yearly energy saving between a single pane window combined with a storm and a new low-e double pane thermal replacement window (on one 3' x 5' window):

132,407 Btu

- ◆ Annual savings per window if using gas heat at \$0.95/therm:
\$2.03/ year
- ◆ Simple payback if you assume a decent low-e replacement window will cost \$450 installed:

$$\$450 / \$2.03 \text{ year} = \underline{\underline{222 \text{ years!!}}}$$

(The windows must last pretty long and your kids better live pretty long for this investment to work. In reality the window may last 20 years.)

But what about the environment and the energy crises, I'm willing to pay a little money to help.

- ◆ It will take about 17-1/3 years for the energy payback if considering only the production embodied energy.

(If you consider the total embodied energy, it will take over 20 years before you are saving anybody any energy. As the window will probably not last that long, you are being an energy waster by replacing those windows not an energy saver, not to mention filling the landfill with more building debris when you get rid of that old window.)

Keeping and maintaining those beautiful old wood windows is "recycling" in its most energy saving, economical, and earth friendly form.

Keith Haberern Professional Engineer, R.A.

Chairman: Collingswood, NJ, Historic District Comm.

Reprinted with permission from Keith Haberern. But Keith is not the only one.

When faced with \$12,000 for replacing 21 existing windows in his own house, Don Hartley, Utah State Historical Society architect, figured a 77 year payback on the so-called "investment." Instead he refinished, weather-stripped and added storms for \$5000. and took \$7000 to the bank. See the full article, WHEN YOUR WINDOWS WANT ATTENTION at:

<http://history.utah.gov/historicpreservation/windows.html>

McKinney Residential Historic District Checklist of Design Elements

The Historic Preservation Advisory Board will use the following checklist of design elements, as applicable, in the review and consideration of each application for Certificate of Appropriateness submitted to the Board. If the property is unlisted, the Historic Preservation Officer will determine which checklist is appropriate. The page numbers refer to pages in the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.

Property Address: 801 WEST HUNT STREET

Property Priority: Low

Definition of Low Priority: Typifies a common local building form, architectural style or type, with no identified historical associations; is a moderate to severely altered resource with reversible modifications that exemplifies a distinctive building type or architectural style, or that has only minor historical significance.

1. Site Planning (p. 45-51)

- Siting of the Building:
 - Setback
 - Façade Width
 - Spacing Between Buildings
- Delineation of Street Space:
 - Creation of Continuous Street Edge
 - Separation of Public, Semi-public,
& Private Areas
- Fences:
 - Materials
 - Height
 - Placement
- Outbuilding Placement:
 - Garage / Carport
 - Storage Building
 - Apartment
 - Office
 - Other _____
- Site Improvements:
 - Walkways
 - Driveways
 - Retaining Walls
 - Swimming Pools

2. Bulk, Proportion & Scale (Building Size) (p. 49-51)

- Height
- Façade Proportions
- Scale

3. Massing (Building Shape)

- Mass of Main Portion: (p. 49-51)
 - Form
 - Roof Shape
 - Orientation
- Additions: (p. 58-59)
 - Placement
 - Form
 - Bulk

4. Roof (p. 22-24)

- Shape (gable, lean-to, etc.)
- Pitch

5. Windows (p. 25-27)

- Type (double-hung, casement, etc.)
- Shape & Proportion
- Balance
- Exterior Shutters

6. Doorways (p. 28-33)

- Placement & Orientation
- Type (paneled, etc.)

7. Exterior Architectural Elements (p. 12-21)

- Chimneys
- Door Platforms & Steps
- Porches
- Exterior Stairs & Decks
- Balconies & Platforms

8. Materials (p. 12-21)

- Wall Surfaces
- Foundation

Comments: _____
