

November 24, 2019

Mr. John Lee, Chairman Walpole Zoning Board of Appeals 135 School Street Walpole, MA 02081

RE: Chapter 40B Comprehensive Permit Application - The Residences at Burns Avenue

Dear Mr. Chairman:

The purpose of this letter is to address comments in a memo dated November 13, 2019 received from Ashley Clark, Community Development Director, regarding the above referenced project. (A copy of said memo is attached).

Wall Street Development Corp. ("Wall Street") and its traffic consultant, Green International Affiliates, Inc. ("Green") has reviewed the Walpole Fire Department's ("Walpole Fire") comments regarding the design of the proposed access drive's ability to satisfy "adequate turning movements" and "maneuverability" for Walpole Fire's largest apparatus. In connection with this review the dimensions of the largest fire apparatus, as provided by Walpole Fire, was applied to complete the review and analysis.

At Wall Street's request, Green has re-visited a previously submitted turning analysis based on the dimensions of the largest fire apparatus provided by Walpole Fire for two (2) alternative scenarios. Alternative I provides an analysis of the turning movements of the existing access drive, as presently designed and shown on the development plans, last revised September 25, 2019. While there may be potential minimal centerline crossings as the apparatus turns in and out of the access drive, in a letter dated November 13, 2019, Green concluded that "the town's design apparatus with the ladder could be safely accommodated in terms of entering and exiting the site with no issues created by the ladder overhang." Enclosed for your reference is a copy of the letter dated November 13, 2019 and accompanying plan showing compliance with the requirements of 527 CMR 1.05.18.2.3.4.8.

P.O BOX 272, WESTWOOD, MA 02090 TEL. 781 440 0306 FAX. 781 440 0309 <u>EMAIL wallstreetdc@gmail.com</u> www.wallstreetdevelopment.com



Mr. John Lee, Chairman Walpole Zoning Board of Appeals November 24, 2019 Page 2

Alternative II provides an analysis of the turning movements of the existing access drive with suggested modifications to the turning radii of the pavement at the intersection of the access drive with Burns Avenue Extension. Under this alternative, a slight tapering/modification of the pavement at the turning radii would allow for expanded turning maneuverability for access/egress from the site. In a letter dated November 20, 2019, Green concludes that "From a traffic engineering design perspective, either option works, but we would recommend the original plan as it balances the amount of impervious surface, encourages slower traffic speeds while safely accommodating access for emergency vehicles." Enclosed for your reference is a copy of the letter dated November 20, 2019 and accompanying (stamped) plan showing compliance with the requirements of 527 CMR 1.05.18.2.3.4.8.

It should be noted, the Massachusetts Comprehensive Fire Safety Code - 527 CMR 1.00 (the "Code") in Sections 1.4, 1.4.1, 1.4.2 and 1.4.3 provide a process for the consideration of alternatives and/or modifications of certain requirements of this Code. It would be our intention to seek such a modification or suggest an alternative in connection with the design and construction of this project should Walpole Fire find objections with the proposed design of the access drive for this project.

With regard to the issue of Dead-End Streets, as defined in Section IV-2.c. of Subdivision Rules and Regulations. As previously noted in the request of waivers, this project is not subject to the subdivision rules and regulations of the planning board and, as such, the previously provided List of Requested Waivers included a waiver from these Subdivision Rules and regulations. In addition, the proposed access drive is not a subdivision roadway and therefore there is no "outside street line diameter" since this is not a subdivision right of way/roadway. Notwithstanding the requested waiver, it should be noted that the paved outside diameter of the turnaround being constructed is in compliance with the requirement for a turnaround that would be required under the subdivision regulations.

P.O BOX 272, WESTWOOD, MA 02090 TEL. 781 440 0306 FAX. 781 440 0309 <u>EMAIL wallstreetdc@gmail.com</u> www.wallstreetdevelopment.com



Mr. John Lee, Chairman Walpole Zoning Board of Appeals November 24, 2019 Page 3

Additionally, the comment regarding the minimum length of a dead-end street not exceeding seven hundred fifty (750) feet as defined under Section IV-2 of the Subdivision Rules and Regulations suggests this project is subject to that requirement. For the same reasons, outlined above, this project is not a subdivision and is not subject to the Subdivision Rules and Regulations. In addition, it should be noted that the proposed buildings will have sprinkler systems to facilitate fire protection and public safety, that are currently not required under the subdivision rules and regulations.

Lastly, with regard to snow removal on Burns Avenue and Burns Avenue Extension, it should be noted that Burns Avenue is currently is a dead-end street. A substantial portion of Burns Avenue is a public way that is maintained by the town of Walpole, that includes snow plowing. In connection with this project, Wall Street or its successors are not responsible for snow plowing of the public way portion of Burns Avenue. It is expected that the town will provide a plan on how it intends to maintain and plow the public way portion of the Burns Avenue and where it will store its snow at the end of Burns Avenue or remove the snow so not to obstruct access to the project. As for snow plowing and snow storage within the development, this will be the responsibility of the homeowner association and adequate areas for snow storage have been provided within the development. However, we are open to working with the town to arrange a mutually acceptable snow plowing plan with the town going forward.

Thank you for your attention in this matter. Should you have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,

WALL STREET DEVELOPMENT CORP.

P.O BOX 272, WESTWOOD, MA 02090 TEL. 781 440 0306 FAX. 781 440 0309

-EMAIL wallstrootds@gmail.com

www.wallstreetdevelopment.com



November 13, 2019

Mr. Lou Petrozzi Wall Street Development Corp. 2 Warthin Circle Norwood, MA 02062

#### Subject: Residences at Burns Avenue, Walpole, MA Fire Apparatus Movement

Dear Lou,

As requested, Green International Affiliates, Inc. (Green) has examined in additional detail the question from the fire chief related to the ladder truck and movement within the site. Based on our engineering evaluation, it was determined and confirmed the previous analysis that the town's design apparatus with the ladder could be safely accommodated in terms of entering and exiting the site with no issues created by the ladder overhang.

In evaluating this question, we utilized the AutoTurn design software that allows us to follow the vehicle path along the roadway and through the site. I have attached a diagram that was prepared as a result of that evaluation. Noted on the diagram is the vehicle's wheelpath as well as the estimated horizontal path of the ladder overhang. Keep in mind that the ladder itself is narrower than the vehicle itself by several feet, is located in the center of the vehicle and is approximately 8 to 10 feet high off the ground so well above passenger vehicles. From the diagram, you can also note the proposed edge location and see that the potential horizontal path of the ladder overhang would not be over the pavement edge.

While this evaluation has shown safe accommodation of the fire apparatus within the site, a reasonable action to take would be to avoid any plantings or new signs to be within 2 feet of the proposed curb around the cul de sac although most standard signs (MUTCD<sup>1</sup>) will be below 10 feet in height.

If you have any questions, do not hesitate to contact me at 978-923-0400.

Very truly yours, GREEN INTERNATIONAL AFFILIATES, INC.

## Bill

William J. Scully, P.E. Vice President Municipal Transportation & Infrastructure Services

WJS/-

Attachment

<sup>&</sup>lt;sup>1</sup> U.S. Department of Transportation, Federal Highway Administration, <u>Manual on Uniform Traffic Control Devices</u> (MUTCD), Washington, D.C., 2009.



November 20, 2019

Mr. Lou Petrozzi Wall Street Development Corp. 2 Warthin Circle Norwood, MA 02062

> Subject: Residences at Burns Avenue, Walpole, MA Fire Apparatus Movement – Additional Eval.

Dear Lou,

As a follow up to our discussion, Green International Affiliates, Inc. (Green) has examined further the proposed site design with respect to fire apparatus maneuvering in and out of the proposed Residences at Burns Avenue project. This supplements the November 13, 2019 letter. As we had done previously, we have used the town's "design" vehicle that was provided to our office and utilized the AutoTurn design software. We have also taken into account the current State Fire Code sections pertaining to access that state that new projects should be designed to avoid travel in the opposing travel lane. While the original design that provides for slower turning radii and less pavement does NOT require the fire apparatus to travel in the opposing travel lane to access or egress the proposed project, we have completed an assessment and the design requirements that would also avoid the fire apparatus from momentarily and potentially crossing the theoretical centerlines when turning in or out of the proposed Village project.

I have enclosed a plan that was prepared as a result of this evaluation. The diagram illustrates how the pavement edge/berm line would need to be modified to avoid the potential of slight centerline crossing. AS shown, the pavement edge line would be tapered to provide for a flatter right turn out of the site. Similar adjustments would be made for entering the site. The cul de sac is designed to accommodate the town's design fire apparatus and we had previously shown how the vehicle's wheelpath as well as the estimated horizontal path of the ladder overhang would be accommodated.

Based on our engineering evaluation, it was determined with the previous analysis that the town's design apparatus with the ladder could be safely accommodated in terms of entering and exiting the site with no issues created by the ladder overhang. This new evaluation demonstrates potential road edge modifications that would avoid potential minimal centerline crossings as the truck turns into and out of the site. From a traffic engineering design perspective, either option works, but we would recommend the original plan design as it balances the amount of impervious surface, encourages slower traffic speeds while safely accommodating access for emergency vehicles. As MassDOT design guidelines indicate, there is normal allowance for large vehicle turning with respect to local road designs and Burns Avenue is consistent with those guidelines.

If you have any questions, do not hesitate to contact me at 978-923-0400.

Very truly yours, GREEN INTERNATIONAL AFFILIATES, INC.

#### Bill

William J. Scully, P.E. Vice President Municipal Transportation & Infrastructure Services

WJS/-

Attachment



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		SCALE: 1" = 20'	



20	50	
	SCALE: 1" = 20'	



# TOWN OF WALPOLE

### **COMMONWEALTH OF MASSACHUSETTS**

**OFFICE OF COMMUNITY DEVELOPMENT** 

JAMES A. JOHNSON Town Administrator

ASHLEY CLARK Community Development Director

To: Lou Petrozzi, Wall Street Development LLC

From: Ashley Clark Community Development Director

Date: November 13, 2019

Subject: Burns Avenue 40B

Mr. Petrozzi:

Below is a summary of outstanding issues that need to be resolved for the ZBA's review of your Comprehensive Permit Application on Burns Avenue. Please provide additional information to address the concerns outlined below by 12/2/2019 at 12:00 PM EST so the town can review the materials ahead of your continued hearing scheduled for 12/4/2019 and provide a recommendation to the ZBA.

- 1. The *Turning Movements* submitted by Green International Affiliates Inc. Sheet 1 and Sheet 2 dated 09/10/2019 are not sufficient for the Fire Department's review:
  - a. The Apparatus shown is not correct as it does not show the appropriate overhang. Please see the attached model for use in the analysis. The plans must demonstrate that the Town's Apparatus, including the overhang, must be able to maneuver throughout the access roads. Of particular concern is the light fixture indicated on the northwest end of the cul-de-sac and the ability to exit and enter the site.
  - b. The sheets are not stamped. The stamp is required in order to provide the verification the Fire Department needs to review and determine whether or not the plans are compliant with local and state fire codes (527 CMR 1 sec 18.1.1.5).
  - c. The turning movements indicate that the Apparatus must enter the opposing lane of traffic to complete a turn. This is not compliant with the Fire Code and is not something that the ZBA has the ability to grant a waiver from, as it is a state regulation. "The use of the opposite travel lane is prohibited in the design of all new fire apparatus access roads"

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(527 CMR 1 sec 18.2.3.4.8). Please provide plans that are in compliance with this regulation.

- d. No analysis has been provided that demonstrate compliance with the Town's Rules and Regulations as amended through 4/15/2004 Section IV-2.c "Dead-end streets shall be provided with cul-de-sacs at the closed end with a turnaround having an outside street line diameter of at least one hundred and four (104) feet." Due to the safety concerns related to fire protection, please provide a compliant plan at the end of Burns Avenue or a justification for a waiver and response to how you will otherwise mitigate for the fire safety threat created.
- e. Additional information must be provided and stamped by an engineer to demonstrate a waiver is not required for the Town's Rules and Regulations as amended through 4/15/2004 Section IV-2 Dead-end Streets, "(a) Dead-end streets, shall not exceed seven hundred fifty (750) feet in length." If a waiver is requested, the Applicant must provide justification of the waiver.
- f. The above list is not exhaustive. Plans submitted must show compliance with 527 CMR 1 and show compliance with all town codes where waivers are not requested. Waivers requested must be accompanied with a justification and address how the concern will be ameliorated or evidence that it is not applicable given the specific site context. Any local waiver requests must be provided and requested of the ZBA. This list should be forwarded to the Fire Department to provide the ZBA with a recommendation on the grant of the waiver.
- 2. Additional information is needed on how snow plowing and snow storage on Burns Avenue and the extended roadway through the development will be addressed.

I am available to help provide clarification or discuss any of the above issues. I look forward to reviewing the additional information with the respective departments on or before 12/2/2019. This will allow us to have an efficient meeting with the ZBA on 12/4/2019 and provide clear recommendations and next steps.

Thank you,

Ashley Clock

Ashley Clark