

**MEMORANDUM OF UNDERSTANDING
BY AND AMONG
FELLSWAY DEVELOPMENT, LLC, LANGWOOD COMMONS, LLC
AND
DEPARTMENT OF CONSERVATION AND RECREATION**

This Memorandum of Understanding (this "MOU") is entered into as of this 18th day of September, 2009 by and among the Department of Conservation and Recreation (the "DCR"), a body public, corporate, and politic, organized and existing pursuant to the laws of the Commonwealth of Massachusetts (the "DCR") with offices at 251 Causeway Street, Boston, Massachusetts 02114; Fellsway Development, LLC ("Fellsway") with an address c/o The Gutierrez Company at One Wall Street, Burlington, Massachusetts 01803; and Langwood Commons, LLC with an address c/o Simpson Housing LLLP at 33 Broad Street, Boston, Massachusetts 02109 ("Langwood", Fellsway and Langwood are hereinafter at times collectively referred to as the "Developer").

RECITALS

The following sets forth the background of this Memorandum of Understanding:

1. The Commonwealth of Massachusetts, acting through the DCR, is the owner of the Middlesex Fells Reservation (the "Reservation") in the Town of Stoneham, as successor to the Metropolitan District Commission (the "MDC") pursuant to G.L. c. 92 and St. 2003, Chapters 26 and 41.
2. The Developer is the owner of an approximately 36 acre parcel of land located east of Spot Pond on Woodland Road in Stoneham, Massachusetts (the "Site"), which is bounded to the north and east by the Reservation. The Developer proposes to redevelop the Site into a mixed use development consisting of the redevelopment of the existing 374,000 square foot hospital facility to approximately 225,000 square feet of office space, continued use of 14,000 square feet in accessory buildings, and development of approximately 49 townhouses, 261 apartments and 95 garden-style condominiums, for a total of 405 residential units, and a ancillary convenience store (collectively, the "Third Redevelopment"). The conceptual plan for the Third Redevelopment is attached hereto as Exhibit A.
3. The Site abuts Woodland Road (a four-lane parkway controlled and maintained by DCR) and has two existing driveways that access Woodland Road.
4. Previously, the Developer proposed redeveloping the Site as a 914,000 square foot first-class office, medical, and research and development facility. Fellsway Development, LLC and the MDC entered in a memorandum of understanding dated as of

March 16, 2002 pertaining to such prior redevelopment proposal ("2002 MOU"). The parties formally confirm that the 2002 MOU is of no further force and effect and terminated.

5. In November, 2005, the Developer filed a Notice of Project Change pursuant to the Massachusetts Environmental Policy Act, M.G.L. c. 30, §§61 et seq. and regulations thereunder ("MEPA") with the Secretary of Environmental Affairs (now the Secretary of Energy and Environmental Affairs; the "Secretary").

6. On January 6, 2006, in response to comments from DCR and the Massachusetts Historical Commission ("MHC"), the Secretary issued a Certificate (the "2006 Certificate") requiring the Developer, among other things, to engage in consultations with DCR and MHC, followed by the negotiation of a draft Memorandum of Agreement (MOA) with DCR and public review and comment on such MOA, with respect to any changes proposed to be made by the Developer to DCR parkways.

7. The Developer consulted with DCR and the community on a "Vision Plan" for the Middlesex Fells parkways. The Vision Plan's focus was on Woodland Road, as "the central spine of the Fells Reservation." In a far-reaching, public exercise led by DCR and its design consultant Glatting Jackson, with assistance from DCR's traffic and engineering staff and DCR's traffic and engineering consultant, Rizzo Associates, existing traffic and safety concerns were identified, at the Developer's cost, resulting in a published Vision Plan that the parties then hoped that the Developer could implement. Specifically, the Vision Plan recommended numerous "traffic calming" measures for Woodland Road. Among those measures was the construction of "roundabouts" at each of the existing entrances to the Site. These measures were intended to remedy existing deficiencies on Woodland Road and nearby roads, whether related to or independent of redevelopment of the Site (collectively, the "Vision Plan").

8. On June 29, 2007, the MHC issued a letter in which it concluded that implementation of the Vision Plan would cause an "adverse effect" on a historical resource, namely, the existing design of Woodland Road. MHC called for in an entirely new consultation process for any work on Woodland Road.

9. Thus, in January 2008, the Developer put forth a third redevelopment proposal (i.e. the Third Redevelopment), which proposed no alterations to any roads or facilities outside of the Site, including Woodland Road, and a further, 10% reduction of the mixed-use project to 225,000 square feet of office space redevelopment of the existing hospital facility, 405 residential units, continued use of existing accessory buildings and structure, and the ancillary convenience store. The Developer proposed to use the Site's existing Woodland Road driveways "as is," and without construction of the two roundabouts recommended in the Vision Plan, but rejected by MHC. The Developer notified the Secretary that the Developer believed that the Third Redevelopment did not call for the issuance of state permits, and therefore it did not require review under MEPA. In February 2008, the director of the Secretary's MEPA office responded to the Developer's January 2008 notice and stated that, if the Third Redevelopment was not the

subject of any "agency action," there would be no basis for MEPA jurisdiction or MEPA review.

AGREEMENTS

NOW, THEREFORE, in consideration of the mutual covenants set forth in this MOU and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

I. BASIC AGREEMENTS; DESCRIPTION OF THE WORK; DCR TO UNDERTAKE WORK; FUNDING FOR THE WORK

10. The parties agree that the Third Redevelopment will not involve any change of use of the Reservation or conveyance by the DCR to the Developer of interests in the Reservation.

11. DCR hereby agrees that in consideration of the actions undertaken by the Developer in Paragraphs 5 - 9 and 12, and compliance with its funding obligations pursuant to Paragraph 13 below, the Third Redevelopment does not require a DCR permit or financial assistance from DCR, and that this MOU and the undertakings of the Developer hereunder mitigate all traffic and safety issues identified by DCR in its letter to the Secretary dated June 16, 2008. DCR further represents that the Developer has satisfied all DCR regulations, policies and guidance regarding access to DCR parkways that apply to the Third Redevelopment and that the traffic improvements funded by the Developer ensure safe and efficient traffic operations on DCR roadways, regardless of when the Developer proceeds to build particular elements of the Third Redevelopment.

12. The Developer has caused to be prepared and submitted to DCR, and DCR has reviewed and hereby agrees to, the Transportation Safety Improvements Plan ("TSI Plan"), attached hereto and incorporated herein as Exhibit B. The Developer has caused to be prepared and submitted to DCR and DCR has reviewed and hereby agrees to that certain Traffic Impact Summary and a Level of Service/Capacity Analysis completed by Developer's consultant, VHB (the "2009 VHB Study"), attached hereto and incorporated herein as Exhibit C.

13. In consideration of the foregoing and the terms and provisions of this MOU, the Developer has agreed to fund One Million Eight Hundred Thousand Dollars (\$1,800,000.00) into an escrow account to be used for (i) the detailed design, permitting, reviews, consulting / project management services and construction of the improvements shown on and described as Options 2, 3, 6, 7 and 9 in the TSI Plan, including associated area clean-up or landscaping work, and construction period traffic details, on those portions of Woodland Road, Pond Street and Ravine Road immediately abutting or in the vicinity of the Site (and as it may be reasonably modified or varied hereafter by DCR provided such modifications or variations are not materially inconsistent with the TSI Plan, the "Work"), and (ii) the potential interim traffic mitigation described below.

Without limiting the generality of the foregoing, the term "Work" as used herein shall include any applicable design, review and permitting processes and consulting and project management services, including interim traffic safety measures. DCR may in its sole discretion determine not to implement portions of the Work other than Options 2, 3 and 6, which must be implemented if any Work is implemented.

14. Within thirty (30) days after the execution of this MOU by all parties, the Developer shall deposit the sum of Three Hundred Thousand (\$300,000.00) Dollars with First American Title Insurance Company (the "Escrow Agent") to be held and disbursed in accordance with the terms and provisions of this MOU (the "Initial Deposit").

15. Within thirty (30) days of the earlier to occur of either (i) the Developer obtaining a final, unconditional Certificate of Occupancy for at least half of the buildout of the Third Redevelopment, or (ii) DCR obtaining all final, non-appealable permits and review certifications for the construction of the Work and DCR giving written notice to Developer that DCR shall commence construction of the Work promptly thereafter (provided that DCR timely commences the Work in accordance with such notice), the Developer shall deposit the remaining balance, being the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars, with the Escrow Agent to be held and disbursed in accordance with this MOU (the "Second Deposit"; the Initial Deposit and the Second Deposit, together with all interest and earnings thereon, shall herein be collectively referred to as the "Escrowed Funds").

16. The Escrowed Funds may be used by DCR for the detailed design, permitting, review processes, consulting / project management services and construction of the Work. In no event shall DCR propose, agree to or undertake any modification or variation of the Work or propose, agree to and take any other action using the Escrowed Funds, which would have the effect of reducing or eliminating pedestrian and vehicular access to the Site for the construction, use and occupancy of the Third Redevelopment. The amount of Escrowed Funds payable to DCR for consulting / project management services and any other non-construction related costs, including without limitation, landscaping and clean-up, shall be capped at \$300,000 in the aggregate.

17. DCR agrees that if it chooses, in its sole and absolute discretion, to pursue the Work and traffic mitigation, it shall pursue and complete the same and shall cause to pursue all required review processes (e.g. MHC, MEPA) and obtain any and all necessary permits and approvals required in connection therewith. In no event shall any term or provision in this MOU (i) require DCR to perform any of the Work, or (ii) require the Developer to apply or file for, or to obtain any permit or approval for, or to lead or participate in any review processes, or to construct the Work or any portion thereof, or in any way subject the Developer to any liability in connection therewith.

18. In the event that DCR elects to permit or construct the Work, DCR shall submit a requisition to the Escrow Agent, with a copy to Developer, to fully fund the Work completed, which such Work may include pre-construction costs for design and permitting, review processes (e.g., MHC, MEPA), and consulting / project management services and traffic mitigation. Such requisition shall include a written certification from

DCR's Chief Engineer, certifying DCR's intent to proceed with the improvements, or portions thereof, more particularly described in Paragraph 13, which certification shall be supported by reasonable back-up documentation supporting the means and methods proposed by DCR to make such improvements. Upon receipt of the certification and reasonable backup documentation, the Developer and the Chief Engineer shall have seven business days to consult, and thereafter, the Escrow Agent shall transfer the remaining balance to a separate account identified by DCR to be held for the purposes of funding the Work. At least ten days prior to issuing any contract documents or other applicable documents concerning the Work, DCR shall provide Developer with a copy of said contract documents (which shall include, without limitation, applicable sureties and bonds) to insure that said contract documents further the improvements identified in Paragraph 13.

19. DCR does not object that construction and occupancy of the Third Redevelopment may proceed immediately upon execution of this MOU.

20. In the event that the total cost of completing the Work is less than the Escrowed Funds, then after all requisitions or invoices relating thereto have been submitted to and paid by the Escrow Agent, then the Escrow Agent shall, after written notice to both the Developer and DCR, distribute the balance of the Escrowed Funds to DCR to be used for improvements within or nearby to Woodland Road..

21. In the event that construction of the Work by DCR (or such portion thereof as DCR has determined to construct consistent with this MOU) has not commenced on or before the earlier of (a) June 30, 2013, or (b) such date which is the third (3rd) anniversary of Developer's receipt of a final, unconditional Certificate of Occupancy for at least half of the Third Redevelopment, but in no event later than June 30, 2013 (the "Outside Date"), then the Escrow Agent shall distribute the then balance of the Escrowed Funds to the Developer. For purposes hereof, the term "commencement" shall require DCR to have a current contract in hand and actual construction to have commenced in accordance with usual and customary construction practices.

22. In the event that the total cost of constructing the Work is more than the total cost of the Escrowed Funds, together with all interest earned thereon, the parties agree that Developer shall have no obligation to deposit funds in excess of the Escrowed Funds described herein. DCR shall have no obligation to expend any public funds on the Work, unless appropriated by the Legislature for that purpose.

II. INTERIM TRAFFIC DETAILS

23. The Developer and DCR agree that if the Developer commences construction of the Third Redevelopment, or any part thereof, prior to the commencement of construction by DCR of the Work, or any part thereof, then, the Developer shall implement, at its sole cost and expense, but reimbursable out of the Escrowed Funds as hereinafter provided, or shall request that DCR implement, out of the Escrowed Funds (or out of such funds held in a separate DCR account pursuant to Paragraph 18 above), a traffic detail, reasonably acceptable to DCR, at either the North Site Drive/Woodland

Road intersection or the South Site Drive/Woodland Road intersection during "peak hours" (as defined by standard ITE definitions), if, as and when either party notifies the other in writing that, in accordance with applicable ITE standards, a traffic detail is warranted.

24. The Developer shall have the right to obtain reimbursement for such police details out of the Escrowed Funds by sending an invoice(s) to the Escrow Agent, with a copy to DCR, together with any reasonable back up documentation evidencing such costs reasonably incurred by the Developer in providing such detail, whereupon the Escrow Agent shall pay the Developer from the Escrowed Funds, an amount equal to each of Developer's said invoice(s).

25. The Developer shall have no obligation to provide or fund any traffic detail if and to the extent remaining Escrowed Funds are not sufficient to pay the cost thereof, or after the Work is completed.

III. EASEMENT

26. Upon written request by DCR to Developer, which such request shall be made by DCR no later than the Outside Date, and provided that DCR has then obtained all permits and approvals beyond appeal required for the Work, the Developer agrees to grant to DCR at no cost to DCR or Developer, a temporary non-exclusive easement on such portion of the Site, as described and shown on Exhibit D attached hereto, for the construction at no cost to the Developer (other than out of Escrowed Funds), of a single-lane roundabout as contemplated by the TSI Plan, and thereafter a perpetual exclusive easement for use and access of such roundabout as a public way by DCR, the general public and others legally entitled thereto, including access by DCR to perform any required maintenance, repairs and/or replacement thereof, subject, however, to all pre-existing rights and easements including those granted to adjacent lot owners pursuant to that certain Amended and Restated Declaration of Easements and Maintenance Agreement dated as of December 20, 2007 and recorded with the Middlesex South Registry of Deeds in Book 50503, Page 109 and that certain Declaration of Non-Exclusive Access and Utility Easements dated October 13, 1995 and recorded with said Deeds in Book 25733, Page 265, as amended by First Amendment to Declaration of Non-Exclusive Access and Utility Easements dated July 14, 2008 and recorded with said Deeds in Book 51473, Page 194. Developer and DCR shall agree on a mutually agreeable easement agreement incorporating the foregoing terms promptly upon receipt of DCR's written notice to the Developers as aforesaid. The initial draft of the agreement and easement plan shall be prepared by DCR..

IV. ESCROW PROVISIONS

27. The Escrow Agent shall hold the Escrowed Funds in an interest bearing account, and interest earned on the Escrowed Funds shall be paid to the DCR or Developer on a pro rata basis based on the portion of the principal amount of the Escrowed Funds paid to such parties, as applicable.

28. In the event of any disagreement between the Developer and DCR with respect to the Work (or the cost thereof) or any other matter arising hereunder in connection with the Escrowed Funds, the parties agree to work together, each acting reasonably and in good faith, to resolve the same. If the parties resolve their dispute, they shall issue joint written instruction to the Escrow Agent, to the extent such dispute pertains to the escrowed funds or otherwise affects the service of the Escrow Agent hereunder. If the Developer and DCR fail to reach an agreement within thirty (30) days of notice of such disagreement, then any party or the Escrow Agent is hereby authorized and directed to file an interpleader action with a court of competent jurisdiction

29. Developer agrees to indemnify the Escrow Agent and to hold the Escrow Agent harmless from and against any and all claims, damages, losses, liabilities, judgments and expenses (including, without limitation, all reasonable fees and expenses of counsel and all expenses of litigation or preparation therefor) that the Escrow Agent may incur or that may be asserted against the Escrow Agent in connection with the performance of the Escrow Agent's duties hereunder or arising out of any investigation, litigation or proceeding involving this MOU (including compliance with or contesting of any subpoenas or other process issued against the Escrow Agent), whether or not the Escrow Agent is a party thereto, other than claims, damages, losses, liabilities or judgments with respect to any matter as to which the Escrow Agent shall have been adjudicated not to have acted in good faith. Promptly upon receipt by the Escrow Agent of notice of the commencement of any action, the Escrow Agent shall, if a claim in respect thereof is to be made against any other party hereto hereunder, notify such party in writing of the commencement thereof.

V. MISCELLANEOUS

30. Developer agrees, subject to a reservation of its claims in the pending Land Court action and a reservation of all other rights, promptly upon receipt of a letter signed by the Commissioner of DCR and stating that DCR is prepared to enter into this MOU in a form mutually agreeable to DCR and Developer, which form shall be attached to such letter, to cause to be submitted to the Secretary a request for an advisory opinion under MEPA that such MOU and the TSI Plan and 2009 VHB Study constitute new information not available to the Secretary when the Secretary issued his Certificate on July 3, 2008, and determining that no further review of the Third Redevelopment is required under MEPA. If the Secretary issues such an advisory opinion without qualification or limitation, and such advisory opinion is not directly, indirectly or collaterally challenged, appealed or attempted to be circumvented in any way by any person within three months after such advisory opinion is formally issued and effective, then DCR and the Developer shall within a further 15 days thereafter execute and deliver this MOU among them. DCR and Developer acknowledge that Developer intends to request that the Secretary submit the request for such advisory opinion to public review and comment prior to acting thereon.

31. Notwithstanding any language to the contrary set forth in this MOU, in the event that (a) DCR, MEPA or other state agency, body or authority, asserts jurisdiction over the Third Redevelopment despite this MOU, or (b) a court declares that DCR,

MEPA or other state agency, body or authority has jurisdiction over the Third Redevelopment despite this MOU, then the Developer (and DCR only in the case of (b) above) shall have the right, exercisable by giving notice to the other party, to terminate this MOU and Developer shall immediately receive back all of the unexpended Escrowed Funds (including any such funds held in a separate DCR account pursuant to Paragraph 18 above), with any interest earned thereon, whereupon this MOU (except Paragraphs 10, 33, 37 and 40 hereof, which shall survive) shall become null and void without further force and effect.

32. The Developer shall have no liability or obligation in connection with the performance and/or completion of the Work undertaken or constructed by DCR and shall have not have any responsibility for any violations of laws or other liability caused by DCR in connection therewith. The provisions of this paragraph shall survive the termination of this MOU and the escrow hereunder.

33. The Developer and DCR agree that this MOU, or any documents related hereto, will not be recorded in the Registry of Deeds or registered in the Land Court, as this MOU does not grant, transfer or dispose to the Developer of any right, title or interest in or to the Reservation, Woodland Road or any other DCR property.

34. Developer and DCR agree that DCR retains, subject to this MOU, all customary and applicable police power, regulatory authority or other discretion as a state agency with regard to the Reservation, Woodland Road and other DCR property; and nothing in this MOU grants or confers upon Developer or any other person any special standing, status, privilege or right in or upon the Reservation, Woodland Road or other DCR property that is separate, distinct or in addition to that of the general public or afforded an abutter under state law.

35. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered (a) by certified mail, return receipt requested, or (b) if deposited with an overnight delivery service, properly addressed and postage prepaid. All notices shall be effective upon the earlier receipt of (i) actual receipt or (ii) by 5:00 PM on the third business day following deposit in the U.S. Mail as certified, return receipt requested mail. Notices shall be addressed as follows:

If to the DCR, to:

Department of Conservation and Recreation
Attention: Richard Sullivan
251 Causeway Street
Boston, MA 02114

with a copy in like manner to:

Department of Conservation and Recreation
Attention: Gary Davis, General Counsel
251 Causeway Street
Boston, MA 02114

If to the Developer, to:

Fellsway Development, LLC
c/o The Gutierrez Company
Attention: John A. Cataldo, Vice Chairman and Secretary
One Wall Street
Burlington, MA 01803

with a copy in like manner to:

Fellsway Development, LLC
c/o The Gutierrez Company
Attention: Gloria M. Gutierrez,
Executive Vice President and Corporate Counsel
One Wall Street
Burlington, MA 01803

And:

Spencer Welton
Simpson Housing LLP
33 Broad Street, Suite 1002
Boston, MA 02109

with a copy in like manner to:

Greg Peterson
~~DLA Piper Tarlow, Breed, Hart & Rodgers, P.C.~~
~~33 Arch Street, 26th Floor~~ 101 Huntington Ave., Suite 500
~~Boston, MA 02110-1447~~ Boston, MA 02199

If to the Escrow Agent, to:

First American Title Insurance Company
101 Huntington Avenue
Boston, MA 02199-7610
Attn: Gene Amico, Escrow Officer

or at any other address as may be given by any party to the other party by notice in writing pursuant to the provisions of this Section 40.

36. Whenever the consent or approval of either party is required, such consent or approval shall not be unreasonably withheld, conditioned or delayed.

37. Except as otherwise expressly provided herein, the provisions of this MOU shall inure to the benefit of and be binding upon the parties and their successors and assigns to or of the Property and the Reservation, expressly excluding any mortgagee of record, but including subsequent purchasers at a foreclosure sale or otherwise, and upon taking title to the property referred to herein by foreclosure deed or deed in lieu of foreclosure, such parties shall thereafter have the rights previously conferred upon, and become subject to the obligations of the prior owner, and Developer as applicable for the Property, of such property.

38. This MOU shall not be modified, amended or terminated except in writing executed by all parties hereto.

39. This MOU may be executed in any number of counterparts, each of which when executed and delivered is an original, but all of which together shall constitute one instrument.

40. The 2002 MOU in its entirety is terminated and of no further force and effect.

41. This MOU shall take effect as of the date first written above.

42. This Agreement shall be construed and enforced in accordance with the laws of The Commonwealth of Massachusetts.

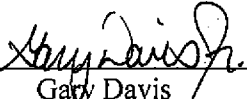
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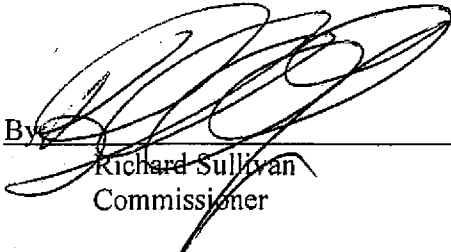
Signature Page to Follow

IN WITNESS WHEREOF the parties hereto have executed this MOU under seal as of the date set forth above.

DEPARTMENT OF CONSERVATION
AND RECREATION
Division of Urban Parks and Recreation

Approved as to form:

By: 
Gary Davis
General Counsel

By: 
Richard Sullivan
Commissioner

FELLSWAY DEVELOPMENT, LLC

By: The Gutierrez Company,
Managing Member

By: _____
Arthur J. Gutierrez, Jr.
President

LANGWOOD COMMONS LLC

By: Simpson Housing L.L.L.P.

By: Columba LLC, a Delaware limited
liability company, its General
Partner

By: _____
Name: _____
Title: _____

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FELLSWAY DEVELOPMENT, LLC

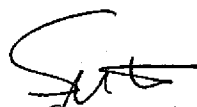
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By: _____
Arthur J. Gutierrez, Jr.
President

LANGWOOD COMMONS LLC

By: Simpson Housing L.L.L.P.

By: Columba LLC, a Delaware limited
liability company, its General
Partner

By: 
Name: Spencer Welton
Title: Sr. VP of Development

ESCROW AGENT

FIRST AMERICAN TITLE INSURANCE
COMPANY

By: *Jo-Ann Allan*
Name: Jo-Ann Allan
Title: Underwriting Counsel

EXHIBIT A

CONCEPTUAL SITE PLAN OF THE THIRD REDEVELOPMENT

EXHIBIT B

COPY OF THE TRANSPORTATION SAFETY IMPROVEMENTS PLAN AND
DESCRIPTION OF THE IMPROVEMENTS UNDER SUCH PLAN

Description of Improvements in TSI Plan

The Transportation Safety Improvements Plan ("TSI Plan") is attached hereto and incorporated herein as part of this Exhibit B. It has been submitted on behalf of the Department of Conservation and Recreation ("DCR") to describe the scope of improvements in the TSI Plan.

The following improvements have been identified in the TSI Plan to enhance safety, improve pedestrian and bicycle accommodations, promote traffic calming measures, create a more recreationallly-focused parkway, and provide for efficient vehicular operations throughout the Woodland Road corridor:

- Designate most of the extent of the existing Woodland Road southbound lanes for a future two-lane (bi-directional) bicycle and pedestrian path.
- Reconfigure the two remaining northbound Woodland Road lanes to accommodate two-way travel via one southbound travel lane and one northbound travel lane.
- Install a single-lane modern roundabout at the intersection of Woodland Road and the south driveway of Langwood Commons.
- Reconfigure the intersection of Woodland Road and the north driveway of Langwood Commons to provide geometric improvements and prohibit left turns from the driveway.
- Install a double-lane modern roundabout at the intersection of Woodland Road at Ravine Road.
- Reconfigure the intersection of Woodland Road at Pond Street to provide geometric improvements and prohibit left-turns from Pond Street westbound.
- Provide a break in the existing median, approximately one-half mile north of the intersection of Woodland Road at Pond Street, to accommodate u-turning vehicles destined to Woodland Road southbound (those trips restricted from left-turns directly from Pond Street to Woodland Road in the modification detailed above).
- Provide several additional pedestrian crosswalks (signage and striping) and enhanced accommodations at appropriate locations shown on the TSI Plan.

The improvements along Woodland Road are designed as traffic calming measures that will help reduce vehicular travel speeds and potentially create a safer environment for both motorists and pedestrians. The improvements are also expected to provide efficient vehicular operations along Woodland Road and at the study area intersections.

EXHIBIT C

2009 VHB STUDY



Vanasse Hangen Brustlin, Inc.

101 Walnut Street
P. O. Box 9151
Watertown, MA 02471-9151
617 924 1770
FAX 617 924 2286

Memorandum

To: William Caulder
The Gutierrez Company
One Wall Street
5th Floor
Burlington, MA 01803

Date: April 21, 2009

Project No.: 06971.30

From: Don Cooke, P.E., P.T.O.E.
Ana Fill, P.E.
Michael A. Santos, P.E.

Re: Woodland Road
Traffic Safety and Improvements Plan

Vanasse Hangen Brustlin, Inc. (VHB) has conducted an assessment to evaluate the safety and traffic conditions associated with the implementation of the Transportation Safety Improvements Plan ("TSI Plan") (provided under separate cover) along the Woodland Road corridor in Stoneham, Massachusetts, including impacts associated with the construction of the proposed Langwood Commons development. This memorandum presents safety and operational analyses and concludes that the roadway network under future conditions with the TSI plan is able to better accommodate future traffic volumes and operate in a potentially safer and more efficient manner and become a more recreationally-oriented parkway.

STUDY AREA

The study area for the project includes Woodland Road and the following intersections along this roadway:

1. Woodland Road at Pond Street
2. Woodland Road at Ravine Road
3. Woodland Road at the North Site Drive
4. Woodland Road at the South Site Drive
5. Woodland Road at Fulton Street, Elm Street, and Highland Avenue (Molineau Circle)

The study area selected for the analysis presented in this memorandum was determined in consultation with the Department of Conservation and Recreation (DCR), based on the intersections that can be expected to experience a relatively significant increase in traffic volumes due to the proposed Langwood Commons development.

PROJECT DESCRIPTION

The project will consist of the implementation of the TSI Plan along the Woodland Road corridor in Stoneham, Massachusetts. The proponents of the Langwood Commons development and DCR have identified and developed potential roadway improvements for the Woodland Road and Pond Street corridors, between Molineau Circle to the south and a point approximately one-half mile north of the Woodland Road/Pond Street intersection, resulting in the TSI plan.

The analysis provided in this memorandum assumes the full build out of the Langwood Commons project, which is located on the site of the former Boston Regional Medical Center (BRMC) off Woodland Road in Stoneham, Massachusetts. The former BRMC site currently consists of a 300,000 square foot (sf) hospital building and 110,000 sf of medical office space (of which 99,000 sf is currently occupied). There were additional uses previously present on the site which have since been discontinued. An assisted living facility is located to the south of the former BRMC site, with shared access via the former BRMC's site driveways. As part of the Langwood Commons development, the hospital building will be redeveloped to consist of 225,000 sf of general office space, with the 110,000 sf of medical office space being retained. The project will also contain a residential component, consisting of the construction of 261 apartment units, 95 condominium units, and 49 townhouses. Access to the development will continue to be provided by the two existing site driveways (with proposed modifications outlined in the TSI plan) that currently serve the site.

EXISTING TRAFFIC VOLUMES

Automatic traffic recorder (ATR) counts were conducted on Woodland Road between the two driveways to the Langwood Commons site in February, April, and December 2005; July 2007; and February 2009. Manual turning movement counts (TMCs) were collected at the study area intersections in April 2005 and February 2006. Table 1 summarizes the ATR counts. The detailed count data sheets and the weekday morning and evening peak hour existing traffic volume networks are provided in the Appendix.

Table 1
Woodland Road Traffic Volumes

<u>Count Date</u>	<u>Daily Traffic Volume ^a</u>
<i>February 2005</i>	
Tuesday	16,240
Wednesday	16,510
<i>April 2005</i>	
Wednesday	16,490
Thursday	17,390
<i>December 2005</i>	
Wednesday	17,630
<i>July 2007</i>	
Tuesday	17,260
Wednesday	16,690
<i>February 2009</i>	
Thursday	15,590

a Volumes collected between the driveways to the Langwood Commons site.

As can be seen in Table 1, multiple ATR counts have been conducted on Woodland Road. Although these counts were collected during different months and years, the traffic volumes have been relatively consistent, ranging from approximately 15,590 to 17,630 vehicles per day. Based on these counts, daily traffic volumes along Woodland Road have remained relatively stable over the past several years and have actually declined based on the data collected in 2009. Thus, the turning movement counts originally conducted in 2005 and 2006 were deemed appropriate and even potentially conservative in developing the existing condition traffic volume networks used in the current analysis. The traffic volumes were not seasonally adjusted, since April represents higher traffic volumes than average month conditions based on MassHighway data. Given that the locations with the February counts were adjusted to ensure that traffic volumes leaving an intersection were consistent with those entering an adjacent intersection (many of which had traffic counts conducted in April), the resulting traffic volumes are indicative of average conditions.

CRASH DATA

In order to identify motor vehicle crash trends and/or roadway deficiencies in the study area, motor vehicle crash data was obtained from MassHighway for the most recent four-year period available (2004 through 2007).

Crash rates are calculated based on the number of crashes and the traffic volume at an intersection. Crash rates that exceed MassHighway's average crash rate (by District) for signalized and unsignalized intersections (District 4 for the study area intersections) could indicate that safety or geometric deficiencies exist at the intersection. The average crash rate for unsignalized intersections is 0.58 for MassHighway District 4. Table 2 summarizes the motor vehicle crash data for the study area intersections.

As can be seen in Table 2, only the intersection of Woodland Road at Pond Street was shown to have a crash rate higher than the District 4 average for unsignalized intersections. The intersection also experienced the most motor vehicle crashes over the four-year review period. A total of 36 motor vehicle crashes were reported at this intersection, with the majority of the crashes consisting of rear-end type collisions (15 crashes), involving property damage only (24 crashes) and occurring on a dry roadway surface (31 crashes). The clear majority of accidents occurred on a weekday during non-peak hours (22 crashes).

Improvements are proposed in the TSI Plan at the intersection of Woodland Road at Pond Street that could potentially reduce the number of correctable motor vehicle collisions at this location. The specific proposed improvements are discussed in a later section of this memorandum.

There was a fatal motor vehicle crash reported in the vicinity of Molineau Circle on Saturday, June 4, 2005 at approximately 3:40 PM. The crash was an angle-type collision and occurred during daylight and under dry pavement conditions. The specific details of the crash indicate that it occurred at the intersection of the Flynn ice skating rink driveway at Woodland Road, just north of Molineau Circle. Specific improvements have been proposed in the TSI Plan along Woodland Road that will extend to the Flynn ice skating rink that will reduce vehicular speeds and enhance safety along the roadway.

Table 2
Motor Vehicle Crash Data Summary (2004-2007)

	Woodland Road/ Pond Street	Woodland Road/ Ravine Road	Woodland Road/ Site Driveways	Woodland Road/ Elm Street/ Highland Avenue/ Fulton Street (Molineau Circle)
Signalized?	NO	NO	NO	NO
Year				
2004	6	4	1	1
2005	7	0	3	2
2006	9	6	2	3
2007	14	8	0	0
Total	36	18	6	6
Type				
Angle	12	6	3	2
Rear-End	15	5	1	0
Head-On	0	0	0	0
Single Vehicle Crash	4	3	1	2
Sideswipe	3	1	0	2
Unknown	2	3	1	0
Total	36	18	6	6
Severity				
Prop. Damage Only	24	11	1	4
Personal Injury	6	6	4	0
Fatality	0	0	0	1
Unknown	6	1	1	1
Total	36	18	6	6
Pavement Condition				
Dry	31	14	4	4
Wet	5	2	1	2
Icy/Snow	0	2	0	0
Unknown	0	0	1	0
Total	36	18	6	6
Time of Day				
Weekday 7:00-9:00 AM	2	2	0	2
Weekday 4:00-6:00 PM	4	2	1	1
Saturday 11:00 AM-2:00 PM	3	0	0	0
Weekday, other time	22	9	4	2
Weekend, other time	5	5	1	1
Total	36	18	6	6
Crash Rate	0.85	0.53	0.21	0.18

Source: Massachusetts Highway Department.

FUTURE CONDITIONS

To determine the impacts on the surrounding roadway network of traffic volumes generated by the proposed Langwood Commons development, future traffic conditions were modeled. Future traffic projections also include regional background traffic growth, full occupancy of the existing medical office, and implementation of the proposed TSI Plan.

Anticipated Traffic Growth

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. Two methods are typically used to determine background traffic growth expected on roadways. The first method involves estimating an annual percentage increase in traffic volumes over the past several years (background growth). The second method involves identifying specific development projects in the vicinity of the project site that would affect traffic on the study area roadways. Since the ATR counts collected along Woodland Road show that the traffic volumes within the study area have remained relatively stable over the past several years, this

analysis assumed no background growth, but did include anticipated traffic from specific known development projects.

The following specific projects were identified in previous traffic analyses conducted for the Langwood Commons project:

Table 3
Background Development Projects – Previous Analyses

Project Name/Location	Development Program	Peak Hour Trips on Study Area Roadway Network ^a	
		Morning	Evening
Stoneham Crossing – Stoneham	135,000 sf home improvement store; 12,000 office space	9	27
Shannon Estates – Winchester	17 single-family homes	1	0
Outpatient Facility at 620 Washington St. – Winchester	239,000 sf outpatient ambulatory care center	10	12
Avalon Inwood – Woburn	400 apartment units	0	0
Malden Hospital Redevelopment – Malden	300 assisted living units	0	0
154 Pleasant Street – Malden	200 apartment units	0	0
Oak Grove Village – Malden/Melrose	550 apartment units; 16,750 sf retail space	34	55
TOTAL TRIPS		54	94

^a Expressed in vehicles per hour.

As shown in Table 3, the specific development projects used in previous analyses are expected to add 54 vehicle trips to the study area roadway network during the weekday morning peak hour and 94 vehicle trips during the weekday evening peak hour. Given the location of the proposed projects, some of them were not expected to have traffic traveling in the study area.

In order to verify the traffic volumes expected to be generated by the anticipated development projects listed in Table 3, the Towns of Stoneham and Winchester and the Cities of Malden, Medford, Melrose, and Woburn were contacted to determine the current status of each project and to determine if there are any additional projects that should be considered to develop future traffic volume networks. Table 4 lists the updated status of the projects above and any additional projects that have been proposed since the previous analysis conducted for the Langwood Commons project.

Table 4
Background Development Projects – 2009 Analysis

Project Name/Location	Development Program	Peak Hour Trips on Study Area Roadway Network ^a	
		Morning	Evening
Stoneham Crossing – Stoneham	87,000 sf self-storage facility ^b	0	0
Shannon Estates – Winchester	17 single-family homes	1	0
Outpatient Facility at 620 Washington St. – Winchester	239,000 sf outpatient ambulatory care center	10	12
Avalon Inwood – Woburn	44 condominium units ^c	0	0
Malden Hospital Redevelopment – Malden	300 assisted living units	0	0
160 Pleasant Street – Malden	200 apartment units ^d	0	0
Oak Grove Village – Malden/Melrose	550 apartment units; 16,750 sf retail space ^e	10	19
27-29 Dartmouth Street – Malden	275 apartment units; 34,000 sf office; 11,500 sf retail	20	26
180 Eastern Avenue – Malden	Wendy's; Bank	0	0
1021 Main Street – Winchester	40 residential units	0	0
Greystone at Winchester – Winchester	50 townhouse units	0	0
Hamilton Farm – Winchester	62 residential units	0	0
Draper Street Warehousing – Woburn	36,000 sf warehouse space	0	0
Stone Place – Melrose	300 apartment units	14	24
TOTAL TRIPS		55	81

- a Expressed in vehicles per hour.
- b The home improvement retail store and office have been removed from the development program.
- c The previously proposed 400 units have been constructed and are substantially occupied.
 An additional 44 condominium units have been proposed on the project site.
- d This project was formerly known as "154 Pleasant Street".
- e At the time of this memorandum, 350 apartment units were constructed and partially occupied.

As shown in Table 4, the current known development projects are expected to add 55 vehicle trips to the study area roadway network during the weekday morning peak hour and 81 vehicle trips during the weekday evening peak hour. These traffic volumes are generally consistent with what was previously used (with one additional vehicle during the weekday morning peak hour and 13 fewer vehicles during the weekday evening peak hour). Therefore, to maintain consistency with the previous studies, the additional traffic volume growth associated with projects shown in Table 3 was used and result in a somewhat conservative estimate (especially during the PM peak hour) of anticipated traffic volume growth in the study area. In addition to other known projects, additional traffic volume associated with the unoccupied medical office space in Langwood Commons was included to project future conditions. To estimate the trips expected to be generated by the occupancy of the remaining medical office building space, the Institute of Transportation Engineers (ITE) Land Use Code (LUC) 720 – Medical/Dental Office, based on 11,000 sf was used.

Langwood Commons Trip Generation

Trip generation estimates associated with the redevelopment of the Langwood Commons site were determined based on data published by the Institute of Transportation Engineers (ITE)¹.

¹ Trip Generation – 8th Edition; Institute of Transportation Engineers; Washington, D.C.; 2008.

As stated previously, the proposed Langwood Commons will consist of the redevelopment of an existing hospital building to contain 225,000 sf of general office space. In addition, the project will contain a residential component consisting of the construction of 261 apartment units, 95 condominium units, and 49 townhouses. ITE Land Use Code (LUC) 220 - Apartment, based on 261 dwelling units; LUC 230 - Condominium/Townhouse, based on 144 units; and LUC 710 - General Office, based on 225,000 sf were used to estimate the trips expected to be generated by the proposed project. The trip generation for the proposed project is shown in Table 5, with the detailed trip-generation calculations provided in the Appendix.

Table 5
Langwood Commons Trip Generation Summary

Use	Residential Component (261 Apartments; 144 Condominium Units)	Office Component (225,000 sf)	Total Project Generated Trips
Weekday Daily ^a	2,590	2,490	5,080
Weekday AM ^b			
Enter	40	315	355
Exit	160	45	205
Total	200	360	560
Weekday PM ^b			
Enter	160	55	215
Exit	85	275	360
Total	245	330	575

a expressed in vehicles per day.
b expressed in vehicles per hour.

As shown in Table 5, the Langwood Commons project is expected to generate 5,080 trips on an average weekday, with 560 trips during the weekday morning peak hour and 575 trips during the weekday evening peak hour.

Trip Distribution

Although the Langwood Commons project has been decreased a further 10% since previous studies, the relative office and residential use mix has not changed. Accordingly, the directional distribution of traffic approaching and departing the Langwood Commons site determined in previous studies was used to assign site-generated trips to the study area roadway network. The traffic volumes associated with the Langwood Commons site are shown in figures provided in the Appendix.

Transportation Safety Improvements Plan

The proponent of Langwood Commons and DCR have identified and developed potential roadway improvements for the Woodland Road and Pond Street corridors, between Molineau Circle to the south and a point approximately one-half mile north of the Woodland Road/Pond Street intersection, resulting in the TSI Plan.

The following improvements have been identified in the TSI Plan to enhance safety, improve pedestrian and bicycle accommodations, promote traffic calming measures, and provide for more efficient vehicular operations throughout the Woodland Road corridor:

- Designate most of the extent of the existing Woodland Road southbound lanes for a future two-lane (bi-directional) bicycle and pedestrian path.

- Reconfigure the two remaining northbound Woodland Road lanes to accommodate two-way travel via one southbound travel lane and one northbound travel lane.
- Install a single-lane modern roundabout at the intersection of Woodland Road and the south driveway of Langwood Commons.
- Reconfigure the intersection of Woodland Road and the north driveway of Langwood Commons to provide geometric improvements and prohibit left turns from the driveway.
- Install a double-lane modern roundabout at the intersection of Woodland Road at Ravine Road.
- Reconfigure the intersection of Woodland Road at Pond Street to provide geometric improvements and prohibit left-turns from Pond Street westbound.
- Provide a break in the existing median, approximately one-half mile north of the intersection of Woodland Road at Pond Street, to accommodate u-turning vehicles destined to Woodland Road southbound (those trips restricted from left-turns directly from Pond Street to Woodland Road in the modification detailed above).
- Provide several additional pedestrian crosswalks (signage and striping) and enhanced accommodations at appropriate locations shown on the TSI Plan.

It is anticipated that due to the restriction of left-turning vehicles from the Pond Street westbound approach to Woodland Road, some vehicular traffic will be shifted to Ravine Road and will use the proposed roundabout to travel to Woodland Road southbound. The future conditions associated with this shift are included as a sensitivity analysis.

Build Traffic Volumes

The future Build traffic volumes were developed according to the methodology described above. In order to reflect the proposed roadway and safety improvements in the TSI Plan, two Build scenarios were developed. The first scenario assumes that all left-turning vehicles at Pond Street would be reassigned to the westbound right-turn movement along the Pond Street westbound approach to Woodland Road northbound which would then will make a u-turn maneuver southbound at the proposed median break, approximately one-half mile north of the intersection. The second scenario assumes that this movement will continue to occur, but also assumes that fifty percent of the projected u-turning traffic would divert to Ravine Road and access Woodland Road southbound by way of the proposed roundabout at the intersection of Woodland Road at Ravine Road. Both scenarios reflect the left-turn prohibition for vehicles exiting the north driveway of Langwood Commons. The weekday morning and evening peak hour Build traffic volume networks for the first scenario are shown on Exhibits 1 and 2, respectively. The weekday morning and evening peak hour Build traffic volume networks for the second scenario are shown on Exhibits 3 and 4, respectively.

TRAFFIC OPERATIONS ANALYSIS

To assess the quality of vehicular flow within the study area, intersection capacity analyses were conducted with respect to the projected Build traffic volume conditions, with the implementation of the TSI Plan throughout the Woodland Road corridor. Capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands. Roadway operating conditions are classified by calculated "levels-of-service". Level-of-service (LOS) is a qualitative measure that considers a number of factors including roadway geometry, speed, travel delay, and freedom to maneuver and provides an index to the operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level-of-service analyses were conducted for the future Build conditions for the study area intersections. Table 6 presents a summary of the capacity analyses for the study area intersections under both Build condition scenarios described above. The capacity analysis worksheets are included in the Appendix.

Table 6
Intersection Operations Summary

<i>Intersection/Time Period</i>	Build Conditions (assumes all Pond Street traffic uses U-turn for southbound)				Build Conditions Sensitivity Analysis (assumes 50% of Pond Street traffic uses U-turn for southbound)			
	v/c ^a	Delay ^b	LOS ^c	Queue ^d	v/c	Delay	LOS	Queue
Pond Street at Pond Street U-Turn								
<i>Weekday Morning Peak Hour</i>								
Pond Street NB U-Turn	>1.20	>120	F	>500	1.03	>120	F	193
Pond Street SB TH	0.86	0	A	0	0.86	0	A	0
<i>Weekday Evening Peak Hour</i>								
Pond Street NB U-Turn	0.70	57	F	108	0.33	32	D	35
Pond Street SB TH	0.73	0	A	0	0.73	0	A	0
Woodland Road at Pond Street								
<i>Weekday Morning Peak Hour</i>								
Pond Street WB RT			Free Movement				Free Movement	
Woodland Road NB TH	0.32	0	A	0	0.32	0	A	0
Woodland Road NB RT	0.08	0	A	0	0.08	0	A	0
Pond Street SB LT	0.38	11	B	45	0.38	11	B	45
Pond Street SB TH	0.80	0	A	0	0.71	0	A	0
<i>Weekday Evening Peak Hour</i>								
Pond Street WB RT			Free Movement				Free Movement	
Woodland Road NB TH	0.66	0	A	0	0.66	0	A	0
Woodland Road NB RT	0.24	0	A	0	0.24	0	A	0
Pond Street SB LT	1.05	88	F	367	1.05	88	F	367
Pond Street SB TH	0.49	0	A	0	0.45	0	A	0
Woodland Road at Ravine Road								
Proposed Roundabout								
<i>Weekday Morning Peak Hour</i>								
Woodland Road NB	0.28	3	A	60	0.28	3	A	62
Woodland Road SB	0.69	6	A	216	0.74	10	A	285
Ravine Road WB	0.71	13	B	190	0.92	22	C	411
Overall	0.75	7	A	--	0.92	11	B	--
<i>Weekday Evening Peak Hour</i>								
Woodland Road NB	0.73	5	A	248	0.74	5	A	255
Woodland Road SB	0.37	4	A	77	0.38	5	A	78
Ravine Road WB	0.83	24	C	210	1.02	53	D	452
Overall	0.86	7	A	--	1.02	12	B	--

See notes at end of table.

Table 6 (Continued)
Intersection Operations Summary

<i>Intersection/Time Period</i>	Build Conditions (assumes all Pond Street traffic uses U-turn for southbound)				Build Conditions Sensitivity Analysis (assumes 50% of Pond Street traffic uses U-turn for southbound)			
	v/c ^a	Delay ^b	LOS ^c	Queue ^d	v/c	Delay	LOS	Queue
Woodland Road at north driveway of Langwood Commons								
<i>Weekday Morning Peak Hour</i>								
North driveway WB RT			Free Movement				Free Movement	
Woodland Road NB TH	0.21	0	A	0	0.21	0	A	0
Woodland Road NB TH/RT	0.11	0	A	0	0.11	0	A	0
Woodland Road SB LT/TH	0.31	7	A	34	0.31	7	A	34
Woodland Road SB TH	0.43	0	A	0	0.43	0	A	0
<i>Weekday Evening Peak Hour</i>								
North driveway WB RT			Free Movement				Free Movement	
Woodland Road NB TH	0.50	0	A	0	0.50	0	A	0
Woodland Road NB TH/RT	0.25	0	A	0	0.25	0	A	0
Woodland Road SB LT/TH	0.31	10	A	33	0.31	10	A	33
Woodland Road SB TH	0.20	0	A	0	0.20	0	A	0
Woodland Road at south driveway of Langwood Commons								
Proposed Roundabout								
<i>Weekday Morning Peak Hour</i>								
Woodland Road NB	0.48	2	A	138	0.48	2	A	138
Woodland Road SB	0.91	4	A	>500	0.91	4	A	>500
South driveway WB	0.17	10	A	25	0.17	10	A	25
Overall	0.91	4	A	--	0.91	4	A	--
<i>Weekday Evening Peak Hour</i>								
Woodland Road NB	0.86	2	A	>500	0.86	2	A	>500
Woodland Road SB	0.57	4	A	143	0.57	4	A	143
South driveway WB	0.96	79	E	412	0.96	79	E	412
Overall	0.97	12	B	--	0.97	12	B	--
Molineau Circle								
<i>Weekday Morning Peak Hour</i>								
Elm Street EB	0.30	10	A	50	0.30	10	A	50
Highland Avenue WB	0.49	6	A	120	0.49	6	A	120
Woodland Road SB	0.62	4	A	159	0.62	4	A	159
Overall	0.62	6	A	--	0.62	6	A	--
<i>Weekday Evening Peak Hour</i>								
Elm Street EB	0.68	10	A	199	0.68	10	A	199
Highland Avenue WB	>1.20	>120	F	>500	>1.20	>120	F	>500
Woodland Road SB	0.39	3	A	83	0.39	3	A	83
Overall	>1.20	70	E	--	>1.20	70	E	--

a Volume-to-capacity ratio.

b Delay, measured in seconds.

c Level-of-service.

d 95th percentile queue length, measured in feet.

CONCLUSION

The project consists of the implementation of the TSI plan along the Woodland Road corridor in Stoneham, Massachusetts.

A review of existing conditions indicates that there are safety deficiencies within the Woodland Road corridor. The intersection of Woodland Road at Pond Street was found to have a higher crash rate than the MassHighway District 4 average for the most recent four year period for which data is available. There was also one motor vehicle collision related fatality that occurred in the vicinity of

Molineau Circle. Further, there is a lack of pedestrian connectivity throughout the corridor and there are currently no safe pedestrian crossings across Woodland Road.

The analysis presented in this memorandum takes into consideration the impact of the redevelopment of the former Boston Regional Medical Center to encompass 225,000 sf of office space, 261 apartment units, 95 residential condominium units, and 49 townhouses located off Woodland Road in Stoneham, Massachusetts. The full build-out of the project is expected to generate 5,080 vehicle trips to the surrounding roadway network during an average weekday, with 560 trips generated during the weekday morning peak hour and 575 trips generated during the weekday evening peak hour.

To address the current deficiencies and to plan for the future impact of the Langwood Commons project, roadway and safety improvements have been proposed for Woodland Road between Molineau Circle and a point approximately one-half mile north of Pond Street. These improvements are designed to address the existing safety and operational deficiencies of the roadway, as described in previous sections of this memorandum. The improvements along Woodland Road are designed as traffic calming measures that will help reduce vehicular travel speeds and potentially create a safer environment for both motorists and pedestrians. The improvements are also expected to provide more efficient vehicular operations along Woodland Road and at the study area intersections. While certain movements presented in Table 6 reflect less than optimal conditions, most of these movements currently experience similar or worse operations. Further, a number of other current movements that experience poor LOS are significantly improved by the proposed plan.

The recreational aspects of Woodland Road and the Middlesex Fells Reservation will be enhanced by converting the southbound lanes of Woodland Road into a future dedicated bicycle/pedestrian path. Pedestrian safety and mobility will be improved by the addition of several new crosswalks and by the conversion of the southbound lanes into a future recreational path, thereby reducing the total pedestrian crossing width.

A review of operating conditions under future Build conditions with the TSI Plan roadway improvements along Woodland Road indicates that the roadway network should be able to better accommodate future traffic volumes and operate in a potentially safer and efficient way.

Appendix

- **Observed Traffic Volume Data**
 - ATR Data
 - TMC Data
 - Existing Traffic Volume Networks
- **Motor Vehicle Crash Data**
 - MHD Crash Data
 - MHD Crash Rate Calculations
- **Background Traffic**
 - Background Project Traffic Volume Network
- **Project Generated Traffic**
 - ITE Trip Generation Data
 - Project-Generated Traffic Volume Networks
- **Intersection Capacity Analyses**
- **Existing and Build Conditions Capacity Analysis Comparison Table**

EXHIBIT D

LOCATION AND DETAILS OF THE CONTINGENT EASEMENT

Conceptual Easement Area South Driveway

