GPI Greenman - Pedersen, Inc.
Engineering and Construction Services

April 13, 2022

Ms Lee Newman
Director of Planning and Community Development
Needham Department of Public Works
500 Dedham Avenue
Needham, MA 02492

ATTN: Mr. Thomas Ryder, PE
Town Engineer

Ms. Lee Newman
Director of Planning and Community Development

SUBJECT: Highland Science Center Peer Review
Proposed Scope of Work

Dear Mr. Hobbs:

As requested, ***Greenman-Pedersen, Inc. (GPI)*** is pleased to submit the attached Scope of Work for Engineering Services related to preparing a Peer Review of the traffic impacts associated with the proposed redevelopment of 557 Highland Avenue. The current proposal includes 506, 694 sf of rentable space with approximately 248, 347 SF of office space, 248, 347 SF of research and development space and approximately 10,000 SF of retail space. The project will accommodate up to 1,408 off-street parking spaces.

The work is anticipated to include the following:

SCOPE OF SERVICES

As part of the peer review, the CONSULTANT will:

- Verify the validity and accuracy of the analysis conducted by the developer's consultant, VHB with Town of Needham guidelines and standard engineering practice.
- Identify additional data or analysis required as part of the Traffic Impact Access Study (TIAS).
- Provide findings to the Planning Board.
- Assess the adequacy of the proposed mitigation to offset project impacts.
- Provide recommendations to the Planning Board on the need for additional measures to mitigate the impacts of the project on the adjacent roadway network.

The documents to be reviewed include:

- *Traffic Impact and Access Study for highland Science Center, Needham, Massachusetts;* prepared by VHB, March 2022

The following provides a detailed scope of services to be conducted by the CONSULTANT.

Task 1 – Initial Peer Review

The CONSULTANT will provide the following services in the performance of the proposed traffic peer review:

- Coordinate with the Town to discuss the history of the project, review project materials and request additional materials from the project proponent, if necessary, to complete a comprehensive review.
- Assess the adequacy of the proposed study area and, if necessary, make recommendations for additional study area intersection to be evaluated.
- Assess the appropriateness of the time periods for analysis included within the TIAS.
- Review that the study takes into account the effects of CoVID on the traffic analysis and is in compliance with the State's engineering directive on the effects of CoVID on traffic analyses.
- Conduct a field visit to observe existing field conditions, identify areas of existing concern related to traffic operations and access, verify sight distance measurements, and observe pedestrian, bicycle, transit, and vehicular activity.
- Review data collection techniques, methodology and seasonal adjustments / background growth, and compare traffic volumes with any other available counts from MassDOT or the Town of Needham.
- Review vehicle crash data from MassDOT and local police and input for crash rate worksheets.
- Review build-out condition analysis to ensure known planned developments have been factored into the analysis.
- Review trip generation methodology and compare with standard Institute of Transportation Engineers (ITE) data, as well as available empirical data collected at similar facilities.
- Review trip distribution methodology.
- Review the accuracy of the capacity and queue analysis performed by VHB.
- Review the site plan for adequate circulation and access (including emergency vehicles, pedestrians, bicyclists, buses, delivery vehicles, and tractor trailer trucks) and parking maneuvers.
- Evaluate the appropriateness of the location and alignment of the proposed access and egress driveways with respect to sight distances and proximity to other driveways along Central Avenue.
- Review the appropriateness of provisions for pedestrian access and circulation both on and off the site.
- Assess reasonableness of proposed mitigation measures, including Transportation Demand Management (TDM) measures, and provide recommendations on additional measures that may be required to mitigate project impacts or address other congestion, safety, access-related issues.
- Review compliance with the *Traffic Impact Study, prepared by GPI dated November 2020.*
- Review letters and documents prepared by town staff/officials.
- Summarize peer review findings and provide recommendations in an initial review draft Memorandum to the Planning Board. A copy of the Memorandum will also be delivered to the Department of Public Works, Town Engineer, Public Safety Officer, the Proponent, and the Proponent's engineer(s).

Following dissemination of the draft peer review Memorandum, a one (1) week review period will be provided to allow all parties receiving the draft Memorandum to provide comments or concerns to the CONSULTANT. Following the initial review period, the CONSULTANT will be provided one (1) week to revise the initial review Memorandum to address any comments or concerns raised on the draft Memorandum.

Task 2 – Response to Comments Review

It is anticipated that the Proponent or the Proponent's consultant will prepare at least one Response to Comments letter or memorandum to respond to comments raised by the CONSULTANT. The CONSULTANT will review this supplemental material for accuracy and compliance with the comments provided in the initial peer review. The CONSULTANT will then provide a final memorandum with recommendations on access/egress, site circulation, and measures required to mitigate the impacts of the proposed development.

The scope of services described above will be performed within two (2) weeks of receipt of all Response to Comments letters or materials to be reviewed.

Depending on the adequacy of the Proponent's response, the CONSULTANT will be available to review additional Response to Comments documents prepared by the Proponent and the Proponent's design team. Should more than one review of Response to Comments materials be required, a commensurate amendment to this contract may be required.

Task 3 – Meetings

Attendance at four (4) staff-level meetings with Town staff as well as attendance at four (4) public hearings (Planning Board or other review board) are included within this Contract.

The CONSULTANT will be available to attend additional meetings with Town staff, the Proponent, and/or the Planning Board, as requested by the Town. Should the Town or Proponent request the CONSULTANT's presence at additional meetings, an Amendment to this Scope and Fee will be required.

FEES:
The following table summarizes the costs and payment method of the tasks described in this Agreement. The schedule begins on the date written authorization to proceed is received. The schedule is also subject to the timely delivery of information to be provided to the CONSULTANT and is exclusive of delays caused by interim reviews.

TASK	Task Hours	TOTAL
1.0 -Peer Review of Traffic Memos	32	$ 5,197.76
2.0 - Site Visit/Assessment	6	$ 1,202.92
3.0 - Site Plan Review	24	$ 4,052.05
4.0 - Mitigation Plan/Concepts	36	$ 5,698.26
5.0 - Draft Report	28	$ 4,697.26
6.0 - Final Report	14	$ 2,348.63
7.0 - Meetings and Consultation	40	$ 11,154.00
Labor Subtotal	180	$ 34,350.89
Expenses		$ 300.00
TOTAL PROJECT DESIGN COST	**180**	**$ 34,650.89**

Should you have any questions, or concerns regarding this matter, please feel free to contact John W. Diaz at (978) 570-2953.

Very truly yours,

GREENMAN – PEDERSEN, INC.

John W. Diaz, P.E.
Vice President/Director of Innovation

	FEE PROPOSAL							
Contract ID# TBD	Engineering Services for Roadway Design, Rehabilitation and/or Repair Related Programs and Projects							
Assignment #								
Description	**Highland Science Center Peer Review**							
	Greenman-Pedersen, Inc. (GPI)							
TASK	**Project Director**	**Senior Engineer**	**ROW Engineer**	**Engineer**	**Assistant Engineer**	**Survey Tech**	**Survey Eng**	**TOTAL HOURS**
Direct Cost*	$ 97.50	$ 56.40	$ 45.50	$ 43.75	$ 33.77	$ 33.24	$ 39.50	
1.0 -Peer Review of Traffic Memos								
	4	16		12				32
SUBTOTAL	4	16		12	0	0	0	32
2.0 - Site Visit/Assessment								
	2	4						6
SUBTOTAL	2	4	0	0	0	0	0	6
3.0 - Site Plan Review								
	4	12		8				24
SUBTOTAL	4	12	0	8	0	0	0	24
4.0 - Mitigation Plan/Concepts								
	4	16		16	0	0	0	36
SUBTOTAL	4	16	0	16	0	0	0	36
5.0 - Draft Report								
	4	16	0	8	0	0	0	28
SUBTOTAL	4	16	0	8	0	0	0	28
6.0 - Final Report								
	2	8		4				14
SUBTOTAL	2	8	0	4	0	0	0	14
7.0 - Meetings and Consulation								
	40							40
SUBTOTAL	40	0	0	0	0	0	0	40
TOTAL HOURS	**60**	**72**	**0**	**48**	**0**	**0**	**0**	**180**
LABOR COSTS								
DIRECT LABOR COSTS*	* Labor vary by employee. Invoicing will be based on actual Direct Costs Plus Overhead and Fee							
Project Director		60		@			$ 97.50	$ 5,850.00
Senior Engineer		72		@			$ 56.40	$ 4,060.80
ROW Engineer		0		@			$ 45.50	$ -
Engineer		48		@			$ 43.75	$ 2,100.00
Assistant Engineer		0		@			$ 33.77	$ -
Survey Tech		0		@			$ 33.24	$ -
Survey Eng		0		@			$ 39.50	$ -
Direct Labor Cost								**$ 12,010.80**
Indirect Labor Cost (Overhead)					$ 12,010.80	x	160%	$ 19,217.28
Fixed Fee (10%)		10% x (	$ 12,010.80	+	$ 19,217.28	)		$ 3,122.81
TOTAL LABOR COST								**$ 34,350.89**
DIRECT COSTS (printing, mileage, equip, etc.)								$ 300.00
DATA COLLECTION (Sub-Consultant)								-
DIRECT EXPENSE SUBTOTAL								**$ 300.00**
TOTAL FEE								**$ 34,650.89**