

MEMORANDUM

Date: June 13, 2008

To: Wayland Planning Board

From: Kenneth Buckland, AICP LEED AP, The Cecil Group

RE: Recommendations on the Phase I Site Plan  
Review; Submission 1, May 12, 2008

Copies: Steven Cecil AIA ASLA, The Cecil Group

The Cecil Group's peer review of the May 12 Phase I Site Plan Review is attached as a series of tables. Recommendations are made regarding conformance with the MUOD Bylaw, MUOD Rules and Regulations, Master Special Permit and associated Special Permits, and the MUOD Design Guidelines for the building architecture and signage for the three buildings submitted.

The Cecil Group will be prepared to discuss our findings at the upcoming public hearing before the Planning Board scheduled for June 17, 2008.

## Wayland MUOD Phase I Site Plan Review

Prepared by The Cecil Group - 6/13/08

RE: Peer Review of Selected Building Components

Architectural design components of Buildings I-A, I-B, and I-C, in Building Envelopes IV, IVA, and VI

### Plans and Documents Submitted for Review

- Cover letter, written report and application, signed by Francis X. Dougherty, dated May 12, 2008
- Set of plans entitled, Site Plan I Approval Submission, stamped by George Tremblay, Architect, dated 2 May 2008

Tables referred to in this matrix and providing summaries of findings, follow this chart. The tables are:

- Building Program Uses and Areas
- Building-Street Setbacks
- Building Heights
- Building Materials
- Building/Tenant Signage
- Daylighting and Natural Ventilation
- Analysis of Conformance to section 2309.2.1-  
“authentic, New England regional character”

<u>Regulatory Standard/Reference</u>	<u>Applicability</u>	<u>Findings and Recommendations</u>
Zoning Bylaw [STM 2006] §198-2304. Approvals Process. 2304.4.4. Phase I Site Plan Review.	Applies to submission	Phase I Site Plan submitted for review
2304.4.4.1. Prior to the issuance of a building permit the Planning Board shall conduct a Phase I Site Plan Review.	Applies to submission	Phase I Site Plan application materials submitted for review and checked for completeness

2304.4.4.2. The applicant shall submit an application and plans showing:	Applies to submission	Phase I Site Plan application materials submitted for review and checked for completeness.
<ul style="list-style-type: none"> <li>• building design and elevations;</li> </ul>	Applies to submission	Approximate footprints, with floor plans, building materials, and elevations included in the submission.
<ul style="list-style-type: none"> <li>• signs;</li> </ul>	Applies to submission	Building/tenant identification sign locations, sizes and types included in the submission.
<ul style="list-style-type: none"> <li>• landscaping;</li> </ul>	Does not apply to submission	Information to be submitted in subsequent applications.
<ul style="list-style-type: none"> <li>• lighting;</li> </ul>	Does not apply to submission	Information to be submitted in subsequent applications.
<ul style="list-style-type: none"> <li>• parking;</li> </ul>	Does not apply to submission	Information to be submitted in subsequent applications.
<ul style="list-style-type: none"> <li>• compliance with the MUP Master Special Permit;</li> </ul>	Applies to submission	This document includes applicable criteria from the MUP Master Special Permit for review of compliance.
<ul style="list-style-type: none"> <li>• and any other documents required by the MUP Master Special Permit and the Planning Board's rules and regulations for the MUOD.</li> </ul>	Applies to submission	This document includes applicable criteria from the MUP Master Special Permit and MUOD Rules and Regulations for review of compliance.
The Planning Board shall review the application and plans to determine whether the proposed building(s) and associated improvements are consistent with:	Applies to submission	This document includes applicable criteria for review of compliance.
<ul style="list-style-type: none"> <li>• the performance standards set forth in Section 198-2309 and</li> </ul>	Applies to submission	This document includes applicable criteria for review of compliance.
<ul style="list-style-type: none"> <li>• the specific conditions of the MUP Master Special Permit.</li> </ul>	Applies to submission	This document includes applicable criteria for review of compliance.
<b>§198-2308. Dimensional Requirements and Aggregate Limits.</b>	Applies to submission	Compliance noted below

<b>2308.1.2. Maximum Building Height.</b> Height shall be as defined in Section 198-701.1.2, except that penthouses shall refer only to mechanical penthouses and that none of the items referred to in that section are used for occupancy purposes. Height shall be measured in accordance with the provisions of Section 198-104.2.	Applies to submission	Maximum building heights are in conformance with bylaw and Special Permits (see table – Building Heights).
<b>2308.1.3. Maximum Building Size.</b> No building shall exceed 60,000 square feet of Gross Floor Area.	Applies to submission	Maximum building size is in conformance (see table – Building Program and Uses).
<b>2308.2.</b> The total amount of development allowed under Article 23, exclusive of any uses related to a wastewater treatment facility, is limited to 372,500 square feet of Gross Floor Area, of which 40,000 square feet of Gross Floor Area can be used only for municipal uses. <b>2308.2.1.</b> The non-residential component of any Mixed-Use Project, exclusive of municipal uses and any uses related to a wastewater treatment facility, shall be limited to 165,000 square feet of Gross Floor Area. Not more than 156,750 square feet of such Gross Floor Area shall be dedicated to retail uses. Not more than 10,000 square feet of such Gross Floor Area shall be dedicated to office uses.	Applies to submission	Maximum building size in conformance (see table – Building Program and Uses).
<b>2308.3. Aggregate limits on sizes and numbers of individual establishments.</b> 2308.3.1. To ensure a mix of larger and smaller establishments devoted to retail, service, assembly or restaurant use, and without limiting the size or configuration of buildings, the size and number of individual establishments in the MUOD taken as a whole shall not exceed the following aggregate limits: [deleted for space]	Applies to submission	The submission includes Zone IVA which allows Categories B, C, D and E; and Zones IV and VI which allow Categories C, D, and E. Allowed building program and uses are indicated in Table A of the Master Special Permit decision (see below)
<b>§198-2309. Performance Standards.</b>	Applies to submission	Sections on Massing, Signs, and Efficiency of Design directly apply to this building design proposal.
<b>2309.2. Massing.</b>	Applies to submission	Compliance as noted below.
<b>2309.2.1.</b> Massing within the MUOD should promote buildings designed in a traditional New England style and create a Mixed-Use Project with an authentic, New England regional character to its buildings.	Applies to submission	The individual elements are individually related to the New England regional style of architecture. The individual building critiques are in the table -

		Analysis of Conformance to section 2309.2.1- “authentic, New England regional character.”
2309.2.1.1. Any buildings proposed for a Mixed-Use Project shall provide visual relief, generally every 30 feet, along the façade of each building.	Applies to submission	<p>The standard is generally met with two exceptions. Those exceptions are:</p> <ul style="list-style-type: none"> <li>• The East and West facades of Building 1-B have continuous walls without vertical changes or openings for lengths of 34ft and 32ft, respectively.</li> <li>• The East façade of Building 1-C is a continuous wall without vertical changes or openings for a length of 43ft.</li> </ul> <p>The West façade of Building 1-B and the East façade of Building 1-C are the walls which line one of the proposed mews for this Building Envelope. The separation of the buildings, landscape and hardscape treatments, and lighting for this passage should be designed to make the connection attractive and compensate for the adjacent walls.</p> <p>It is recommended that the Planning Board find appropriate conformance with this standard conditional on approval of the landscape and streetscape submissions that show the proposed treatment.</p>
2309.2.1.2. Building design throughout a Mixed-Use Project shall include designs which promote visual relief by including varying roof lines and roof heights.	Applies to submission	<p>The submission includes a design with visual relief. However, reference is made to the discussion under 2309.2.1.</p> <p>It is recommended that the Planning Board only find conformance after determining the conformance with 2309.2.1.</p>
2309.2.1.3. A Mixed-Use Project shall include residential buildings and buildings with multiple non-residential uses and a mix of buildings containing single or multiple	Applies to submission	The submission proposes a mix of buildings with multiple establishments.

establishments.		It is recommended that the Planning Board find conformance with the mix of uses specified.
<b>2309.4. Signs.</b>	Applies to submission	Conformance as noted below.
2309.4.1. Signage must (a) be in keeping with a traditional New England town center; and (b) be integrated into the overall architectural design of the Mixed-Use Project.	Applies to submission	<p>The signage does indicate traditional placements and types. However, the repeated placement of the signs at the same locations and with the same sizes does not represent a typical, traditional main street. Some offsets and more variations would be acceptable and could significantly liven the feel of the facades and street. The allowed variations could be included as a condition of the approval of these plans.</p> <p>The signage shown is considered integrated with the overall architecture.</p> <p>It is recommended that the Planning Board find conformance with this section but encourage greater variations in tenant signs.</p>
<p>2309.4.2. The following dimensional standards apply: Excerpt: Category E:</p> <p>Single Primary Wall Sign up to 40 sq.ft.</p> <p>Single Secondary Wall Sign up to 25 sq.ft.</p> <p>An establishment can have only one primary wall, to be designated in the signage plans referenced in Section 2309.4.6. All other designations will be made in the signage plans.</p>	Applies to submission	<p>Tenant signage proposals for buildings indicated on Drawing A.4.1. Areas and placements conform to requirements (See table – Building Signage).</p> <p>Primary and secondary walls are indicated by sign designation. All establishments in a single building have the same secondary and primary walls. An allowance for variation for each establishment may be appropriate. However, the windows and door openings have otherwise reinforced the primary and secondary wall designations.</p> <p>It is recommended that the Planning Board find the implied designations in conformance with this section.</p>

2309.4.3. For Size Category B, the allowed aggregate area of an establishment's main signs on the primary wall can be up to 90 sq.ft.	Does not apply to submission	No Category B buildings are included in the proposal.
2309.4.4. For all Size Categories, the aggregate area of signage will be determined by special permit.	Applies to submission	The Special Permit allows up to 6,384sf for Category E buildings, with an aggregate of 6,860sf total. The individual and total signage proposed is found in conformance with the Special Permit (see table – Building/Tenant Signage).
2309.4.5. Signs may be illuminated externally, but no sign can be illuminated internally.	Does not apply to submission	Lighting plan not yet submitted.
2309.4.6. The applicant shall prepare signage plans indicating aggregate signage, maximum sign area, and proposed lighting, demonstrating that signs and proposed lighting will comply with Section 198-2309.4, Section 198-501 (except that the area and height limits specified in Section 198-501.1 shall not apply), and the Planning Board's rules and regulations for the MUOD.	Applies to submission	<p>Tenant signage proposals for buildings indicated on Drawing A.4.1. Areas and placements conform to requirements (See table – Building/Tenant Signage). See also discussion in the above sign sections.</p> <p>Lighting plans are not included in this submission.</p> <p>The review of conformance with the MUOD Rules and Regulations is in a separate section of this matrix.</p>
2309.4.7. By special permit, the Planning Board may allow signage that varies from that which is permitted in Section 198-501.1 and Section 198-2309.4, including signage not on the same premises as the building, structure, or use to which the signage pertains (provided the signage is still within the MUOD).	Applies to submission	A Special Permit for signage was issued with the Master Special Permit decision. The proposal is found in conformance with the standards of the Special Permit.
<b>2309.12. Efficiency of Design.</b>	Applies to submission	Conformance noted below.
2309.12.1. Every effort shall be made to design buildings and use materials and construction techniques to optimize daylight in building interiors, natural ventilation, and energy efficiency; to minimize exposure to and consumption of toxics and non-renewable resources; and to incorporate appropriate "green" design techniques.	Applies to submission	Information on natural ventilation, energy efficiency, exposure to and consumption of toxics and non-renewable resources, and appropriate "green" design techniques is not included in the submission.

		See table – Daylighting and Ventilation
<b>MUOD Rules and Regulations [April 24, 2008]</b>		
<b>ARTICLE IV Phase I Site Plan Review</b>		
<b>§ 304-12. Required Submittals.</b>		
<b>A. Application for Phase I Site Plan Review and Approval.</b>	Applies to submission	Compliance as noted below.
(1) The Application Form for Phase I Site Plan Review and Approval as provided by the Planning Board.	Applies to submission	Submitted
(2) As part of the submittal of the Application for Phase I Site Plan Review and Approval, as set forth in these regulations, the applicant shall provide the information listed in § 304-12.	Applies to submission	Submitted
(3) In accordance with §304-6, the Planning Board may waive any information requirements listed below in the review of a particular application.	Applies to submission	Waiver for information are necessary for the submission and are considered appropriate to the application
(4) For the purpose of this Article, the word “existing” shall not refer to any structure, sign, light, or other element in existence on the site prior to the date of the adoption of this Article that is intended to be removed or demolished.	Applies to submission	Use of word “existing” is addressed in the submission.
<b>B. List of Requested Waivers.</b> Any request for a waiver from these regulations shall be submitted as part of the application, which may be amended by letter before the Site Plan Application hearing is closed. Said requests shall include a statement that clearly identifies the provision or provisions of these regulations from which relief is sought and a statement setting forth the reason or reasons why, in the applicant's opinion, the granting of each such waiver would be in the public interest and not inconsistent with the intent and purpose of the Zoning Bylaws and these regulations.	Applies to submission	Information submitted only applies to the architectural plans for the three buildings. Appropriate waivers are requested for all site- and utility-related requirements.
<b>C. Site Plan Application Plans and Drawings.</b>		
(1) General Requirements.	Applies to submission	Compliance as noted below.
a. Plan sheets shall not be larger than 24 by 36 inches and shall be clearly and legibly drawn.	Applies to submission	Submitted



b. Each set of plans shall have a cover sheet depicting the USGS locus map, an appropriate title block, an index of plan sheets, and the numbering system used on the sheets. Legends of symbols can be presented on a drawing or on each drawing as determined by the design professional developing the drawing.	Applies to submission	Submitted
c. Each plan sheet shall contain an appropriate title block, North arrow (plan view civil drawings only), and scale of measurement.	Applies to submission	Submitted
d. Each plan sheet shall be stamped and certified by an appropriate Massachusetts licensed registered professional such as an architect, landscape architect, land surveyor, and/or professional engineer.	Applies to submission	Submitted
e. Site grading for existing and proposed conditions. Proposed site grading should refer to the National Geodetic Vertical Datum, and identify the location and elevation of existing permanent benchmarks on the site. If no benchmarks exist on-site, then proposed benchmarks should be depicted.	Does not apply to submission	
f. Base plans shall be prepared so that layers of information can be later combined in a single plan sheet.	Applies to submission	Submitted
(2) Any site plan for which an applicant seeks approval shall be presented at a suitable scale, which shall be shown on each sheet of said plan. Said plan shall be clearly and legibly drawn, so as to fully depict and detail the intentions of the applicant. A site layout plan shall be submitted in a form suitable for recording.	Applies to submission	Submitted plans provide the requested information. Notations are included where additional detail is recommended to complete the required findings and decision.
(3) The use of multiple sheets in preparation of the site plan is encouraged if the submission of the plan on a single sheet renders the information unreadable or confusing. These sheets shall be labeled such that the labels may serve to distinguish these multiple sheets (i.e. General Site Plan, Utility Plan, Landscape Plan, and Details Plan); however, applicants should present the information in the most effective manner. Where multiple plan sheets are used, an index and numbering system shall be provided for	Applies to submission	Submitted

convenience.		
(4) The cover sheet shall include an appropriate title block and North arrow. Space shall be provided for endorsement, including the date, with the caption "Date Site Plan Endorsed: _____."	Applies to submission	Cover sheet includes all information except for North arrow. However, USGS map indicates north/south and east/west.
(5) A checklist of all of the items listed in this section, Sections §304-12 Subsections A through E, shall be included with the application, with each item marked either "Applicable, see site plan, sheet(s) No. ____" or "Not applicable, request for waiver submitted." The site plan drawings shall provide the following information, as applicable (all lines, boundaries, setbacks, etc., must be labeled and must show precise dimensions and directions and all lots, districts, footprints, etc., must show precise areas, in acres and in square feet):	Applies to submission	The May 12 submission lists the requirements but does not indicate which sheet provides the information. With the few sheets submitted, the information can be found. However, it is recommended that future submissions include the cross-referencing.
a. The plans shall show all of the following general site characteristics on or related to the site:	Applies to submission	Compliance as noted below.
1. The locus at a scale of one inch equals 1,000 feet for a minimum radius of 1/2 mile centered on the site shall be shown on one sheet	Applies to submission	Submitted
2. At a minimum one sheet shall depict a legend identifying any representative symbols used on the plans in the application.	Does not apply to submission	Waiver requested and acceptable for this submission.
3. Lot lines and boundaries of the site, with permanent bounds, and abutters with their property lines indicated shall be shown on at least one sheet	Does not apply to submission	Waiver requested and acceptable for this submission.
4. Existing and proposed easements shall be shown on at least one sheet.	Does not apply to submission	Waiver requested and acceptable for this submission.
5. Existing and proposed internal and adjacent private and public rights-of-way, edges of pavement and other surface and subsurface features within said rights-of-way shall be shown on at least one sheet.	Does not apply to submission	Waiver requested and acceptable for this submission.
6. Zoning districts (including the Floodplain and Aquifer Protection Districts) shall be shown on at least one sheet.	Does not apply to submission	Waiver requested and acceptable for this submission.

7. Existing and proposed topography at two-foot intervals, referenced to the National Geodetic Vertical Datum, with the location and elevation of the permanent benchmark, plus at least two additional permanent benchmarks on the site.	Does not apply to submission	Waiver requested and acceptable for this submission.
8. Areas intended for use as open space shall be shown on at least one sheet.	Does not apply to submission	Waiver requested and acceptable for this submission.
9. Wetlands and wetland buffers, as defined in MGL c. 131, § 40 shall be shown on at least one sheet.	Does not apply to submission	Waiver requested and acceptable for this submission.
10. Watercourses and water bodies, including ponds, streams, brooks and ditches shall be shown on at least one sheet.	Does not apply to submission	Waiver requested and acceptable for this submission.
11. Special site features, including stone walls, fences, historic structures, ledge outcroppings, large trees, etc shall be shown on at least one sheet.	Does not apply to submission	Waiver requested and acceptable for this submission.
b. The plan set shall include drawing(s) that collectively show all of the following site improvements on or related to the site:	Applies to submission	Compliance as noted below.
1. The outline or footprint of existing and proposed structures.	Applies to submission	Proposed building footprints shown for three structures 1-A, 1-B and 1-C. Existing building footprint in this area is the existing office building which is to be demolished.
2. Building design and elevations of the front, sides and rear of existing and proposed structures; with materials, colors, and maximum heights indicated.	Applies to submission	Colors of the materials are not indicated in the submittal transmitted to this office. General information on the proposed building façade materials is indicated.
3. A table summarizing the gross floor area proposed for the retail, office, municipal, and residential uses.	Applies to submission	Table is provided in the submittal. Additional summary of building program and uses is shown in table – Building Program and Uses.
4. Setbacks to either the property line or the prominent curb line as defined in the MUOD zoning or the Master Special Permit decision, including building envelope as applicable, for proposed structures and parking and loading facilities.	Applies to submission	Waiver requested and acceptable for this submission.

5. Existing and proposed signs.	Applies to submission	Tenant and building signs shown on the submitted plan A4.1 (see table – Building/Tenant Signage).
6. Existing and proposed lighting.	Does not apply to submission	Waiver requested and acceptable for this submission.
7. Proposed landscaping, buffer area plantings, and other screening elements.	Does not apply to submission	Waiver requested and acceptable for this submission.
8. Areas intended for outdoor storage, indicating whether fenced or enclosed.	Does not apply to submission	Waiver requested and acceptable for this submission.
9. Underground storage containers for fuel or other chemical storage, including type, capacity, and anticipated contents of each container.	Does not apply to submission	Waiver requested and acceptable for this submission.
10. Existing and proposed sidewalks, walkways, driveways and accesses to the site.	Does not apply to submission	Waiver requested and acceptable for this submission.
11. Existing and proposed parking and loading facilities, including any proposed landscaped areas within the perimeter of a parking facility. Number and location of parking spaces, including handicap spaces, must be shown on the plan. Areas proposed for reserve parking shall be identified.	Does not apply to submission	Waiver requested and acceptable for this submission.
C.(5)c.1.-7., C.(5)d1.-5., and C.(5)e.1.-4.	Do not apply to submission	Waiver requested and acceptable for this submission.
<b>D. Written Submittals.</b>	Applies to submission	Compliance as noted below.
(1) Documentation demonstrating how the Phase I Site Plan Application incorporates the conditions and recommendations of the Master Special Permit shall be submitted.	Applies to submission	A written report is provided and addresses requirements and requested information.
(2) It is recognized that multiple Site Plan Applications may be provided for the Mixed Use Overlay District project due to anticipated construction and/or market phasing.	Applies to submission	A schedule has been provided and discussed.

<b>MIXED USE PROJECT MASTER SPECIAL PERMIT, SPECIAL PERMITS AND SITE PLAN APPROVALS DECISION – CORRECTED [January 17,2008]</b>		
Board hereby grants:  a.) a master special permit pursuant to §198-2304.3 of the By-Laws for the construction of a MUP on the Locus consisting of up to (i)165,000 square feet of gross floor area (“GFA”) which shall be used for nonresidential purposes as set forth in Table A of Article 23 of the By-Laws, exclusive of municipal uses and any uses related to a wastewater treatment facility;	Applies to submission	Total building area in this submission is less than that allowed by the decision.
b.)a special permit pursuant to §198-2305.3 of the By-Laws to exceed the 35-foot maximum height of structures allowing... (ii) a maximum building height of 42 feet for buildings containing second story office within Building Envelopes III, IV, VI and VII (nonresidential); and	Applies to submission	The proposed buildings are located in Building Envelopes IV, IVA, and VI; where the building in IV/IVA includes second floor office (See table – Building Heights).  It is recommended that Building 1-A utilize the maximum height option of 42ft to provide a more substantial presence at the end of the straight section of Street “A.” See also discussion in table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character.”
c.) a special permit pursuant to Table B of Article 23 to reduce the minimum setbacks for buildings and structures of 15 feet from the edge of curb to allow (i) a minimum setback of 13 feet and 6 inches (13” 6”) along Major Streets as defined in Condition IV B 1 a.) in the MUP, measured from the predominant curb line, excluding pedestrian bump-outs; (ii) no minimum setback from other roadways or parking areas in the MUP;	Applicant has requested a waiver for site plan information for this submission.	Street layout has not yet been set and the setbacks can not be measured at this time.
d.) a special permit pursuant to Table A of Article 23 of the By-Laws to allow restaurants with outdoor seating in such locations as may be approved in Phase I Site Plan Review;	Applicant has requested a waiver for site plan	No streetscape or site plans have been prepared for this submission.

	information for this submission.	
e.) a special permit pursuant to Table A of Article 23 of the By-Laws to allow a bank with drive-up windows;	Applicant has requested a waiver for site plan information for this submission.	Submitted building plans do not indicate a drive-up window.
f.) a special permit pursuant to §198-2309.4.4 of the By-Laws to allow (1) aggregate area of wall signage for establishment size categories as follows:	Applies to submission	Zone IVA allows Categories B, C, D and E; Zones IV and VI allow Categories C, D, and E.
Size Category A - 586 square feet; Size Category B - 540 square feet; Size Category C - 504 square feet; Size Category D - 840 square feet;	Do not apply to submission	Categories of establishments not indicated in this submission
Size Category E - 6,384 square feet;	Applies to submission	Aggregate of signs proposed are less than total allowed (see table – Building/Tenant Signage)
with an aggregate of 6,860 square feet for all establishment size categories collectively	Applies to submission	Aggregate of signs proposed are less than total allowed (see table – Building/Tenant Signage)
b.) a modification of the off-street loading requirements of §198-507.1 of the By-Laws to allow loading for establishments in size Categories B, C, D and E without a loading dock, though any door of the establishment, unless otherwise specified in Phase I Site Plan Review as to Size Category B establishments.	Applies to submission	Submitted building plans do not include proposed locations for loading docks. This is acceptable for the indicated Size Category E establishments.
<b>Consistency with Plans.</b> Construction and development of the MUP shall be consistent with the plans approved in Phase I Site Plan Review, except for <i>de minimis</i> variations. [edited for space]	Applies to submission	The submitted building plans do not include a site layout, so site dimensions do not apply to this submission. However, the buildings are located where the Master Special Permit Exhibit A indicates the buildings.  The building heights vary from the maximum allowed in the Special Permit. However, those values are considered an allowance and not a requirement.

B. Site Design and Layout 1. Streets, Ways, Driveways and Passageways (including sidewalks, crosswalks, mews, bike paths and public green).	Applies to submission	Compliance as noted below.
a.) <b>Layout and location; relocation.</b> ... Not less than two (2) mews shall be provided within each of Building Envelopes III, VI and VII to provide pedestrian access between parking areas and the applicable major streets and/or the Public Green; provided that if buildings are not constructed on both sides of any such access way, then the same may be constructed as a walkway rather than a mews.	Applies to submission	The submission indicates the location of one of the mews in building envelop VI, by the positioning of the two adjacent buildings. While the streetscape and landscape treatments are not shown, the building walls facing and defining the mews are described. The building design and architectural character are discussed below in this context.
2. <b>“Zones” - Locations of Uses.</b> The locations of allowed uses within the MUP shall be as shown on the plan entitled “Building Envelopes” and as set forth in Table A below.	Applies to submission	The proposed buildings are in compliance with the Building Envelopes shown in Exhibit A, and the Table A (see table – Building Program and Uses).
b.) <b>Commercial.</b>	Applies to submission	All uses of the submitted buildings are commercial uses.
(i) <b>Definition of categories of interchangeable uses for establishments not requiring Phase II Site Plan Review.</b> Each of the following separately (i.e., changes from one numbered category listed here to another are not interchangeable, except for changes between accessory uses and their principal uses) constitutes an MSP-defined category of interchangeable uses: [as below]	Applies to submission	Compliance as noted below.
(1) All office uses other than diagnostic medical laboratories appurtenant to offices of physicians and dentists and bank or financial institution with drive-up window.	Applies to submission	All uses of the submitted buildings are commercial uses for Category E uses and office.
(2) All retail uses other than the food store located in the Size Category A Establishment.	Applies to submission	All uses of the submitted buildings are commercial uses for Category E uses and office.
(3) All service establishments other than printers and similar shops and trades and dry cleaning or laundry establishment (as distinguished from “pick-up station”).	Applies to submission	All uses of the submitted buildings are commercial uses for Category E uses and office.
(4) All restaurants.	Applies to submission	All uses of the submitted buildings are commercial uses for Category E uses and office.

(5) All accessory uses.	Applies to submission	All uses of the submitted buildings are commercial uses for Category E uses and office.
(ii) The Applicant shall make reasonable efforts to include a Size Category B establishment in Building Envelopes VIII and III or IV, but not both III and IV with none in VIII, unless the Applicant presents an architectural design that minimizes the apparent size, scale and mass of one or both of such buildings in III and IV, as reasonably determined by the Board during Phase I Site Plan Review.	Applies to submission	<p>Building 1-A is within Building Envelope IV. The proposed floor and signage plans are divided and numbered for Category E uses.</p> <p>This item should remain open until subsequent submittals define the remaining buildings.</p>
(iii) During Phase I Site Plan Review, the Board reserves its right to require that buildings in Building Envelopes III and IV be located as close as possible to the minimum setback from Street "A". Where building setbacks are greater than 13 feet 6 inches from the predominant curb line, additional activity areas such as outdoor cafés and plazas, or landscaped relief and walkways shall be shown on plans presented during Phase 1 Site Plan Review, except for Building Envelope V.	Applies to submission	<p>Building 1-A is located in Envelop IV and is proposed at approximately the same location shown on the Master Special Permit diagram, Exhibit A. However, no site plan or street layout has been submitted to allow a determination of the resulting setbacks.</p> <p>This item should remain open until the site plan and street layout are submitted.</p>
(iv) To the extent applications for Phase I Site Plan Review and Approval as to each of Building Envelopes III, IV, VI, VII and VIII do not present for approval all buildings contemplated to be located within the applicable Building Envelope, the Applicant shall include generic representations of any such buildings not presented for approval within the applicable Building Envelope (the "Reserved Buildings"). When the Applicant presents any Reserved Buildings for Phase I Site Plan Review, such Phase I Site Plan Review shall be limited to the elements not previously presented and approved and shall be conducted as expeditiously as possible.	Applies to submission	<p>Buildings 1-B and 1-C are located within Envelope VI. The submission shows three storefronts for Building 1-B and five storefronts for Building 1-C. This is substantially what was shown on the Master Special Permit diagram, Exhibit A.</p> <p>The submission also includes a partial representation of the continuation of Building 1-C. This was not indicated on the Master Special Permit diagram, Exhibit A. There were four buildings in Envelope VI indicated on the Master Special Permit diagram, Exhibit A. The implication is that two of the buildings may be attached to continue the line of storefronts on Major Street "A." The previously indicated mews on Street "A" between the buildings will be closed off with this configuration. However,</p>



		<p>that is considered acceptable with the mews proposed in this submission between Buildings 1-B and 1-C, and the crossing Street “B” providing alternate pedestrian access.</p> <p>It is recommended that this change in building configuration be considered acceptable.</p> <p>The submission does not represent the remaining building in Building Envelope VI shown on Exhibit A in the same way as the continuation of Building 1-C. This remaining building will be necessary within Envelope VI as a separate structure related to the others to create the second mews called for under the MSP decision conditions Site Design and Layout, B.1.a.</p> <p>It is recommended that the Planning Board determine:</p> <ol style="list-style-type: none"> <li>1. Whether the application is in conformance with this condition as the last building indicated in Envelope VI is not represented in the same way as the extension of Building 1-C; and</li> <li>2. Whether the last building in Envelope VI is one of the “Reserved Buildings” when it has not been represented in this submission.</li> </ol> <p>This section notes that the Planning Board may approve elements of the Reserved Buildings in this Phase I Site Plan Review. It is recommended that the Board approve the connection of the buildings.</p>
<b>3. Buildings</b> <b>a.) Design and architectural character.</b>	Applies to submission	Compliance as noted below.
(i) Buildings in the MUP shall be designed in a traditional New England style and substantially in accordance §198-2309.2.1.1 and §198-2309.2.1.2 of the By-Laws, as determined by the Board in Phase I Site Plan Review.	Applies to submission	Discussion on conformance included in MUOD Bylaw sections above and in the table - Analysis of Conformance to section 2309.2.1- “authentic, New

		England regional character”
Every effort shall be made to design buildings and use materials and construction techniques to optimize daylight in building interiors, natural ventilation, and energy efficiency; to minimize exposure to and consumption of toxics and non-renewable resources; and to incorporate appropriate “green” design techniques.	Applies to submission	<p>Daylighting and ventilation options are summarized in the table Daylighting and Natural Ventilation.</p> <p>Proposed façade materials shown in the submission could incorporate recycled material.</p> <p>Other green design techniques are available to the developer to apply as appropriate.</p>
Board shall use as guidance (A) the building design guidelines promulgated by the Board for the Concept Plan Phase of the MUP application process and (B) the applicable illustrative portions of the plans submitted by the Applicant and referenced in Part I of this Decision. Although said portions of the plans and guidelines are not binding on the Applicant or the Board, they constitute a basis for the Board’s evaluation of plans and drawings submitted to the Board during Phase I Site Plan Review, and if the Board believes there to be a material departure from the style of architecture set forth in said portions of the plans and guidelines, then, at the Board’s request during Phase I Site Plan Review the Applicant shall explain and show the manner in which any particular elements identified by the Board in such request have precedents in authentic buildings or structures that the Applicant considers to conform to a traditional New England style and the Board shall determine whether the proposed design so conforms.	Applies to submission	<p>The building design guidelines are discussed below in a separate section.</p> <p>The discussion on the conformance with the applicable sections of the bylaw and the submissions is discussed above.</p> <p>The recommendation is to consider the suggestions and recommendations of this report before deciding on conformance.</p>
b.) <b>Height.</b> The maximum height of all buildings in the MUP shall be 35 feet, except where a greater height is allowed by this decision.	Applies to submission	Building 1-A is provided relief by Special Permit for greater height (42’). Buildings 1-B and 1-C are below the maximum height (see table –Building Heights).

c.) <b>Envelopes.</b> Subject to the limitations in Paragraph IV B 2 above, the buildings in the MUP shall be constructed within the building envelopes as shown on Exhibit A.	Applies to submission	The proposed Building 1-A is shown within Envelopes IV and IVA, and Buildings 1-B, and 1-C are shown within Envelope VI. The proposed uses are Size Category E and the proposed building program conforms to the regulations and decision (see tables – Building Program Uses and Areas, and Building-Street Setbacks).
5. <b>Loading.</b> a.) <b>Establishment Size Categories B, C, D and E.</b> Loading is permitted without a loading dock though any door of the establishment, unless otherwise specified in Phase I Site Plan Review as to Establishment Size Category B.	Applies to submission	At present, all of the Buildings are proposed with Size Category E uses. Consequently no loading dock is required.
E. Signage	Applies to submission	Compliance as noted below.
1. <b>Compliance with By-Laws.</b> All exterior signs in the MUP shall comply with the provisions of §198-2309.4 of the By-Laws, except where variations for such requirements are permitted by special permit(s) issued by the Board.	Applies to submission	The allowances for exterior signage have been further clarified by the MSP decision attachment, Signage Summary.
5. <b>Tenant-Establishment Signs.</b> a.) Wall signs.	Applies to submission	Compliance as noted below.
(i) Wall signs for commercial establishments in the MUP shall comply with the dimensional requirements of §198-2309.4.2 and §198-2309.4.3 of the By-Laws.	Applies to submission	<p>The proposed buildings show single sign, primary wall and secondary wall tenant signs which conform to the dimensional requirements under the Bylaws for Size Category C, D, and E uses.</p> <p>It is recommended that the Planning Board find the proposed tenant signage consistent with this standard.</p>
(ii) The aggregate area for signage for wall signs for each size category of establishment shall be as set forth in Paragraph 1 of the Signage Summary.	Applies to submission	The Size Category E uses have an allowed aggregate of 6,384sf, whereas total aggregate signage proposed is calculated to be 1,108sf. This portion proposed under the submission is equivalent to about 17.3% of the total aggregate allowed signage which is

		<p>equivalent to the portion of maximum building area. Consequently, this signage detail could be used consistently throughout the project. This analysis does not include miscellaneous signs.</p> <p>It is recommended that the Planning Board find the proposed tenant signage consistent with this standard.</p>
(iii) Primary and secondary walls for wall signs for purposes of § 198-2309.4.2 shall be designated during the Phase I Site Plan Review Process.	Applies to submission	<p>The primary and secondary walls are defined by the location of sign types on sheet A4.1 of the submission (see table – Building/Tenant Signage).</p> <p>It is recommended that the Planning Board find the walls designated as per the sign type.</p>
<p>b.) Blade, awning and identification signs.</p> <p>(i) The numbers and areas of blade, awning and identification signs for each size category of establishment shall be as set forth in Paragraph 2 of the Signage Summary.</p>	Applies to submission	<p>The blade and awning signs are indicated on the sheet A4.1. The identification signs (ID/Hours/Misc.) are not indicated on the plans.</p> <p>The recommendation is that the decision includes a finding that the Size Category Uses shown are allowed an additional 5sf of ID signs in addition to those signs shown in the Phase I Site Plan Review submission. Locations of these signs could be clarified for the building permit review with specific criteria.</p>
c.) Consistency with Plans. All tenant establishment signage within the MUP shall be designed and constructed substantially in accordance with plans approved in Phase I Site Plan Review.	Applies to submission	Appropriate as a condition of an approval.
<b>MUOD Design Principles</b>	Applies to submission	The building design principles apply as guidance in accordance with the conditions of the Master Special

		Permit decision. Compliance is noted below.
<p>2. Massing</p> <p>Summary of bylaw: Design according to traditional New England style and authentic New England regional character.</p>	Applies to submission	Discussion on conformance is found in the table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character”
<p>a. Building scale and shapes - A range of building size and roof forms is considered typical of the New England regional character of village centers that is consistent with the image and history of Wayland. Highly repetitive building forms, sizes or scales are not in keeping with this tradition. Variations in articulation of the facades can also add to the visual interest. However, whereas traditional centers were built with the buildings relating to one another, too highly varied building forms do not create an identity of place. The designers should consider both aspects in the design.</p>	Applies to submission	The discussion found in the table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character,” notes the repetitive elements of the base and the varied rooflines within the individual building forms of Building 1-B and 1-C.
<p>b. Hierarchy - The design of the buildings and location of uses should create distinctions in use and design. Commercial building elements should allow easy recognition of the uses, entrances and areas that are intended to invite and engage the public and reflect the more traditional New England main street of compact, closely-knit buildings that support a pedestrian environment. Residential buildings should be designed and articulated to suggest a scale appropriate to a suburban and rural area, and provide private views and spaces for the residents. Mixed-use buildings should provide combinations of the use indicators, but focus on the commercial and pedestrian aspects. Entrances, signs and windows area some of the key elements that should distinguish and differentiate the uses and spaces.</p>	Applies to submission	See discussion found in the table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character.”
<p>c. Historic context - “To a great extent, the personality and individuality of a town like Wayland is the result of its early history...” The Applicant is encouraged to examine the historic building patterns, materials, forms and planning principles that guided settlement in Wayland. The Wayland Public Library is a valuable example of a public building. Important historic buildings such as the Knights of Labor/Grange Hall and the Griffin House should be</p>	Applies to submission	See discussion found in the table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character.”

researched for elements applicable to the largest buildings. Beyond respect for indigenous architecture, applicants are also encouraged to research Wayland's historical past for events which may deserve commemoration. Refer also to the Attachment, Historical Images.		
d. Proportional building heights - Heights of buildings should be scaled in proportion to the existing and historic character of Wayland. Public buildings and institutions are usually the tallest structures. Traditional and unique architectural elements in the public buildings can establish these buildings as special places. Commercial buildings may typically be one story, but variations in the dimensions created by multiple stories and traditional roof outlines may appropriately add bulk to the building mass.	Applies to submission	Building heights are reviewed in table – Building Heights. Design of the rooflines is discussed in table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character.”
e. Buildings with individual integrity, not complexes - Traditional New England communities that should serve as a source for massing were created with separate buildings on individual lots. Rooflines should not imply the character of large connected complexes of uses within more massive, connected structures. While multiple uses and multiple storefronts are traditionally combined within a single building, each building appears to have its own integrity visible in its massing and the sense of distinction that was historically associated with different ownerships.	Applies to submission	Massing of the buildings is discussed in table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character.”  The differences between Building 1-A and the other two buildings, 1-B and 1-C, highlight these issues.
f. Varied roof profiles - The rooflines should provide a varied profile against the sky as seen from the internal circulation network and as may be visible from surrounding areas.	Applies to submission	The rooflines are designed to be in keeping with this concept. However, the discussion in table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character,” notes the issues with the Building 1-B and 1-C rooflines and styles.
g. Simplicity of forms - The varied roofline should not be continuous in materials and color over multiple storefronts, unless clearly associated with the building façade. In general, roof forms should be simple and avoid excessive articulation. Avoid the use of applied roofs as merely decorative elements.	Applies to submission	The discussion in table - Analysis of Conformance to section 2309.2.1- “authentic, New England regional character,” notes the issues with the Building 1-B and 1-C rooflines and styles.
j. Mix of commercial uses - The Mixed Use Project should take full advantage of the MUOD bylaw that allows	Applies to submission	The proposal is in keeping with this concept.

multiple, small-scale commercial uses that will be integrated with one, medium-scale commercial use within the district. The careful use of signage to distinguish and engage is encouraged to accomplish this integration. Also refer to: 4. Signs, below.		
4. Signs	Applies to submission	See discussion of conformance below.
Summary of bylaw: According to a traditional New England town center; and integrated with the architectural design.		
a. Historic qualities – The signage should reflect the historic and architectural qualities of the buildings. Flush signs, blade/projecting signs, and awning signs can be used where appropriate.	Applies to submission	The proposal is in keeping with this concept.
c. Message - Signs should present a clear message and be compatible in terms of type, size, color, and material with the building they serve.	Applies to submission	The proposal is in keeping with this concept. However, greater variation in signage is discussed in the MUOD Bylaw sections above.
d. Placement - The style and placement should complement the architectural character of the building. Signage that covers or obscures significant architectural details of the building should be avoided.	Applies to submission	The proposal is in keeping with this concept.
e. Multiple storefronts - In a multiple storefront building, the signage should be of a size, location, material and color that relates harmoniously between bays.	Applies to submission	The proposal is in keeping with this concept. However, greater variation in signage is discussed in the MUOD Bylaw sections above.
End of Review Comments		

## Summary Tables of Standards and Findings

### Prepared by The Cecil Group

#### Building Program Uses and Areas

Building Designation	Envelope/ Zone	Allowed Building Categories	Use Designation (by floor plan and signage)	Proposed Uses	Total Floor Area	Floor Area w/o mechanical	<u>Findings</u>
Bldg 1-A	IV and IVA	B,C,D,E	7 – Category E spaces	Office	8,000sf	7,500sf	Conforms to use and dimensional standards
				Retail/Restaurant	7,963sf	6,800sf	Conforms to use and dimensional standards
Bldg 1-B	VI	C,D,E	3 - Category E spaces	Retail/Restaurant	7,769sf	6,635sf	Conforms to use and dimensional standards
Bldg 1-C	VI	C,D,E	5 – Category E spaces	Retail/Restaurant	10,715sf (partial structure)	9,108sf (partial structure)	Conforms to use and dimensional standards

#### Building-Street Setbacks

Building Designation	Envelope/ Zone	Maximum Setback from Main Street	Maximum Depth from Main Street	Minimum Setback	Proposed Setbacks	<u>Findings</u>
Bldg 1-A	IV and IVA	80ft	220ft	13’-6” from Street “A” and “D” 0’ on all other sides	Layout plan not yet completed	Conformance to be determined with later submission
Bldg 1-B	VI	20ft –straight ROW 60ft –curved ROW	220ft	13’-6” from Street “A” and “D” 0’ on all other sides	Layout plan not yet completed	Conformance to be determined with later submission
Bldg 1-C	VI	20ft –straight ROW 60ft –curved ROW	220ft	13’-6” from Street “A” and “D” 0’ on all other sides	Layout plan not yet completed	Conformance to be determined with later submission



#### Building Heights

Building Designation	Envelope/Zone	Proposed Maximum Height	Allowed Height	Allowed Height with 2 <sup>nd</sup> story office	Findings
Bldg 1-A	IV and IVA	38' - 0"	35'	42'	Conforms to dimensional standards Bldg 1-A could take advantage of additional height to 42', which is appropriate for its location as a prominent visual feature at the bend in Street "A"
Bldg 1-B	VI	31' – 6"	35'	42'	Conforms to dimensional standards Bldg 1-B could take advantage of additional height to 35'
Bldg 1-C	VI	30' – 6"	35'	42'	Conforms to dimensional standards Bldg 1-C could take advantage of additional height to 35'

#### Building Materials

Building Designation	Roof	Siding and Pilasters	Trim and Railings	Windows/Doors	Cornices	Building Base	Findings
Bldg 1-A	Architectural asphalt shingles	Fiber cement	Synthetic wood	Aluminum and glass systems	Glass fiber reinforced concrete	Stone	Materials appropriate dependent on choices of quality, textures and colors
Bldg 1-B	Architectural asphalt shingles	Fiber cement	Synthetic wood	Aluminum and glass systems	Glass fiber reinforced concrete	Stone	Materials appropriate dependent on choices of quality, textures and colors
Bldg 1-C	Architectural asphalt shingles	Fiber cement	Synthetic wood	Aluminum and glass systems	Glass fiber reinforced concrete	Stone	Materials appropriate dependent on choices of quality, textures and colors

Building/Tenant Signage

Building Designation	Number of Tenant Spaces	Number, Area and Location of Primary Tenant Signs	Number, Area and Location of Secondary Tenant Signs	Number, Area and Location of Blade Signs	Number, Location and Area of Awning signs	Total Aggregate Size	<u>Findings</u>
Bldg 1-A	4 – office 4 – retail/ restaurant	5 200sf max Primary walls located on North and West elevations	4 100sf max Secondary walls located on South and East elevations	5 80sf max All blade signs located on primary walls	6 – first floor 48sf max 3 – second floor 24sf max All awnings located on primary walls	412sf [80sf for office, 332sf for retail/restaurant)	Number and area of signs is conforming to the MUOD zoning regulations and special permit decision and within the total allowed aggregate signage area
Bldg 1-B	3 – retail/ restaurant	3 120sf max Primary wall located on North elevation	3 75sf max Secondary wall located on South elevation	3 48sf max All blade signs located on primary wall	10 80sf max Awnings located on primary and secondary walls	299sf	Number and area of signs is conforming to the MUOD zoning regulations and special permit decision and within the total allowed aggregate signage area
Bldg 1-C	5 – retail/ restaurant	5 200sf max Primary wall located on North elevation	5 125sf max Secondary wall located on South elevation	5 80sf max All blade signs located on primary wall	14 112sf max All awnings located on primary wall	477sf	Number and area of signs is conforming to the MUOD zoning regulations and special permit decision and within the total allowed aggregate signage area

### Daylighting and Natural Ventilation

Building Designation	Openings and orientation	Implications for Daylighting and Ventilation	<u>Findings</u>
Bldg 1-A	<p>Maximum number and area of window and door openings is found on the West elevation facing the street. The least number and area is proposed on the East elevation, which are the secondary entrances to the first floor and the common hallway on the second floor.</p> <p>Transoms are indicated on first floor, front (West side) elevations. Awnings are also indicated on the West elevation.</p> <p>Windows are shown on the second floor, but it is not indicated if they are operable.</p>	The submission does not indicate proposal for daylighting and ventilation.	There is insufficient information in the submission to make findings regarding daylighting and ventilation.
Bldg 1-B	<p>Maximum number and area of window and door openings is found on the North elevation facing the street. East and West elevations include the least number and area of openings.</p> <p>Transoms at the door openings are indicated on the drawing, but materials are not specified.</p> <p>Awnings are added on the North elevation.</p>	The submission does not indicate proposal for daylighting and ventilation.	There is insufficient information in the submission to make findings regarding daylighting and ventilation.
Bldg 1-C	<p>Maximum number and area of window and door openings is found on the North elevation facing the street. East and West elevations include the least number and area of openings.</p> <p>Transoms at the door openings are indicated on the drawing, but materials are not specified.</p> <p>Awnings are added on the North elevation.</p>	The submission does not indicate proposal for daylighting and ventilation.	There is insufficient information in the submission to make findings regarding daylighting and ventilation.

Analysis of Conformance to section 2309.2.1- “authentic, New England regional character”

Building Designation	Discussion	<u>Findings</u>
Bldg 1-A	<p>The proposed building is multi-story building which includes multiple gables and upper story setbacks which are good at reducing the perceived bulk of the building, but overall represents a single building with its own integrity.</p> <p>Given the scale and location on Major Street “A,” the addition of the vertical element (tower) is an appropriate addition to the building. However, the problem with the design is that the cornice of this element merges with the adjacent roof slope (seen in the North elevation) in an awkward fashion. This could be resolved with full use of the allowed height granted by Special Permit. This Building Envelope was permitted for a 42ft height allowance whereas the proposed building is at a maximum height of 38ft. Use of the additional height allowance would separate the cornice from the adjacent roof line.</p>	<p>It is recommended that the vertical element be increased in height in accordance with the allowed maximum height granted by Special Permit.</p>
Bldg 1-B	<p>The proposed building is a collage of building forms, but losses its integrity where the underlying building is a repeated series of lines and elements narrowly applied under an implied roofline of multiple styles, and thereby showing a façade that is inconsistent with separate buildings found in authentic traditional architecture. The design suggests a single building on the lower level with a variation of unrelated roof types placed on top.</p> <p>Regarding the roof lines, the forms being shown are not being used in traditional ways.</p> <p>The widows walk element on the eastern side of the building is very derivative and not traditionally used on commercial buildings. Pitched roof commercial forms would be more appropriate.</p> <p>The gambrel roof on the western side at its spring point (North elevation) lands on top of the cornice. The proper expression is shown on the West elevation where the spring point is coincident with the cornice. An option would be the addition of a bay or dormer.</p> <p>The roofs and cornice lines overlap between implied buildings. This is not an authentic design in traditional New England architecture. The traditional designs of separate buildings do not show overlap of the cornices and roof lines beyond the common</p>	<p>It is recommended that the Planning Board consider the design to require modifications to be recognized as “authentic, New England regional character.”</p>

	property lines between the buildings. Images of traditional combined and separated rooflines are included below.	
Bldg 1-C	The same analysis of Building 1-C is that of Building 1-B, in that the base is a highly similar design with what appears to be an applied roof above that is not integrated with the base. The same issue of roof and cornice overlaps applies as one of the reasons for this appearance.	It is recommended that the Planning Board consider the design as requiring modifications to be recognized as “authentic, New England regional character.”

Images of traditional design in new and historic architecture:

1. Examples of historic buildings (nineteenth century) built on individual properties



2. Example of historic building designed as single building with multiple storefronts.



3. Example of modern building designed as single building with multiple storefronts.



## MEMORANDUM

Date: July 22, 2008

To: Wayland Planning Board

From: Kenneth Buckland, AICP LEED AP, The Cecil Group

RE: Recommendations on the Phase I Site Plan  
Review;

Revised Submission 1, date July 22, 2008,  
received July 21, 2008

Copies: Steven Cecil AIA ASLA, The Cecil Group

This memorandum includes The Cecil Group's peer review of the revised illustrations for the Phase I Site Plan Review submitted by email on July 21, 2008 to this office from Frank Dougherty and dated 22 July 2008.

These revised plans respond to certain comments from the public hearing and the previous peer review by this office June 13, 2008 regarding conformance with the MUOD Bylaw, MUOD Rules and Regulations, Master Special Permit and associated Special Permits, and the MUOD Design Guidelines for the building architecture and signage for the three buildings submitted.

The revised plans address these issues:

1. *Raising the height of the tower element on Building 1A* - This change works in that it provides a more clear presence for the element and the building. With a southern-exposed deck, the additional height will not have a significant impact on shade over the deck.
2. *Removal of the balustrade from the roof of Building 1B* - The removal of the feature creates a simpler, less ornamented building, which is acceptable. The addition of a single dormer feature could be added if desired.
3. *The panel between the eastern and western facades of Building 1B* - This addresses the request for a distinction between rooflines to help create the illusion of multiple buildings.

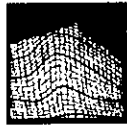
4. *Changing the gambrel roof section on Building 1B to a gabled roof* - The gabled roof is generally an improvement. The following considerations are suggested as a means to authenticate and distinguish the roof features as appropriate to this design application.
  - a. In standard construction the eave would extend to the outside end of the horizontal return (in the side view) because the rafters rest on the top plate and the return comes back from the eave. The proposed design with the roof inside the return is unusual.
  - b. The dormers are effective in adding to the quality of the design. However, the space may not be used, and the windows would then have no function and would require maintenance to maintain a false element. A suggestion is to consider treating the windows a little differently. One option would be to use translucent glass, with or without mullions, with a light behind it for night illumination to accent the feature as unique rather than a misleading reproduction.
5. *The impact of the number of windows on the streetscape* - This is indicated with a photo montage of buildings 1C and 2C, which are not part of this Site Plan I application. This indicates the benefits of store interior visibility, along with other treatments, adding to the liveliness and unique character of the street fronts.
6. *Thirty feet or more of continuous wall* - With the proposed modification from a gambrel to a gable-style roof and alteration of the cornices, the length of unadorned wall (2309.2.1.1. Any buildings proposed for a Mixed-Use Project shall provide visual relief, generally every 30 feet, along the façade of each building.) on the west elevation of Building 1B is addressed with lattice work vegetated with a climbing plant. This is a reasonable design solution addressing the general standard that is proposed elsewhere in the MUOD. However, with any foundation planting, the construction of any roof, eave or cornice directly above the plant is not recommended because of the adverse impact on water and shading for the plantings.

This concludes our comments on the revised submission.





# Marchionda



& Associates, L.P.

Engineering and  
Planning Consultants

Mr. Joseph Laydon, Town Planner  
Town of Wayland Planning Department  
Town Building  
41 Cochituate Rd.  
Wayland, MA 01778

July 25, 2008

RE: Phase I Site Plan I Engineering Review  
Wayland Town Center  
400 Boston Post Road

Dear Mr. Laydon:

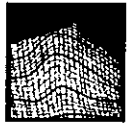
At your request Marchionda & Associates, L.P. has prepared an engineering review of the Site Plan II submission for the Town Center Project. Our review has been limited to the requirements established in the Town's Mixed-Use Overlay District rules and regulations and the applicable conditions in the Master Special Permit (MSP) Decision. The review has been based on the following information provided to us from your department;

- *Site Plan II Phase I Permit Application*  
*Wayland Town Center*  
*Dated: June 9, 2008*  
*Prepared by: Twenty Wayland, LLC*
- *Site Plan II Phase I Site Plans*  
*Wayland Town Center*  
*Dated: June 2, 2008*  
*Prepared by: Arrowstreet*
- *Stormwater Management Study*  
*Wayland Town Center*  
*Dated: June 2, 2008*  
*Prepared by: R.J. O'Connell & Associates, Inc.*

## *Consistency with MSP Plans*

The information depicted in the Site Plan II plan set is generally consistent with the approved MSP Site Plans. The two significant deviations that are worth noting are the redesign of the parking area for the municipal building and the change in the grades of the parking area over the proposed septic system leaching area.

# Marchionda



& Associates, L.P.

Engineering and  
Planning Consultants

The municipal parking area has been redesigned to reduce the affects of flooding and the filling of areas presently subject to flooding from the Sudbury River. The redesign required changes to the grading and to the layout of the pavement, access drives, and drainage. These changes will result in less impact to the areas below the town flood plain elevation (124). The redesign provides the 100 parking spaces required to support the municipal building. A dumpster enclosure is no longer provided in the revised design. The changes also include some variations to the grading of the existing depression (Basin 1) along Boston Post Road.

The parking area north of Building 2-A has been re-graded and raised by as much as 7 feet from the grades shown on the MSP plans. Based on the septic system information provided in the site plans the re-grading is required to support the leach field design.

## *Site Design and Layout*

1. Typical details and specifications for both the standard duty and the heavy duty pavements should be provided.
2. Construction details indicate that two types curbing will be utilized throughout the project. The site plans should indicate locations in which the different curbing types will be installed.
3. The grading plans appear to depict retaining walls in an area that has been graded as swale. These walls are located in the rear yards of the residential buildings north of the “informal” public green.
4. The design and layout of the proposed access driveway connections to Boston Post Road have changed from the MSP plans. The access driveway layouts do not appear to match the information shown on the Boston Post Road improvement plans prepared by Vanasse & Associates. The existing conditions information provided for Boston Post Road in the areas of these driveways is limited to contour lines. Additional existing features such as the edge of pavement, utilities, and easements should be added to the grading plans.

## *Engineering*

1. Based on Figure 5 in the stormwater report it appears that the post-development analysis has not been updated to reflect the changes made to the municipal parking area. Drainage improvements to Boston Post Road have not been considered in the drainage calculations.
2. The watershed considered in the post development analysis of peak flows to the wetland north of the access drive to Old Sudbury Road (point #5) is inconsistent

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with that used in the pre-development analysis. To determine the net affects of the construction proposed in this area, both analysis should use either a build-out condition of the Wayland Commons site or an undeveloped condition. Using the build-out condition is recommended if run off from the Wayland Commons project will ultimately affect the performance and sizing of the stormwater structures in the Town Center site.

3. The stormwater detention/infiltration structures (BMP's) have been modeled considering exfiltration through the bottom of the structures. Additional details and specifications of the design of these structures should be provided to insure proper interface with the underlying soils and long term performance. The proper basin surface is also important to achieve the recommended draw down times.
4. Soil testing in the locations of the proposed detention/infiltration structures should be provided to show the affects of seasonal high groundwater and that the underlying soils will provided the infiltration rates assumed. It is recommended that the soil testing meets the criteria used in the DEP Stormwater Handbook.
5. Information should be provided on the sizing and the construction specifications of the proposed forebay/sediment traps. It is recommended that the plan set includes construction details of these structures.
6. Emergency spillways should be provided for Basins 3 & 4.
7. Basins 1 and 2 outfalls utilize existing drain lines. It is recommended that these lines are inspected to insure they are in satisfactory condition.
8. Pipe size and slope information for the existing and proposed pipes draining Basin 1 should be added to the drainage plans
9. The information provided for the outlet pipe to Basin 3 from the water quality swale conflicts between the plan set and the Stormwater Report.
10. The information provided for the outlet pipe of Basin 2 conflicts between the plan set and the Stormwater Report.
11. The outfall pipes of Basins 1 & 2 fall well below the flood elevation of the Sudbury River. The affects of tail water at the basin outlets should be considered. The results of any affects of tail water to the performance of the basins should also be considered in the analysis of the performance of the street drainage design.
12. Since the site is located within a Zone II to a water supply and is considered to be a development with the potential of higher pollutant loads, at least 44% total suspended soil (TSS) removal treatment is required prior to entering an infiltration BMP. Any pretreatment BMP which infiltrates stormwater should be lined. Construction details of these BMP's should include specifications of the required liners. Exfiltration rates of the lined BMP's should not be used in the sizing calculations of the stormwater detention structures.
13. Additional inlet capacity and 100 year storm event hydraulic calculations should be provided for the street drainage design to help identify any by-pass or

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surcharging that will cause changes to the drainage patterns assumed in the hydrology calculations.

14. The pipe sizing hydraulic calculations do not include supporting information on characteristics and locations of the catch basin subcatchments. This information should be added to the stormwater report.
15. Additional information is required for catch basin #55. As shown there appears to be insufficient separation between the rim elevation and the invert. The invert elevation also appears to be lower than the existing grades in that area.
16. The limits of the proposed rip-rap apron at the flared end structures should be included on the drainage plans.
17. Construction details of the proposed water quality swales, rain gardens and bio-retention areas should be added to the plans. These BMP's require specific design features to receive the treatment efficiencies assumed in the calculations submitted.
18. The swale proposed north of the "informal" town green will cause concentrated stormwater flow to run over a proposed sidewalk and across Road "C" prior to entering a catch basin. A yard drain is recommended to capture stormwater prior to passing over the sidewalk.
19. A more specific demolition and construction sequence narrative should be integrated into the erosion control plans. Other than the installation of erosion control barriers at the limit of work it is unclear when the other erosion control devices called out on plans will be installed and removed. It is understood that a sequence will be a guideline for contractors and that flexibility will be necessary depending on how the construction progresses.
20. The location of the erosion control barriers and the temporary sediment swale along the eastern and northern sides of the site is questionable. The sediment swale is shown passing directly through an isolated wetland and the 30 foot no disturb zones well beyond the proposed limit of work.
21. The erosion control barrier locations should be added to the grading plan to insure the barriers will be positioned to encompass the limits of proposed grading.
22. A 60 foot long stabilized construction entrance is called out on the erosion control plan. A 100 foot length is recommended. If at any time construction vehicles begin to access the site through the Old Sudbury Road driveway a stabilized entrance should be installed.
23. Limited information has been provided on the existing conditions of Old Sudbury in the area of the intersection with the site access drive (Street "A"). Additional information should be provided to the plans to help assess the grading and drainage proposed at this intersection.

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24. The Long Term Pollution Prevention and Stormwater Management Operation and Maintenance Plans should include additional maintenance requirements for the proposed BMP's. The DEP Stormwater Handbook should be used as a guideline.
25. The site plans include portions of the proposed subsurface disposal system design plans. The review of this design has been limited to horizontal and vertical layout of the system's components on the site. It has been assumed that the system will be approved by the Board of Health as shown on the submitted plans.
26. A sewer lift station is proposed in SMH 2. This SMH is located with in a parking area access aisle. No information has been provided on the location of pump controls or alarms. It is recommended that this station is moved north to the area where the other components of the system will be located.
27. A sewer pump station is proposed to be located with in the "formal" public green. A "hard" accessible surface should be provided to the station. Additional details on the station controls and appurtenances should be provided.

I hope that the information provided assists you and the Planning Department with your assessment of the project and the Site Plan Approval process. Should you have any questions on this matter please do not hesitate to contact me.

Sincerely,  
Marchionda & Associates, L.P.

A handwritten signature in black ink, appearing to read 'John A. Barrows', written in a cursive, flowing style.

John A. Barrows, PE  
Project Manager



65 GLENN STREET | LAWRENCE, MA 01843  
TEL 978.794.1792 | FAX 978.794.1793  
WWW.TECMASS.COM

Mr. Joseph Laydon  
Wayland Town Planner  
Town Offices  
41 Cochituate Road  
Wayland, MA 01778

July 22, 2008

Ref: T0124.02

RE: Traffic Engineering Peer Review – Proposed Town Center Project  
Site Plan II – Phase 1 Site Plan Review

Dear Mr. Laydon:

As requested, TEC, Inc. is providing this letter as a summary of traffic engineering comments compiled following our review of the Phase 1 Site Plan Applications for the Wayland Town Center project. Site Plan Submission II, which includes the civil design plans, is dated June 2, 2008 and is most pertinent to our review.

The layout of the site is substantially similar to the plans submitted as part of the Master Special Permit (MSP) application, which was approved by the Planning Board. Site Plan Submissions I, III, and IV included only architectural plans. We have compiled the following comments on the civil design plans submitted as part of Site Plan II pertaining to the parking layout, site features, and traffic circulation as the infrastructure design has progressed to a higher level.

*Civil Design Plans:*

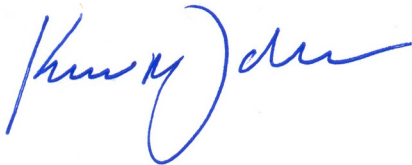
1. The street names should be added to the civil design plans C-5A through C-5D.
2. The designer should consider changing the five proposed parallel parking stalls behind Building #2-A to perpendicular stalls, which may be a good location for a bank of handicap parking stalls.
3. The dumpster locations should be closely examined by the designer as they do not appear to be accessible by a truck.
4. The wheelchair ramp type and locations and all sidewalk materials should be depicted on the plans to confirm ramp layout and slope requirements.
5. The bicycle path proposed as part of the MSP phase should be shown on the plans along with any signs for bicycle operators or warning signs for motor vehicle operators.
6. These plans should note the material types for the raised crosswalks, as discussed during the MSP phase. . The grading currently shown on the plans will need to be adjusted to avoid ponding of stormwater, as discussed during the staff meeting on July 2.

7. The intersection of Streets 'A' and 'B' was envisioned to be a raised intersection due to the concentration of pedestrian traffic as noted on Sheet L2. The details of the raised intersection, materials, and striping should be noted on the plans. This may eventually be a good candidate location for an all-way stop condition to calm traffic through the development. However, the currently proposed 2-way stop control is an appropriate design at this point until additional traffic is realized on the side street (Street 'B').
8. The designer should depict the locations of pedestrian crossing signs (W11A-2).
9. The sections of one-way flow of the roadways in the residential area (Street 'C') and adjacent to Building 5-A should be accompanied by pavement markings and MUTCD R5-1 (Do Not Enter) and R6-1 (One Way) signs.
10. 'No Parking Signs' should be included in areas adjacent to intersections and along curved portions of roadways to avoid limitations in sight distance. In general, the striping for the parallel parking stalls should be located no closer than 20 feet from the closest crosswalk line.
11. The off-site wayfinding signs for vehicles leaving the site bound for Route 126 North should be shown on Sheet C-5B. The project traffic engineer should assist with the design and proper placement of the signs.
12. The location of on-site wayfinding signs should be shown on the plans and should be placed in areas that do not impact sight lines for motorists at the stop sign.
13. An expanded table of proposed signs should be included in the plan package to define sign size, color, and text/graphics. The location and orientation of all sign posts should be depicted on the plans.
14. The plans should depict arrows and "only" pavement markings at either end of Street 'A', which are consistent with the off-site design plans prepared by Vanasse & Associates, Inc.
15. The designer should consider the use of ornamental bollards to protect pedestrian spaces on curves and in the vicinity of raised crossing.
16. TEC recommends shifting the parallel parking in front of Building 2-A so it is not permitted within the internal roadway/driveway intersection at Street 'A' and the access to Building 5-A and its parking field.
17. Detailed landscaping plans were not included in this submission. In advance of the next submission, TEC recommends that the designer review the placement of landscaping so sight lines are not compromised upon maturity of the proposed plantings.
18. The designer should examine the flow of traffic associated with Building 4-A. The current layout presents a traffic conflict point at the exit from the drive-thru whereby an entering vehicle is required to potentially pass between two vehicles waiting to exiting from the driveway. We recommend that the building be shifted to allow vehicles to enter the parking lot on the south side of Building 4-A. All egress, including the drive-thru, could occur on the north side of the building.
19. TEC recommends the use of a double-yellow centerline (DYCL) instead of a single-yellow centerline (SYCL) to be in conformance with the Manual on Uniform Traffic Control Devices (MUTCD) on the street infrastructure.

20. TEC recommends removing the two parallel parking stalls located on the west side of Building 2-G because they will often be blocked by vehicle queues at the stop sign.
21. The designer should show the truck loading signs and any restrictions for the use of the parking stalls immediately behind Buildings 1-B and 1-C, as discussed during the MSP phase.
22. The loading for Building 3-A should be roughly defined in this phase even though the building design has not been submitted. This will assist in evaluating the pedestrian routes and parking layout for the other uses that will be constructed as part of Site Plan Submissions 1 through 4. A sidewalk should be considered between Street 'A' and the location of Building 3-A.
23. TEC recommends including additional handicap parking stalls in front of Building 5-A with a striped accessible aisle between the parking stalls and the wheelchair ramp near the building.
24. The applicant should confirm the number and spacing of the truck loading docks and the compactor between Site Plan Submissions II and IV. The designer should show all walls adjacent to the loading facilities as they may affect access by trucks.
25. The designer should consider a crosswalk between the supermarket and Buildings 1-A and 1-B as well as between Buildings 2-D and 2-E, which will likely be highly-traveled pedestrian routes.
26. The handicap parking stalls between the supermarket and Building 1-A should be shifted to be more proximate to the entrance for either facility unless there is a proposed doorway on the south side of Building 1-A.
27. The plans should depict the locations of all cart corrals. As discussed during the staff meeting, the designer can consider the use of raised tree planter areas that are protected on either side by cart corrals.
28. Sheet C-13 should include a detail for the proposed crosswalks conforming to the MUTCD with 12" longitudinal lines, even for the raised crosswalks.

If you have any questions regarding our review of the referenced materials, please do not hesitate to contact me at (978) 794-1792 x145.

Sincerely,  
TEC, Inc.

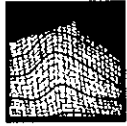
A handwritten signature in blue ink, appearing to read 'Kevin R. Dandrade', with a stylized flourish at the end.

Kevin R. Dandrade, PE, PTOE  
Principal / Senior Engineer

cc: Francis Dougherty, KGI Properties / Twenty Wayland, LLC  
Charles A. Dougherty, PE, RJ O'Connell & Associates, Inc.  
Kenneth Cram, PE, Vanasse & Associates, Inc.



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August 21, 2008

Mr. Joseph Laydon, Town Planner  
Town of Wayland Planning Department  
Town Building  
41 Cochituate Rd.  
Wayland, MA 01778

RE: Phase I Site Plan II Engineering Review – Revised Documents  
Wayland Town Center  
400 Boston Post Road

Dear Mr. Laydon:

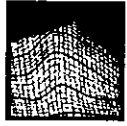
At your request Marchionda & Associates, L.P. has prepared an engineering review of revised Site Plan II documents for the Town Center Project. Our original review comments and the applicant's responses have been included with this correspondence. Our review has been limited to the requirements established in the Town's Mixed-Use Overlay District rules and regulations and the applicable conditions in the Master Special Permit (MSP) Decision and based on the following information provided to us from your department;

- *Site Plan II Phase I Correspondence*  
Wayland Town Center  
Dated: 8/6/08  
Prepared by: Twenty Wayland, LLC
- *Site Plan II Phase I Site Plans*  
Wayland Town Center  
Dated: 6/2/08, rev. 7/31/08  
Prepared by: Arrowsstreet
- *Stormwater Management Study*  
Wayland Town Center  
Dated: 7/31/08  
Prepared by: R.J. O'Connell & Associates, Inc.
- *Summary of Hydrogeology and Groundwater Mounding Analysis*  
Wayland Town Center  
Dated: August 2008  
Prepared by: Haley and Aldrich

## ***Site Design and Layout***

1. *Typical details and specifications for both the standard duty and the heavy-duty pavements should be provided.*

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**Applicant's Response:** Such details are typically provided after Site Plan Approval during the Contract Document design phase.

*M&A: We are unable to comment on the proposed pavement specification at this time.*

2. *Construction details indicate that two types curbing will be utilized throughout the project. The site plans should indicate locations in which the different curbing types will be installed*

**Applicant's Response:** We anticipate designing Street "A" for acceptance as a public way and need to discuss with the Planning Board what the appropriate curbing types on-site should be. Once those discussions are completed the limits and types of curbing can be identified.

*M&A: The type and location of curbing should be added to the site plans once determined by Planning Board.*

3. *The grading plans appear to depict retaining walls in an area that has been graded as swale. These walls are located in the rear yards of the residential buildings north of the "informal" public green.*

**Applicant's Response:** These walls are an architectural design feature and are not retaining walls. The grades in these areas have been revised so that the swale is on the Town Green side of the walls, and an area drain has been added to capture drainage.

*M&A: The "architectural" walls should not create an issue as long as they do not impound or redirect stormwater on to the adjacent sidewalks. The grading in the vicinity of the area drains should be revised to insure that stormwater will be directed to the drains.*

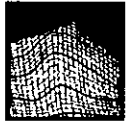
4. *The design and layout of the proposed access driveway connections to Boston Post Road have changed from the MSP plans. The access driveway layouts do not appear to match the information shown on the Boston Post Road improvement plans prepared by Vanasse & Associates. The existing conditions information provided for Boston Post Road in the areas of these driveways is limited to contour lines. Additional existing features such as the edge of pavement, utilities, and easements should be added to the grading plans.*

**Applicant's Response:** The driveways have been updated so that they match the Boston Post Road improvement plans prepared by Vanasse and Associates. Existing conditions information in Boston Post Road is shown on the survey plans.

*M&A: The plans have been updated with the latest driveway pavement layout proposed at Boston Post Road. The drainage proposed in Boston Post Road has not been added to the plan set. It appears that the grading of the fore-bay east of Basin #1 is incomplete.*

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*The Boston Post improvements include a FES outlet terminating at the fore-bay east of Basin 1. This should be added to the plans to insure that the fore-bay will be design to accommodate this structure.*

## Engineering

1. *Based on Figure 5 in the stormwater report it appears that the post-development analysis has not been updated to reflect the changes made to the municipal parking area. Drainage improvements to Boston Post Road have not been considered in the drainage calculations.*

**Applicant's Response:** Figure 5 has been updated to reflect the changes made to the municipal parking area. Drainage improvements to Boston Post Road have also been added to the drainage calculations.

**M&A:** *The Stormwater Report and calculations have been revised as requested. The fore-bay east of Basin #1 will be receiving additional stormwater from the Boston Post Road drainage. It is recommended that the swale which will convey stormwater into Basin 1 is lined with rip-rap to prevent erosion.*

2. *The watershed considered in the post development analysis of peak flows to the wetland north of the access drive to Old Sudbury Road (point #5) is inconsistent with that used in the pre-development analysis. To determine the net affects of the construction proposed in this area, both analysis should use either a build-out condition of the Wayland Commons site or an undeveloped condition. Using the build-out condition is recommended if run off from the Wayland Commons project will ultimately affect the performance and sizing of the stormwater structures in the Town Center site.*

**Applicant's Response:** The stormwater management study has been revised to use the full-build out condition of the Wayland Commons site for both pre-development and post-development analysis.

**M&A:** *The Stormwater Report and calculations have been revised as requested.*

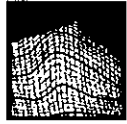
3. *The stormwater detention/infiltration structures (BMP's) have been modeled considering exfiltration through the bottom of the structures. Additional details and specifications of the design of these structures should be provided to insure proper interface with the underlying soils and long-term performance. The proper basin surface is also important to achieve the recommended draw down times.*

**Applicant's Response:** Additional details of the rain gardens, bioretention areas, and water quality swales have been added to the plan set.

**M&A:** *Typical construction details of the Rain Gardens and Bio-filter Swales have been added to the plan set. Since the watershed to the Rain Gardens is considered to be an*

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*area with higher pollutant loads and pretreatment is not proposed, the filter fabric specified should be changed to an impermeable liner.*

*Basins 2 and 3 have been changed from infiltration basins to wet basins. The wet basins will maintain standing water to elevations of the pond outlet inverts. The storage volumes below these elevations should not be considered in the modeling of these basins. The Stormwater Report and calculations should be revised accordingly.*

*Construction details and specifications for the sediment traps and basins should be added to the plans.*

4. *Soil testing in the locations of the proposed detention/infiltration structures should be provided to show the affects of seasonal high groundwater and that the underlying soils will provide the infiltration rates assumed. It is recommended that the soil testing meets the criteria used in the DEP Stormwater Handbook.*

**Applicant's Response:** Groundwater levels were determined based on monitoring wells located on the site. The monitoring well locations and groundwater levels have been added to the plan set and stormwater report. Soil infiltration rates were determined based on soil types and the Rawl's table in accordance with the DEP Stormwater Handbook.

**M&A:** *The soil assessment logs provided are not located in many of the proposed stormwater BMP's locations. The results of the soil assessment show that the site has varying soil types and seasonal water table depths. Additional soil observation holes should be performed in the locations of the Basins, Rain Gardens, Bio-Filter Swales.*

5. *Information should be provided on the sizing and the construction specifications of the proposed forebay/sediment traps. It is recommended that the plan set include construction details of these structures.*

**Applicant's Response:** Forebay sizing calculations have been added to the stormwater management study. The proposed grading in the forebay areas are indicated on the grading and drainage plans.

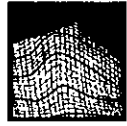
**M&A:** *Fore-bay specifications and sizing calculations do not appear to have been added to the Stormwater Report or site plans.*

6. *Emergency spillways should be provided for Basins 3 & 4.*

**Applicant's Response:** Emergency spillways have been added to basins 3 and 4.

**M&A:** *The spillway size and specifications should be added to the typical construction detail for the basins.*

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7. *Basins 1 and 2 outfalls utilize existing drain lines. It is recommended that these lines be inspected to insure they are in satisfactory condition.*

**Applicant's Response:** Notes have been added to grading and drainage plans requiring site contractor to inspect and jet wash the existing drainage pipes at the outfalls to Basins 1 and 2.

**M&A:** *The performance of Basin 2 is dependent on full flows through the existing 36" CMP. This drain line should be replaced if the inspection reveals that the capacity of the pipe has been compromised.*

8. *Pipe size and slope information for the existing and proposed pipes draining Basin 1 should be added to the drainage plans.*

**Applicant's Response:** Pipe size and slope has been added to the proposed drainage pipe that serves as an emergency outfall to Basin 1. It should be noted that the existing basin in this area does not have an outlet, and overflows into Old Sudbury Road.

**M&A:** *A general note should be added to the plans instructing contractors to reference the Stormwater Report for drain pipe lengths and slopes.*

9. *The information provided for the outlet pipe to Basin 3 from the water quality swale conflicts between the plan set and the Stormwater Report.*

**Applicant's Response:** The drainage swale located east of Basin 3 was not modeled in the stormwater management study, which provides a conservative analysis of peak runoff. The water quality swale modeled in the stormwater management report is located south of Building 3-A, near the Boston Post Road driveway. The swales have been labeled with numbers on the plans and stormwater report for clarification.

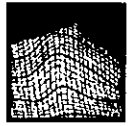
**M&A:** *The down stream end of Water Quality Swale has been revised to an Infiltration Basin (Basin #5). The Pond Report in the Stormwater Report for Basin 5 uses an 18" outlet culvert in the calculations. The plans reference a 12" CPP.*

10. *The information provided for the outlet pipe of Basin 2 conflicts between the plan set and the Stormwater Report.*

**Applicant's Response:** The outlet pipe provided for Basin 2 has been updated in the stormwater report so that it matches the site plan.

**M&A:** *The outlet invert elevation for Basin 2 still conflicts between the report and the plans. The report elevation is 118.75 and the plan set elevation is 118.50.*

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11. *The outfall pipes of Basins 1 & 2 fall well below the flood elevation of the Sudbury River. The affects of tail water at the basin outlets should be considered. The results of any affects of tail water to the performance of the basins should also be considered in the analysis of the performance of the street drainage design.*

**Applicant's Response:** Basin No. 1 is located in an existing depression which is located below the FEMA Flood Elevation along with the portion of RT 20 which is located adjacent to Basin No 1. Under the existing condition this portion of RT 20 is subject to periodic flooding. The projects stormwater management design allows storm water from this portion of RT 20 to outlet into Basin No 1. Route 20 has a direct surface hydraulic connection to the Sudbury River flood plain on its south side which will control the street water elevation during flood events. A tail water effect at the outfall pipe which is below the street flood elevation will cause a slight reduction in discharge rates on stormwater and increase the water impoundment in Basin No. 1. and as a result this tail water effect will not increase off-site discharge rates or create additional flooding impacts to RT 20.

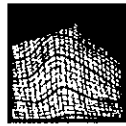
A tailwater effect at the discharge pipe from Basin No. 2 will result in a slightly reduced off-site discharge rate for the design storms and an increase in the impoundment of water in the basin. All catch basin rims and the finish floor elevations of planned buildings are significantly above the basin spillway elevation of 122.8 and as a result during a 100yr flood water will rise to elevation 124.0 (town of Wayland Flood Plain Elevation) which will be contained in Basin No 2 and any tailwater action that may occur at the discharge pipe will not cause on-site flooding or increased off-site discharge rates.

**M&A:** *It appears the software used to model the performance of the drainage system has the option to consider tailwater and starting hydraulic elevations. The calculations should be updated to determine the actual affects of the flood elevations of the Sudbury River.*

12. *Since the site is located within a Zone II to a water supply and is considered to be a development with the potential of higher pollutant loads, at least 44% total suspended soil (TSS) removal treatment is required prior to entering an infiltration BMP. Any pretreatment BMP which infiltrates stormwater should be lined. Construction details of these BMP's should include specifications of the required liners. Exfiltration rates of the lined BMP's should not be used in the sizing calculations of the stormwater detention structures.*

**Applicant's Response:** Basin 4 and Basin 5 were used to satisfy the projects infiltration requirements as required by Standard No 3 within the Stormwater Management Policy. The remaining BMP's (ie: swales, rain gardens wet basins, etc) have been designed to promote groundwater infiltration but were not included in the minimum infiltration requirements to satisfy Standard No 3. Liners were not proposed in these devices in order to accommodate the Town of Wayland's desire to maximize infiltration of storm water to the maximum extent practical. Approximately 70% of the storm water entering Basin 4 is

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clean roof water. The remaining water is treated in three lightly loaded (10,000sf ea) catch basins and forebays. Prior to entering the basin the combination of the basin treatment and roof water dilution results in water meeting the pretreatment requirement prior to entering the BMP.

Basin 5 receives stormwater runoff from both pavement and rooftop areas. Rainfall runoff from pavement areas run off via overland flow through a grassed biofilter swale with stone check dams installed every one hundred feet. Prior to storm water entering Basin No 5 this grassed lined biofilter swale with stone check dams serves as storm water pretreatment.

*M&A: The rain gardens have no pre-treatment component and therefore it is recommended that they are constructed with an impermeable liner.*

13. *Additional inlet capacity and 100 year storm event hydraulic calculations should be provided for the street drainage design to help identify any by-pass or surcharging that will cause changes to the drainage patterns assumed in the hydrology calculations.*

**Applicant's Response:** The hydraulic calculations have been designed for the 25-year storm event, which meets the requirements set forth in the Wayland Subdivision Rules and Regulations. This was discussed and agreed upon between the project proponent, Marchionda and Associates, and the Town of Wayland during the Master Special Permit process.

*M&A: No additional comments.*

14. *The pipe sizing hydraulic calculations do not include supporting information on characteristics and locations of the catch basin subcatchments. This information should be added to the stormwater report.*

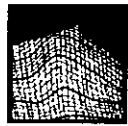
**Applicant's Response:** A subcatchment plan has been added to the stormwater report to show the areas and C values of catch basin drainage areas.

*M&A: The Stormwater Report and calculations have been revised to include the information requested.*

15. *Additional information is required for catch basin #55. As shown there appears to be insufficient separation between the rim elevation and the invert. The invert elevation also appears to be lower than the existing grades in that area.*

**Applicant's Response:** The road has been regraded and the rim elevation of CB-55 has been raised to elevation 125.8 which provides approximately 1.5 ft. of cover over the top of its discharge pipe. Eighteen (18") of cover is adequate to accommodate a concrete flat top and catch basin frame and grate.

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*M&A: The plans have been changed as described. Based on the invert of the adjacent 15" CMP shown on the Wayland Commons site plans it appears that proposed FES will be at the existing grade in this area. Pipe and FES information should be added to the plan set.*

16. *The limits of the proposed rip-rap apron at the flared end structures should be included on the drainage plans.*

**Applicant's Response:** The limits of proposed rip-rap aprons at flared end sections have been added to the drainage plans.

*M&A: Rip-rap has not been added to FES 19 and the FES at CB 55.*

17. *Construction details of the proposed water quality swales, rain gardens and bioretention areas should be added to the plans. These BMP's require specific design features to receive the treatment efficiencies assumed in the calculations submitted.*

**Applicant's Response:** Details of the rain gardens, bioretention areas, and water quality swales have been added to the plan set.

*M&A: As stated in comment 3 above, general construction details and specifications for the infiltration and wet basins should be added to the plan set.*

18. *The swale proposed north of the "informal" town green will cause concentrate stormwater flow to run over a proposed sidewalk and across Road "C" prior to entering a catch basin. A yard drain is recommended to capture stormwater prior to passing over the sidewalk.*

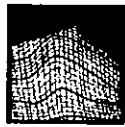
**Applicant's Response:** The area adjacent to both sides of the sidewalk has been regraded to create shallow swales which direct storm water to one of two yard drains (DMH-27A & 27B) and thus minimizing the amount of surface water that would sheet flow over the sidewalk area in question.

*M&A: Grading in the area of DMH 27 should be revised to direct stormwater to the inlet.*

19. *A more specific demolition and construction sequence narrative should be integrated into the erosion control plans. Other than the installation of erosion control barriers at the limit of work it is unclear when the other erosion control devices called out on plans will be installed and removed. It is understood that a sequence will be a guideline for contractors and that flexibility will be necessary depending on how the construction progresses.*



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**Applicant's Response:** Additional construction sequencing notes will be implemented in the Stormwater Pollution Prevention Plan (SWPPP), which will be prepared prior to construction, and the sitework contractor will be required to comply with the SWPPP. The town's consultants will have the ability to review the SWPPP to ensure that the town's interests are protected.

*M&A: No additional comments at this time.*

20. *The location of the erosion control barriers and the temporary sediment swale along the eastern and northern sides of the site is questionable. The sediment swale is shown passing directly through an isolated wetland and the 30 foot no disturb zones well beyond the proposed limit of work.*

**Applicant's Response:** The limits of erosion control barriers have been revised so that they are located at the limits of grading on the revised site plans. The sediment swale in question has also been relocated so that it is located entirely within the proposed limits of grading, and will not impact the wetland area.

*M&A: The plans have been revised as described.*

21. *The erosion control barrier locations should be added to the grading plan to insure the barriers will be positioned to encompass the limits of proposed grading.*

**Applicant's Response:** The perimeter erosion controls have been added to the grading plan.

*M&A: In a number of locations the Grading Plans show grading taking place beyond the edge of the proposed haybales. The erosion controls should be relocated to accommodate the proposed grading.*

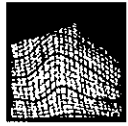
22. *A 60 foot long stabilized construction entrance is called out on the erosion control plan. A 100 foot length is recommended. If at any time construction vehicles begin to access the site through the Old Sudbury Road driveway a stabilized entrance should be installed.*

**Applicant's Response:** The length of the stabilized construction entrance had been increased to 100 ft. and a second stabilized construction entrance has been added to the Old Sudbury Road driveway.

*M&A: The plans have been revised as described.*

23. *Limited information has been provided on the existing conditions of Old Sudbury in the area of the intersection with the site access drive (Street "A"). Additional information should be provided to the plans to help assess the grading and drainage proposed at this intersection.*

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**Applicant's Response:** Existing conditions information is provided on the survey plans and grading and drainage plan within the limits of the project site and the intersection at Old Sudbury Road adjacent to the project site. For additional existing conditions information of Old Sudbury Road adjacent to abutting properties, please refer to off-site roadway plans prepared by Vanasse and Associates, or Wayland Commons site plans prepared by VHB.

*M&A: In order to properly review the proposed driveway intersection with Old Sudbury Road a comprehensive plan of this area showing existing and proposed features should be compiled as part of the submission.*

24. *The Long Term Pollution Prevention and Stormwater Management Operation and Maintenance Plans should include additional maintenance requirements for the proposed BMP's. The DEP Stormwater Handbook should be used as a guideline.*

**Applicant's Response:** Maintenance of stormwater BMP's are addressed in the Stormwater Management System Operation and Maintenance Plan. This plan has been revised to include additional information on maintenance of the stormwater BMP's.

*M&A: The Stormwater O & M Plan provided includes very minimal maintenance requirements for the project's BMP's. The DEP Stormwater Handbook includes specific maintenance requirements for each of the BMP's proposed. This language should be added to the O&M Plan.*

25. *The site plans include portions of the proposed subsurface disposal system design plans. The review of this design has been limited to horizontal and vertical layout of the system's components on the site. It has been assumed that the system will be approved by the Board of Health as shown on the submitted plans.*

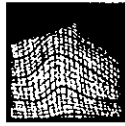
**Applicant's Response:** The subsurface disposal system has been submitted to the Board of Health for review and approval.

*M&A: Not additional comments necessary.*

26. *A sewer lift station is proposed in SMH 2. This SMH is located within a parking area access aisle. No information has been provided on the location of pump controls or alarms. It is recommended that this station is moved north to the area where the other components of the system will be located.*

**Applicant's Response:** This sewer lift station has been relocated to an area outside of the parking area access aisle, and details have been added to the plan set specifying pump controls, alarms, and appurtenances.

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*M&A: The plans have been revised as described.*

27. *A sewer pump station is proposed to be located within the "formal" public green. A "hard" accessible surface should be provided to the station. Additional details on the station controls and appurtenances should be provided.*

**Applicant's Response:** This sewer lift station has been relocated to an area outside of the public green, and details have been added to the plan set specifying pump controls, alarms, and appurtenances.

*M&A: The plans have been revised as described.*

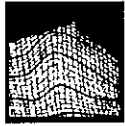
I hope that the information provided assists you and the Planning Board with the assessment of the project and the Site Plan Approval process. Should you have any questions on this matter please do not hesitate to contact me.

Sincerely,  
Marchionda & Associates, L.P.

A handwritten signature in black ink, appearing to read 'John A. Barrows', written in a cursive, flowing style.

John A. Barrows, PE  
Project Manager

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October 3, 2008

Mr. Joseph Laydon, Town Planner  
Town of Wayland Planning Department  
Town Building  
41 Cochituate Rd.  
Wayland, MA 01778

RE: Phase I Site Plan II Engineering Review -- Revised Documents  
Wayland Town Center  
400 Boston Post Road

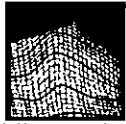
Dear Mr. Laydon:

At your request Marchionda & Associates, L.P. has prepared an engineering review of revised Site Plan II documents for the Town Center Project. Our original review comments and the applicant's original responses have been included with this correspondence. Our review has been limited to the requirements established in the Town's Mixed-Use Overlay District rules and regulations and the applicable conditions in the Master Special Permit (MSP) Decision and based on the following information provided to us from the applicant's engineer R.J. O'Connell;

- *Site Plan II Phase I Site Plans*  
Wayland Town Center  
Applicant: Twenty Wayland, LLC  
Dated: 6/2/08, rev. 9/28/08  
Sheets C-2A, C-2B, C-2C, C-3A, C-3B, C-3C, & C-7  
Dated: 10/3/08
- *Supplemental Stormwater Calculations*  
Wayland Town Center  
Dated: 9/30/08 & 10/1/08  
Prepared by: R.J. O'Connell & Associates, Inc.
- *Soil Testing Logs*  
Wayland Town Center  
Dated: Sept. 2008  
Prepared by: R.J. O'Connell & Associates, Inc.
- *Stormwater Management System Operation and Maintenance Plan*  
Wayland Town Center  
Prepared by: R.J. O'Connell & Associates, Inc.

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The revised plans submitted include some significant changes from previous site plans and the Master Special Permit Site Plans. These changes include a relocation of Street "B", a reconfiguration of Storm water Basin 3, the elimination of Drainage Swale 3, and the elimination of the Municipal Building and parking area.

We offer the following comments to the latest plans, calculations, and correspondence submitted;

## *Site Design and Layout*

1. *Typical details and specifications for both the standard duty and the heavy-duty pavements should be provided.*

**Applicant's Response:** Such details are typically provided after Site Plan Approval during the Contract Document design phase.

**M&A (8-25-08):** *We are unable to comment on the proposed pavement specification at this time.*

**RJOC Response:** Heavy duty and standard duty pavement sections have been added to Dwg No C-12 titled "Layout & Materials Details I".

**M&A:** *The site plans have been revised as recommended.*

2. *Construction details indicate that two types curbing will be utilized throughout the project. The site plans should indicate locations in which the different curbing types will be installed*

**Applicant's Response:** We anticipate designing Street "A" for acceptance as a public way and need to discuss with the Planning Board what the appropriate curbing types on-site should be. Once those discussions are completed the limits and types of curbing can be identified.

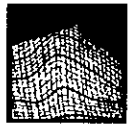
**M&A (8-25-08):** *The type and location of curbing should be added to the site plans once determined by Planning Board.*

**RJOC Response:** Curb types have been added to site/civil Dwg. Nos. C-5A – C-5D titled "Parking & Traffic Control Plan and detailed on Dwg. No C-12.

**M&A:** *The site plans have been revised as recommended.*

3. *The grading plans appear to depict retaining walls in an area that has been graded as swale. These walls are located in the rear yards of the residential buildings north of the "informal" public green.*

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**Applicant's Response:** These walls are an architectural design feature and are not retaining walls. The grades in these areas have been revised so that the swale is on the Town Green side of the walls, and an area drain has been added to capture drainage.

**M&A (8-25-08):** *The "architectural" walls should not create an issue as long as they do not impound or redirect stormwater on to the adjacent sidewalks. The grading in the vicinity of the area drains should be revised to insure that stormwater will be directed to the drains.*

**RJOC Response:** RJOC has revised Dwg No C-3A to provide a swale behind the residential units to ensure positive flow of stormwater runoff to DMH-27 & DMH-27A.

**M&A:** *The site plans have been revised as recommended.*

4. *The design and layout of the proposed access driveway connections to Boston Post Road have changed from the MSP plans. The access driveway layouts do not appear to match the information shown on the Boston Post Road improvement plans prepared by Vanasse & Associates. The existing conditions information provided for Boston Post Road in the areas of these driveways is limited to contour lines. Additional existing features such as the edge of pavement, utilities, and easements should be added to the grading plans.*

**Applicant's Response:** The driveways have been updated so that they match the Boston Post Road improvement plans prepared by Vanasse and Associates. Existing conditions information in Boston Post Road is shown on the survey plans.

**M&A (8-25-08):** *The plans have been updated with the latest driveway pavement layout proposed at Boston Post Road. The drainage proposed in Boston Post Road has not been added to the plan set. It appears that the grading of the fore-bay east of Basin #1 is incomplete.*

*The Boston Post improvements include a FES outlet terminating at the fore-bay east of Basin 1. This should be added to the plans to insure that the fore-bay will be design to accommodate this structure.*

**RJOC Response:** RJOC Dwg No C-3C has been revised to complete the grading of the forebay located east of Basin No. 1. In addition the FES from RT 27 which discharges into said forebay has been added to the plans.

**M&A:** *The site plans have been revised as recommended.*

**Engineering**

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1. *Based on Figure 5 in the stormwater report it appears that the post-development analysis has not been updated to reflect the changes made to the municipal parking area. Drainage improvements to Boston Post Road have not been considered in the drainage calculations.*

**Applicant's Response:** Figure 5 has been updated to reflect the changes made to the municipal parking area. Drainage improvements to Boston Post Road have also been added to the drainage calculations.

**M&A (8-25-08):** *The Stormwater Report and calculations have been revised as requested. The fore-bay east of Basin #1 will be receiving additional stormwater from the Boston Post Road drainage. It is recommended that the swale which will convey stormwater into Basin 1 is lined with rip-rap to prevent erosion.*

**RJOC Response:** RJOC Dwg No. C-3 has been revised to depict a rip-rap swale from Forebay to Basin No. 1.

**M&A:** *The site plans have been revised as recommended.*

2. *The watershed considered in the post development analysis of peak flows to the wetland north of the access drive to Old Sudbury Road (point #5) is inconsistent with that used in the pre-development analysis. To determine the net affects of the construction proposed in this area, both analysis should use either a build-out condition of the Wayland Commons site or an undeveloped condition. Using the build-out condition is recommended if run off from the Wayland Commons project will ultimately affect the performance and sizing of the stormwater structures in the Town Center site.*

**Applicant's Response:** The stormwater management study has been revised to use the full-build out condition of the Wayland Commons site for both pre-development and post-development analysis.

**M&A (8-25-08):** *The Stormwater Report and calculations have been revised as requested.*

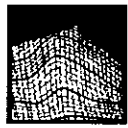
**RJOC Response:** No further action performed.

**M&A:** *No additional comments required.*

3. *The stormwater detention/infiltration structures (BMP's) have been modeled considering exfiltration through the bottom of the structures. Additional details and specifications of the design of these structures should be provided to insure proper interface with the underlying soils and long-term performance. The proper basin surface is also important to achieve the recommended draw down times.*

**Applicant's Response:** Additional details of the rain gardens, bioretention areas, and water quality swales have been added to the plan set.

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*M&A (8-25-08): Typical construction details of the Rain Gardens and Bio-filter Swales have been added to the plan set. Since the watershed to the Rain Gardens is considered to be an area with higher pollutant loads and pretreatment is not proposed, the filter fabric specified should be changed to an impermeable liner.*

*Basins 2 and 3 have been changed from infiltration basins to wet basins. The wet basins will maintain standing water to elevations of the pond outlet inverts. The storage volumes below these elevations should not be considered in the modeling of these basins. The Stormwater Report and calculations should be revised accordingly.*

*Construction details and specifications for the sediment traps and basins should be added to the plans.*

**RJOC Response:** RJOC has revised the Stormwater Management calculations to confirm that the volume within basins 2 & 3 do not include the volume of standing water planned within each basin (a copy of the revised calculations are included herein). In addition details associated with the infiltration basin, wet basin, biofilter swale bmp's have been added to Dwg No C-7.

*M&A: The supplemental stormwater calculations submitted address our concerns on the wet basins storage volumes. Additional detail and specifications on the infiltration basins and sediment traps have been added to the plans. The rain gardens have not been revised with an impermeable liner.*

4. *Soil testing in the locations of the proposed detention/infiltration structures should be provided to show the affects of seasonal high groundwater and that the underlying soils will provide the infiltration rates assumed. It is recommended that the soil testing meets the criteria used in the DEP Stormwater Handbook.*

**Applicant's Response:** Groundwater levels were determined based on monitoring wells located on the site. The monitoring well locations and groundwater levels have been added to the plan set and stormwater report. Soil infiltration rates were determined based on soil types and the Rawl's table in accordance with the DEP Stormwater Handbook.

*M&A (8-25-08): The soil assessment logs provided are not located in many of the proposed stormwater BMP's locations. The results of the soil assessment show that the site has varying soil types and seasonal water table depths. Additional soil observation holes should be performed in the locations of the Basins, Rain Gardens, and Bio-Filter Swales.*

**RJOC Response:** Additional test pits were dug within the infiltration Basin Nos 4 & 5 as well as within the primary and reserve septic field areas (for location of test pits see RJOC Dwg Nos C-3A – C-3D). Copies of the test pit logs and soil permeability rates are enclosed herein.



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***M&A: Additional soil test pits have been completed in the areas of the infiltration basins.***

5. *Information should be provided on the sizing and the construction specifications of the proposed forebay/sediment traps. It is recommended that the plan set include construction details of these structures.*

**Applicant's Response:** Forebay sizing calculations have been added to the stormwater management study. The proposed grading in the forebay areas are indicated on the grading and drainage plans.

***M&A (8-25-08): Fore-bay specifications and sizing calculations do not appear to have been added to the Stormwater Report or site plans.***

**RJOC Response:** Forebay sizing calculations have been performed and are enclosed herein.

***M&A: The forebay sizing calculations have been provided as requested.***

6. *Emergency spillways should be provided for Basins 3 & 4.*

**Applicant's Response:** Emergency spillways have been added to basins 3 and 4.

***M&A (8-25-08): The spillway size and specifications should be added to the typical construction detail for the basins.***

**RJOC Response:** RJOC has added to site/civil Dwg No. C-7 a typical spillway detail.

***M&A: The site plans have been revised as recommended.***

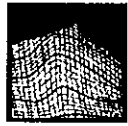
7. *Basins 1 and 2 outfalls utilize existing drain lines. It is recommended that these lines be inspected to insure they are in satisfactory condition.*

**Applicant's Response:** Notes have been added to grading and drainage plans requiring site contractor to inspect and jet wash the existing drainage pipes at the outfalls to Basins 1 and 2.

***M&A (8-25-08): The performance of Basin 2 is dependent on full flows through the existing 36" CMP. This drain line should be replaced if the inspection reveals that the capacity of the pipe has been compromised.***

**RJOC Response:** RJOC concurs with Marchionda's recommendation that upon inspection of the existing 36" drainline if it is determined that the drain line needs to be replaced, the applicant will replace said line.

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***M&A: No additional comments.***

8. *Pipe size and slope information for the existing and proposed pipes draining Basin 1 should be added to the drainage plans.*

**Applicant's Response:** Pipe size and slope has been added to the proposed drainage pipe that serves as an emergency outfall to Basin 1. It should be noted that the existing basin in this area does not have an outlet, and overflows into Old Sudbury Road.

***M&A (8-25-08):*** *A general note should be added to the plans instructing contractors to reference the Stormwater Report for drain pipe lengths and slopes.*

**RJOC Response:** A note has been added to RJOC Dwg No C-0 requiring the Contractor to reference the Stormwater report for drain pipe lengths and slopes. Note was added under the sub title of Grading & Drainage Notes and is number 15.

***M&A: The site plans have been revised as recommended.***

9. *The information provided for the outlet pipe to Basin 3 from the water quality swale conflicts between the plan set and the Stormwater Report.*

**Applicant's Response:** The drainage swale located east of Basin 3 was not modeled in the stormwater management study, which provides a conservative analysis of peak runoff. The water quality swale modeled in the stormwater management report is located south of Building 3-A, near the Boston Post Road driveway. The swales have been labeled with numbers on the plans and stormwater report for clarification.

***M&A (8-25-08):*** *The down stream end of Water Quality Swale has been revised to an Infiltration Basin (Basin #5). The Pond Report in the Stormwater Report for Basin 5 uses an 18" outlet culvert in the calculations. The plans reference a 12" CPP.*

**RJOC Response:** RJOC has revised Dwg. No C-3 to reflect an 18" CPP discharge pipe from Basin No. 5.

***M&A: The site plans have been revised as recommended.***

10. *The information provided for the outlet pipe of Basin 2 conflicts between the plan set and the Stormwater Report.*

**Applicant's Response:** The outlet pipe provided for Basin 2 has been updated in the stormwater report so that it matches the site plan.

***M&A (8-25-08):*** *The outlet invert elevation for Basin 2 still conflicts between the report and the plans. The report elevation is 118.75 and the plan set elevation is 118.50.*

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**RJOC Response:** RJOC has revised Dwg. No. C-3 to reflect the outlet invert of the 36" drain pipe discharging from Basin No.2 to be at elevation 118.75.

**M&A:** *The site plans have been revised as recommended.*

11. *The outfall pipes of Basins 1 & 2 falls well below the flood elevation of the Sudbury River. The affects of tail water at the basin outlets should be considered. The results of any affects of tail water to the performance of the basins should also be considered in the analysis of the performance of the street drainage design.*

**Applicant's Response:** Basin No. 1 is located in an existing depression which is located below the FEMA Flood Elevation along with the portion of RT 20 which is located adjacent to Basin No 1. Under the existing condition this portion of RT 20 is subject to periodic flooding. The projects stormwater management design allows storm water from this portion of RT 20 to outlet into Basin No 1. Route 20 has a direct surface hydraulic connection to the Sudbury River flood plain on its south side which will control the street water elevation during flood events. A tail water effect at the outfall pipe which is below the street flood elevation will cause a slight reduction in discharge rates on stormwater and increase the water impoundment in Basin No. 1. and as a result this tail water effect will not increase off-site discharge rates or create additional flooding impacts to RT 20.

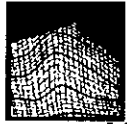
A tailwater effect at the discharge pipe from Basin No. 2 will result in a slightly reduced off-site discharge rate for the design storms and an increase in the impoundment of water in the basin. All catch basin rims and the finish floor elevations of planned buildings are significantly above the basin spillway elevation of 122.8 and as a result during a 100yr flood water will rise to elevation 124.0 (town of Wayland Flood Plain Elevation) which will be contained in Basin No 2 and any tailwater action that may occur at the discharge pipe will not cause on-site flooding or increased off-site discharge rates.

**M&A (8-25-08):** *It appears the software used to model the performance of the drainage system has the option to consider tailwater and starting hydraulic elevations. The calculations should be updated to determine the actual affects of the flood elevations of the Sudbury River.*

**RJOC Response:** RJOC has incorporated into the post development hydrology analysis for detention basin Nos 1 & 2 the tailwater effects from the 25yr storm event. The 25yr flood elevation was obtained by interpolating from the FIRM maps the flood elevation of the 10yr and 50yr storm events. The 25yr flood elevation was estimated to be at elevation 119.4 (NAVD 88 Base). Incorporating this tailwater elevation into the hydrology analysis resulted in the water elevation within Basin No 1 to increase from elevation 119.94 to 119.99. The drain inlet to Basin 1 has an invert elevation of 120. There was no change in the water elevation for Basin No 2. Based on the above, it is RJOC's opinion that the tailwater effect within Basin No.s 1 & 2 will have no effect on the performance of the proposed drainage system. Copies of the tailwater calculations are enclosed herein.

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*M&A: No additional comment.*

12. *Since the site is located within a Zone II to a water supply and is considered to be a development with the potential of higher pollutant loads, at least 44% total suspended soil (TSS) removal treatment is required prior to entering an infiltration BMP. Any pretreatment BMP which infiltrates stormwater should be lined. Construction details of these BMP's should include specifications of the required liners. Exfiltration rates of the lined BMP's should not be used in the sizing calculations of the stormwater detention structures.*

**Applicant's Response:** Basin 4 and Basin 5 were used to satisfy the projects infiltration requirements as required by Standard No 3 within the Stormwater Management Policy. The remaining BMP's (ie: swales, rain gardens wet basins, etc) have been designed to promote groundwater infiltration but were not included in the minimum infiltration requirements to satisfy Standard No 3. Liners were not proposed in these devices in order to accommodate the Town of Wayland's desire to maximize infiltration of storm water to the maximum extent practical. Approximately 70% of the storm water entering Basin 4 is clean roof water. The remaining water is treated in three lightly loaded (10,000sf ea) catch basins and forebays. Prior to entering the basin the combination of the basin treatment and roof water dilution results in water meeting the pretreatment requirement prior to entering the BMP.

Basin 5 receives stormwater runoff from both pavement and rooftop areas. Rainfall runoff from pavement areas run off via overland flow through a grassed biofilter swale with stone check dams installed every one hundred feet. Prior to storm water entering Basin No 5 this grassed lined biofilter swale with stone check dams serves as storm water pretreatment.

**M&A (8-25-08):** *The rain gardens have no pre-treatment component and therefore it is recommended that they are constructed with an impermeable liner.*

**RJOC Response:** Impermeable liners are not being proposed within the design of the rain gardens in order to accommodate the Town of Wayland's requirement during the Master Special Permit (MSP) phase of the project that the design of the projects stormwater management system must maximize to the extent practical stormwater recharge.

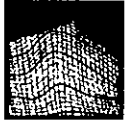
*M&A: No additional comment.*

13. *Additional inlet capacity and 100 year storm event hydraulic calculations should be provided for the street drainage design to help identify any by-pass or surcharging that will cause changes to the drainage patterns assumed in the hydrology calculations.*

**Applicant's Response:** The hydraulic calculations have been designed for the 25-year storm event, which meets the requirements set forth in the Wayland Subdivision Rules

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and Regulations. This was discussed and agreed upon between the project proponent, Marchionda and Associates, and the Town of Wayland during the Master Special Permit process.

*M&A (8-25-08): No additional comments.*

**RJOC Response:** No further action required.

*M&A: No additional comment.*

14. *The pipe sizing hydraulic calculations do not include supporting information on characteristics and locations of the catch basin subcatchments. This information should be added to the stormwater report.*

**Applicant's Response:** A subcatchment plan has been added to the stormwater report to show the areas and C values of catch basin drainage areas.

*M&A (8-25-08): The Stormwater Report and calculations have been revised to include the information requested.*

**RJOC Response:** No Further action required.

*M&A: No additional comment.*

15. *Additional information is required for catch basin #55. As shown there appears to be insufficient separation between the rim elevation and the invert. The invert elevation also appears to be lower than the existing grades in that area.*

**Applicant's Response:** The road has been regraded and the rim elevation of CB-55 has been raised to elevation 125.8 which provides approximately 1.5 ft. of cover over the top of its discharge pipe. Eighteen (18") of cover is adequate to accommodate a concrete flat top and catch basin frame and grate.

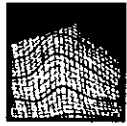
*M&A (8-25-08): The plans have been changed as described. Based on the invert of the adjacent 15" CMP shown on the Wayland Commons site plans it appears that proposed FES will be at the existing grade in this area. Pipe and FES information should be added to the plan set.*

**RJOC Response:** RJOC has revised Dwg. No. C-3B to include the pipe size and invert elevation of the flared end section which discharges from CB-55. In addition rip rap stone has been added to the end of FES-20.

*M&A: The site plans have been revised as recommended.*

16. *The limits of the proposed rip-rap apron at the flared end structures should be included on the drainage plans.*

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**Applicant's Response:** The limits of proposed rip-rap aprons at flared end sections have been added to the drainage plans.

**M&A (8-25-08):** *Rip-rap has not been added to FES 19 and the FES at CB 55.*

**RJOC Response:** RJOC has revised Dwg. Nos. C-3A & C-3B to indicate rip rap stone at the outfall pipes of FES-19 & FES-20.

**M&A:** *The site plans have been revised as recommended.*

17. *Construction details of the proposed water quality swales, rain gardens and bioretention areas should be added to the plans. These BMP's require specific design features to receive the treatment efficiencies assumed in the calculations submitted.*

**Applicant's Response:** Details of the rain gardens, bioretention areas, and water quality swales have been added to the plan set.

**M&A (8-25-08):** *As stated in comment 3 above, general construction details and specifications for the infiltration and wet basins should be added to the plan set.*

**RJOC Response:** RJOC has added to Dwg No C-7 details for wet ponds, bioretention swales, and water quality swales.

**M&A:** *The site plans have been revised as recommended.*

18. *The swale proposed north of the "informal" town green will cause concentrate stormwater flow to run over a proposed sidewalk and across Road "C" prior to entering a catch basin. A yard drain is recommended to capture stormwater prior to passing over the sidewalk.*

**Applicant's Response:** The area adjacent to both sides of the sidewalk has been regraded to create shallow swales which direct storm water to one of two yard drains (DMH-27A & 27B) and thus minimizing the amount of surface water that would sheet flow over the sidewalk area in question.

**M&A (8-25-08):** *Grading in the area of DMH 27 should be revised to direct stormwater to the inlet.*

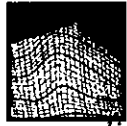
**RJOC Response:** RJOC has revised Dwg No C-3A to provide a swale behind the residential units to ensure positive flow of stormwater runoff to DMH-27.

**M&A:** *The site plans have been revised as recommended.*

19. *A more specific demolition and construction sequence narrative should be integrated into the erosion control plans. Other than the installation of erosion control barriers at the*

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*limit of work it is unclear when the other erosion control devices called out on plans will be installed and removed. It is understood that a sequence will be a guideline for contractors and that flexibility will be necessary depending on how the construction progresses.*

**Applicant's Response:** Additional construction sequencing notes will be implemented in the Stormwater Pollution Prevention Plan (SWPPP), which will be prepared prior to construction, and the sitework contractor will be required to comply with the SWPPP. The town's consultants will have the ability to review the SWPPP to ensure that the town's interests are protected.

**M&A (8-25-08):** *No additional comments at this time.*

**RJOC Response:** No further action required.

**M&A:** *No additional comment.*

20. *The location of the erosion control barriers and the temporary sediment swale along the eastern and northern sides of the site is questionable. The sediment swale is shown passing directly through an isolated wetland and the 30 foot no disturb zones well beyond the proposed limit of work.*

**Applicant's Response:** The limits of erosion control barriers have been revised so that they are located at the limits of grading on the revised site plans. The sediment swale in question has also been relocated so that it is located entirely within the proposed limits of grading, and will not impact the wetland area.

**M&A (8-25-08):** *The plans have been revised as described.*

**RJOC Response:** No further action required.

**M&A:** *No additional comment.*

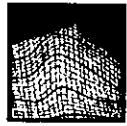
21. *The erosion control barrier locations should be added to the grading plan to insure the barriers will be positioned to encompass the limits of proposed grading.*

**Applicant's Response:** The perimeter erosion controls have been added to the grading plan.

**M&A (8-25-08):** *In a number of locations the Grading Plans show grading taking place beyond the edge of the proposed haybales. The erosion controls should be relocated to accommodate the proposed grading.*

**RJOC Response:** RJOC has revised the Erosion Control Plans (Dwg No. C-1A – C-1D) to alleviate conflicts with the haybale locations as it relates to proposed grades.

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*M&A: The site plans have been revised as recommended.*

22. *A 60 foot long stabilized construction entrance is called out on the erosion control plan. A 100 foot length is recommended. If at any time construction vehicles begin to access the site through the Old Sudbury Road driveway a stabilized entrance should be installed.*

**Applicant's Response:** The length of the stabilized construction entrance had been increased to 100 ft. and a second stabilized construction entrance has been added to the Old Sudbury Road driveway.

*M&A (8-25-08): The plans have been revised as described.*

**RJOC Response:** No further action required.

*M&A: The site plans have been revised as recommended.*

23. *Limited information has been provided on the existing conditions of Old Sudbury in the area of the intersection with the site access drive (Street "A"). Additional information should be provided to the plans to help assess the grading and drainage proposed at this intersection.*

**Applicant's Response:** Existing conditions information is provided on the survey plans and grading and drainage plan within the limits of the project site and the intersection at Old Sudbury Road adjacent to the project site. For additional existing conditions information of Old Sudbury Road adjacent to abutting properties, please refer to off-site roadway plans prepared by Vanasse and Associates, or Wayland Commons site plans prepared by VHB.

*M&A (8-25-08): In order to properly review the proposed driveway intersection with Old Sudbury Road a comprehensive plan of this area showing existing and proposed features should be compiled as part of the submission.*

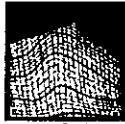
**RJOC Response:** RJOC has added to Dwg. No. C-3B the proposed grades as design by Vanasse & Associates for the roadway improvements to Old Sudbury Rd. In addition at the end of the plan set the grading plan for the limits of roadway improvements planned for Old Sudbury Rd are included herein.

*M&A: The site plans have been revised with the information requested. It appears that stormwater in the street gutter of Old Sudbury Road will pass through the intersection with Street "A" to the existing catch basin northwest of the intersection. A catch basin southeast of the intersection capturing gutter flow prior to entering the intersection should be considered as part of the Old Sudbury Road improvements.*



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24. *The Long Tern Pollution Prevention and Stormwater Management Operation and Maintenance Plans should include additional maintenance requirements for the proposed BMP's. The DEP Stormwater Handbook should be used as a guideline.*

**Applicant's Response:** Maintenance of stormwater BMP's are addressed in the Stormwater Management System Operation and Maintenance Plan. This plan has been revised to include additional information on maintenance of the stormwater BMP's.

**M&A (8-25-08):** *The Stormwater O &M Plan provided includes very minimal maintenance requirements for the project's BMP's. The DEP Stormwater Handbook includes specific maintenance requirements for each of the BMP's proposed. This language should be added to the O&M Plan.*

**RJOC Response:** RJOC has updated the Operations and Maintenance plan to outline in greater detail the maintenance requirements for the BMP's proposed for this project. A copy of the updated Operations and Maintenance plan is included herein.

**M&A:** *The revised O&M plan submitted addresses the maintenance requirements of the proposed BMP's. This document should be dated to insure that it is properly referenced.*

25. *The site plans include portions of the proposed subsurface disposal system design plans. The review of this design has been limited to horizontal and vertical layout of the system's components on the site. It has been assumed that the system will be approved by the Board of Health as shown on the submitted plans.*

**Applicant's Response:** The subsurface disposal system has been submitted to the Board of Health for review and approval.

**M&A (8-25-08):** *Not additional comments necessary.*

**RJOC Response:** No further action required.

**M&A:** *No additional comment.*

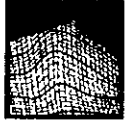
26. *A sewer lift station is proposed in SMH 2. This SMH is located within a parking area access aisle. No information has been provided on the location of pump controls or alarms. It is recommended that this station is moved north to the area where the other components of the system will be located.*

**Applicant's Response:** This sewer lift station has been relocated to an area outside of the parking area access aisle, and details have been added to the plan set specifying pump controls, alarms, and appurtenances.

**M&A (8-25-08):** *The plans have been revised as described.*

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**RJOC Response:** No further action required.

**M&A:** *No additional comment.*

27. *A sewer pump station is proposed to be located within the "formal" public green. A "hard" accessible surface should be provided to the station. Additional details on the station controls and appurtenances should be provided.*

**Applicant's Response:** This sewer lift station has been relocated to an area outside of the public green, and details have been added to the plan set specifying pump controls, alarms, and appurtenances.

**M&A (8-25-08):** *The plans have been revised as described.*

**RJOC Response:** No further action required.

**M&A:** *No additional comment.*

I hope that the information provided assists you and the Planning Board with the assessment of the project and the Site Plan Approval process. Should you have any questions on this matter please do not hesitate to contact me.

Sincerely,  
Marchionda & Associates, L.P.

A handwritten signature in black ink, appearing to read 'John A. Barrows', is written over a horizontal line.

John A. Barrows, PE  
Project Manager

Cc. R.J. O'Connell & Associates, Inc

MEMORANDUM

Date: October 6, 2008

To: Wayland Planning Board

From: The Cecil Group

RE: Review of Revised Site Plan II - Phase I Site  
Plan Landscape/ Streetscape Plans (29 September  
2008)

Copies: David O'Connor, RLA ; Kenneth Buckland, AICP,  
LEED AP

The following is a review of the revised Landscape, Streetscape plans submitted by the applicant for the Site Plan II - Phase I Site Plan Application for the Wayland Town Center Mixed Use project, dated 29 September 2008.

The points raised in the August 11, 2008 memorandum from The Cecil Group have been addressed with the following exceptions:

- Sheet L3.2 - The recommendation was to supplement the proposed shade tree installation adjacent to the housing units with additional shrub plantings.
- Sheet L3.3 -The Boston Post Road project entry area landscaping misses an opportunity to create an 'arrival event.'
- Sheet L4.1 - The shade trees in the Street "C" parking court should be supplemented with shrub masses.
- Sheet L4.3/L4.4 - The shade trees in the supermarket parking lot remain spaced at about 100' o.c. along each parking row, while the recommendation was for 60' o.c. As previously noted, this can be accomplished without reducing parking capacity and is recommended to conform to the Zoning Bylaw (Section 2309.1); "reduce glare, create shade and reduce solar overheating."



Mr. Joseph Laydon  
Wayland Town Planner  
Town Offices  
41 Cochituate Road  
Wayland, MA 01778

October 6, 2008

Ref: T0124.02

RE: Traffic Engineering Peer Review – Proposed Town Center Project  
Follow-up Review of Site Plan II – Phase 1 Site Plan Review

Dear Mr. Laydon:

As requested, TEC, Inc. is providing this letter as a confirmation of responses to traffic engineering comments compiled as part of our previous review of the Phase 1 Site Plan Applications for the Wayland Town Center project reflected in our letter dated July 22, 2008. We are also providing additional comments on the detailed information shown in the revised Site Plan Submission II package dated September 29, 2008, which is designed by RJ O'Connell & Associates, Inc., Arrowstreet, and Shesky Architects.

We have compiled the following comments on the civil design plans submitted as part of Site Plan II pertaining to the layout of signs, pavement markings, and traffic control features as the design has progressed to a higher level. Unless otherwise noted, the comments in our previous letter have been satisfactorily addressed.

*Civil Design (Parking & Traffic Control) Plans:*

1. A 'Speed Hump' warning sign (W17-1) with yellow speed limit placard (W13-1) should be placed on each end of Street 'A' leading into the project. They may be used to replace the white R2-1 (15 mph) signs in the same general location. The Manual on Uniform Traffic Control Devices (MUTCD) Section 2C.24 permits one sign to be placed in advance of a series of speed humps as driver notification.
2. The detail on Sheet C-12 labeled 'Typical Raised Crosswalk' should be amended to include the standard pavement markings for speed humps as outlined in the MUTCD Section 3B.27.
3. The plans currently depict a post with W11A-2 and R1-6 signs at each crosswalk. The current version of the MUTCD recommends a fluorescent yellow-green pedestrian crossing sign (W11-2) and supplemental placard with an arrow pointing down toward the crosswalk (W16-7P). The R1-6 signs are typically used as an in-street sign with a breakaway mount that is placed on the double-yellow centerline at the crosswalk. The R1-6 signs are appropriate along Street 'A' where traffic volumes are likely to be higher and may not be necessary in other locations.
4. A stop sign should be added at the end of Street 'E'. The stop sign at the southerly end of Street 'A' near Route 20 should be eliminated as this approach will operate under traffic signal control.

5. An additional R3-7L sign should be placed near the Street 'A' stop line at Route 20 to confirm lane use for those exiting from the property.
6. Two additional 'No Parking Anytime' signs (R7-1) should be considered along the easterly side of Street 'C', just north of its intersection with Street 'E'.
7. Some of the traffic control signs along Street 'C' in the vicinity of the residential structures are shown within the proposed driveways. These should be moved to nearby landscaped islands.
8. Additional 'Do Not Enter' (R5-1) and 'One Way' (R6-1) signs should be placed at the two one-way driveways adjacent to Building 4-A.
9. The queue from the proposed drive-thru aisle for Building 4-A may impact part of the parking field directly east of the building, depending on the intended use. The parking on the south side of the exiting aisle may need to be reserved for employee parking to reduce the frequency of conflicts between parking maneuvers and the queue. The parking on the north side of this aisle may need to be converted to angled stalls to make it easier for patrons to access the stalls.
10. The designer should consider a special sign at the southwesterly corner of Building 4-A, which reads "Truck Access Only". This should be coupled with one or two 'Do Not Enter' signs (R5-1) on the southeast corner of the building.
11. The off-site wayfinding signs for vehicles leaving the site bound for Route 126 North should be shown on Sheet C-5B or L9.0. These signs may be part of the off-site improvement plans, but referenced on this plan set as it affects traffic leaving the site as part of the Site Plan review. A sample guide sign is provided as an attachment to this letter.
12. Additional bollards should be placed in the areas of speed hump transition curbs. All bollards should be placed at least 24" from the face of curb.
13. The detail on Sheet C-13 labeled 'Typical Painted "Stop" Detail' should be modified to reflect to 4" yellow lines for the double-yellow centerline and a 12" stop line, which should be a minimum of 4' behind the closest painted crosswalk line, if applicable.

Most of these comments are minor in nature and can be easily addressed as part of a minor amendment to the plan. If you have any questions regarding our review of the referenced materials, please do not hesitate to contact me at (978) 794-1792 x145.

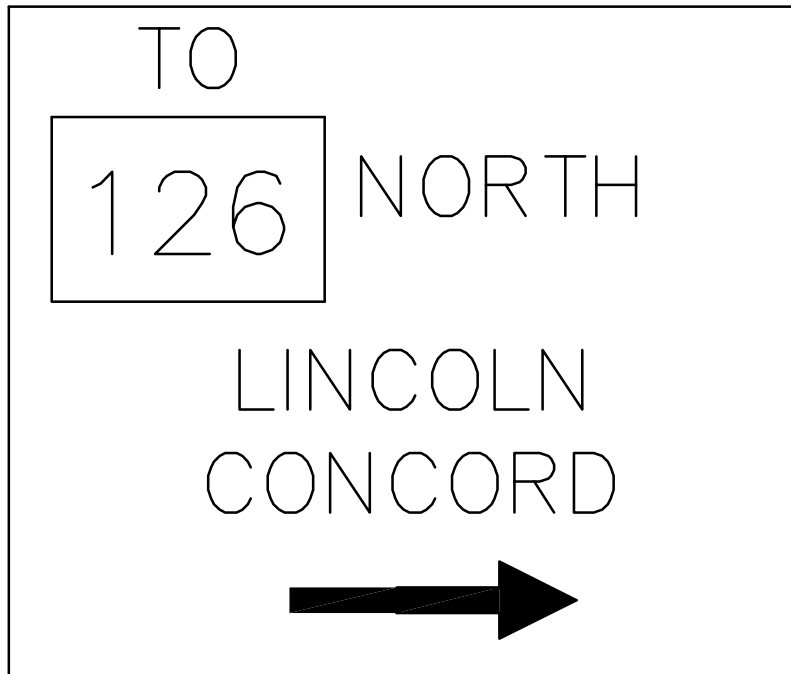
Sincerely,  
TEC, Inc.



Kevin R. Dandrade, PE, PTOE  
Principal / Senior Engineer

cc: Francis Dougherty, KGI Properties / Twenty Wayland, LLC  
Mark MacRae, Congress Group  
Charles A. Dougherty, PE, RJ O'Connell & Associates, Inc.  
Kenneth Cram, PE, Vanasse & Associates, Inc.

Attachment



Attachment 1: Sample Route 126 Wayfinding Sign

MEMORANDUM

Date: October 21, 2008

To: Wayland Planning Board

From: David O'Connor, RLA

RE: Review of Revised Site Plan II - Phase I Site  
Plan Application Landscape Plan L2.0 (16  
October 2008)

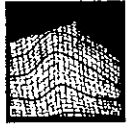
Copies: Kenneth Buckland, AICP, LEED AP

The following is a review of the revised Landscape Plan L2.0 submitted by the applicant for the Site Plan II - Phase I Site Plan Application for the Wayland Town Center project, dated 16 October 2008 - Response to Comments.

The points raised in the October 6, 2008 memorandum (attached) from The Cecil Group have been addressed with the following exception:

- Shade trees on the Street "C" parking court islands (L4.1) should be supplemented with shrub masses.

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October 23, 2008

Mr. Joseph Laydon, Town Planner  
Town of Wayland Planning Department  
Town Building  
41 Cochituate Rd.  
Wayland, MA 01778

RE: Phase I Site Plan II Engineering Review – Revised Documents  
Wayland Town Center  
400 Boston Post Road

Dear Mr. Laydon:

At your request Marchionda & Associates, L.P. has prepared an engineering review of revised Site Plan II documents for the Town Center Project. Our original review comments and the applicant's original responses have been included with this correspondence. Our review has been limited to the requirements established in the Town's Mixed-Use Overlay District rules and regulations and the applicable conditions in the Master Special Permit (MSP) Decision and based on the following information provided to us from the applicant;

- *Site Plan II Phase I Site Plans*  
*Wayland Town Center*  
*Applicant: Twenty Wayland, LLC*  
*Dated: 6/2/08, rev. 9/28/08*  
*Sheets C-2A, C-2B, C-2C, C-3A, C-3B, C-3C, & C-7*  
*Dated: 10/3/08*
- *Letter to Wayland Planning Board*  
*Re: Site Plan II Updated Information*  
*Dated: October 22, 2008*  
*Prepared by: Twenty Wayland, LLC*

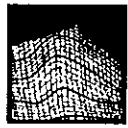
We offer the following responses to the previously outstanding comments as referenced in our last review dated 10/3/08;

*Engineering:*

- 12. Since the site is located within a Zone II to a water supply and is considered to be a development with the potential of higher pollutant loads, at least 44% total suspended soil (TSS) removal treatment is required prior to entering an infiltration BMP. Any pretreatment BMP which infiltrates stormwater should be lined. Construction details of these BMP's should include specifications of the required liners. Exfiltration rates of the*



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*lined BMP's should not be used in the sizing calculations of the stormwater detention structures.*

**Applicant's Response:** Basin 4 and Basin 5 were used to satisfy the projects infiltration requirements as required by Standard No 3 within the Stormwater Management Policy. The remaining BMP's (ie: swales, rain gardens wet basins, etc) have been designed to promote groundwater infiltration but were not included in the minimum infiltration requirements to satisfy Standard No 3. Liners were not proposed in these devices in order to accommodate the Town of Wayland's desire to maximize infiltration of storm water to the maximum extent practical. Approximately 70% of the storm water entering Basin 4 is clean roof water. The remaining water is treated in three lightly loaded (10,000sf ea) catch basins and forebays. Prior to entering the basin the combination of the basin treatment and roof water dilution results in water meeting the pretreatment requirement prior to entering the BMP.

Basin 5 receives stormwater runoff from both pavement and rooftop areas. Rainfall runoff from pavement areas run off via overland flow through a grassed biofilter swale with stone check dams installed every one hundred feet. Prior to storm water entering Basin No 5 this grassed lined biofilter swale with stone check dams serves as storm water pretreatment.

**M&A (8-25-08):** *The rain gardens have no pre-treatment component and therefore it is recommended that they are constructed with an impermeable liner.*

**RJOC Response:** Impermeable liners are not being proposed within the design of the rain gardens in order to accommodate the Town of Wayland's requirement during the Master Special Permit (MSP) phase of the project that the design of the projects stormwater management system must maximize to the extent practical stormwater recharge.

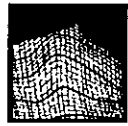
**M&A (10-3-08):** *No additional comment.*

**M&A (10-23-08):** *As decided at the 10/6 /08 Planning Board hearing, the specific design components required for the rain gardens will be deferred to the review by the Wayland Conservation Commission and the upcoming Notice of Intent process.*

23. *Limited information has been provided on the existing conditions of Old Sudbury in the area of the intersection with the site access drive (Street "A"). Additional information should be provided to the plans to help assess the grading and drainage proposed at this intersection.*

**Applicant's Response:** Existing conditions information is provided on the survey plans and grading and drainage plan within the limits of the project site and the intersection at

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Old Sudbury Road adjacent to the project site. For additional existing conditions information of Old Sudbury Road adjacent to abutting properties, please refer to off-site roadway plans prepared by Vanasse and Associates, or Wayland Commons site plans prepared by VHB.

***M&A (8-25-08):** In order to properly review the proposed driveway intersection with Old Sudbury Road a comprehensive plan of this area showing existing and proposed features should be compiled as part of the submission.*

**RJOC Response:** RJOC has added to Dwg. No. C-3B the proposed grades as design by Vanasse & Associates for the roadway improvements to Old Sudbury Rd. In addition at the end of the plan set the grading plan for the limits of roadway improvements planned for Old Sudbury Rd are included herein.

***M&A(10-3-08):** The site plans have been revised with the information requested. It appears that stormwater in the street gutter of Old Sudbury Road will pass through the intersection with Street "A" to the existing catch basin northwest of the intersection. A catch basin southeast of the intersection capturing gutter flow prior to entering the intersection should be considered as part of the Old Sudbury Road improvements.*

***M&A (10-23-08):** The proposed improvements detailed in the latest site plan address our concerns regarding drainage at the intersection of Old Sudbury Road and Street "A".*

24. *The Long Tern Pollution Prevention and Stormwater Management Operation and Maintenance Plans should include additional maintenance requirements for the proposed BMP's. The DEP Stormwater Handbook should be used as a guideline.*

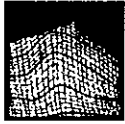
**Applicant's Response:** Maintenance of stormwater BMP's are addressed in the Stormwater Management System Operation and Maintenance Plan. This plan has been revised to include additional information on maintenance of the stormwater BMP's.

***M&A (8-25-08):** The Stormwater O &M Plan provided includes very minimal maintenance requirements for the project's BMP's. The DEP Stormwater Handbook includes specific maintenance requirements for each of the BMP's proposed. This language should be added to the O&M Plan.*

**RJOC Response:** RJOC has updated the Operations and Maintenance plan to outline in greater detail the maintenance requirements for the BMP's proposed for this project. A copy of the updated Operations and Maintenance plan is included herein.

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*M&A(10-3-08): The revised O&M plan submitted addresses the maintenance requirements of the proposed BMP's. This document should be dated to insure that it is properly referenced.*

*M&A(10-23-08): The revised O&M plan included in the latest correspondence has been dated as recommended.*

At this point all of our previous concerns have been addressed. I hope that the information provided assisted you and the Planning Board with the assessment of the project and the Site Plan Approval process. Should you have any questions on this matter please do not hesitate to contact me.

Sincerely,  
Marchionda & Associates, L.P.

A handwritten signature in black ink, appearing to read 'John A. Barrows', written in a cursive, flowing style.

John A. Barrows, PE  
Project Manager

Cc. Twenty Wayland, LLC