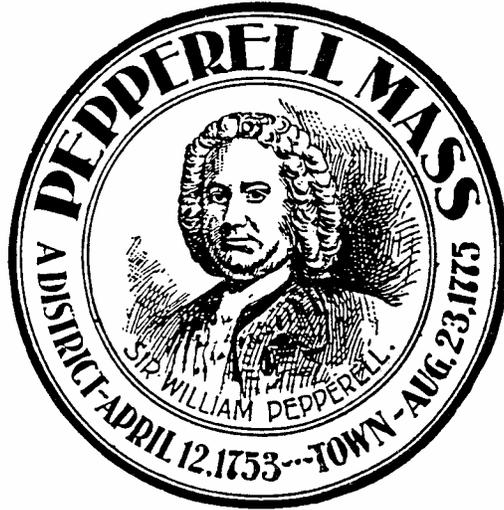


# Town of Pepperell, Massachusetts



## Rules and Regulations Governing the Subdivision of Land

Adopted October 11, 2005

Rules and Regulations Governing the  
Subdivision of Land

Adopted October 11, 2005  
pursuant to  
Mass. General Laws, Ch. 41, Sec. 81Q

by the  
Planning Board of the Town of Pepperell, Massachusetts

Joseph Sergi, Chair  
Nicholas Cate, Clerk  
Jeffrey Chabot  
Stephen Themelis  
Richard McHugh

Inez M. Gove, Planning Administrator  
Robert E. Lee, DPW Director/Town Engineer

Filed with the Town Clerk November 8, 2005

Town of Pepperell  
Rules and Regulations  
Governing the Subdivision of Land

Section 1.0. Purpose and authority.

- 1.1. Authority
- 1.2. Purpose.
- 1.3. Amendments.
- 1.4. Severability
- 1.5. Reference to Statute

Section 2.0. Definitions.

Section 3.0. General Administration.

- 3.1. Unapproved Subdivision Prohibited.
- 3.2. Limitation of One Dwelling on Any Lot.
- 3.3. Compliance with Zoning By-law.
- 3.4. Waiver of Compliance.
- 3.5. Plan Preparation
  - 3.5.1. Registered Land Surveyor
  - 3.5.2. Registered Civil Engineer

Section 4.0. Plan Submittal and Procedures.

- 4.1. Plan believed to not require approval.
  - 4.1.1. Contents.
  - 4.1.2. Procedure.
  - 4.1.3.
  - 4.1.4.
  - 4.1.5.
- 4.2. Preliminary Plan.
  - 4.2.1. Purpose.
  - 4.2.2. Residential subdivision.
  - 4.2.3. Nonresidential subdivision.
  - 4.2.4. Plan requirements.
  - 4.2.5. Filing.
  - 4.2.6. Certificate of approval or disapproval.
  - 4.2.7. Applicable regulations and by-laws.
  - 4.2.8.
- 4.3. Definitive Plan.
  - 4.3.1. Plan requirements.
  - 4.3.2. Accompanying data and statements.
  - 4.3.3. Requirements for filing.
  - 4.3.4. Review by the Board of Health.
  - 4.3.5. Public hearing.
  - 4.3.6. Planning Board Action.

- 4.3.6.1.
- 4.3.6.2.
- 4.3.6.3.
- 4.3.6.4.
- 4.3.6.5.
- 4.3.6.6.
- 4.3.6.7.
- 4.3.7. Performance guarantee.
- 4.3.8. Adjustment of Performance Guarantee.
- 4.3.9. Recording of plan.
- 4.3.10. Evidence of satisfactory performance.
- 4.3.11. Modification, amendment or rescission of plan.
- 4.3.12. Ownership.

## Section 5.0. Design Standards.

- 5.1. Easements to town.
  - 5.1.1.
  - 5.1.2.
  - 5.1.3.
  - 5.1.4.
- 5.2. Open space.
- 5.3. Public Improvements.
- 5.4. Protection of natural features.
- 5.5. Access to residential subdivision.
- 5.6. Streets and ways.
  - 5.6.1. Location and alignment.
    - 5.6.1.1.
    - 5.6.1.2.
    - 5.6.1.3.
    - 5.6.1.4.
    - 5.6.1.5.
    - 5.6.1.6.
    - 5.6.1.7.
    - 5.6.1.8.
  - 5.6.2. Dead-end streets.
    - 5.6.2.1.
    - 5.6.2.2.
    - 5.6.2.3.
  - 5.6.3. Minimum corner sight distance.
    - 5.6.3.1.
    - 5.6.3.2.
    - 5.6.3.3.
  - 5.6.4. Street rights-of-way.
    - 5.6.4.1.
    - 5.6.4.2.

- 5.6.4.3.
- 5.6.5. Grades.
  - 5.6.5.1.
  - 5.6.5.2.
  - 5.6.5.3.
- 5.6.6. Subgrade.
  - 5.6.6.1.
  - 5.6.6.2.
- 5.6.7. Binder course.
  - 5.6.7.1.
  - 5.6.7.2.
- 5.6.8. Finished pavement.
  - 5.6.8.1.
  - 5.6.8.2.
  - 5.6.8.3.
- 5.7. Drainage.
  - 5.7.1.
  - 5.7.2.
  - 5.7.3.
  - 5.7.4.
  - 5.7.5.
  - 5.7.6.
  - 5.7.7.
  - 5.7.8.
  - 5.7.9.
  - 5.7.10.
  - 5.7.11.
  - 5.7.12.
  - 5.7.13.
- 5.8. Utilities.
  - 5.8.1.
  - 5.8.2.
  - 5.8.3.
- 5.9. Domestic water supply.
  - 5.9.1.
  - 5.9.2.
  - 5.9.3.
  - 5.9.4.
  - 5.9.5.
- 5.10. Sewerage system.
  - 5.10.1.
  - 5.10.2.
  - 5.10.3.
  - 5.10.4.
- 5.11. Sidewalks.
  - 5.11.1.

- 5.11.2.
- 5.11.3.
- 5.11.4.
- 5.12. Curbing.
- 5.13. Side slopes.
  - 5.13.1.
  - 5.13.2.
  - 5.13.3.
- 5.14. Trees.
  - 5.14.1.
  - 5.14.2.
- 5.15. Street signs.
- 5.16. Traffic signs and pavement markings.
  - 5.16.1.
  - 5.16.2.
- 5.17. Hydrants.
- 5.18. Monuments.
  - 5.18.1.
  - 5.18.2.
  - 5.18.3.

## Section 6.0. Administration.

- 6.1. Inspection.
  - 6.1.1.
  - 6.1.2.
- 6.2. Safety, cleanup and maintenance.
  - 6.2.1.
  - 6.2.2.
  - 6.2.3.
  - 6.2.4.
  - 6.2.5.
- 6.3. As-built plan.
- 6.4. Street Acceptance Plan.
- 6.5. Changes or alterations.
  - 6.5.1.
  - 6.5.2. Minor Changes.
  - 6.5.3. Other Changes.
- 6.6. Subdivision construction deposits.
- 6.7. Official forms.
- 6.8. Appeals.
- 6.9. Other requirements.
- 6.10. Amendments.

## Appendix:

Fee Schedule.

Official forms.

Table of Summary of Major Street Design Standards.

Typical Cross Section for Minor and Subcollector Roads

## Section 1.0. Purpose and authority.

- 1.1. Authority. Under the authority vested in the Planning Board of the Town of Pepperell, Massachusetts, by the provision of MGL Ch. 41, § 81Q, said Planning Board hereby adopts these rules and regulations governing the subdivision of land within the boundaries of the Town of Pepperell.
- 1.2. Purpose. The purpose of these subdivision rules and regulations is to protect the safety, convenience, and welfare of the inhabitants of the Town of Pepperell by:
  - regulating the laying out and construction of ways in subdivisions providing access to the several lots therein, but which have not become public ways through:
    - providing adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel;
    - lessening congestion in such ways and in the adjacent public ways;
    - coordinating the ways in a subdivision with each other and with the public ways in the town in which it is located and with the ways in neighboring subdivisions;
    - reducing danger to life and limb in the operation of motor vehicles;
    - securing safety in the case of fire, flood, panic and other emergencies; and
    - providing for underground utility services, fire, police, and other similar municipal equipment, and street lighting and other requirements where necessary in a subdivision;
  - ensuring sanitary conditions in subdivisions through securing adequate provision for water, sewerage, and drainage;
  - ensuring compliance with the applicable zoning ordinances or bylaws
  - ensuring parks and open areas, but only after payment of just compensation; and
  - encouraging the use of solar energy by protecting the access to direct sunlight of solar energy systems.
- 1.3. Amendments. The Planning Board may, from time to time, amend these Rules and Regulations by appropriate action taken at a public hearing, as provided by MGL, Ch. 41, Section 81-Q, as amended. A true copy of these rules and regulations, with their most recent amendments, shall be kept on file available for inspection in the office of the Planning Board and in the office of the Town Clerk.
- 1.4. Severability. If any provision of these rules and regulations or the administration thereof shall be declared unconstitutional, invalid or void, it shall not affect any other provision of these rules and regulations or the administration thereof.
- 1.5. Reference to Statute. For matters not covered by these rules and regulations, reference is made to §§ 81K to 81GG, inclusive, of Chapter 41 of the Massachusetts General Laws, as amended.

## Section 2.0. Definitions.

**ABUTTER** - The owner of property which touches a boundary or part thereof of the property being subdivided.

**ACCESS** – When a lot or lots comply with the required frontage on a public way pursuant to the Pepperell zoning by-law and there are no physical impediments for a vehicle to physically pass over the legal frontage onto the lot, the Planning Board may determine that there is adequate access. A valid Order of Conditions pursuant to MGL Ch. 131 from the Pepperell Conservation Commission allowing the crossing of a wetland to access a lot is sufficient for the Board to make this finding.

**APPLICANT** - Includes an owner or his agent or representative or his assigns.

**BASE FLOOD ELEVATION** - The level of flooding having a one-percent chance of being equaled or exceeded in any year, as designated using definitive methods on Federal Flood Insurance Rate Maps, dated June 2, 1993 (FIRM), and/or the Commonwealth of Massachusetts Department of Natural Resources Division of Water Resources, Nashua River, maps dated April 1973.

**CERTIFIED BY OR ENDORSED BY THE PLANNING BOARD** - As applied to a plan or other instrument required or authorized by the subdivision control law to be recorded, shall mean, bearing a certification or endorsement signed by a majority of the members of the Planning Board, or by its chairman or clerk or any other person authorized by it to certify or endorse its approval or other action and named in a written statement to the register of deeds and recorder of the land court, signed by a majority of the board.

**DRAINAGE**- The control of surface and subsurface water within the tract of land to be subdivided.

**FLOOD HAZARD AREA** - Lands which are subject to flooding, which lands are located and described on maps entitled "Commonwealth of Massachusetts, Department of Natural Resources, Division of Water Resources, Nashua River," dated April 1973 and prepared by the Raytheon Co. and/or shown as special flood hazard areas inundated by one-hundred-year flood on the Federal Flood Insurance Rate Maps revised June 2, 1993, and which are on file in the office of the Town Clerk.

**FRONTAGE** - A lot line coinciding with the sideline of a public way which provides both legal rights of vehicular access and physical vehicular access to the lot, said line to be measured continuously along a single public way or along two (2) intersecting public ways if their angle of intersection is greater than one hundred and twenty (120) degrees.

**LOT** - An area of land in one (1) ownership, with definite boundaries, which meets the requirements of a lot as defined in Section 10000, definition of "lot," of Zoning By-law, used or available for use as the site for one (1) or more buildings.

**MUNICIPAL SERVICES** - Public utilities furnished or licensed by the town, such as water, sewerage, gas, telephone, stormwater drainage systems, electricity and cable television.

PARCEL - A plot or tract of land which does not meet all of the requirements of a lot as defined in Section 10000, definition of "lot," of Zoning By-law.

PERMANENT BOUNDS - As defined by Appendix A of Ethical, Procedural and Technical Standards for the Practice of Land Surveying in the Commonwealth of Massachusetts, prepared and adopted by the Massachusetts Association of Land Surveyors and Civil Engineers, Inc., November 26, 1977, and as amended October 12, 1978.

PRACTICAL ACCESS - Access from a building site to a public way, a way which the Town Clerk certifies is maintained and used as a public way, a way shown on a plan approved and endorsed in accordance with the Subdivision Control Law or a way in existence when the Subdivision Control Law became effective in the city or town in which the land lies, having, in the opinion of the Planning Board, sufficient width, suitable grades and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby and for the installation of municipal services to serve such land and the buildings erected or to be erected thereon and which is not illusory in fact. In considering the above, the Planning Board shall decide the adequacy of the way on which the lot fronts and the adequacy of the access from the way.

RECORDED - Recorded in the South Middlesex Registry of Deeds, except for registered land when it shall mean recorded with the Recorder of the Land Court.

REGISTERED MAIL - Registered or certified mail.

STREET, CUL-DE-SAC – A street with a single common ingress and egress with a turnaround at the end.

STREET, DEAD-END - A street with a single common ingress and egress.

STREETS and WAYS:

MINOR STREET – A street designed primarily to provide direct access to abutting properties and to discourage through traffic. A cul-de-sac and/or dead-end would be classified as a minor street.

SUBCOLLECTOR - A street designed primarily to connect minor streets with collector streets and such streets may also provide direct access to abutting properties.

COLLECTOR – A street of regional significance which carries high volumes of traffic between and through towns and such streets may also provide direct access to abutting properties.

SUBDIVISION CONTROL LAW - Refers to MGL C.41, §§ 81K to 81GG, inclusive.

**SURVEYOR** - Any person who has been registered or otherwise authorized to perform land-surveying services in the Commonwealth of Massachusetts.

**WETLAND** – All areas subject to protection under the Massachusetts Wetlands Protection Act, Mass. General Laws Chapter 131, Section 40, except Riverfront, as listed in 310 CMR 10.02(1)(a-e).

### Section 3.0. General Administration.

- 3.1. **Unapproved Subdivision Prohibited.** No person shall make or cause to be made a subdivision of land within the meaning of the Subdivision Control Law of any land located within the boundaries of the Town of Pepperell or proceed with the sale of any lot or lots in a subdivision unless and until a definitive plan, together with a properly executed performance security, has been made, submitted to and approved by the Planning Board and recorded at the Registry of Deeds or, in the case of registered land, filed with the Recorder of the Land Court as hereinafter provided, together with all applicable covenants and conditions which, if not inscribed on the plan fully, shall be referred to on the plan so recorded.
- 3.2. **Limitation of One Dwelling on Any Lot.** Not more than one (1) building designed or available for use for dwelling purposes shall be erected, placed or converted to use as such on any lot in a subdivision or elsewhere in the town without the consent of the Planning Board, and any such consent may be conditional upon the providing of adequate ways furnishing access to the site of each building in the same manner as otherwise required for lots within a subdivision (MGL C. 41, § 81Q).
- 3.3. **Compliance with Zoning By-law.** No plan of a subdivision shall be approved unless all of the lots shown on the plan comply with the provisions of the Zoning By-law of the Town with regard to size, shape, width, frontage and limitation of use by reason of any special or specific Zoning By-law especially relating to said lots or any portion(s) thereof.
- 3.4. **Waiver of Compliance.** Strict compliance with these rules and regulations may be waived when, in the judgment of a majority of the Planning Board, such action is in the public interest and not inconsistent with the intent and purpose of the Subdivision Control Law. The Planning Board may also waive strict compliance with the frontage or access requirements specified in the Subdivision Control Law. The Planning Board shall endorse such waivers on the plan to which they relate or set them forth in a separate instrument which is referenced on such plan and which shall for the purpose of the Subdivision Control Law be deemed to be a part of the plan.
- 3.5. **Plan Preparation**
  - 3.5.1. **Registered Land Surveyor.** All plan preparation and work defined as professional land surveying shall be done by or under the direct supervision of a registered land surveyor

who has been authorized to perform such duties in the Commonwealth of Massachusetts. The land surveyor shall establish all of the lines of streets and easements on the definitive plan upon the ground in a manner satisfactory to the Planning Board.

- 3.5.2. Registered Civil Engineer. All plan preparation and work defined as professional civil engineering shall be done by or under the direct supervision of a registered professional engineer who has been authorized to perform such duties in the Commonwealth of Massachusetts. It shall be the responsibility of the applicant, at his expense, to provide suitable professional civil engineering expertise in the preparation of a definitive subdivision plan and during the construction of the subdivision. The professional engineer shall establish on the ground all of the lines of the various municipal services and the grades for such municipal services, the grades for the installation of the pavement, the grades for the subgrade, which shall be established prior to the laying out of the pavement, and such other grades as shall be required. A registered civil engineer also shall certify that the drainage system has been designed in accordance with the Planning Board regulations and standard engineering practice and then certify on the as-built plan that the drainage system has been built in accordance with the approved definitive subdivision plan.

#### Section 4.0. Plan Submittal and Procedures.

- 4.1. Plan believed to not require approval. Any person wishing a plan of land to be recorded at the Registry of Deeds or to be filed with the Recorder of the Land Court, said land being located within the boundaries of the Town of Pepperell, and who believes that the plan does not require approval under the Subdivision Control Law may submit the plan to the Planning Board.

##### 4.1.1. Contents.

- If the plan shows a division of land, it shall show the following:
  - A. The title, North point, date and scale.
  - B. The name and address of record owner and the surveyor.
  - C. The names of all abutters and the Assessors' assigned street address of said properties, from the latest available Assessors' records, and the Assessors' assigned street address of the subject property.
  - D. Existing streets, ways (showing right-of-way and paved or graveled width), lots, easements, public or common areas, abandoned roads, rights-of-way (whether previously public record or not) and all brooks, streams, ponds and other surface water drainage relevant to the land shown on the plan.
  - E. The entire area in which division takes place, including all lots/parcels affected by an increase or decrease.

- F. Certification by a registered land surveyor of the frontage and area of any remaining adjoining land owned by the applicant.
- G. The zoning district and any overlay district as defined on the Official Zoning Map of the Town of Pepperell.
- H. The location of any existing buildings or structures, including the front, side and rear yard setback dimensions; monuments; boundary markers; stonewalls; retaining walls; fences; wells; septic systems; sewer lines; water lines; foundations or cellar holes; any isolated land subject to flooding; and any unusual topographical features, such as but not limited to ditches or culverts.
- I. The distance to the nearest permanent monument.
- J. Notice of any recorded special permits and/or variances issued as to land or buildings thereon and where reduced frontage is claimed, and certification that any of the abutting lots are not reduced frontage lots under the Zoning By-law Section 7500.
- K. A statement that the plan meets one (1) or more of the following criteria:
  - 1. All lots meet Pepperell zoning frontage requirements.
  - 2. Lots and/or parcels are being joined or made part of adjoining land to meet Pepperell zoning frontage requirements.
  - 3. Lots are at preexisting Pepperell zoning requirements but each has at least twenty (20) feet of frontage.
- L. A locus plan showing the area described in Subsection (5) above subdivided with all lots and streets on a scale identical to the scale of the appropriate Pepperell Assessors' map(s).
- M. Certification that all lots have practical access from the lot frontage to the public way and certification by a registered civil engineer or registered land surveyor that each lot contains thirty thousand (30,000) contiguous square feet of land, exclusive of wetland and flood hazard areas. Only wetland delineations that have been certified by the Conservation Commission within the previous three (3) years are considered final. Proposed wetland delineations which have not been so certified are subject to change that may affect the square footage of land outside wetland or flood hazard areas. If the property is in one of the three Water Resource Protection Overlay Districts (WRPOD), a certification must also be included stating the lot contains the appropriate dry area excluding surface waters and flood hazard areas as defined Section 8100 of the Zoning By-law

- N. A statement on any parcel shown on the plan that the parcel is “Not a Building Lot.”
  - O. A statement that “Approval Under the Subdivision Control Law Is Not Required” and space to record the Board action, date and signatures.
  - P. The following statement shall be located above or beside the endorsement block “This endorsement of the Planning Board does not constitute a finding that zoning requirements have been met.”
  - Q. Certification that the plan was drawn by a land surveyor registered in the Commonwealth of Massachusetts and that he or she has complied with the rules and regulations of the Register of Deeds in preparing the plan.
  - R. The lot shape factor, in accordance with the Zoning By-law, shall be shown for each new lot. The calculation may either be shown on the plan or on a separate sheet.
    - If the plan does not show a division of land, then it must show items described in Subsection B(1), (2), (3), (4), (8), (9), (12), (14), (15), (16) and (17) above.
- 4.1.2. Procedure. The original plan, together with four (4) contact prints thereof, and a copy of the plan in electronic format deemed adequate by the Planning Board shall be submitted by the applicant to the Planning Board at a regular meeting of the Planning Board or by registered mail to the Board in care of the Town Clerk, together with a properly executed copy of Form A, Application for Endorsement of Plan Believed Not To Require Approval, giving the necessary information to show why the plan is believed not to require approval and an application fee in accordance with the fee schedule in the Appendix. Every person submitting a plan for a determination that approval is not required shall give written notice to the Town Clerk by delivery or by registered mail, postage prepaid, of a copy of Form A stating that he has submitted such a plan. The Planning Board shall inscribe on the Form A the date received if the plan is delivered at a meeting of the Board. If delivered by registered mail, the Town Clerk shall inscribe on the Form A the date of mailing, and this date shall be the date of submission of the plan.
- 4.1.3. If the Planning Board determines that the plan does not require approval, it shall, without a public hearing, forthwith endorse the plan and may include a statement of the reason why approval is not required. The Board shall return the original plan to the applicant and notify the Town Clerk of its action.
- 4.1.4. If the Board fails to act upon a plan submitted under this section or fails to notify the Town Clerk and the person submitting the plan of its action within twenty-one (21) days after its submission, it shall be deemed to have determined that approval under the Subdivision Control Law is not required, and it shall forthwith make such endorsement

on said plan, and on its failure to do so the Town Clerk shall issue a certificate to the same effect.

- 4.1.5. If the Planning Board determines, in its opinion, that the plan shows a subdivision as defined in subsection and requires approval, it shall, within twenty-one (21) days after the date of submission, give written notice of its determination to the Town Clerk and to the applicant who submitted the plan, and he may resubmit the plan for approval under the Subdivision Control Law and the rules and regulations of the Planning Board or may appeal from the determination of the Planning Board in the manner as set forth in MGL C. 41, § 81BB.

#### 4.2. Preliminary plan.

- 4.2.1. Purpose. A “preliminary plan” shall mean a plan of a proposed subdivision or resubdivision of land. The submission of such a preliminary plan will enable the applicant, the Planning Board and other local municipal agencies to discuss and clarify any problem that might arise in regard to such a proposed subdivision before the definitive plan has been prepared.
- 4.2.2. Residential subdivision. In the case of a subdivision showing lots in a residential district, any person, before submitting his definitive plan for approval, may submit a preliminary plan to the Planning Board and to the Board of Health. While not mandatory, it is recommended that a preliminary plan be filed on a residential subdivision.
- 4.2.3. Nonresidential subdivision. In the case of a nonresidential subdivision, any person before submitting his definitive plan for approval shall submit a preliminary plan to the Planning Board and Board of Health.
- 4.2.4. Plan requirements. A preliminary plan shall show the following information:
  - A. The subdivision name, boundaries, North point, date, scale, legend and title “Preliminary Plan.”
  - B. The name and address of the record owner, the name and address of the applicant and the name and address of the designer, engineer or surveyor who prepared the plan.
  - C. The names of all abutters to the proposed subdivision, as determined from the most recent local tax list, and the current Assessors’ assigned street address of said properties as well as for the subject property.
  - D. The existing and proposed lines of streets, ways, easements and any public areas within the proposed subdivision in a general way.
  - E. The proposed system of drainage, including adjacent existing natural waterways and wetlands in a general way.

- F. The boundary lines of proposed lots with the approximate areas and dimensions.
  - G. The names and approximate widths and locations of all adjacent streets which are within close proximity to the proposed subdivision.
  - H. The topography of the land in a general way.
  - I. The applicant is encouraged to submit a list of waivers which may be requested with the definitive plan.
- 4.2.5. Filing. The applicant shall submit first to the Planning Board, at a regular meeting of the Planning Board or by registered mail to the Planning Board in care of the Town Clerk, fifteen (15) contact prints and and five (5) reduced prints on 11 by 17 inch paper for the use of the Planning Board and/or Planning Board agent(s), together with a properly executed copy of Form B, Application for Approval of a Preliminary Plan, an application fee in accordance with the fee schedule in the Appendix. The Planning Board shall inscribe on the Form B the date delivered at a Board meeting, and the applicant shall promptly file a copy of this Form B with the Town Clerk. If plans are filed by registered mail, the Town Clerk shall inscribe on Form B the mailing date, which shall be considered the date of submission, and if requested the Town Clerk shall give a written receipt therefor. A complete copy thereof shall also be submitted to the Board of Health.
- 4.2.6. Certificate of approval or disapproval. Within forty-five (45) days after submission of a preliminary plan, the Planning Board and the Board of Health, if the applicant submitted directly to the Board of Health, shall notify the Town Clerk and the applicant by registered mail that the plan has been approved, approved with modifications suggested by the Board or agreed upon by the person submitting the plan or has been disapproved, and in the case of disapproval, the Board shall state in detail its reasons therefor.
- 4.2.7. Applicable regulations and by-laws. A preliminary plan having been submitted as set forth herein, any revisions of the preliminary plan and the definitive plan evolving therefrom shall be governed by the rules and regulations relative to the Subdivision Control Law in effect at the time of the submission of the original preliminary plan, provided that the definitive plan is duly submitted within seven (7) months from the date on which the preliminary plan was submitted. The applicable zoning requirements shall be determined in accordance with MGL C. 40A, § 6, and any amendments thereto.
- 4.2.8. Where a definitive plan is not submitted within seven (7) months for a nonresidential subdivision, a new preliminary plan must be submitted prior to submission of a definitive plan.
- 4.3. Definitive plan.
- 4.3.1. Plan requirements. The definitive plan shall be drawn upon sheets measuring twenty-four by thirty-six (24 x 36) inches, and if multiple sheets are used, they shall be



the subdivision. The names of the proposed streets may be inserted in pencil until such time as the names are approved by the Planning Board. Proposed street names shall be included on the plans and shall be sufficiently different in sound and in spelling from other street names in the Town so as not to cause confusion. A street which is planned as a continuation of an existing street shall bear the same name. The proposed street name shall be included in the application submitted to the Board. E-911 coordinator, police and fire officials shall be consulted before final approval of any street names.

- G. The location and total number of all existing and proposed permanent monuments marking streets and ways within the subdivision and/or marking the four major corners of each lot.
- H. Data to determine the location of every lot line and boundary line, sufficient to locate these lines on the ground, using permanent bounds; direction, using bearings to the nearest second; length, to the nearest one hundredths foot; and the areas of the lots shown on the plan to the nearest square foot, with lot numbers shown enclosed in a circle. The building envelope as defined by the appropriate zoning offsets, and the lot shape factor, in accordance with zoning by-law, shall be shown for each new lot.
- I. Certification as to the frontage and area of any remaining adjoining land either owned by the applicant or shown in a cited subdivision plan of record.
- J. Notice of any special permits and/or variances issued as to land or buildings thereon.
- K. A statement inscribed on the plan certified by a registered land surveyor or registered professional engineer that each lot meets Pepperell zoning requirements or that the area and frontage of the lots have been approved in a special permit for cluster development with the special permit identification number and certification that each lot proposed for building contains thirty thousand (30,000) contiguous square feet of area, exclusive of wetland and flood hazard areas. If the property is in one of the three Water Resource Protection Overlay Districts (WRPOD), a certification must also be included stating the lot contains the appropriate dry area excluding surface waters and flood hazard areas as defined Section 8100 of the Zoning By-law. No plan of a subdivision shall be approved unless all of the lots shown comply with the Zoning By-law.
- L. A locus plan showing the area described in subsection 4.3.1.A subdivided as shown with all lots and streets on a scale identical to the scale of the appropriate Pepperell Assessors' map(s).
- M. All existing drainage systems including all pipes, structures, open ditches, natural waterways and water bodies.
- N. All components of proposed drainage system including profiles and cross sections, which may be submitted on separate sheets that shall be considered as part of the

- definitive plan, and the registered civil engineer's certification that the drainage system will perform as it is designed to do. The certification statement shall include the following wording "I certify that the drainage system shown has been designed in accordance with the Subdivision Regulations and accepted engineering practice."
- O. The lengths, to the nearest one hundredths foot, and bearings, to the nearest second, for all proposed easement lines in the subdivision.
  - P. All easements, existing or proposed, on land of others and located beyond the external boundaries of the subdivision but within reasonable proximity to the subdivision and which now are or hereafter may become necessary to allow for the discharge of surface water collected from within the confines of the subdivision. Said easements shall not now or hereafter be considered as part of the subdivision.
  - Q. Existing and proposed topography at two-foot contour intervals, together with the cover types, such as woodland, trees with diameters of eighteen (18) inches or larger, brush, croplands, wetlands, ledge outcroppings and periodically flooded areas. Contours of one foot or spot elevations, may be necessary for clarity in areas with minimal topographic variation.
  - R. Profiles showing the existing and proposed elevations on the right-of-way lines and on the center lines of all proposed streets, at a horizontal scale of one (1) inch equals forty (40) feet and a vertical scale of one (1) inch equals four (4) feet. The proposed finish grade shall be shown on the center line.
  - S. All elevations shall refer to United States Geodetic Survey data. The nearest permanent U.S.G.S. vertical benchmark used shall be noted.
  - T. Site development plan showing the following if included as part of the subdivision: proposed building and or dwelling locations; traffic patterns; parking areas; pedestrian walks; screened service areas; landscaping, including site grading; nonglaring exterior lighting planned so as to best serve each building or group of buildings and to ensure that no lights directly illuminate adjacent lots; and preservation and enhancement of the site by retaining and protecting trees, shrubs, ground cover, stone walls and other site features insofar as practical, and adding new plant material for privacy, shade, beauty of buildings and grounds and to screen features which may be deemed detrimental to the aesthetics of the development. The site development plan shall be a separate sheet in the plan set.
  - U. All existing sewerage layouts, private septic systems and water supply layouts or private wells within or adjacent or within three hundred (300) feet of the subdivision boundaries.
  - V. The location of base flood elevations if within the subdivision or within one hundred (100) feet of the subdivision boundaries.

- W. Certification that the plan was drawn by a land surveyor registered in the Commonwealth of Massachusetts and that such person has complied with the rules and regulations of the Register of Deeds in preparing the plan.
  - X. The location of all existing and proposed utilities, including, but not limited to water, sewer, electric, gas, telephone and cable television, within, adjacent to, or within three hundred (300) feet of the subdivision boundaries as applicable to the project.
  - Y. All resource areas, as defined in the Wetlands Protection Act, within or occurring within 200 feet of the Subdivision. The delineation of all such wetland and adjacent upland resource areas within the Subdivision shall be certified by the Conservation Commission prior to the submittal of a Definitive Plan to the Planning Board.
  - Z. Location of all proposed septic disposal areas with a minimum of one percolation test and two deep holes per leach area (primary and reserve). Minimum depth to groundwater shall be determined. A log of the deep test holes, percolation tests, soil types and depth to groundwater for the entire site as witnessed by a representative of the Board of Health and in accordance with the requirements of 310 CMR 15.000 shall be included. Said log may be included in the accompanying data documents.
- 4.3.2. Accompanying data and statements. The definitive plan shall be accompanied by five (5) copies of the following written data:
- A. Properly executed Form E, Certified List of Abutters.
  - B. An estimate of the volume of earth material, in cubic yards, to be removed from the site to achieve the finished topography.
  - C. Direction of groundwater flow.
  - D. It is recommended that the applicant submit documentation from the Conservation Commission that the Wetlands Protection Act<sup>1</sup> does not apply via a Determination of Applicability or a copy of an Abbreviated Notice of Resource Area Delineation under the Wetlands Protection Act.
  - E. Documentation from the Board of Health that any nonmunicipal water supply proposed for use is of adequate quality and volume so as not to endanger the public health or a certified copy of the engineering report indicating the same and requesting concurrence from the Board of Health.
  - F. Analysis of the impact of the project on the municipal wastewater treatment plant.
  - G. Stormwater drainage calculations which shall be certified by a registered professional engineer qualified in civil engineering. Deep observation holes and percolation test

---

<sup>1</sup> Editor's Note: See MGL C. 131, §§ 40.

data shall be provided that is sufficient to demonstrate the suitability of the soils to provide any leaching capacity required by the proposed drainage system.

H. A plan to control soil erosion and sedimentation which shall identify the specifications for and location of measures to be utilized to control erosion and sedimentation and a schedule for the installation of proposed control measures relative to the construction of the proposed subdivision; and the time during which each area of the proposed subdivision will be exposed to erosion and sedimentation damage prior to completion of the proposed control measure or measures shall be estimated. The soil erosion and sedimentation plan shall be based upon data concerning the natural characteristics of the proposed subdivision, including but not limited to the length and degree of slopes, soil types, the type and intensity of vegetative cover and the location of natural drainageways on and adjacent to the proposed subdivision. The following erosion control practices shall be incorporated into the plan:

1. During construction, temporary vegetation and/or mulching shall be used to protect exposed areas from erosion. Until a disturbed area is permanently stabilized, sediment in runoff water shall be trapped by using staked hay bales or sedimentation traps. Temporary seeding of stockpiled material may also be necessary if said stockpiles exist for over 30 days. The Town recommends use of proposed detention/retention basins as temporary sedimentation basins during construction. Said basins shall be cleaned prior to roadway acceptance by the Town.
2. Dust control shall be used during grading operations if the grading is to occur within two hundred (200) feet of an occupied residence or place of business. Dust control methods may consist of grading fine soils on calm days only or dampening the ground with water.
3. Permanent erosion control and vegetative measures shall be in accordance with the erosion/sedimentation/vegetative practices recommended by the Natural Resources Conservation Service.
4. Exposed or disturbed areas due to stripping of vegetation, soil removal and regrading shall be permanently stabilized prior to occupancy of a structure.
5. All disturbed areas shall be covered with topsoil to a depth of 4 inches and planted with non-invasive species, which plantings shall be well established with sufficient cover to prevent erosion before such areas shall be considered permanently stabilized.

H. Traverse notes, or the text of any easements, covenants or deed restrictions applying or proposed to apply to the area being subdivided, rights and easements obtained for utilities or drainage outside of the subdivision.

- I. Engineering feasibility studies of any anticipated problems which might arise due to the proposed development or a statement to the effect that no problems are anticipated due to the proposed development.
- J. The construction sequence for completion of each phase of the development.
- K. Preliminary drawings for buildings to be constructed, including floor plans and exterior elevations.
- L. Any long range plan for maintaining the entire development after construction and measures to guarantee maintenance in accord with the plan, including but not limited to designation of ways, easements, utilities and facilities which the applicant intends that the town own, maintain or be responsible for in the future.
- M. An environmental impact analysis shall be submitted documenting and discussing the following: population projected for the subdivision; impact upon quality and quantity of existing or future public or private water supply, surface water and groundwater; demand of project for water consumption and fire protection; estimation of the quantity and types of refuse that will be generated by the subdivision and methods of disposal; vehicular circulation patterns, including number and types of vehicles inside and outside of development and at nearby arteries and intersections, and impact to the town; capability of soils, vegetative cover and proposed erosion control measures to support proposed development without erosion, silting or other instability; possible sources and duration of odors, smoke and dust and precautions to be taken to eliminate or minimize the adverse environmental effects; location of the subdivision in relation to prevailing wind patterns; effect on land-based ecosystems, such as indigenous wildlife, stream bank cover and wooded growth; proximity to transportation, shopping, education and recreational facilities; architectural and landscaping techniques which will be used to blend the structures with the surrounding area, the height of the structures in relation to the surrounding area, and the project's visual impact and possible interference with natural views; impact on local schools; impact on residents' public health due to changes in water quality, air quality and noise levels.
- N. The applicant shall submit a list of all waivers requested, which list the applicant may later amend at public hearing.
- O. A copy of the completed Notice of Intent for Stormwater Discharges Associated with Construction Activity Under an NPDES (National Pollutant Discharge Elimination System) General Permit shall be submitted (to the Planning Board) prior to the start of construction where applicable.
- P. Where applicable, a stormwater management form shall be submitted.

4.3.3. Requirements for filing. The applicant shall submit the original plan first to the Planning Board at a regular meeting of the Planning Board or by registered mail to the

Planning Board in care of the Town Clerk, together with fourteen (14) full-size contact prints and five (5) reduced prints on 11 by 17 inch paper for the use of the Planning Board and/or its agents, five (5) copies of the required accompanying data, an application fee in accordance with the fee schedule in the Appendix, and a properly executed copy of Form C, Application for Approval of a Definitive Plan. The applicant will be billed at a later date for a postage fee equal to the number of abutters times the then-current United States postal rate for the first-class mail payable to the Town of Pepperell, plus the cost of advertising the public hearing. The Planning Board shall inscribe on the Form C the date received if by delivery at a Board meeting, or the Town Clerk shall inscribe on the Form C the date mailed if by registered mail to the Board in care of the Town Clerk, and this shall be the submission date. In the case of filing at a meeting of the Planning Board, the applicant shall also file with the Town Clerk one (1) copy of Form C and the Town Clerk shall inscribe thereon the date and time received. A complete copy of all materials submitted shall also be submitted to the Board of Health.

- 4.3.4. Review by the Board of Health. At the time of filing the definitive plan, the applicant shall also file a copy with the Board of Health, and the Board of Health shall, within forty-five (45) days thereafter, report to the Planning Board, in writing, approval or disapproval of the plan, and a copy of such report shall be delivered or mailed to the applicant. If the Board of Health has reason to disapprove the plan, it shall make specific findings as to which, if any, of the lots shown on the plan cannot be used for building sites without injury to the public health and shall include such specific findings and the reason or reasons therefor in such report and, where possible, shall make recommendations for the adjustment thereof. Any approval of the plan by the Planning Board shall then be given only on condition that the designated lots or land shall not be built upon without the prior consent of the Board of Health, and the Planning Board shall endorse on the plan such conditions and specify the lots or land to which such conditions apply. Failure on the part of the Board of Health to so report shall be deemed as approval.
- 4.3.5. Public hearing. Before approval, modification and approval or disapproval of a definitive plan is given, a public hearing shall be held by the Planning Board, notice of the date, time and place of which and subject matter sufficient for identification shall be given by the Planning Board, at the expense of the applicant, by advertising in a newspaper of general circulation in the Town of Pepperell once in each of two (2) successive weeks, the first publication being not less than fourteen (14) days before the day of the hearing, and by mailing a copy of such advertisement to the applicant and to all of the abutters as defined in subsection 2.0 of these rules and regulations.
- 4.3.6. Planning Board Action.
  - 4.3.6.1. After the hearing and after the report of the Board of Health or lapse of forty-five (45) days without such report, the Planning Board shall approve or, if such plan does not comply with the Subdivision Control Law or these rules and regulations or the recommendations of the Board of Health, shall modify

and approve or shall disapprove the definitive plan by a majority vote and state the reasons for the vote, which shall be recorded on the appropriate form (Form C-1, Certificate of Approval/Approval with Modifications of a Definitive Plan; Form C-2, Certificate of Disapproval of a Definitive Plan), then filed with the Town Clerk and mailed by registered mail to the applicant.

- 4.3.6.2. In the event of disapproval, the Planning Board shall state in detail wherein the plan does not conform to these rules and regulations or the recommendations of the Board of Health. If a disapproved definitive plan is amended by the applicant to eliminate all stated reasons for disapproval, in a manner satisfactory to the Planning Board, the Planning Board shall hold an advertised public hearing at the applicant's cost and if the plan, as amended, conforms to these rules and regulations and to other application requirements, the Planning Board shall approve such plan as provided in these regulations. If the report of the Board of Health shall so require, the approval by the Planning Board shall be on the condition that no building or structure shall be built or placed upon the areas designated without consent by the Board of Health.
- 4.3.6.3. In the event that approval by the Board of Health is by failure to make a report, the Planning Board shall note on the plan that Board of Health approval is by failure to report. This failure shall not constitute relief from sewerage or other health requirements as may be applied to a particular lot.
- 4.3.6.4. Approval, if granted, shall be endorsed, subject to the Zoning Act, on the original drawing of the definitive plan by at least a majority of the members of the Planning Board; however, no such endorsement shall be made until the twenty-day statutory appeal period has elapsed following the filing of the certificate and the plan with the Town Clerk and said Town Clerk has endorsed the plan stating that no appeal has been made from the determination of the Planning Board.
- 4.3.6.5. In the case of a subdivision showing lots in a residential district, where a preliminary plan has been acted upon by the Planning Board or where at least forty-five (45) days have elapsed since submission of the preliminary plan, an applicant may file a definitive plan. The failure of the Planning Board either to take action or to file with the Town Clerk a certificate of action on the definitive plan within ninety (90) days after such submission, or such further time as may be agreed upon at the written request of the applicant, shall be deemed to be an approval thereof. Notice of any extension of time shall be filed by the Planning Board with the Town Clerk. In the case of a subdivision showing lots in a residential district, where no preliminary plan has been submitted and acted upon or where forty-five (45) days have not elapsed since submission of such preliminary plan, and a definitive plan is submitted, the failure of the Planning Board either to take final action or to file with the Town Clerk a certificate of such action regarding the definitive plan submitted

by an applicant within one hundred thirty-five (135) days after such submission, or such further time as may be agreed upon at the written request of the applicant, shall be deemed to be an approval thereof

- 4.3.6.6. In the case of a nonresidential subdivision where the preliminary plan has been duly submitted and acted upon or where forty-five (45) days have elapsed since submission of the said preliminary plan and then a definitive plan is submitted, the failure of the Planning Board either to take final action or to file with the Town Clerk a certificate of such action regarding the definitive plan within ninety (90) days after such submission, or such further time as may be agreed upon at the written request of the applicant, shall be deemed to be an approval thereof. Notice of an extension of time shall be filed by the Planning Board with the Town Clerk.
- 4.3.6.7. Approval of a definitive plan does not constitute approval for the laying out of or the acceptance by the Town of Pepperell of streets within a subdivision. The approval of a plan by the Planning Board does not make any street shown a public or Town way; they have the status of private ways open and dedicated to public use. Existing laws of the Commonwealth of Massachusetts and by-laws of the Town must be complied with for the acceptance of any street.
- 4.3.7. Performance guarantee. Before endorsement of approval of a definitive plan, the Planning Board shall require the construction of streets and ways and the installation of municipal services to be secured in accordance with the provisions of MGL C. 41, § 81U using one of the following methods.
  - A. By a proper bond, sufficient in the opinion of the Planning Board to secure performance of the construction of ways and the installation of municipal services required for lots in the subdivision shown on the plan, and the planning board may require that the applicant specify the time within which such construction shall be completed. It shall be accompanied by a properly executed Form H and shall be contingent upon the completion of such improvements within the time specified by the applicant following the date of receipt of such security.
  - B. By a deposit of money or negotiable securities, sufficient in the opinion of the planning board to secure performance of the construction of ways and the installation of municipal services required for lots in the subdivision shown on the plan, and the planning board may require that the applicant specify the time within which such construction shall be completed. It shall be accompanied by a properly executed Form H and shall be contingent upon the completion of such improvements within the time specified by the applicant following the date of receipt of such security.
  - C. By a covenant, executed and duly recorded by the owner of record, running with the land, whereby such ways and services shall be provided to serve any lot before such

lot may be built upon or conveyed, other than by mortgage deed; provided, that a mortgagee who acquires title to the mortgaged premises by foreclosure or otherwise and any succeeding owner of such premises or part thereof may sell any such lot, subject to that portion of the covenant which provides that no lot shall be built upon until such ways and services have been provided to serve such lot; and provided, further, that nothing herein shall be deemed to prohibit a conveyance by a single deed, subject to such covenant, of either the entire parcel of land shown on the subdivision plan or of all lots not previously released by the planning board. A deed of any part of the subdivision in violation hereof shall be voidable by the grantee prior to the release of the covenant but not later than three years from the date of such deed. If the applicant selects a restrictive covenant, it shall be a properly executed Form I and shall be referred to on the plan.

- D. By delivery to the planning board of an agreement executed after the recording of a first mortgage covering the premises shown on the plan or a portion thereof given as security for advances to be made to the applicant by the lender, which agreement shall be executed by the applicant and the lender and shall provide for the retention by the lender of funds sufficient in the opinion of the planning board and otherwise due the applicant, to secure the construction of ways and the installation of municipal services. Said agreement shall also provide for a schedule of disbursements which may be made to the applicant upon completion of various stages of the work, and shall further provide that in the event the work is not completed within the time set forth by the applicant, any funds remaining undischursed shall be available for completion. A tri-party agreement shall be accompanied by a properly executed Form H and shall be contingent upon the completion of such improvements within the time specified by the applicant following the date of receipt of such security.

The applicant may determine the form of performance security and may use a combination of methods, provided that the amount of the bond, deposit of money, negotiable security or agreement bears a direct and reasonable relationship to the expected cost, including the effects of inflation, necessary to complete the subject work and is sufficient in the opinion of the Planning Board. The amount shall be determined using the Street Improvement Guarantee – Bond Amount Determination worksheet provided by the Board. The Board may refuse security based on advice from the Town Treasurer as to the financial status of the bank, company or institution involved. No building permit application for a lot shall be applied for until the lot has been completely released by the Planning Board. Release from performance security shall be properly executed on Form J, Release.

#### 4.3.8. Adjustment of Performance Guarantee

The Board shall have the authority to reduce the performance guarantee amount being held from time to time. The Board shall have the authority to increase the performance guarantee amount being held from time to time in order to reflect: A) additional work that should have been included in the original amount; B) additional work required to correct

or address problems which arose after the original amount was established; or C) to reflect increases in construction costs over time. Interim as-built drawings shall be submitted for review and acceptance prior to any bond reductions.

- 4.3.9. Recording of plan. Within thirty (30) days following the date of endorsement of approval and return by the Planning Board of the definitive plan, the applicant shall deliver to the Planning Board four (4) complete sets of full-size copies of the endorsed plans and any easements and one (1) copy of all easements and covenants, deed restrictions, certificate of approval and the performance guaranty showing the recording by the Registry of Deeds or, in the case of registered land, filing with the Recorder of the Land Court. A copy of the approved plan (the same submitted for endorsement) shall be submitted to the Planning Board in electronic format deemed adequate by the Planning Board. No lot shall be conveyed or built upon until such delivery to the Planning Board is complete. Failure to comply with the procedural and other requirements of these rules and regulations may result in rescission of the approval given hereunder by the Board.

After an application for a definitive subdivision is submitted, no tree removal, no utility installation, no ditching, grading or construction of roads, no grading of lands or lots, no excavation except for purposes of soil testing, no dredging or filling, and no construction of buildings or structures shall be done on any part of the development site until the definitive plan has been approved and recorded in the Registry of Deeds.

- 4.3.10. Evidence of satisfactory performance. Before the Planning Board will release the final interest of the town in the performance security or covenant, the Board shall have received and approved the as-built plan and street acceptance plan, the monument certification, a completed Form K and a completed Inspection Form P. Upon the completion of the subdivision, the applicant shall send by registered mail to the Town Clerk a written statement that said construction and installation of municipal services have been completed in accordance with the requirement of the subdivision approval, and the Town Clerk shall furnish a copy of the statement to the Planning Board. If the Planning Board determines that the construction and installation of municipal services have been completed in accordance with the approved subdivision plan, it shall release the interest of the town in the performance security or covenant. If the Planning Board determines that the construction or installation of municipal services has not been completed, it shall specify in writing to the applicant in detail wherein said construction or installation fails to comply with the approved subdivision plan within forty-five (45) days of the receipt of the Town Clerk of said statement.

- 4.3.11. Modification, amendment or rescission of plan. In accordance with MGL C. 41, § 81W, the Planning Board, on its own motion or on the petition of any person interested, shall have the power to modify, amend or rescind its approval of a definitive plan of a subdivision or to require a change in a definitive plan as a condition of its retaining the status of an approved plan. Failure to record or comply with an agreement, these rules and regulations or the Subdivision Control Law or of the applicant to complete installation of the construction of the subdivision road within three (3) years (or such

other time established by agreement) of endorsement of approval shall be cause for consideration of rescission of approval of such definitive plan.

#### 4.3.12. Ownership.

The applicant shall retain title of the fee of each street or easement in, or appurtenant to, the subdivision until conveyed to the Town and shall maintain and repair the streets, drainage facilities and utilities in a manner satisfactory to the Department of Public Works during that period. The Town of Pepperell is not required to plow snow on a street that has not been accepted by Town Meeting.

If the Town must maintain a portion of, or enter the subdivision for the purpose of public safety, emergency purposes or otherwise, the Town reserves the right to charge the applicant for services rendered.

### Section 5.0. Design Standards.

A table has been provided in the Appendix providing a summary of major street design standards as well as a typical cross section for minor and subcollector roads.

#### 5.1. Easements to town.

- 5.1.1. Easements for surface water drainage, municipal services and other utilities when necessary across lots or centered on the rear or side of lots shall be at least thirty (30) feet in width and shall be conveyed by the applicant to the town by both Form K and a plan which clearly define the purpose and location. A properly executed grant of easement must be delivered to the authorized agent of the town.
- 5.1.2. A right-of-way easement, which shall be conveyed by the applicant on Form K, shall be granted to the Town of Pepperell for the perpetual right to pass and repass and to construct, inspect, repair, renew, replace, operate and forever maintain the water mains, sewer mains and storm drains with any manholes, pipes, conduits, drainage easements and other appurtenances thereto and to do all acts incidental thereto, in, through and under the roadway right-of-way.
- 5.1.3. When a subdivision is traversed by a watercourse, drainageway, channel or stream, the Planning Board may require that there be conveyed to the town a stormwater easement or drainage right-of-way of adequate width to conform substantially to the lines of such watercourse, drainageway, channel or stream and to provide for access for construction or other necessary purposes and which may require approval under and as set forth in MGL C. 131, §§ 40, known as the Wetlands Protection Act and Section 404 of the Federal Clean Water Act, administered by the U.S. Army Corps of Engineers.
- 5.1.4. When, in the design of a surface water drainage system, the outlet discharges water that has collected within the confines of the subdivision in a concentrated stream onto land

of others, and this land is located beyond the external boundaries of the subdivision but within reasonable proximity to the subdivision, the applicant, at his expense, shall be required to obtain an easement, suitable for recording, which would legally allow such surface drainage to flow onto or over such land of others.

5.2. Open space.

Before approval of a plan, the Planning Board may require the plan to show a park or parks suitable for use as a playground or recreation area or for providing light and air. The park or parks shall not be unreasonable in area in relation to the land being subdivided and to the prospective use of the land. The Planning Board may, by appropriate endorsement on the plan, require that no buildings shall be erected upon such park or parks for a period of not more than three (3) years without the prior consent and approval of the Planning Board.

5.3. Public Improvements.

The Planning Board may determine that the developer shall be responsible for the construction or funding of public improvements which are directly related to the impact of the subdivision on the community and in the surrounding area. Such public improvements may include, but are not limited to, intersection improvements, sidewalks, drainage improvements, water system improvements and replacement of street trees.

5.4. Protection of natural features.

Due regard shall be shown for the preservation of all historic and natural features of the environment, such as trees larger than eighteen (18) inches in diameter, watercourses, stone walls, scenic points of interest, historic spots and other similar community assets.

5.5. Access to residential subdivision.

An access to any residential subdivision must be within the town limits. Any access to a subdivision through another town requires certification from that town (proof of subdivision approval may be adequate) that the street is in accordance with the plans and subdivision requirements of that town, that bond posted is adequate and that the access is adequate for expected traffic.

5.6. Streets and ways.

Each subdivision shall be provided with more than one (1) street for access and egress unless the area contained in the subdivision and/or the topography of the land will not allow for more than one (1) access and egress street or the through street would have to cross a significant wetlands system which would be seriously compromised by the crossing.

### 5.6.1. Location and alignment.

- 5.6.1.1. All streets in a subdivision shall be designed so that they shall provide safe vehicular travel. Due consideration shall be given to the accessibility by emergency vehicle and maintenance equipment.
- 5.6.1.2. As far as practical, the proposed streets and ways shall conform to the Master Plan of the Town of Pepperell as recommended and adopted by the Planning Board.
- 5.6.1.3. Provision satisfactory to the Planning Board shall be made for the proper projection of streets (minimum fifty-foot right-of-way easement) or for access to adjoining property which has not yet been subdivided. The strip for future roadway development or for access shall be laid out in such a manner so as to be an extension of or intersect as close as possible at a ninety-degree angle with the proposed or existing street and should address vertical concerns such as maximum slope and grading easements.
- 5.6.1.4. The minimum center-line radius of curved street lines shall be one hundred fifty (150) feet unless a greater radius is required for streets of greater width than the specified minimum width.
- 5.6.1.5. Intersections with existing streets shall be as close as possible to a ninety degree angle.
- 5.6.1.6. In order to provide a border area from the edge of pavement for necessary drainage structures and maintenance of the streets, the right-of-way line at the street intersection shall be rounded so as to provide a 25 foot radius. The centerline of the right-of-way shall be the centerline of the roadway.
- 5.6.1.7. Earthwork for all subdivisions shall be designed to balance cuts and fills to limit soil removal from the site during construction to only the amount necessary to comply with the standards herein and to provide safe access into the required parking areas on each lot.
- 5.6.1.8. All streets within a subdivision shall be constructed in conformity with the typical cross section as shown on the final approved subdivision plan and shall not deviate from said plan without special and specific permission, in writing, of the Planning Board. A typical cross section is provided in the appendix.

### 5.6.2. Dead-end streets.

- 5.6.2.1. Dead-end streets, also referred to as “culs-de-sac” may only be permitted when, in the opinion of the Planning Board, the area contained in the subdivision and/or the topography of the land will not allow for more than one (1) access and egress street or the through street would have to cross a

significant wetlands system which would be seriously compromised by the crossing.

5.6.2.2. In the event that a dead-end street is permitted, such shall not be longer than five hundred (500) feet in length unless a greater length of up to seven hundred fifty (750) feet is required by topography or other local condition. Length of a cul-de-sac shall be measured from the farthest end of the right-of-way of the turnaround to the edge of the right-of-way of the intersecting street. If 2 or more streets branch out but depend on a single access/egress point or a proposed street intersects solely with a dead-end street or cul-de-sac, it shall be deemed an extension of the existing dead-end street or cul-de-sac, and the aggregate length of all streets depending on said access/egress point or a dead-end or cul-de-sac and its extensions shall be deemed the length of the dead-end street for the purpose of these rules and regulations. No new dead-end street or cul-de-sac shall originate from an existing dead-end street unless the total length of the combined streets is less than 500 feet or up to 750 feet if so required by topography or other local condition. A dead-end street shall not serve as access to another dead-end street.

5.6.2.3. Every dead-end street shall be designed with a turnaround at the closed end of the street. At the discretion of the Department of Public Works/Highway Division, the turnaround shall be either a T-type design or cul-de-sac design. The T-type design shall have the street forming the stem of the T. The bar of the T shall be perpendicular to the stem. The paved dimensions of the bar shall be one hundred twenty (120) feet in total length, sixty (60) feet either side of the centerline of the stem and twenty five (25) feet in width. The minimum paved radius at the intersection returns shall be thirty-five (35) feet. The cul-de-sac design will have an outside edge of pavement radius of at least 65 feet (where curbing will be installed) and an inside edge of pavement radius of at least 45 feet (where curbing will be installed). The area inside the inner radius of curbing will be landscaped in such a manner as to minimize maintenance except the 10 feet nearest the curbing, which will be loamed and seeded.

5.6.3. Minimum corner sight distance.

5.6.3.1. Streets and driveways shall be laid out such that there is a minimum unobstructed corner sight distance as viewed from the standard stop position to a vehicle on the through street as specified in the following table:

<b>Minimum Corner Sight Distance</b>	
<b>Design Speed (mph)</b>	<b>Minimum Sight Distance (feet)</b>
30	300
35	350
40	400
45	450

- 5.6.3.2. Corner sight distance is measured from the center of the connecting road or driveway from a point fifteen (15) feet from the stop bar, edge of pavement of the main road or crosswalk (whichever is greater) from an eye height of three and five-tenths (3.5) to six and zero-tenths (6.0) feet to an object four and twenty-five hundredths (4.25) feet in height on the major road.
- 5.6.3.3. All objects, such as trees, brush, signs, brick walls, stone walls, hills, etc., shall be cleared or cut back from the resulting sight distance triangles.
- 5.6.4. Street rights-of-way.
  - 5.6.4.1. The minimum width of a right-of-way shall be fifty (50) feet.
  - 5.6.4.2. The entire area between the right-of-way lines on each street shall be cleared of all stumps, roots, brush, boulders and other material of similar nature and all trees not intended for preservation.
  - 5.6.4.3. The right-of-way for a dead-end street must be such as to accommodate a cul-de-sac whether the street is a T-type or cul-de-sac design.
- 5.6.5. Grades.
  - 5.6.5.1. The minimum grade of any street in a subdivision shall be no less than zero and five-tenths percent (0.5%) and shall be no more than six percent (6%) for collectors and shall be no more than eight percent (8%) for minor streets or subcollectors.
  - 5.6.5.2. All summits of vertical curves shall be so graded as to provide three hundred (300) feet of clear sight distance to drivers and shall be measured on the center line of the road at an eye height of three and five-tenths (3.5) feet to an object zero and five-tenths (0.5) feet in height.
  - 5.6.5.3. Where the grade of any street at the approach to an intersection exceeds three percent (3%), a leveling area shall be provided having not greater than a three-percent grade for a distance of twenty-five (25) feet measured from the nearest right-of-way line of the intersecting street.
- 5.6.6. Subgrade.
  - 5.6.6.1. All loam, clay, peat or other yielding material shall be removed from the area of the travelway to a depth sufficient to establish a subgrade base that is firm and solid and upon which the roadway can be satisfactorily built. Where there is a high water table [within three (3) feet of finished grade] or soil with high clay content, the use of geotextiles may be required at the discretion of the Highway Superintendent to ensure long-term roadway stability.

5.6.6.2. The subgrade of the entire width of the travelway shall be brought to within three and five-tenths (3.5) inches below the finish grade as shown on the profile of the definitive plan, and at least the top number of inches specified in the table of this section as "gravel depth" shall consist of well-compacted bank-run gravel, the top three (3) inches of which shall be free of all coarse aggregates. The entire surface of the subgrade shall be graded by means of a ten-ton, self-propelled motor grader having a leveling blade of at least twelve (12) feet in length. The subgrade and gravel base shall be compacted to not less than 95% of maximum dry density or as shall be required by the Highway Superintendent by means of a twelve-ton, three-wheel roller or a twelve-ton self-propelled pneumatic-tired compaction roller to an overall width specified in the table of this section as "gravel width" and shall be crowned to cause the center line of the roadway to be the height specified as "crown" in the table of this section higher than the side lines of the pavement.

<b>Type of Road</b>	<b>Gravel Depth (inches )</b>	<b>Gravel Width (feet)</b>	<b>Pavement Width (feet)</b>	<b>Crown (inches)</b>
<b>Minor</b>	12	26	24	3
<b>Subcollector</b>	12	26	24	3
<b>Collector</b>	12	38	35	4

5.6.7. Binder course.

5.6.7.1. After the subgrade has been properly set, there shall be laid, in two (2) separate operations, a binder course of bituminous concrete to a depth of two (2) inches and a surface course of bituminous concrete to a depth of one and five-tenths (1.5) inches, both courses after compaction bringing the pavement to the finish grade as shown on the definitive plan. The binder course shall sit through one winter season before the surface course is installed. The bituminous concrete shall meet all of the requirements as set forth by the Massachusetts Department of Public Works Standard Specifications for Highways and Bridges M3.11.W and Sec. 460.

5.6.7.2. A tack coat shall be installed prior to the installation of the surface course of pavement. The tack coat shall conform to the requirements of the Massachusetts Department of Public Works Standard Specifications for Highways and Bridges unless authorized in writing by the Highway Superintendent.

5.6.8. Finished pavement.

- 5.6.8.1. The finished pavement shall be kept intact, and no breaking through of the pavement shall be permitted except in the case of emergency or when, in the opinion of the Planning Board, such excavation shall be considered in the best interests of the public. Should a break be made in the pavement, it shall be the responsibility of the subdivider to replace the pavement in the same manner as it was originally put in place and in a manner approved by the Department of Public Works/Highway Division.
  - 5.6.8.2. After all the interest in the performance security for a subdivision has been released under the Subdivision Control Law, the status and maintenance of the subdivision ways are no longer within the control of the Planning Board.
  - 5.6.8.3. Pavement depths will be confirmed by unit weight as per Mass Highway conversion factors and delivery slips.
- 5.7. Drainage.
- 5.7.1. Storm drains, culverts and related facilities shall be designed to permit unimpeded flow of all natural watercourses, to ensure adequate drainage at all low points along streets, to control erosion and to intercept stormwater runoff along streets at intervals reasonably related to the extent and grade of the area being drained. To the maximum extent feasible, stormwater shall be recharged rather than piped to surface water. Under no circumstances shall stormwater be piped to below base flood elevation. Peak stream flows and runoff rates at the boundaries of the development from a twenty-five-year frequency storm shall be at no greater or lesser rates of flow following development than prior to development. The U.S. Army Corps of Engineers' Programmatic General Permit Category 1 standards shall be applied to all stream crossings unless the crossing design has been reviewed and otherwise authorized by the U.S. Army Corps of Engineers.
  - 5.7.2. The surface water drainage system shall be designed on the basis of a twenty-five-year storm. Culverts shall be designed on the basis of a fifty-year storm with consideration being given to damage avoidance for a one-hundred-year storm. Water velocities shall be between three (3) feet per second and eight (8) feet per second in pipes and gutters and not more than five (5) feet per second on ground surfaces under design conditions. All drain pipes beneath paved areas are to be R.C.P. The use of other pipe products is subject to the approval of the Highway Superintendent. All pipes must meet the bedding or encasement requirements of the DPW/Highway Division. Stormwater shall not be allowed to leave the boundaries of the subdivision at greater or lesser rates of flow or at different points than would occur without the proposed development. Design shall be based upon the modified soil cover complex method as described in Technical Release No. 20 (TR-20) or Technical Release No. 55 (TR-55), This document is available through the Natural Resources Conservation Service, U.S. Department of Agriculture, Westford, Massachusetts. Design consideration shall be given to beaver management issues.

- 5.7.3. Catch basins shall be four (4) feet in diameter with a minimum three-foot sump, and manholes to be a minimum of 4 feet diameter with no sump. Drainage structures must be precast concrete. Grates shall be twenty-four (24) inches square and shall have two-inch square openings. Catch basins must be designed and located such that the grate capacity of each is not exceeded. Catch basins shall be located on both sides of the roadway on continuous grades, at intervals of not more than four hundred (400) feet or of not more than 400 feet from roadway crests, and at low sags in the roadway and near the corners of the roadway at intersecting streets. Proper connections shall be made with existing storm drains. Castings must be American made and approved by the Highway Superintendent. Pipes in to and out of all drainage structures must be flush and neat to the interior wall of the structure. The drainage system should be designed so as to have catch basins flow into drain manholes located outside the curbing, not in to other catch basins. Lateral connections must be 5 feet deep for frost concerns. Infiltration systems should be incorporated into the drainage design wherever possible. All outfalls are to have either an endwall or a flared end section with riprap erosion protection (of adequately sized stones).
- 5.7.4. If, after consultation with the Department of Public Works/Highway Division and Department of Public Works Director/Town Engineer, the Planning Board determines that the capacity of an existing town drain into which surface water from the proposed drainage system shall be projected is inadequate to accommodate the entire proposed subdivision, then only that portion thereof which can be adequately accommodated shall be connected, and the applicant shall be required, at his expense, to obtain easements or other means to properly project the collected surface drainage from the remaining portion of the subdivision.
- 5.7.5. There shall be no open ditch or swale drainage created between the access road and the frontage or building area of any lot.
- 5.7.6. Where property adjacent to the external boundaries of a proposed subdivision has not been subdivided and the topography of the land would suggest no other alternative, provision shall be made for the extension of the drainage system to the exterior boundaries of the subdivision at such size and grade as shall allow for adequate extension.
- 5.7.7. Materials used in construction shall conform to the Commonwealth of Massachusetts Department of Public Works Standard Specifications for Highways and Bridges, as amended, unless other materials are noted in these regulations.
- 5.7.8. An as-built plan showing location and grades of all sewer, water and drain lines, including sewer and water stub connections, shall also be submitted to and approved by the Planning Board before installation of the binder course of bituminous concrete. If the binder course must be excavated for any reason, the top course cannot be installed until after the following winter season. The top course cannot be excavated at any location prior to final acceptance. The engineer and surveyor shall depict and list on the plan any deviations from the endorsed plan approved by the Planning Board and

highlight these changes on the as-built and date of approval of change by the Planning Board.

- 5.7.9. Stormwater management systems shall be designed in accordance with the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Policy Handbook and Technical Handbook as most recently amended, whether or not the subdivision falls within the jurisdiction of the Wetlands Protection Act.
- 5.7.10. The discharge end of all pipes with a diameter of 15 inch or more shall be fitted with a protective barrier, suitable in the opinion of the Planning Board to prevent access by children. Said barriers shall be removable for maintenance purposes. Masonry headwalls, flared endsections and riprap material shall be installed, as approved by the Planning Board, to prevent erosion.
- 5.7.11. Spring high groundwater testing or soils science mottling (“Estimated Seasonal High Ground Water” (ESHGW) elevations as defined by the Massachusetts Environmental Code, Title 5) is required for all stormwater detention/retention basins. Evidence of the elevation of groundwater in relationship to the design of all proposed stormwater detention/retention basins is required, either by spring high groundwater testing or soil analysis.
- 5.7.12. The outermost edge of stormwater detention/retention basins shall be located a minimum of 25 feet from any roadway or property line, and shall be screened from adjacent lots and streets by a greenbelt of trees and shrubs planted not more than 15 feet apart in two staggered rows. Such trees or shrubs shall be not less than 8 feet in height at the time of planting. No basins shall be located at street intersections.
- 5.7.13. Except for wetlands and water bodies within the boundaries of the lots, lots shall be graded so that there is no ponding or standing water and the runoff is directed to the street, water bodies, wetlands, drain inlets, detention basins or surface drains in easements.
- 5.8. Utilities.
  - 5.8.1. All electrical wiring, telephone wires and cables and all similar utilities shall be placed underground.
  - 5.8.2. All underground utilities, such as but not limited to existing and future house services for water, gas, electric, telephone, cable television and other, shall be installed underground to the edge of the right-of-way and shall be located by measurement and recorded on the as-built plan to afford ease of location in the future. All components of private utility systems that are located at or above grade (such as transformer pads, service boxes or pull boxes) will be identified and protected with a bollard to prevent damage from plowing and mowing.

- 5.8.3. Final acceptance of any road will depend on signed acceptance by private utilities for their utilities.
- 5.9. Domestic water supply.
- 5.9.1. When a public water system is available for use in a subdivision or is not an unreasonable distance from an access street entering into a subdivision, all of the lots in the subdivision shall be serviced by such public water system. Subdivision waterlines shall be so constructed and installed as to conform to the requirements and specifications of the Town of Pepperell Department of Public Works/Water Division, including financing. The engineer for the subdivision must confirm, based on information made available from the DPW/Water Division, that water of adequate volume and pressure is available.
- 5.9.2. When a public water system is not available for installation and use in a subdivision, the applicant, at his expense, may elect to install and use an in-lot water system, which system shall conform to all of the regulations and specifications of the proper authority whose duty it is to protect the public health, approve the location of the source of supply and certify as to the quality, quantity and adequate volume obtainable from the system.
- 5.9.3. All work must be in compliance with DPW/Water Division regulations and fully inspected by the DPW/Water Division. The water main shall be installed on the opposite side of the roadway from the underground utilities.
- 5.9.4. An as-built plan showing location and elevations of all sewer, water and drain lines, including sewer and water stub connections, shall also be submitted to and approved by the Planning Board before installation of the binder course of bituminous concrete. The engineer and surveyor shall depict and list on the plan any deviations from the endorsed plan approved by the Planning Board and highlight these changes on the as-built and date of approval of change by the Planning Board. Prior to final acceptance, an electronic copy of said as-built shall be submitted to the Department of Public Works.
- 5.9.5. The Board may require water mains to be installed in proposed roadways if the Department of Public Works/Water Division projects that municipal service will be available at that location within 10 years. The mains shall be constructed in accordance with the specifications of the Department of Public Works/Water Division and no domestic service shall be provided unless approved by the Department of Public Works.
- 5.10. Sewerage system.
- 5.10.1. If public sewerage system is available for use in a subdivision or exists at a reasonable distance from an access street entering into the subdivision, that subdivision shall be serviced by such public sewerage system at the expense of the applicant, and sewer lines shall be constructed and installed to serve all of the lots on each street of the subdivision so as to conform to all of the requirements and specifications of the Town of Pepperell Department of Public Works/Sewer and Wastewater Division and the

Board of Health. Factors which will be used in determining if public sewer is available within a reasonable distance shall include, but are not limited to, the following: actual distance, capacity of existing line, topography, grade from subdivision to public sewer, size of subdivision, effective density of subdivision, ability to obtain easements, permits or license to traverse land of others, environmental constraints and correlation with the Sewer District Zoning Overlay.

- 5.10.2. When a public sewerage system is not available for extension and use in a subdivision, the applicant, at his expense, may install and use an individual sewerage disposal system for each lot, which design and installation shall be subject to the approval of the Town of Pepperell Board of Health and conform to the State Environmental Code and Town of Pepperell Board of Health regulations. Grading for slope requirements for on-site sewage disposal systems shall be totally contained within the lot upon which such system is proposed. No slope easements onto any adjacent lot or property shall be permitted.
  - 5.10.3. In the case of multiple units, which could include condominiums, cluster developments, shopping centers or similar units, a central sewerage system may be accepted by the Planning Board, provided that the topography of the land is suitable, sufficient open space areas are available for leaching areas for the effluent and the Town of Pepperell Board of Health approves the system.
  - 5.10.4. An as-built plan showing location and grades of all sewer, water and drain lines, including sewer and water stub connections, shall also be submitted to and approved by the Planning Board before installation of the binder course of bituminous concrete. The engineer and surveyor shall depict and list on the plan any deviations from the endorsed plan approved by the Planning Board and highlight these changes on the as-built and date of approval of change by the Planning Board. An electronic copy of said as-built shall be submitted to the Department of Public Works.
- 5.11. Sidewalks.
- 5.11.1. Sidewalks shall be constructed on both sides of the street, or on one (1) side of a street, or on one (1) side of a part of a street or on both sides of a part of a street, and such sidewalks shall be at least five (5) feet in width when the right of way calls for the street to be fifty (50) feet wide and shall have a finished grade of two percent (2%) sloping toward the roadway. Sidewalks shall be in line with and adjacent to the right-of-way line as shown on the definitive plan. The area between the roadway curbing and the edge of the sidewalk shall be loamed and seeded. No grass strip will be located in stretches of road where there are no adjacent houses proposed. In such areas, the sidewalk will be installed directly adjacent to the curbing.
  - 5.11.2. All undesirable material, such as loam, clay, peat or other such material, shall be removed for the full width of the sidewalk, to a depth of at least ten (10) inches below finished grade, and shall be replaced with eight (8) inches of compacted gravel, with the exception of the entrances to driveways, which shall be excavated to a depth of twelve

(12) inches below finished grade and replaced with ten (10) inches of compacted gravel. The driveways shall extend to the edge of the travelway. Sidewalks shall then be paved in two (2) courses with bituminous concrete to a compacted total depth of two (2) inches.

5.11.3. The area between the curbing and the edge of the sidewalk shall be excavated to a depth of at least four (4) inches, and the removed material shall be replaced with a good quality loam, seeded in sufficient quantity to assure adequate coverage and rolled in when the soil is moist.

5.11.4. Sidewalk designs shall conform to the Federal Americans with Disabilities Act (ADA) and the Massachusetts Architectural Access Board (AAB) requirements, including minimum clear path, curb openings at intersections, catch basin locations, and tree clearance over sidewalks.

#### 5.12. Curbing.

Curbing is required and shall be of a mountable design granite, also known as sloped granite edging (Mass Highway M9.04.2) set on a minimum of six (6) inches of compacted bank-run gravel and set in concrete. When such curbing passes a catch basin, a granite curb inlet shall be put in place at the catch basin, and granite curbing shall be installed in such a manner as to blend into the ends of the curb inlet unless otherwise approved by the Highway Superintendent.

#### 5.13. Side slopes.

5.13.1. When a street has been cut through and brought to the approximate finished grade as shown on the definitive plan, causing cuts and fills to be made, such cuts and fills shall be sloped back from the right-of-way line onto the abutting lot or lots, and the applicant shall reserve slope easements wherever feasible and as shown on the definitive plan. No slope shall project above a plane sloped four (4) horizontal to one (1) vertical from the right-of-way line or be below a plane sloped four (4) horizontal to one (1) vertical on a downward slope. All slopes shall be graded to a point where they coincide with the grade of the abutting lot or lots. All slopes shall be covered with at least four (4) inches of good quality loam, seeded in sufficient quantity to assure adequate coverage and then rolled in when the soil is moist.

5.13.2. If the downward slope creates a danger to life and limb from the operation of motor vehicles or creates a danger to pedestrians or for any other reasonable purpose, the applicant shall be required to protect the area by installing a guard rail, and each guard rail shall be subject to the approval of the Highway Superintendent.

5.13.3. Should retaining walls be necessary or advisable, such retaining walls shall be built with reinforced concrete, fieldstone set in mortar, brick, interlocking masonry design or such other material that might blend in with the environment. All retaining walls shall be equipped with weep holes to allow for seepage from behind the wall. All retaining

walls on the downward slope must include guardrails. All retaining walls must comply with the Massachusetts State Building Code, Section 1825 Retaining Walls and design must be prepared and stamped by a professional engineer. A note on the plan “designed by others” is not acceptable.

5.14. Trees.

5.14.1. All trees within the right-of-way of a proposed minor or subcollector road that are properly spaced, healthy and consistent with the environment shall be retained where feasible to do so; however, no tree shall be permitted to stand in the area that is located within five (5) feet of the edge of the travelway.

5.14.2. When existing trees are inadequate, and in consultation with the Tree Warden, shade trees having a diameter of at least two (2) inches and of a variety suitable to local environment shall be planted in about zero and five-tenths (0.5) a cubic yard of good quality loam and shall be spaced not more than forty (40) feet apart, none of which shall be within five (5) feet of the edge of the traveled way but within the right-of-way. Trees shall not be located any closer than 10 feet to a storm water catch basin. Said trees shall be shown with overall landscaping on the site development plan. Where possible, native species shall be used. No invasive exotic tree species shall be allowed.

5.15. Street Signs and Subdivision Signs or Decorative Monuments.

5.15.1. Metal street signs shall be as specified by and approved by the Department of Public Works Director/Town Engineer and Department of Public Work/Highway Division and shall be mounted on steel posts with a 2 ¼ inch diameter which shall be set into the ground so that they cannot be moved or turned. When erected at street intersections, the names of both streets shall be provided for and attached to the post in such a manner that the signs cannot be turned on the post. Prior to the issuance of any building permits, a temporary street sign shall be installed.

5.15.2. All subdivision signs or decorative monuments proposed within twenty-five (25) feet of a public right-of-way shall be shown on the definitive subdivision plan and requires Planning Board approval. No such sign, monument or stone wall shall be located within the right-of-way.

5.16. Traffic signs and pavement markings.

5.16.1. Traffic signs shall be installed at the expense of the applicant as specified by the Planning Board and mounted on approved metal posts which shall be so set into the ground that they cannot be moved or turned. Said signs shall conform in placement and design to the standards and warrants as found in the Manual of Uniform Traffic Control Devices, as amended by the Massachusetts Department of Public Works and the Pepperell Department of Public Works/Highway Division. Temporary street signs will be required during construction for public safety purposes.

5.16.2. Pavement markings such as stop lines, crosswalks, double yellow center lines and white edge lines shall be applied at the expense of the applicant as specified by the Planning Board. Said pavement markings shall conform in placement and design to the standards and warrants as found in the Manual of Uniform Traffic Control Devices, as amended by the Massachusetts Department of Public Works and the Pepperell Department of Public Works/Highway Division.

5.17. Hydrants.

Where a public water system is utilized, fire hydrants of a design specified by the Town of Pepperell Board of Fire Engineers and Department of Public Works/Water Division shall be installed at intervals of every five hundred (500) feet of a street or way and shall be installed a minimum of two (2) feet behind the sidewalk and a minimum of four (4) feet off of the traveled way.

5.18. Monuments.

5.18.1. Permanent monuments of granite measuring not less than forty-two (42) inches in length and not less than five (5) inches square, the top of which shall be dressed and contain a zero-and-five-tenths-inch drill hole, shall be installed along the right-of-way at each street intersection and at all points of change in direction or curvature of streets and shall be shown on the definitive plan. The four major corners of each lot shall also be marked with monuments. A bound shall be placed along the right-of-way when not coincident with a monument at the street intersection or a point of change in direction or curvature. A steel survey marker or other permanent marker acceptable by the Planning Board may be substituted for granite monuments at the rear of the lot only. Substitutions may not be made for monuments at street intersections, points of change in direction or curvature.

5.18.2. No permanent monuments shall be installed until after all construction that might cause the monuments to be moved or destroyed has been completed. The installation or setting in place of the monuments shall be done only under the direct supervision of a registered land surveyor.

5.18.3. The performance guarantee shall include an amount totaling two hundred dollars (\$200.) for each monument as shown on the definitive plan plus an allowance for survey and field layout. Upon receipt of the as-built plans which shall include a certification by a registered land surveyor that all monuments have been installed accurately as shown on the definitive plan and after an inspection of said monuments by an agent of the Planning Board, the Board may consider release of that portion of the performance guarantee held for monumentation. Should the applicant fail to provide a certification, the Planning Board may use this fee to install and/or have certified the required monuments.

Section 6.0. Administration.

6.1. Inspection.

6.1.1. At the time of approval of a definitive plan or shortly thereafter, the Planning Board shall prepare for the applicant a list (Inspection Form P) of the various phases of the subdivision, outlining the sequence in which each phase shall be prepared by the applicant. Periodic inspections of each phase of the work shall be made by the Planning Board or its duly appointed agent. Inspections of each phase are to insure compliance with the subdivision rules and regulations and approved definitive subdivision plan, checking the overall adequacy of the work. The inspections are not meant to substitute for or replace as-built plans. All work must be confirmed to be compliant with design requirements by the submittal and approval of as-built plans. It shall be the responsibility of the applicant to notify the Planning Board, in writing, when each phase of the work is ready for inspection. Such notice shall be made at least forty-eight (48) hours prior to the time that inspection is requested by the applicant. It shall be the responsibility of the Planning Board to notify its agent to make the requested inspection. Such inspection approval does not constitute acceptance of such utilities by the Town of Pepperell nor shall it replace or supersede as-built approval nor does such approval constitute acceptance of said utilities by the Town of Pepperell.

6.1.2. At the time of submission of the definitive plan, the applicant shall deliver to the Planning Board a certified check, made payable to the Town of Pepperell, in the amount of \$ 3000.00, as a deposit by the applicant for inspections. The check shall be deposited with the Treasurer of the Town of Pepperell. The expense of all inspections shall be the responsibility of the applicant. The charge for inspection shall be based on the rate charged by the Planning Board Agent, and in the event that the deposit is insufficient to cover the accumulated hours of inspection, the applicant shall be required to increase or add to the deposit. In the event that the inspection time is less than the number of hours that can be purchased with the total deposit, then all unused funds remaining in the deposit shall be refunded to the applicant.

6.2. Safety, cleanup and maintenance.

6.2.1. The applicant and his subcontractors shall take all precautions to observe common sense safety requirements and shall avoid all unsafe activities during the construction of the subdivision.

6.2.2. Ditches, trenches or holes in the ground that are four (4) feet or more in depth and soil that is piled higher than ten (10) feet or materials that are stored or piled in an unsafe manner shall not be permitted unless the area in which they are contained is properly fenced or otherwise adequately protected.

6.2.3. Before the final release by the Planning Board of any performance guarantee on the subdivision, the applicant or his subcontractors shall clear the lot of all debris thereon which may have resulted from construction on the lot or areas adjacent to the lot.

- 6.2.4. Before the final release by the Planning Board of any performance guarantee on the subdivision, the applicant or his subcontractor shall clean all drainage structures, including, but not limited to catchbasins, outfall areas and retention/detention areas, remove all on-site materials and equipment relating to construction of the streets, and sweep all streets. The Planning Board may also identify other items to be addressed by the applicant or his subcontractor, such as repairs or other maintenance. The Planning Board must be notified so that an agent of the Planning Board may perform an inspection.
- 6.2.5. It shall be the responsibility of the applicant and/or applicant's successor's in title to all or any portion of the subdivision to maintain the streets and utilities within the subdivision until the streets and easements are formally accepted by the Town. The approval of subdivision streets by the Planning Board does not make them public or Town ways; they have the status of private ways open and dedicated to public use. The Town of Pepperell is not required to plow snow on a street that has not been accepted by Town Meeting.

6.3. As-built plan.

Included in the performance guarantee will be money held for the completion of as-built plans. Prior to final bond release, a final as-built plan shall be submitted for approval. The as-built plans shall be an accurate record plan and profile capable of producing contact prints. The as-built plan and profile shall bear the certification from both a Registered Professional Civil Engineer and Land Surveyor that all utilities shown thereon are as-built as to location and grade, that all stone bound monuments have been properly and accurately set in accordance with Professional Land Surveying standards and that the roadway is within the right-of-way lines shown, and that the subdivision, as constructed, is entirely in accordance with the proposed grading plan and that the drainage patterns conform to the drainage analysis as submitted and approved by the Planning Board. Final as-built plans and profiles shall include at a minimum the following information. The Planning Board may require the inclusion of additional information not set forth herein, when deemed reasonably necessary.

- A. Rim elevations, size, type and inverts of all drainage and sewer structures and pipes.
- B. Location, type and elevation of all water mains, including gates, tees, lot services and hydrants.
- C. Location and type of all underground electrical, telephone, fire alarm and cable lines, including transformers, utilities and junction boxes, and services to lots.
- D. Water service shut-off boxes to each lot with linear ties to a minimum of 2 permanent structures or monuments.
- E. Location of all gas lines including lot services and shut-offs.
- F. Curbing including sizes and type.
- G. Sidewalks and grass plots including type and width and handicap ramps.
- H. Driveway curb cut from edge of pavement to right-of-way lines.
- I. Centerline stationing with monument stationing.

- J. Top and bottom of fill and cut slopes adjacent to the roadway.
- K. Centerline profile elevations at every 50 foot station and at high and low points.
- L. Width of roadway pavement.
- M. Utility and light poles with guys.
- N. Street signs and traffic signs.
- O. Permanent bench marks on each plan sheet
- P. Landscaping and tree plantings.
- Q. All roadway drainage facilities including easements, swales, appurtenances and final landscaping. If a detention/retention basin is part of the subdivision, provide enough spot elevations on the bottom and top of side slopes to indicate that the basin is sized as per approved design.
- R. Any and all differences between the original approved endorsed design and as-builts shall be clearly indicated by bold print, italics, circling, etc., on the as-built plans accompanied by a list referencing the deviation and the date of approval of the change by the Planning Board.
- S. Topography shown with contour intervals of not greater than two feet.
- T. Street numbers for each lot enclosed in a square obtained from the Board of Assessors.
- U. Registered Professional Engineer's certification as to the performance of the drainage system.
- V. The engineer and surveyor shall depict and list on the plan any deviations from the endorsed plan approved by the Planning Board and highlight these changes on the as-built and date of approval of change by the Planning Board.

A copy of the approved as-built plan must be submitted in an electronic format deemed adequate by the Board's designee and the Department of Public Works.

A statement shall be provided on the as-built plans that the information provided conforms to these regulations, to the design intent of the design engineer and that any exceptions, exclusive of granted waivers, shall be noted on said plan.

Submission and approval of an as-built plan as specified herein shall be a precondition to the final release of bonds and/or covenant as the case may be securing performance of construction in accordance with these rules and regulations of each section of a subdivision.

#### 6.4. Street Acceptance Plan

Included within the performance guarantee will be a deposit for completion of a street acceptance plan. Prior to final bond release, a plan, suitable for submission to Town meeting for street acceptance purposes and for recording, shall be submitted to the Planning Board for approval. The plan shall include any and all easements, house numbers and/or lot numbers.

6.5. Changes or alterations.

6.5.1. No changes or alterations shall be made in an approved definitive plan without resubmitting the changes for the approval of the Planning Board. For the purposes of this section, an approved definitive plan shall include all elements listed under subsection 4.3.1 and B of these regulations, including any alterations in grades, drainage plans or other municipal services. The Planning Board shall then review the change to determine whether it shall be deemed minor or not.

6.5.2. Minor Changes – Minor amendments or changes to conditions of approval or restrictions may be made when field conditions warrant a minor change which, in the Planning Board’s staff or agents (DPW Director/Town Engineer or a DPW Superintendent) opinion, such change will not substantially detract from the intent of the condition or restriction. Such a change shall be reviewed and approved by the Planning Board at the next regularly scheduled meeting.

6.5.3. Other Changes - Any modification or amendment of a Definitive Plan Approval or its conditions which is not deemed to be minor shall be made only pursuant to MGL Section 41, 81-W and shall be subject to the submission, notice, hearing and approval requirements of the subdivision control law and these rules and regulations.

6.6. Subdivision construction deposits.

The Town of Pepperell has accepted the provisions of Chapter 236 of the Acts of 1987 amending MGL C. 41, § 81U<sup>2</sup>, permitting the Planning Board, with the Board of Selectmen's approval, to spend the proceeds of securities to secure subdivision construction of ways and public services or deposit proceeds without appropriation, if the total amount of such proceeds does not exceed one hundred thousand dollars (\$100,000.).

6.7. Official forms.

The forms and applications for the administration of these regulations are available at the Pepperell Planning Board office or Town Clerk’s office. The documents are not part of these regulations and the content may be revised from time to time by administrative action of the Board without a public hearing.

6.8. Appeals.

Any person, whether or not previously a party to the proceedings, or any municipal officer or board aggrieved by a decision of the Planning Board concerning a plan of a subdivision of land or by the failure of the board to take action concerning such a plan within the required time may appeal to the Superior Court, North Middlesex County, or to the land court pursuant to the provisions of MGL C. 41, § 81-BB, provided that such appeal is entered within twenty (20) days after such decision has been recorded in the

---

<sup>2</sup> Editor’s Note: Se Ch. A243, General Laws and Special Acts.

office of the Town Clerk or within twenty (20) days after the expiration of the required time for such decision and notice of the appeal is given to the Town Clerk so as to be received within such twenty (20) days.

6.9. Other requirements

Hours of Construction Operations:

- Construction activity shall take place in any subdivision or in any building contained therein during the following hours:
  - Mondays through Fridays inclusive: 7:00 a.m. to 5:00 p.m.
  - Saturdays: 9:00 a.m. to 5:00 p.m.
  - Sundays and Legal Holidays: None
- In addition, no heavy equipment shall be operated on, or brought to, or from any subdivision except during the following hours:
  - Mondays through Fridays inclusive: 8:00 a.m. to 5:00 p.m.
  - Saturdays: 9:00 a.m. to 12:00 p.m. (Noon)
  - Sundays and Legal Holidays: None

6.10. Amendments.

After a public hearing, the Planning Board may, from time to time, amend these rules and regulations, but not inconsistent with the Subdivision Control Law or with any other provision of the General Laws of the Commonwealth of Massachusetts or of any valid bylaw of the Town of Pepperell. A true copy of these rules and regulations, with their most recent amendments, shall be kept on file available for inspection in the office of the Planning Board and in the office of the Town Clerk.

## **Appendix**

Fee Schedule

Official Forms

Table of Summary of Major Street Design Standards

Typical Cross Section for Minor and Subcollector Roads

## **Fee Schedule**

### *“Approval Not Required” Plan (ANR Plan)*

At the time of submittal, an application fee of fifty dollars (\$50.) plus twenty dollars (\$20.) for each new lot including the remaining portion of the original lot and/or ten dollars (\$10.) for each parcel shall be submitted in one check written out to the “Town of Pepperell.”

### *Preliminary Subdivision Plan*

At the time of submittal, two separate checks shall be submitted written out to the “Town of Pepperell”, one is for an application fee of five hundred dollars (\$500.) plus one hundred dollars (\$100.) per lot in excess of four (4) lots. The second check also written out to the “Town of Pepperell” is for a review fee of two thousand dollars (\$2,000.) of which the unused balance will be returned to the applicant or can be rolled over when and if a definitive plan is submitted.

### *Definitive Subdivision Plan*

At the time of submittal, two separate checks written out to the “Town of Pepperell” shall be submitted. One is for the application fee calculated as follows, one thousand dollars (\$1,000.) plus two hundred dollars (\$200.) per lot in excess of four lots.

The second check includes a review fee of five thousand dollars (\$5,000.) (subtract preliminary review fee on account, if applicable), an inspection fee of three thousand dollars (\$3,000), an as-built security deposit of three thousand dollars (\$3,000) and a street acceptance plan security of two thousand dollars (\$2,000). The unused balance of the review fee, inspection fee, as-built security deposit and street acceptance plan security deposit will be returned upon completion of the subdivision.

### *Modification, Amendment or Rescission of a Definitive Subdivision Plan*

At the time of submittal, an application fee of fifty (\$50) shall be submitted written out to the “Town of Pepperell.”

## **Official Forms**

Form A Application for Endorsement of Plan Believed Not to Require Approval

Form B Application for Approval of a Preliminary Plan

Form C Application for Approval of a Definitive Subdivision Plan

Form H-1 Performance Secured by a Bank Passbook

Form H-2 Performance Secured by Deposit of Money

Form I Covenant

Form J Certificate of Performance and Release

Form K Conveyance of Easement and Utilities

Form P Inspection Record

Street Improvement Guarantee – Bond Amount Determination

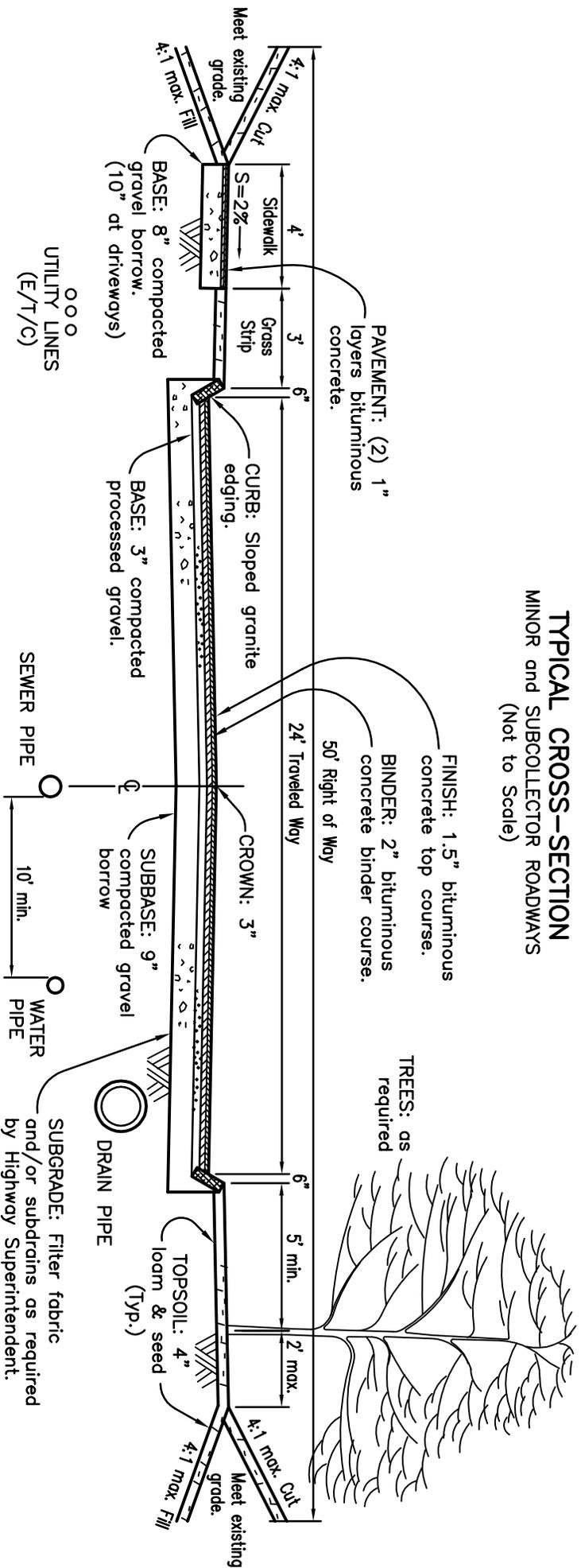
Public Hearing and Decision Deadline Extension Form

Request for Certified List of Parties in Interest

Streets  
Design Standards

	Street Classification		
	Minor	Subcollector	Collector
<i>Grades</i>			
Maximum grade	8%	8%	6%
Minimum grade	0.5%	0.5%	0.5%
Maximum grade of leveling area at approach to intersections	3% for 25 ft.	3% for 25 ft.	3% for 25 ft.
<i>Horizontal Alignment</i>			
Minimum radius at centerline	150 ft.	300 ft.	450 ft.
<i>Vertical Alignment</i>			
Clear sight distance at 3.50 ft. above pavement to 0.5 ft. above pavement	300 ft. (min.)	300 ft. (min.)	300 ft. (min.)
<i>Width</i>			
R.O.W. width	50 ft.	50 ft.	50 ft.
Gravel base width	26 ft.	26 ft.	38 ft.
Paved width	24 ft.	24 ft.	35 ft.
<i>Depth</i>			
Compacted gravel (See 238-13F(2))	12"	12"	12"
Asphalt, binder coat	2"	2"	2 ½"
Asphalt, finish coat	1 ½"	1 ½"	2"
<i>Intersections</i>			
Intersections with existing streets (degrees)	90	90	90
Minimum intersection angle (degrees)	60	60	60
Minimum radius			
R.O.W. sideline	25 ft.	25 ft.	25ft.
Curb radius	35 ft.	35 ft.	35 ft.
<i>Sidewalks</i>			
Width	4 ft.	5 ft.	6 ft.
Depth, binder	1"	1"	1"
Depth, finish	1"	1"	1"
Compacted gravel depth	8"	8"	8"
Compacted gravel depth at driveways	10"	10"	10"

## TYPICAL CROSS-SECTION MINOR and SUBCOLLECTOR ROADWAYS (Not to Scale)



- NOTES:
1. Processed gravel reference: Mass. Highway Specs. M1.03.1.
  2. Gravel borrow reference: Mass. Highway Specs. M.1.03.0 (type b)
  3. Bituminous Concrete reference: Mass. Highway Specs. Section 460, Class 1, Type I-1, and M3.11.00.
  4. Tack coat reference: Mass. Highway Specs. Section 460.62.
  5. Sloped granite edging reference: Mass. Highway Construction Standard 106.5.0.
  6. All compaction to meet 95% maximum dry density.
  7. Drain manholes to be outside curbing wherever possible.
  8. Water main shall be installed on the opposite side of the roadway from the underground utility lines (E/T/C).
  9. Hydrants shall be installed a minimum of two (2) feet behind the sidewalk and a minimum of four (4) feet off the traveled way.