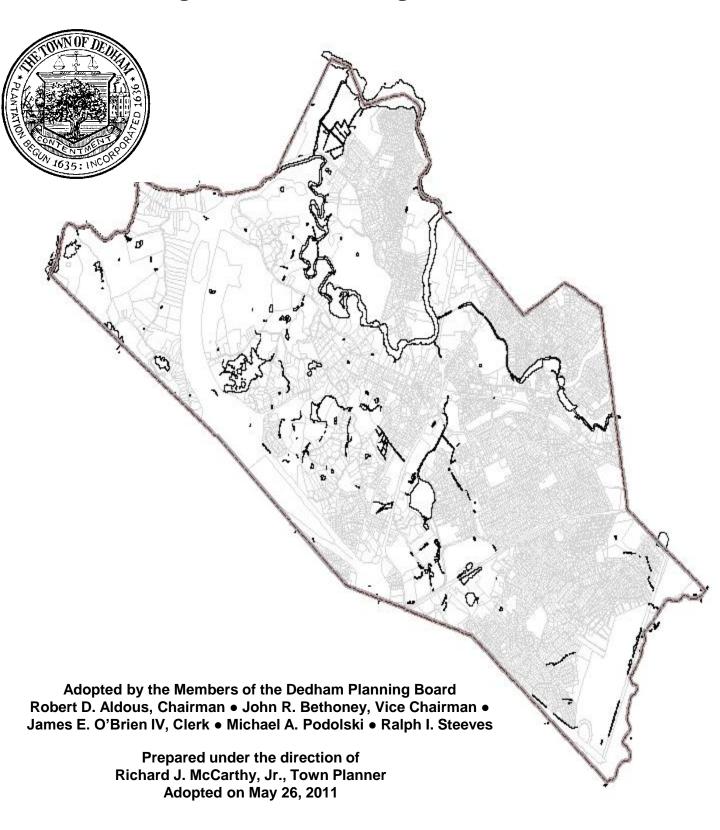
# Town of Dedham Planning Board Rules and Regulations Governing the Subdivision of Land



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### RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND

## DEDHAM, MASSACHUSETTS REVISED: MAY 26, 2011

#### **SECTION 1.0 PURPOSE AND AUTHORITY**

#### 1.1 PURPOSE

These Rules and Regulations have been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of the Town of Dedham by regulating the layout and construction of ways in subdivisions providing access to the several lots therein, but which have not become public ways; and ensuring sanitary conditions in subdivisions and in proper cases parks and open areas. The powers of the Planning Board and the Board of Appeals shall be exercised with due regard for:

- \*The provision of 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;
- \*Reducing danger to life and limb in the operation of motor vehicles;
- \*Securing safety in the case of fire, flood, panic and other emergencies;
- \*Ensuring compliance with the applicable zoning of the Town of Dedham;
- \*Securing adequate provision for water, sewage, drainage, underground utility services, fire, police and other municipal equipment, street lighting and other requirements where necessary in a subdivision;
- \*Coordinating the ways in a subdivision with each other, with the public ways in the Town of Dedham, and the ways in neighboring subdivisions; and
- \*Ensuring conformance to the recommendations of the Board of Health.

The Planning Board may regulate for all of the purposes set forth in the Subdivision Control Law, particularly G.L. c. 41, ss. 81M and 81Q, without limitation, and the following additional purposes:

\*To implement the Planning Board's development objectives, policy decisions, and design standards.

\*To provide the Planning Board with information reasonably necessary to perform its duties pursuant to statute.

\*To regulate the submittal, review, and certification of plans believed not to require subdivision approval.

#### 1.2 **AUTHORITY**

These Rules and Regulations governing the subdivision of land have been adopted by the Planning Board of the Town of Dedham, pursuant to authority vested in said Board by G.L. c. 41, s. 81Q, Section 3-10 of Dedham Town Charter, the Dedham Zoning By-Law, and other enabling laws. They may be referred to as "These Rules and Regulations" or the "Subdivision Regulations".

#### 1.3 AMENDMENT

These Rules and Regulations or any portion thereof may be amended, supplemented, or repealed from time to time by the Board, after a public hearing, on its own motion or by petition, all pursuant to G.L. c. 41, s. 81Q.

#### 1.4 SEVERABILITY

The invalidity of any section, subsection or provision of these Rules and Regulations shall not invalidate any other section, subsection or provision thereof. If any provision of these Regulations is held by any court of competent jurisdiction to be invalidly applied to any particular case, all other applications of such provisions to other cases shall not be affected thereby.

#### **SECTION 2.0 DEFINITIONS**

For the purposes of these Rules and Regulations the following words and terms used herein are hereby defined or the meaning thereof explained, extended, or limited as stated in G.L. c. 41, as amended. Where a term is defined in the Subdivision Control Law or the Dedham Zoning By-Law and not herein, such definition shall be incorporated by reference herein. Other terms or words or phrases shall be construed according to the common and approved usage of the language, but technical words and phrases and such other terms or phrases as may have acquired a particular and appropriate meaning in law shall be construed and understood according to such meaning.

**Applicant:** An owner or an agent, representative, assigns, or successors in title of such owner; provided that an agent or representative who is not an attorney at law shall have written authorization to act for the owner. Such authorization shall be valid for 180 days, and may be renewed. The spouse of the applicant, or the holder of first mortgage shall co-sign or waive their rights with respect to any covenant or other restriction on the use and disposal of any land subject to these Rules and Regulations.

**Board:** The Planning Board of the Town of Dedham.

**Board's Engineer:** A registered professional engineer or a registered professional land surveyor, as appropriate, engaged by the Board as a consultant or employed by the Town of Dedham to review plans, subdivisions, and other development proposals, and/or to inspect the progress of work and compliance with Board's requirements and applicable technical standards.

**Consultant:** A specialist in a professional or technical field, including, but not limited to, an architect, biologist, economist, engineer, geologist or hydrogeologist, land surveyor, landscape architect, lawyer, planner, or soil scientist, who is not an employee of the Town of Dedham and who is engaged by the Board or by another Town agency to review, inspect, and advise the Board on specific projects or matters in such consultant's area of competence.

**Director of Public Works:** The Director of the Dedham Department of Public Works or his/her designee.

**Easement:** A right acquired by a public authority or other person for use or control of property for utilities, travel, or other designated public or private purpose.

**Frontage:** A lot boundary line which abuts a public or private way and across which line there is legal and physical access, as set forth in the Dedham Zoning By-Law.

**General Laws or G.L.:** The General Laws of the Commonwealth of Massachusetts, as amended.

**Improvements:** Those physical additions, installations, and changes, such as water supply, sanitary sewers, storm drains, electric, telephone, and fire alarm conduits, street signs, street lights, sidewalks, curbs, grass plots, guard rails, shade trees, roadways, boundary monuments, and other items and systems customarily provided by towns, public entities and utility companies, which include those items which are referred to in the Subdivision Control Law as "municipal services" and are required to be installed by developers of subdivisions at no cost to the Town.

**Lot:** An area of land in one ownership, with definite boundaries, used, or available for use, as the site of one or more buildings complying with the area, frontage and other requirements of the Zoning By-laws of the Town of Dedham.

**MDPW Standards:** The latest revisions of the Standard Specifications and Construction Standards of the Massachusetts Department of Public Works.

**Municipal Services:** Sewers, water pipes, storm drains, gas pipes, electrical lines, cable or telephone lines, fire alarm systems and their respective appurtenances.

**MHD Standards:** The latest standards of the Massachusetts Highway Department.

**Open Space:** An area of land which has no buildings or structures (other than minor decorative structures) on or above it, is not paved or used for parking, is not wetland or swamp, and is, or is intended to be, landscaped or covered by grass or other vegetation, provided that up to 40 percent of the area may be paved and have posts, backstop, fences, or similar sports or recreational equipment on it if used for active recreation, pedestrian ways, or as a service yard not involving storage of goods or equipment.

**Owner:** The owner of record as shown by the records in the Norfolk County Registry of Deeds or Land Court Registry.

**Person:** An individual, two or more individuals, a partnership, association or corporation having a common interest in a tract of land.

**Plan, Definitive:** A subdivision plan meeting the requirements of these Rules and Regulations and of the Subdivision Control Law for definitive plans and acceptable for recording in the Registry of Deeds or filing with the Land Court when endorsed as approved by the Planning Board and/or the Town Clerk. The definitive plan includes supporting materials which are filed with the Planning Board and not recorded, and the approval of the definitive plan constitutes approval of the subdivision shown thereon.

**Plan, Preliminary:** A plan of a proposed subdivision or resubdivision submitted in accordance with these Rules and Regulations and with G.L. c. 41, s. 81S.

**Planning Director:** The Director of the Dedham Planning Department, or his/her designee.

**Profile:** A vertical section of streets, storm drainage and sanitary sewer facilities.

**Registered Mail:** Registered or certified mail.

**Registry of Deeds:** The Registry of Deeds in Norfolk County, including when appropriate, the recorder of the Land Court.

**Roadway:** That portion of a street intended for vehicular use.

**Rules and Regulations:** The Rules and Regulations Governing the Subdivision of Land in Dedham, Massachusetts, as most recently adopted by the Dedham Planning Board pursuant to G.L. c. 41, 81O.

Stormwater Regulations: The Dedham Stormwater Management By-Law and Regulations.

**Street or Way:** A way, street, or road open and dedicated to public use, including a public way or a way certified by the Town Clerk to have been used and maintained by public authorities as a public way, a way approved and constructed under the provisions of the *Subdivision Control Law*, or a private way in existence prior to said *Subdivision Control Law* having become effective in the Town of Dedham and having, in the opinion of the Board, adequate width, grades, and construction for vehicular traffic and the installation of municipal services to serve the land abutting on such way and the buildings erected or to be erected. As defined in the *Dedham Zoning Bylaw*, the street or way includes all land within the right-of-way, not just the roadway pavement.

**Street or Way, Dead End:** A dead end street or way shall include [A] a roadway providing only one vehicular access route to the general roadway network of the Town and [B] a system of two or more intersecting roadways whose overall layout provides only one vehicular access route to the general roadway network of the Town. The point of beginning of a dead end street or way or of a system of dead end streets or ways is the point at the intersection of roadway centerlines on a through way from whence there are two or more distinct vehicular access routes to the general roadway network of the Town.

**Street Classifications:** Residential streets or ways are categorized by whichever method results in the higher or more restrictive classification as follows: 1) the number of dwelling units to which they provide access or 2) the 24 hour traffic volume that are projected to accommodate. These determinations must consider the maximum extent to which the street can be extended. The street classifications listed below are listed in ascending order from lower to higher. Traffic volumes are determined by twenty-four hour traffic volume counts at representative times and by unadjusted 24 hour trip generation rates as set forth in *The Institute of Transportation Engineers Trip Generation, an Informational Report*, current edition.

**Residential Lane:** A street or way capable of being extended to provide access to a

maximum of four dwelling units or that accommodates a maximum of 40 two way vehicle trips during 24 hours.

**Residential Street:** A street or way capable of being extended to provide access to a minimum of five and a maximum of forty-nine dwelling units or that accommodates a minimum of 41 and a maximum 499 two way vehicle trips during 24 hours.

**Nonresidential Street:** A street or way providing access to or capable of being extended to provide access to land in a non-residential zoning district.

**Collector Street:** A street or way capable of being extended to provide access to a fifty or more dwelling units or that accommodates 500 or more two way vehicle trips during 24 hours.

**Subdivision:** The division of a tract of land into two or more lots and shall include resubdivision, and, when appropriate to the context, shall relate to the process of subdivision or the land or territory subdivided; provided, however, that a division of a tract of land into two or more lots shall not be deemed to constitute a subdivision within the meaning of the subdivision control law if, at the time when it is made, every lot within the tract so divided has frontage on (a) a public way or a way which the clerk of the city or town certifies is maintained and used as a public way, or (b) a way shown on a plan theretofore approved and endorsed in accordance with the subdivision control law, or (c) 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 such land and the buildings erected or to be erected thereon. Such frontage shall be of at least such distance as is then required by zoning or other ordinance or by-law, if any, of said city or town for erection of a building on such lot, and if no distance is so required, such frontage shall be of at least twenty feet. Coveyances or other instruments adding to, taking away from, or changing the size and shape of lots in such a manner as not to leave any lot so affected without the frontage above set forth, or the division of a tract of land on which two or more buildings were standing when the subdivision control law went into effect in the city or town in which the land lies into separate lots on each of which one of such buildings remains standing, shall not constitute a subdivision.

**Subdivision Control Law:** Sections 81K through 81GG, inclusive, of Chapter 41, Massachusetts General Laws and any acts in amendment thereof, addition thereto, or substitution therefor.

**Town:** The Town of Dedham, Massachusetts, and the reference to boards, departments, officials, by-laws, and regulations shall mean those of the Town of Dedham, unless otherwise indicated.

**Town Engineer:** The Director of Engineering of the Town of Dedham or his/her designee.

**Wetlands:** All resource areas protected pursuant to G.L. c. 131, s. 40, as may be amended. Buffer areas are excluded from this definition.

**Zoning By-Law:** the Zoning By-law of the Town of Dedham.

### **SECTION 3.0 GENERAL REGULATIONS**

The following regulations shall apply in all circumstances governed by the Subdivision Control Law.

#### 3.1 APPLICABILITY

Any person desiring to divide or subdivide land shall, before proceeding with the improvement or sale of lots in the division or subdivision, or the construction of ways, or the installation of municipal services therein, submit to the Board a plan of such division or subdivision pursuant to the Subdivision Control Law and secure approval by the Board as hereinafter provided.

#### 3.2 APPLICATIONS AND OTHER REQUIRED SUBMITTALS

All applications for approval or endorsement, required plans, required submittals, and required fees shall comply in all respects with the provisions of these Rules and Regulations. No application or plan shall be acted upon by the Board until said plan, together with all required accompanying applications, forms, fees, lists and other items have been delivered by the applicant, and are properly executed and fully completed in accordance with these Rules and Regulations. Where the applicant fails to comply with these Rules and Regulations, the Planning Board may reject the application and such application shall be deemed not submitted.

- **3.2.1 Correctness.** The Board assumes any plans submitted for its approval or consideration to be correct, unless evidence is presented to the contrary. The applicant is responsible for the acquisition of the necessary rights and the presentation of complete and correct information to the Board, and failure to do so, including the failure or inability to obtain all necessary permits, licenses, releases, or rights, may be a reason for disapproval or the rescission of approval of a subdivision or other plan.
- **3.2.2 Completeness.** Applications shall include all forms and supporting materials called for by these Rules and Regulations, and the required fees in full. A plan shall not be considered submitted, and may not be reviewed or processed, until all required components thereof have been completed, signed or certified as required, and delivered in the required number of copies, including for definitive subdivision and "approval not required" plans the original tracings for the Board's signatures and recording. Any plan submitted for action or determination by the Planning Board shall show on the plan or in supplementary materials submitted with and referred to on the plan all information which can reasonably be expected to be relevant or needed in making the determination or decision, including, but not limited to, information regarding ownership, features identified as existing, and changes in use, improvements, alterations, or demolitions identified as "proposed" or "future", and any decision or action by other state or local agencies, whether applied for, pending, final, or under appeal.

#### 3.3 NOTICE TO TOWN CLERK

For "approval not required" (see Section 4.0) and for preliminary (see Section 5.0) and definitive (see Section 6.0) subdivision plans, the applicant shall give a written notice to the Town Clerk at the time of submittal of the complete plan. It is suggested that a copy of the application form, bearing an acknowledgment of receipt of the complete plan by the secretary or staff member of the Board is a convenient way of giving the required notice to the Town Clerk.

#### 3.4 COMPLIANCE WITH THE BOARD'S RULES AND REGULATIONS

A proposed division and/or subdivision of land shall comply in all respects with these Rules and Regulations, unless the Board authorizes a waiver therefrom in specified and authorized instances.

#### 3.5 WAIVERS

Strict compliance with these Rules and Regulations governing the subdivision of land may be waived when, in the judgment of the Board, such action is in the public interest, not inconsistent with the Subdivision Control Law, and promotes public health and safety.

#### 3.6 ISSUANCE OF BUILDING PERMITS

The Building Inspector shall not issue any permit for erection of a building until first satisfied (a) that the lot on which the building is to be erected is not within a subdivision, or (b) that a way furnishing the access to the lot within a subdivision as required by the subdivision control law is shown on a recorded plan and that any conditions endorsed thereon limiting the right to erect or maintain buildings on such lot have been satisfied, and (c) that all other applicable requirements have been met.

#### 3.7 PROFESSIONAL AND TECHNICAL ASSISTANCE

The Board may assign as its agents appropriate Town officials, and may hire professional assistance to review plans and inspect improvements at the cost of the applicant.

#### **3.8 FEES**

The fees indicated in Appendix A - Planning Board Fee Schedule shall accompany the submittal of application materials of the various plans specified in the Rules and Regulations, to cover costs of processing, technical review, and inspection. All expenses for advertising, engineering, review, plans, construction, inspection, recording, and filing of plans and documents, and all other expenses in connection with or for a subdivision shall be borne by the applicant.

**3.8.1 Bank or Certified Check Required.** Separate bank or certified checks shall be used for the filing fee and the consultant review, with the Town of Dedham designated as the payee. The

Board, in its sole discretion, may require payments to be made via bank, treasurers or certified check.

#### 3.9 MODIFICATION, AMENDMENT, OR RESCISSION OF SUBDIVISIONS

The Board, on its own motion or on the petition of any interested person, shall have the power to modify, amend, or rescind its approval of a plan of a subdivision, or to require a change in a plan as a condition of its retaining the status of an approved plan, after due notice and opportunity to the owner to be heard in accordance with G.L. c. 41, s. 81W, as amended.

#### 3.10 DWELLING LIMITATION

Not more than one 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 town, without the consent of the Board, and such consent may be conditioned upon the provision of adequate ways furnishing access to each building site in the same manner as otherwise required for lots within a subdivision.

#### 3.11 ACCESS ADEQUACY REGULATIONS

**3.11.1 General.** Plans shall be endorsed as not requiring approval under the Subdivision Control Law and subdivision plans shall be approved only if each building lot to be created by such plan has adequate access as intended under the Subdivision Control Law, G.L. c. 41, ss. 81K - 81GG.

#### 3.11.2 Standards of Adequacy.

- 1. *To ANR Lots*. Ways providing access to lots developed pursuant to G.L. c. 41, s. 81P shall normally be considered adequate for access if said way provides access for fire, police and emergency vehicles at all times.
- 2. Within a Subdivision. Streets within a subdivision shall be considered to provide adequate access if complying with the standards established in these Rules and Regulations.
- 3. *To a Subdivision*. Existing ways providing access to streets within a subdivision shall be considered to provide adequate access if such existing way meets the standards set forth herein for width of right of way, pavement width, sight distance, and maximum grade.
- **3.11.3 Obligations.** The Board may require, as a condition of its approval of a subdivision plan, that the applicant dedicate or acquire and dedicate a strip of land for the purpose of widening access ways to a width as required in these regulations, above, and that applicant make physical improvements within such way or compensate the Town for the cost of such improvements in order to meet the standards specified above.

**3.11.4 Waiver of Access Rules.** The Board may waive strict compliance with these access regulations only upon its determination, following consultation with the Selectmen, Director of Public Works, Police Chief, and Fire Chief, that the way in fact will be otherwise sufficient to serve the needs for access to serve potential uses of land abutting on or served by the way in question.

#### 3.12 STORMWATER MANAGEMENT ADEQUACY

The Planning Board may require an applicant for definitive plan approval to make off-site improvements to the Town's stormwater management facilities located in the public right of way in the event that such facilities are not adequate to transport the stormwater runoff generated by the proposed subdivision of land in accordance with the standards for stormwater management set forth herein.

#### 3.13 EFFECT OF APPROVAL

The approval of a subdivision or other plan by the Board does not affect any rights others may have in or over the land shown on such plan, nor does it give the applicant the right to perform work on land owned by others.

# SECTION 4.0 PLAN BELIEVED NOT TO REQUIRE APPROVAL

#### 4.1 SUBMISSION

Any person who wishes to cause to be recorded in the Registry of Deeds or to be filed with the Land Court a plan of land and who believes that said plan does not require approval under the Subdivision Control Law may submit such plan to the Planning Board seeking an endorsement to the effect that such approval is not required.

- **4.1.1 Application.** Said person shall file with the Planning Board an approved application form, with an original and nine (9) prints of the plan, together with a fee, in accordance with the most recent schedule of fees adopted by the Planning Board. Such application shall be accompanied by evidence intended to show that said plan does not require approval under the Subdivision Control Law pursuant to G.L. c. 41, s. 81P.
- **4.1.2 Notice.** Said person, in accordance with General Laws, Chapter 41, Section 81T, shall give written notice, by delivery or registered mail, to the Town Clerk stating the date of the submission of the plan to the Planning Board. If such notice is given by delivery, the Town Clerk shall, if required, give written receipt thereof to the person who delivered such notice.
- **4.1.3 Referral.** The Planning Board will refer any plans so submitted to the Department of Engineering, Department of Public Works, for review. A period of ten (10) days may be allowed for such review.
- **4.1.4 Electronic File.** The applicant shall submit a CD or DVD containing the Form A plan, produced by an Autocad or similar computerized drafting system, in either Autocad Drawing Format (.dwg), Data Exchange Format (.dxf) or an acceptable ESRI format, registered to Massachusetts State Plane (Mainland) Coordinates, North American Datum of 1983, as part of the application for endorsement of the plan or after the Board's approval of the plan. Orthophotos available from Mass GIS may be used in registering data. If the applicant is unable to provide the above, a fee determined by the Board will be charged to cover the cost of digitizing the plan.

#### 4.2 CONTENTS

- **4.2.1 Size of Plan.** All plans submitted under this Section shall be of minimum dimensions of eight and one-half inches (8.5") by eleven inches (11") and of maximum dimensions of twenty-four inches (24") by thirty-six inches (36") or such other size as may be specified by Land Court.
- **4.2.2 Required Information.** Plans shall bear the following:
  - 1. Title Block, as shown in the Appendix, containing the following information:

- a. Name of owner of record;
- b. Title, date and scale of plan and a bar scale;
- c. Name and address of Registered Land Surveyor or Registered Professional Engineer;
- d. The statement "Approval Not Required Under the Subdivision Control Law" and sufficient space thereunder for the date and the signatures of all members of the Board;
- e. Date of Survey and/or source of information.
- 2. A block, 3 1/2" x 3 1/2" located adjacent to the title block, reserved for use by the Registry of Deeds.
- 3. The following statement, together with a location suitable for the preparer's signature: "This plan has been prepared in conformance with the rules and regulations of the Registers of Deeds."
- 4. North point.
- 5. Existing and proposed boundary lines, including dimensions and areas of all lots shown.
- 6. Existing and proposed streets, ways and easements.
- 7. Location of all existing buildings, structures and bounds. In instances where a new lot line is being created, the Planning Board may require field verification of building setbacks from existing or new property lines.
- 8. Illustration, by broken line, of all setback lines established by the Zoning Bylaw.
- 9. Location(s) of any easements or rights of way traversing or adjacent to the locus.
- 10. Boundaries, if any, of any area(s) which the Conservation Commission has determined to be subject to G.L. c. 131, s. 40.
- 11. Lot and/or house numbers.
- 12. Names of all abutters as they appear on the most recent tax list.

- 13. Zoning classification(s) and location(s) of any zoning district boundaries, including the boundaries, if any, of the Flood Plain and Watershed Protection and/or Flood Insurance District(s), that may lie within the locus of the plan.
- 14. Notice of any decisions of the Zoning Board of Appeals including but not limited to variances and exceptions regarding the land or any building thereon.
- 15. A locus map at 800 feet to the inch.
- 16. Any other information necessary for the Board's determination.

#### 4.3 ENDORSEMENT

- **4.3.1 General.** If the Board determines that the plan does not require approval, it shall forthwith, without a public hearing (but at an open meeting), endorse on the plan under the words "Approval not required under the Subdivision Control Law."
- **4.3.2 Statement of Reasons.** The Planning Board may add to such endorsement a statement as to the reason approval is not required or such other statement as may be deemed appropriate by the Planning Board. Planning Board may include, at its discretion, the following statement: "No Determination As To Compliance with Zoning Requirements Has Been Made or Intended". The Planning Board may require the notation "Not a Building Lot Without Further Zoning Relief" in appropriate circumstances.
- **4.3.3 Effect.** Such endorsement shall not be deemed to constitute any determination of compliance with the requirements of the Zoning Bylaw. Following endorsement said plan shall be returned to the applicant and the Planning Board shall notify the Town Clerk in writing of its action.
- **4.3.4 Denial.** If the Board determines that the plan does require approval under the Subdivision Control Law, it shall, within twenty-one (21) days of the submission of the plan, give written notice of its determination to the Town Clerk and the applicant, and return the plan without endorsement. The applicant may submit the plan for approval as provided by law and by these Rules and Regulations, or may appeal from the determination of the Board in the manner provided in G.L. c. 41, s. 81BB.
- **4.3.5 Constructive Approval.** If the Planning 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 the Board shall forthwith make such endorsement on said plan, or, on the failure of the Board to do so forthwith, the Town Clerk shall issue a certificate to the same effect.

#### SECTION 5.0 PRELIMINARY PLANS

#### 5.1 PREAPPLICATION CONFERENCE

Prior to investing in extensive professional design costs for preparation of subdivision plans, the applicant is invited to review the proposed development of the parcel of land with the Board, in order to explore general conditions involving the site and to discuss potential problems. Pencil sketches, which need not be professionally prepared, will assist in this discussion, and should show the critical features of a Preliminary Plan. In some cases, this pre-submission review may eliminate the need for the formal submission of a Preliminary Plan.

#### 5.2 SUBMISSION

- **5.2.1 General.** An applicant may submit, for approval, a Preliminary Plan of a subdivision; provided, however, that a Preliminary Plan shall be required for a nonresidential subdivision. The submission of such a Preliminary Plan will enable the subdivider, the Board, the Board of Health, other municipal agencies and owners of property abutting the subdivision to discuss and clarify the problems of such subdivision before a Definitive Plan is prepared. Therefore, it is strongly recommended in every instance that a Preliminary Plan be filed.
- **5.2.2 Application.** An application for approval of said Preliminary Plan shall be filed with the Planning Board and the Board of Health on the approved Application Form (3 copies) (See Appendix Form A1), which shall be submitted together with an original and ten (10) prints of the plan and profile (copies of which will be distributed by the Planning Board to other Town boards, commissions and appropriate agencies) and a fee as specified on the most recent Fee Schedule adopted by the Planning Board. The applicant shall give written notice, in accordance with G.L. c. 41, s. 81S, to the Town Clerk by delivery or by Registered or Certified Mail, stating the date of such submission to the Planning Board and the Board of Health.

#### **5.3 CONTENTS**

- **5.3.1 Preparation.** The Preliminary Plan shall be drawn on tracing paper with pencil at a scale of forty feet (40) to the inch, unless approval of submission at an alternate scale shall have been approved by the Planning Board.
- **5.3.2 Required Information.** The Preliminary Plan shall show the following information. Should the plan be submitted on more than one sheet, each sheet shall be of the same size, each containing the required title block indicating the sheet number of each sheet.
  - 1. Title block as shown in the Appendix, containing the following information:
    - a. Title (subdivision name), date of survey and scale.

- b. Name of owner of record and of applicant if other than owners of record.
- c. Name and address of Registered Land Surveyor or Registered Professional Engineer.
- 2. North Point.
- 3. Existing and proposed lines of streets, ways, easements, and any public or common areas within the subdivision (The proposed names of proposed streets shall be shown in pencil until they have been approved by the Board).
- 4. Where the applicant also owns or controls unsubdivided land adjacent to that shown on the Preliminary Plan, a possible or prospective street layout for such adjacent land shall be included.
- 5. Location, names, present widths and status as accepted or unaccepted, of adjacent streets or of streets approaching or within three hundred (300) feet.
- 6. Names of all abutters as they appear on the most recent local tax list.
- 7. A locus plan at a scale of one inch (1") equals eight hundred feet (800') showing the relationship of the subdivision to adjoining property within a radius of a quarter of a mile of the proposed subdivision.
- 8. The zoning classification of the land shown on the plan and the location of any zoning district boundaries that may lie within the locus of the plan.
- 9. The location of all major features of the land such as existing walls, fences, monuments, buildings, large trees or wooded areas, large boulders, rock edges or ledge outcroppings, swamps, water bodies, and natural water courses including drainage ditches.
- 10. The location of the General Soils Classifications identified by the Soil Conservation Service, United States Department of Agriculture as depicted on maps available at Con Com.
- 11. Existing (solid line) and proposed (broken line) topography of the land at two foot (2') contour intervals for gentle slopes and five foot (5') intervals for steep slopes. Elevations shown shall be developed on Town of Dedham base datum. Such datum shall be stated on the plan.
- 12. Approximate boundary lines of proposed lots, with approximate areas and dimensions.

- 13. Proposed systems of storm drainage, water and sewage disposal including adjacent existing natural waterways intended to receive sewage and/or drainage effluent.
- 14. Profiles of existing grades and approximate finished grades of proposed roadways, and drain and sewer systems at a scale of 1" = 40' horizontally and 1' = 40' vertically.
- 15. Limits (perimeter) of all contiguous land under the ownership or control of the applicant.
- 16. Location(s) of any easements or rights of way traversing or adjacent to the locus.
- 17. Illustration, by broken line, of all setback lines established by the Zoning By-law.
- 18. Boundaries, if any, of any area(s) which the Conservation Commission has determined to be subject to G. L. c. 131, s. 40.
- 19. An aerial photograph, indicating the property to be subdivided, the proposed street layout, lot lines, and easements.

#### **5.4 PROCEDURES**

- **5.4.1 Review of Plan**. The Preliminary Plan will be transmitted to Director of Public Works, Director of Engineering, Fire Chief, Police Chief, Conservation Commission, and such other boards, committees or agencies as the Planning Board may deem advisable. The applicant shall be responsible for submittal directly to the Board of Health.
- **5.4.2 Public Discussion.** A Preliminary Plan public discussion will be held by the Planning Board at a duly posted meeting of the Board with the preliminary plan discussion specifically noted on the agenda for the meeting. During discussion of the Preliminary Plan, the complete information required for the Definitive Plan and the financial arrangements (See Section 6.7, generally) will be developed.
- **5.4.3 Observation Pits.** During discussion of the Preliminary Plan, the location of observation pits having the only purpose of supplying soil data to the Planning Board to assist in evaluating the design of a subdivision shall be determined. At this time, the centerline of the roadway shall be staked out. A cross section of such observation pits shall be taken, in accordance with the regulations concerning such pits as provided in Title 5 of the State Environmental Code (310 CMR 15.00), prior to submission of the Definitive Plan. The minimum depths of such pits shall be as follows:

- 1. Cut Sections: Five (5) feet below proposed finished grade or to bedrock whichever is less.
- 2. Fill Sections: Eight (8) feet below existing grade or to bedrock, whichever is less, except in unstable soils (i.e., peat, muck, etc.) where the minimum depth shall be five (5) feet below hard bottom.
- 3. All information concerning the observation pits (location, depth, soil descriptions, depth of water table) shall be submitted to the Planning Board in a written report to be made, evaluated and stamped by a Registered Professional Engineer.
- **5.4.4 Preliminary Approval.** Following review by the appropriate municipal agencies and the Public Discussion described above, the Planning Board may deny such Preliminary Plan, or approve such Plan with or without modifications. Such approval shall incorporate the recommendations of the Board of Health, if any. The Board shall act within 45 days as set forth in G.L. c. 41, s. 81S.
- **5.4.5 Effect.** Such approval does not constitute final approval of a subdivision but does facilitate the procedure in securing final approval of the Definitive Plan.

#### SECTION 6.0 DEFINITIVE PLAN

#### **6.1 PREAPPLICATION CONFERENCE**

Prior to investing in extensive professional design costs for preparation of subdivision plans, the applicant is invited to review the proposed development of the parcel of land with the Board, in order to explore general conditions involving the site and to discuss potential problems. Pencil sketches, which need not be professionally prepared, will assist in this discussion, and should show the critical features of a Preliminary Plan.

**6.1.1 Consultation with Other Boards.** Prior to submission of the Definitive Plan, the applicant shall review with the applicable Town departments, the proposed design, location and installation of water, sanitary sewer, storm drain and fire alarm systems.

#### 6.2 SUBMISSION

- **6.2.1 Application.** Any person who submits a Definitive Plan of a Subdivision to the Planning Board for approval shall file with the Board a properly executed application form together with the original drawings and ten (10) print sets thereof, dark line on white background, of each plan and profile. Such person shall also file the Definitive Plan with the Board of Health in accordance with its rules and regulations.
- **6.2.2 Notice.** The applicant, in accordance with G.L. c. 41, s. 81T, shall file by delivery or registered or certified mail a notice with the Town Clerk stating the date of submission for such approval and accompanied by a copy of the executed application form.
- **6.2.3 Fee.** Every application for approval shall be accompanied by a fee, determined in accordance with the most recent Fee Schedule adopted by the Planning Board. Costs of advertising and notices shall be charged to the applicant, unless otherwise ordered by the Board.
- **6.2.4 Additional Costs.** Should the Planning Board incur additional costs in the review of the Definitive Plan, such costs shall be borne by the applicant unless otherwise ordered by the Board.
- **6.2.5 Other Permits.** It shall be the responsibility of the Applicant to file and obtain a sewer system extension permit from the Engineering Department.
- **6.2.6 Incomplete Submissions.** The Board reserves the right to disapprove incomplete submissions at any time if, in its opinion, review of the plan is hampered by the absence of required information. In the event that incomplete plans are submitted to the Board, after opening a public hearing, the Board may vote to disapprove the plan and return plans to the applicant as incomplete. The Board shall cite those specific regulations with which the plan is not in compliance in a letter noting the reason for the Board's action, which shall be filed with

the Town Clerk. In the event of such disapproval, the Board reserves the right to retain any filing or review fees.

#### 6.3 CONTENTS

**6.3.1 Preparation.** The Definitive Plan shall be prepared by a Registered Professional Engineer or a Registered Land Surveyor and shall be clearly and legibly drawn with waterproof ink upon linen, mylar, or their equivalent. The plan shall be at a scale of one inch (1") equals forty feet (40') or such other scale as the Board may accept to show details clearly and adequately. Sheet sizes shall be twenty-four inches (24") by thirty-six inches (36"). A margin of two and one-half inches (2.5") clear shall be allowed on the left hand side for binding and one inch (1") margin on the remaining three sides. Multiple sheets shall be accompanied by an index sheet at a scale of 1"=100', showing the entire subdivision and all sheets shall be appropriately numbered and referenced thereto.

**6.3.2 Required Sheets.** The Definitive Plan shall consist of at least eight (8) separate sheets as follows:

- 1. A subdivision plan;
- 2. A topographic plan;
- 3. A layout plan and profile;
- 4. A landscape plan;
- 5. An erosion and sedimentation control plan;
- 6. Detail drawings on a separate sheet;
- 7. A cover sheet, including an index, locus and legend; and
- 8. An index sheet showing entire subdivision at scale of 1"=100'.

**6.3.3 Required Information.** The Definitive Plan shall contain the following information. Each subdivision plan, topographic plan, layout plan and profile and cover sheet shall contain a title block, as shown in the Appendix. The title block shall be located in the lower right corner of each drawing and shall include the name of the subdivision and of the applicant, identification of that particular drawing, scale of plan (numerical and graphic), date of plan and of any revisions, the name and address of the designer, engineer or surveyor, and the words "DEDHAM, MA" or "MASSACHUSETTS". A typical title block is shown in Appendix T and shall contain the following information:

- 1. Title (Subdivision Name), date of survey and scale, and a bar scale, as required by the Registry of Deeds.
- 2. Name of owner of record and of applicant if other than owner of record.
- 3. Name and address of the Registered Land Surveyor or Registered Professional Engineer.
- 4. Adjacent to the title block, shall be a block, measuring three and one-half inches (3.5") by three and one-half inches (3.5"), which shall be reserved for use by the Registry of Deeds.
- 5. Each plan and cover sheet shall also have the following statement, together with a location suitable for the preparer's signature, placed upon it: "This plan has been prepared in conformance with the rules and regulations of the Registry of Deeds."

#### **Subdivision Plan**

- 1. North Point.
- 2. Existing and proposed lines of streets, ways, easements and any public or common areas within the subdivision. (The proposed names of proposed streets shall be shown in pencil until they have been approved by the Board).
- 3. Location, names and present widths of adjacent streets or of streets approaching or within 300 feet of the proposed subdivision.
- 4. A locus plan at a scale of one inch (1") equals eight hundred feet (800') showing the relationship between the subdivision and adjoining property within a radius of a quarter mile of the proposed subdivision.
- 5. Names of all abutters as they appear on the most recent local tax list.
- 6. Boundary lines, dimensions and areas of all proposed lots, including all bearings and distances of the property lines, with all lots designated numerically and in sequence. The applicable minimum front, side and rear yard depth for each lot as required by the Zoning By-law shall be shown by a dashed line.
- 7. A closed traverse of the perimeter of the subdivision, tied into public and private monuments, shall be shown on the plan. The error of the closure on the perimeter shall be 1:15,000 or better. Closure calculations shall be submitted on a separate sheet.

- 8. Sufficient information to accurately locate existing and proposed streets (including the location, name, and width thereof), ways and easements, as well as their connections to existing streets, ways and easements in the vicinity.
- 9. The limit of previous approval by the Planning Board and the date of such approval. If the subdivision adjoins an accepted public way, it shall be so designated (If a public way, the date of acceptance must be shown).
- 10. Zoning classification of the land shown on the Plan and the location of any zoning district boundaries, and including the boundaries, if any, of the Flood Plain and Aquifer Protection and/or Flood Insurance District, that may lie within the locus of the Plan.
- 11. Illustration, by broken line, of all setback lines established by the Zoning Bylaws.
- 12. Location(s) of any easements or rights of way traversing or adjacent to the locus.
- 13. Boundaries, if any, of any area(s) which the Conservation Commission has determined to be subject to G.L. c. 131, s. 40.
- 14. Submission of an aerial photograph indicating the property to be subdivided, the proposed street layout, lot lines, and easements (aerial photographs at 1" = 100' scale are available from Town records).
- 15. Sufficient, but not less than two(2) permanent physical control points tied to NAVD88 and NAD83 on the perimeter shall be set in the field and identified on the Plan to facilitate the reproduction of the subdivision survey.

**Topographic Plan.** The topographic Plan shall encompass the entire area to be subdivided; together with the area beyond the limits of the subdivision which may be affected by changes in surface runoff resulting from the proposed subdivision, and shall include the following:

- 1. Locations of all permanent monuments, identified as to whether existing or proposed, natural objects such as waterways, large trees, drainage courses, large boulders or ledge outcroppings, stone walls, and the like.
- 2. Locations of all streets, lot lines and easements, together with all buildings, walks, drives, septic systems, surface and subsurface drains and other existing features within forty (40) feet of the sidelines of any street or way.
- 3. Existing and proposed contours, tied vertically to NAVD88, shall be shown at two foot (2') intervals, except that one foot contours and spot elevations shall be

- shown on slopes of 2% or less. Spot grades shall be provided at high points and low points.
- 4. In order to assess the effect of clearing and changes in elevation on existing drainage patterns, the topographic plan shall include proposed maximum areas of clearing associated with construction of roads, utilities, drainage systems and new homes.
- 5. Where areas of fill are known, the location and area of contiguous land proposed to be filled including any proposed mounded septic systems.
- 6. Any proposed retaining walls, including the location, height and length of the wall with detail showing the proposed treatment of the exposed surface.
- 7. Existing large trees (having a caliper of twelve inches (12") or more) not located within an area otherwise delineated as "not to be disturbed" (as provided in the following subparagraph) shall be located and identified on the topographic plan.
- 8. Natural areas not to be disturbed by the proposed subdivision may be so indicated on the topographic plan.
- 9. Where a Preliminary Plan has not been filed and approved, observation pits, as specified by Section 5.4.3, shall be provided. The location of said observation pits shall be subject to the approval of the Planning Board.
- 10. Wetland lines determined through a filing of an "Abbreviated Notice of Intent for Wetland Resource Delineation" with the Conservation Commission.

**Layout Plan and Profile.** The Layout Plan shall be drawn at a scale of 1'' = 40' horizontally and 1'' = 4' vertically, and shall contain the following:

- 1. Lengths, widths, sidelines, centerlines, points of tangency, lengths of tangents, lengths of curves, radii, and intersection angles of all curves for all streets, ways and/or easements. Centerlines, points of tangency, lengths of tangents, lengths of curves, and radii shall be red; other data shall be in black.
- 2. The proposed layout of the storm drainage, sanitary sewer, water supply, and underground utility systems, showing the sizes thereof, together with their appurtenances extended to the sideline of each street and showing all easements necessary therefor.
- 3. The Typical Cross Section and any proposed deviations therefrom, and typical cross sections of all catch basins, manholes, and other utility installations.

- 4. Proposed fire alarm systems, including location of boxes, subject to the approval of the Fire Chief.
- 5. Location of hydrants, street lighting where required by the Board of Selectmen, walks, trees, curbing and similar detail for all proposed streets and for all existing streets for two hundred feet (200') to each side of each intersection with a proposed street.
- 6. Immediately above or below the layout of each street, a profile showing the following:
  - a. Existing centerline and sideline grades and proposed centerline grades.
  - b. Ground elevations, tied vertically to NAVD88, at the centerline and each side line at the top and bottom of all even grades and at twenty-five foot (25') intervals along all vertical grades.
  - c. The size, location and grade of storm drain, sanitary sewer and water supply systems, whether within a roadway or an easement.
  - d. Invert elevations at all manholes, pipe ends, catch basins, and change in slope.
  - e. Street gradients shown by figures expressed in percent.

**Landscape Plan.** A Landscape Plan prepared and stamped by a Registered Landscape Architect shall be submitted with all applications for a Definitive Plan. The landscape architect should be included in the design process to assure integration of landscaping with other features of the subdivision and to promote the preservation and enhancement of the natural landscape. The Landscape Plan shall show the following:

- 1. All landscaping proposed by the developer including plantings at the entrance, planted cul-de-sac islands, screening for detention/retention devices, other landscaped areas.
- 2. Buffer areas and areas proposed to be maintained in an undisturbed natural state.
- 3. Existing stone walls, existing and proposed fencing, trees with diameters greater than 12", wooded areas and other significant vegetation.
- 4. The number, size, species and cultivated variety of proposed plantings shall be shown on the Landscape Plan. Plant names shall include both botanical and common names.

- 5. Detail of the proposed method for planting trees shall be shown.
- 6. Construction details of proposed retaining wall(s), including location, length, height, and detail of stone facing or other surface treatment.

**Erosion and Sedimentation Control Plan.** An Erosion and Sedimentation Control Plan consistent with Mass. DEP's Erosion and Sedimentation Control Guidelines for Urban and Suburban Areas of March, 1997, shall be submitted with all applications for a Definitive Plan and shall include the following:

- 1. Proposed method of construction for roads and amenities and, where known, for new homes showing the extent of all areas that will be disturbed.
- 2. Scheduling (including any necessary or proposed phasing of work.)
- 3. Stabilization measures such as revegetation of exposed areas or structural stabilization, and method of protection of disturbed areas from erosion by stormwater runoff.
- 4. Temporary staging areas.
- 5. Location of temporary storage for stumps or spoil materials. Such storage shall be in accordance with state and local regulations.
- 6. Location of any additional erosion control and/or water pollution control devices or methods.
- 7. Proof that at no time during construction shall stormwater flows off site exceed those that existed prior to development.

**Cover Sheet.** The cover sheet shall consist of a Locus Plan, at a scale of 1" = 800', and shall illustrate all streets, lot lines and easements. A street map or U.S.G.S. quadrangle (or portion thereof) may be used as the basis for the Locus Plan. If the property that comprises the subdivision or any part thereof has been examined, approved, and confirmed by the Massachusetts Land Court, such information shall be noted on the cover sheet with case numbers and other pertinent references, and the same requirement shall apply to any adjoining parcels of the applicant. The Cover sheet shall also contain an index of all subsequent sheets.

# **6.3.4 Required Reports.** The following reports or documents shall be submitted:

1. Easements. Any proposed easement(s) for access, utilities, or other purpose, such as conservation restrictions for proposed open space, shall be shown on the

subdivision plan. An easement shall be provided allowing a Homeowner's Association access to drainage and stormwater management systems maintained by the developer to allow inspection, maintenance and repair, and allowing the town access in case of an emergency, or to test water quality if this is deemed in the public interest. Draft language for proposed conservation easements shall be provided to the Board prior to approval of the Definitive Plan.

- 2. Maintenance of Drainage and Stormwater Management Systems and Subdivision Amenities by Homeowners. Until a street within a subdivision is accepted by Town Meeting as a public way, all drainage systems within the subdivision it serves shall be operated and maintained by the developer or a Homeowner's Association made up of the residents of the subdivision or their representatives. Street acceptance by the Town shall generally be limited, as to drainage, to the storm drainage system within the street layout. After a street is accepted by the town, those components of the drainage and stormwater management system located outside the street layout such as detention/retention devices and their outfalls, pipes conveying stormwater to a municipal drainage system where such connection has been authorized by the town, and any other similar facilities for stormwater management shall continue to be maintained by the Homeowner's Association. The developer shall inform the Planning Board within seven (7) days prior to the date that his/her maintenance responsibilities are assumed by the Homeowner's Association.
- 3. Homeowner's Agreement. The applicant shall submit a draft Homeowner's Agreement establishing a Homeowner's Association with the application when a Definitive Plan shows detention/retention devices or other stormwater facilities serving the subdivision located outside the street layout. All owners of lots shall members of the Homeowner's Association. The Homeowner's Agreement shall allocate the costs of operation and maintenance of specified components of drainage and stormwater management systems to a Homeowner's Association. The Homeowner's Agreement shall include an Operation and Maintenance Plan prepared by a Registered Professional Engineer which identifies:
  - a. The present owner of the drainage system and the land on which it is located.
  - b. The components of the drainage system, and the parties proposed to be responsible for their operation and maintenance for the following time periods: during construction, after the road is completed but before it is accepted by Town Meeting, and after the road is accepted by Town Meeting.

- c. The source of funding for operation and maintenance for each major component of the drainage system during construction, before road acceptance and after road acceptance.
- d. A detailed description of the type and frequency of inspections and maintenance for each component of the drainage system. This shall typically include inspections and/or maintenance required after accumulation of specific depths of sediment, after major storm events and at regularly established time intervals. The method for disposal of sediment shall be described. The Board may require that certain technical inspections be performed by a Registered Professional Engineer.
- e. A requirement that the Homeowner's Association report the results of inspections no less frequently than once per year, and provide a description of maintenance to the Department of Public Works within thirty (30) days after any maintenance has been performed. The Board may require that inspections or maintenance be performed at specific times of the year when they are expected to be most effective.
- f. A requirement that the Homeowner's Association inform the Board and Department of Public Works of the name, address and telephone number of a current responsible party or contact person for the Homeowner's Association. The Homeowner's Association shall inform the town of changes of this responsible party as soon as possible, but no later than seven days after the change has been made.
- g. A requirement that the Homeowner's Association maintain fencing or other appurtenances associated with detention/retention devices or other components of the drainage system they maintain.
- h. A mechanism to enforce maintenance by the Homeowner's Association.

The Homeowner's Agreement shall be provided to the Board for their approval and reviewed by Town Counsel at the applicant's expense prior to endorsement of the Definitive Plan. Applicants may use a standard format available in the Planning Board office to help in drafting the Homeowner's Agreement.

4. Note on Plan. The Board reserves the right to require that a note be placed on the plan and on subsequent transfers of titles stating that lots are subject to a Homeowner's Agreement which assigns to the owners the costs of inspection and maintenance of specified components of the stormwater management and drainage system, and any other specified common amenities, and that these facilities will be operated and maintained by a Homeowner's Association.

**6.3.5 Development Impact Statement (DIS).** For a subdivision containing twenty or more dwelling units, the impact of the proposed subdivision is to be described according to the following criteria. Unless this requirement is waived by the Board, the DIS shall be prepared by an interdisciplinary team including a Registered Landscape Architect or Architect, a Registered Professional or Civil Engineer, and a Registered Surveyor.

# 1. Physical Environment.

- a. Describe the general physical conditions of the site, including amounts and varieties of vegetation, general topography, unusual geologic, archeological, scenic and historical features or structures, location of significant viewpoints, stone walls, trees over 16 inches in diameter, trails and open space links, and indigenous wildlife.
- b. Describe how the project will affect these conditions, providing a complete physical description of the project and its relationship to the immediate surrounding area.

#### 2. Surface Water and Subsurface Conditions.

- a. Describe location, extent, and type of existing water and wetlands, including existing surface drainage characteristics, both within and adjacent to the project.
- b. Describe any proposed alterations of shore lines, marshes, or seasonal wet areas.
- c. Describe any limitations imposed on the project by soil and water conditions and methods to be used to overcome them.
- d. Describe the impact upon ground and surface water quality and recharge, including estimated phosphate and nitrate loading on groundwater and surface water from septic tanks, lawn fertilizer, and other activities within the development. For subdivisions located in whole or in part within the Town's Aquifer Protection and/or Water Resource Protection District, as established in the Protective By-Law, this shall include an analysis of drainage system alternatives, examining the concentration and speed of the transport of contaminants.

# 3. Circulation Systems.

- a. Explain the reasons for location of streets and intersections as shown on the Definitive Plan, with specific reference to criteria set forth in Section 7.0, below.
- b. Project the number of motor vehicles to enter or depart the site per average day and peak hour. Also state the number of motor vehicles to use streets adjacent to the proposed subdivision per average day and peak hour. Such data shall be sufficient to enable the Board to evaluate (a) existing traffic on streets adjacent to or approaching the proposed subdivision, (b) traffic generated or resulting from the proposed subdivision, and (c) the impact of such additional traffic on all ways within and providing access to the proposed subdivision. Actual study results, a description of the study methodology, and the name, address, and telephone number of the person responsible for implementing the study, shall be attached to the DIS.

# 4. Support Systems.

- a. Water Distribution: Discuss the types of wells proposed for the site, means of providing water for fire-fighting, and any problems unique to the site.
- b. Sewage Disposal: Discuss the type of system to be used, suitability of soils, procedures and results of percolation tests, and evaluate impact of disposal methods on surface and groundwater.
- c. Refuse Disposal: Discuss the location and type of facilities, the impact on existing Town refuse disposal capacity, hazardous materials requiring special precautions.
- d. Fire Protection: Discuss the type, location, and capacity of fuel storage facilities or other flammables, distance to fire station, and adequacy of existing fire fighting equipment to confront potential fires on the proposed site.
- e. Recreation: Discuss the distance to and type of public facilities to be used by residents of the proposed site, and the type of private recreation facilities to be provided on the site.
- f. Schools: Project the increase to the student population for nursery, elementary, junior high school, and high school levels, also indicating present enrollment in the nearest public schools serving these categories of students.
- 5. Phasing. Where development of the subdivision will require more than one (1) year, indicate the following:

- a. Describe the methods to be used during construction to control erosion and sedimentation through use of sediment basins, mulching, matting, temporary vegetation, or covering of soil stockpiles.
- b. Describe the approximate size and location of portion of the parcel to be cleared at any given time and length of time of exposure.
- c. Describe the phased construction, if any, of any required public improvements, and how such improvements are to be integrated into subdivision development.

# 6.4 PROCEDURES

# **6.4.1 Public Hearing.** The hearing shall proceed generally a follows:

- 1. The chair shall declare the public hearing open;
- 2. The clerk shall read the notice of the hearing;
- 3. The applicant, or a representative, shall explain what is proposed;
- 4. Board members, staff, state and Town officials, and members of the public present may ask questions (in that order) about the proposal;
- 5. All persons shall identify themselves by name, position or address each time they speak and, when speaking on behalf of or representing another person, shall identify such person. All questions and statements shall be directed to the chair.
- 6. Those opposed to the proposal may be recognized to speak;
- 7. The Board may discuss the proposal, request additional information, propose modifications and conditions, and seek agreement to them;
- 8. The Board may, but in most cases will not, vote on the proposed plan;
- 9. The chair may close the hearing or adjourn it to a date certain. If the hearing is closed, the vote of the Board on the plan shall be taken at a duly posted open meeting, but without further public testimony.
- **6.4.2 Review by the Board of Health.** When a preliminary or a definitive subdivision plan is submitted to the Planning Board, a complete copy thereof shall also be submitted to the Board of Health. If some land shown on the plan cannot be used for building without injury to public health, the Board of Health shall disapprove the plan and describe its findings in its report to the Planning Board and, if possible, make specific recommendations for the correction of conditions

potentially harmful to public health. The Board of Health shall report, in writing, to the Planning Board, its approval or disapproval of said plan, and shall send a copy of its report to the person who submitted the plan. In reporting a disapproval, the Board of Health shall make specific findings as to which of the lots (if any) shown on the plan cannot be used for building sites without injury to the public health, and shall specify the reasons therefore. Where possible, the Board of Health shall also make recommendations for the correction of the defects specified in its report. The failure of the Board of Health to make its report within forty-five (45) days after the plan is submitted to its office shall be deemed to constitute an approval of the plan by that Board.

- 1. At the time of the filing of the Definitive Plan, the applicant shall stake all proposed lots and mark proposed lot numbers on said lots for identification to facilitate review by the Board of Health.
- 2. If all or some of the land shown on the definitive plan will not be served by a municipal or public sewer, the Board of Health may still approve the plan on the condition that individual septic systems meeting the requirements of the State Environmental Code and of the Board of Health shall be applied for, including the results of any necessary soil and percolation tests, approved by the Board of Health, and installed at the applicant's expense for any lot not served by public sewer before any buildings shall be completed and occupancy thereof permitted. Any conditions of Board of Health approval applicable to the future use of the land shown on the plan shall be inscribed on the plan or stated in the certificate of Planning Board's action on such plan and referred to in any covenant or agreement recorded when the plan is recorded.
- **6.4.3 Review by Other Town Officials.** The Planning Board will transmit copies of the Definitive Plan to the following: Director of Public Works, Director of Engineering, Fire Chief, Police Chief, Conservation Commission, Building Commissioner/Zoning Enforcement Officer, and to such other Boards or committees as the Board deems advisable. The Planning Board will request each official, board and commission to provide written statements with regard to the plan within forty-five (45) days of each submission. Such statements should encompass the layout and design of the proposed subdivision and of the proposed municipal services therein, compliance with the Zoning Bylaw, and the applicability thereto of state and local regulations. Before approval of a Definitive Plan is granted, the Planning Board will obtain appropriate checks on the engineering and survey information shown on said plan, and written statements that the proposed improvements shown are laid out to the satisfaction of the municipal agency, as follows:
  - 1. As to the design of the street system, location of easements, and design of sewerage, water, and drainage systems, including appurtenances: the planning consultant or engineer designated by the Board;

- 2. *As to location, size, and species of street trees*: the Director of the Deprtment of Public Works.
- 3. As to the form of easements, covenants, and performance guarantees: Planning Board Legal Counsel.
- 4. As to location of hydrants, fire ponds and cisterns, and with regard to fire safety: the Fire Chief.
- 5. *As to street safety:* the Police Chief.
- **6.4.4 Public Hearing.** Upon receipt of a properly executed application form approved by the Planning Board together with the Definitive Plan, the Planning Board will set a date for the required public hearing. Notice of the public hearing shall be given in accordance with the requirements of G.L. c. 41, s. 81T. Before approval of the Definitive Plan is given, a public hearing shall be held by the Planning Board at the expense of the applicant, notice of the time and place of which and of the subject matter, sufficient for identification, shall be given by the Planning Board by advertisement in a newspaper of general circulation in the Town once in each of two successive weeks, the first publication being not less than fourteen days before the day of the hearing. A copy of said notice shall be mailed by the Board to the applicant and to all owners of land abutting upon the subdivision as appearing in the most recent tax list. All expenses incurred for plans, surveys, advertisements of hearings, mailing, etc. shall be the responsibility of the applicant submitting said plans for approval, and shall be billed directly to the applicant or shall be taken from a cash deposit. The balance of which, with vouchers covering expenditures, shall be forwarded to the applicant.
- **6.4.5 Revisions.** Any revision to the originally filed definitive plan must be submitted 14 days prior to the continuation of the hearing.

# 6.5 PLANNING BOARD ACTION

- **6.5.1 Powers.** After the public hearing, the Board, by a vote of the majority of its members, shall approve, modify and approve, or disapprove the Definitive Plan submitted. Criteria for action by the Board shall be the following:
  - 1. Completeness and technical adequacy of all submissions;
  - 2. Determination that development at this location does not entail unwarranted hazard to safety, health and convenience of future residents of the development or of others;

- 3. Conformity with the requirements of Sections 6.0 and 7.0 herein, and the Zoning By-Law;
- 4. Determination that the subdivision as designed will not cause substantial and irreversible damage to the environment, which damage could be avoided or ameliorated through an alternative development plan.
- **6.5.2 Decision**. The action of the Board with respect to any Definitive Plan shall be by vote, copies of which shall be filed with the Town Clerk and sent by registered mail to the applicant. The Board shall take action in accordance with the deadlines set forth in G.L. c. 41, s. 81U. If the Planning Board modifies or disapproves such plan, it shall state in its vote the reasons for its action and shall rescind such disapproval when the plan has been amended to conform to these Rules and Regulations and to the recommendations of the Board of Health.
  - 1. Any vote of approval shall incorporate the recommendations of the Board of Health and, unless the Planning Board shall specifically vote otherwise, shall be subject to compliance with all provisions of the Rules and Regulations.
- **6.5.3 Endorsement.** Final approval, if granted, shall be endorsed on the original drawing of the Definitive Plan by the signatures of a majority of the Planning Board but not until the statutory twenty (20) day appeal period has elapsed following the filing of the certificate of approval or disapproval of the Planning Board with the Town Clerk and said Town Clerk has notified the Planning Board that no appeal has been filed. Endorsement shall be subject to compliance with the construction specifications contained herein and the decision, compliance with the Rules and Regulations and the Zoning By-law, and compliance with the recommendations of the Board of Health.
  - 1. Prior to endorsement of the Definitive Plan, the applicant shall submit a CD or DVD containing the plan, produced by an Autocad or similar computerized drafting system, in either Autocad Drawing Format (.dwg), Data Exchange Format (.dxf) or an acceptable ESRI format, registered to Massachusetts State Plane (Mainland) Coordinates, North American Datum of 1983, as part of the application for endorsement of the plan. Orthophotos available from Mass GIS may be used in registering data. If the applicant is unable to provide the above, a fee determined by the Board will be charged to cover the cost of digitizing the plan.

#### 6.6 MANDATORY CONDITIONS

**6.6.1 Failure to Obtain Endorsement.** The applicant shall obtain the endorsement of the Planning Board upon the Definitive Plan within 180 days of the date of approval. Failure to obtain such endorsement shall result in the automatic rescission of the approval of such plan.

- **6.6.2 Failure to Complete Construction.** The subdivider shall complete the construction of all ways and municipal services within two years of the date of endorsement of the Definitive Plan. Failure to so complete shall result in the automatic rescission of the approval of such plan, unless the Board extends said period, for good cause shown, after the written request of the applicant not less than 30 days prior to the expiration of said period.
- **6.6.3** Construct Streets and All Required Utilities. As a condition of approval of a subdivision, the applicant shall agree to construct streets and complete all other work specified on the Definitive Plan or required under these Rules and Regulations, meet all relevant provisions of the Dedham Zoning By-Laws and other By-Laws, including installation of required utilities in such subdivision, and all work incidental thereto, such as grading of lots to provide drainage, construction of retaining walls and other details or as specifically required by the Planning Board. The Planning Board may require that such construction be completed within a specified period of time.
- **6.6.4 Grant Perpetual Rights and Easements.** As a condition of approval of a subdivision, the applicant shall grant to the Town of Dedham, a right and easement to construct, repair, replace, extended, operate, use and forever maintain all streets, water mains, sewer mains, and all surface and subsurface storm water drains in, through or under the streets and easements as indicated on the Definitive Plan. The above shall not be construed to relieve the applicant, and his successors in title, to the ownership of a portion of the land or any street within the subdivision, nor diminish in any way, his responsibility to complete all construction as required by the applicant's agreements with the Town and to thereafter maintain all streets and utilities in satisfactory condition until they are accepted by the Town.
- **6.6.5 Right of Entry and Cooperation by and with Town Officials.** As a condition of approval of a subdivision, and in accordance with G.L. c. 41, s. 81B, the applicant shall consent to allow members and employees of the Planning Board and other persons acting under the authority of the Planning Board as its agents, to enter upon any lands and carry out such surveys and inspections as may be deemed necessary, and place and maintain monuments and marks. As a condition of subdivision approval by the Planning Board, an applicant shall cooperate with the Planning Board and Town officials and assist them in their efforts to verify that the layout, design and construction work in his subdivision are satisfactory and conform to the Town specifications and the requirements of the Planning Board.
- **6.6.6 Inscription.** If the Planning Board approves the plan subject to certain conditions, those conditions shall be inscribed upon the approved definitive plan.
- **6.6.7 Streets.** In consideration of being allowed to connect to public street and utility systems and to enable the Town to protect public health and safety, upon installation of utilities and construction of ways, the applicant shall grant the Town without cost, by a properly executed legal instrument and without any liens or encumbrances, the perpetual right and/or easement to

pass and repass over the streets and easements in the subdivision, and to use, operate, inspect, repair, renew, replace, and forever maintain streets, sewers, subsurface and surface drains and water courses, street signs, and all appurtenances or components thereof, including without limitation any pipes, valves, manholes, and catch basins, in all of the subdivision and outside it if installed to serve the subdivision. A similar grant of rights and easements to Dedham-Westwood Water District may be required with respect to water system. To accomplish this the applicant shall retain and reserve the necessary rights and easements in any conveyances or mortgaging of land or lots and in recording of plans and easements.

**6.6.8 Responsibility for Maintenance.** Notwithstanding the provisions of Section 6.6.7, it shall be the responsibility of the applicant and applicant's successors in title to all or any portion of the subdivision to maintain the streets and the utilities therein 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. All streets and utilities and other required improvements must be without defects at the time their release from a bond or other security is requested, and the security will not be released until all deficiencies are corrected. If streets and utilities are damaged or are allowed to deteriorate at the time of their acceptance as Town ways, the abutting owners may be assessed betterments for street improvements

#### 6.7 SECURITY

- **6.7.1 Security for Construction of Ways and Improvements Required.** The Board shall not endorse its approval on the plans until security for the construction of ways and the installation of the required municipal services and other improvements to serve the subdivision has been provided by one of the methods set forth in Section 6.7.2 to 6.7.4, inclusive, which shall be selected and may be varied from time to time by the applicant, so that different parts of the subdivision may be secured by different methods, but the entire subdivision must be secured by one method or another.
- **6.7.2 Bond or Surety**. The applicant may give a bond, bankbook, or other readily negotiable security in the amount estimated by the Board to fully cover the cost, including inflation and contingencies, of constructing the ways and installing the municipal services or utilities to serve the lots enumerated in such bond or in a separate agreement referring to such bond. Such bond or security if filed or deposited shall be approved as to form by the Planning Board Legal Counsel, and as to sureties by the Town Treasurer. Such bond or security shall be contingent on the completion of such improvements not later than three years from the date of the endorsement of the definitive plan. Failure to so complete shall result in the automatic rescission of the approval of the Definitive Plan by the Board, unless the Board extends said period, for good cause shown, after the written request of the applicant prior to the expiration of said period. Upon satisfactory performance of all required work, the bond or other security may be released by vote of the Board and returned to the applicant, but upon failure to satisfactorily complete said work within the time specified, or within such further time as the Board may grant upon

request of the applicant, consented to by the bonding company or other surety, the Board shall have the right to enforce said bond or realize upon other security to the extent necessary to complete the work to the satisfaction of the Board. As provided in Section 81U of the Subdivision Control Law, the Board may expend the proceeds of such bond or deposit not exceeding \$25,000.00 without specific appropriation by the Town, provided the Board of Selectmen approves the expenditure. At the anniversary date of posting of bond or other security and when circumstances otherwise warrant such action, the Town may verify that the security is still in force and effect, and that the surety or financial institution is solvent and capable of paying the required amount.

- 1. Amount. In determining the amount of the bond or surety, the Board shall be guided by the following formula in setting the sum of the security:
  - a. the Board's estimate of the cost to complete the work; plus
  - b. a ten percent margin of error; plus
  - c. an appropriate rate of inflation over a five year period.
- 2. Required Terms. All performance bonds shall contain the following provision:

If the Principal shall fully and satisfactorily observe and perform in accordance with the qualifications and time schedule set forth herein specified all the covenants, agreements, terms and provisions set forth in the following:

- a. The application for definitive plan approval (Form C);
- b. The subdivision control law and the rules and regulations of the Dedham Planning Board which govern this subdivision;
- c. The Decision of the Planning Board dated \_\_\_\_\_ and attached hereto as Exhibit A; and
- d. The definitive plan, as approved by the Planning Board in the Decision;

Then this obligation shall be void; otherwise, it shall remain in full force and effect and the aforesaid sum shall be paid to the Town of Dedham as liquidated damages.

3. The penal sum of the bond or the amount of other security shall be reduced from time to time by the Board upon request of the developer upon partial performance of the required improvements.

- **6.7.3 Construction Mortgage Agreement.** The applicant and the lending institution which provides a construction loan for the subdivision may enter into an agreement with the Board, whereby the lender shall at all times retain a portion of the loan sufficient to cover the cost of all outstanding work of construction of ways and installation of municipal services or other required improvements, and release portions of the amount so retained upon certification by the Board that the corresponding portion of the required work has been satisfactorily completed. Upon failure of the applicant to perform the required work within the agreed-upon period, the lender shall make so much of the retained money as may be necessary to complete the required work available to the Board. Upon satisfactory completion of all required work, the applicant shall request the release of the agreement and proceed in the same manner as under Section 6.7.2, above.
- **6.7.4 Statutory Covenant.** Prior to the endorsement of the Definitive Plan, the subdivider may elect to submit a covenant for review by the Planning Board stating that no lot in the subdivision shall be sold and no building shall be erected thereon until the improvements specified in the decision and on the Definitive Plan are constructed and installed so as to adequately serve said lot or lots. Such covenant shall be approved as to form by the Planning Board Legal Counsel. Such covenant shall be executed and duly recorded by the owner(s) of record, and shall run with the land. Such covenant shall state that the improvements shown on the definitive plan shall be completed not later than three years from the date of the endorsement of the Definitive Plan. Failure to so complete the improvements shall result in the automatic rescission of the approval of the Definitive Plan by the Board, unless the Board extends said period, for good cause shown, after the written request of the applicant no less than thirty (30) days prior to the expiration of said period. The covenant shall be referenced on the Definitive Plan prior to recordation in the Registry of Deeds. The subdivider shall promptly, after recording, send a copy of the covenant, showing book and page number, to the Board.
- **6.7.5 Supplemental Covenant.** The Planning Board may require, prior to the endorsement of the Definitive Plan, a supplemental covenant containing those conditions of approval that are intended to survive the release of the Statutory Covenant. Such covenant shall be approved as to form by the Planning Board Legal Counsel. Such covenant shall be executed and duly recorded by the owner(s) of record, and shall run with the land. The covenant shall be referenced on the Definitive Plan prior to recordation in the Registry of Deeds. The subdivider shall promptly, after recording, send a copy of the covenant, showing book and page number, to the Board.
- **6.7.6 Converting Covenant to Another Performance Guarantee**. If the applicant desires that lots be released from a covenant and that the improvements remaining to be constructed or installed be secured by another form of performance guarantee, a formal written request shall be sent to the Planning Board by registered mail which sets forth and includes:
  - 1. Extent. The extent and scope of remaining work to be completed to satisfy the requirements for the construction or installation of all required ways and municipal services.

- 2. Estimate. An estimate, pursuant to these Rules and Regulations, which reflects all remaining costs related to the construction of all required ways and installation of all required municipal services.
- 3. Form and Type. The form and type of guarantee being given to the Planning Board to secure all remaining improvements.
- 4. Planning Board Action. The Planning Board or its agent will make a determination as to the sufficiency of the submitted estimate, and, if such estimate is accepted, a new performance guarantee will be given to the Planning Board. Upon acceptance by the Planning Board of the new performance guarantee, all applicable lots shall be released from the covenant.
- **6.7.7 Converting Bond, Deposit, or Agreement to Covenant.** If the applicant desires to secure by means of a covenant the construction of ways and the installation of municipal services in a portion of a subdivision for which no building permits have been granted nor any lots have been sold, and to have the Planning Board release the bond, deposit of money or negotiable security, or agreement and mortgage previously furnished to secure such construction and installation, the applicant shall submit to the Planning Board a reproducible tracing and three (3) contact prints of the reproducible tracing of the Definitive Plan, limited to that part of the plan which is to be subject to such covenant. Upon approval of the covenant by the Planning Board, reference thereto shall be inscribed on such section of the plan, and it shall be endorsed by the Planning Board and recorded with the covenant at the expense of the applicant. Certified copies of all documents which the applicant records at the Registry of Deeds shall be provided to the Planning Board as set forth in these Regulations.
- **6.7.8 Maintenance Guarantee.** A maintenance guarantee providing surety equal to (10%) of the total value of work within the subdivision which has been subject to either a bond and/or covenant, to be held in same manner as the performance guarantee required herein. Such maintenance guarantee shall be held by the Town for the maintenance of streets and municipal services for eighteen (18) months after completion of construction and installation or until the streets are accepted by the Town, whichever comes first, after which date the Town shall return the remainder of the bond to the person or persons who furnished same. The requied Homeowner's Association may assume responsibility for the maintenance guarantee. Approximately sixty (60) days before the expiration of the eighteen (18) month period specified above, the Planning Board shall request its engineer to make an inspection of said street or ways or portion thereof to determine whether or not it should recommend to the Board of Selectmen the laying out of said street or way or portion thereof as a public way. If the recommendation is in the affirmative, the Planning Board shall so advise the Board of Selectmen forthwith, including in such recommendation notification that the eighteen (18) months for which the applicant is responsible for maintenance of said way or portion thereof will expire on a certain date and said way may be laid out as a public way.

1. Upon the expiration of the period for which the applicant is responsible for maintenance of said way, if said applicant has complied with all the requirements of the Planning Board, and surety held by said Board for the maintenance of said way shall be returned forthwith to the applicant.

# 6.8 AMENDMENT, MODIFICATION OR RESCISSION OF APPROVAL

Pursuant to G.L. c. 41, s. 81W, the Planning Board may, upon its own motion or upon the request of the applicant, amend, modify or rescind the approval of a Definitive Plan. Failure to comply with these Rules and Regulations and with the specifications and conditions set forth in the approval of the Definitive Plan shall constitute a basis for such action by the Planning Board. Such action may include the realization upon any security posted by the applicant, the rescission of subdivision approval and all other measures provided by law. No changes or alterations shall be made to any aspect of an approved Definitive Plan without resubmission for approval of the Planning Board in accordance with General Laws, Chapter 41, Sections 810 and 81W.

### 6.9 MODIFICATION OF DEFINITIVE PLAN

- **6.9.1. Procedure.** The procedure for the modification of a Definitive Plan, pursuant to G.L. c. 41, s. 81W, shall conform to the requirements for approval of an original Definitive Plan as set forth herein.
- **6.9.2 Change of Lot Lines.** Pursuant to G.L. c. 41, s. 81O, certain changes of lot lines may be approved by the Planning Board without a public hearing.
- **6.9.3 Effect.** The modification of a Definitive Plan shall not affect lots sold or mortgaged by the applicant in accordance with G. L. c. 41, s. 81W.

#### 6.10 RELEASE OF PERFORMANCE GUARANTEE

- **6.10.1 General.** Upon completion of required improvements, security for the performance of which was given by the bond, deposit, or covenant, or upon the performance of any covenant with respect to any lot, the applicant, at his expense, shall send by Registered or Certified Mail to the Town Clerk and the Planning Board a written statement that the said construction or installation which has been secured in connection with such bond, deposit, covenant or agreement, has been completed in accordance with the requirements contained within these Rules and Regulations. Such statement shall contain:
  - 1. Name and address of applicant.
  - 2. A Compliance Certificate signed by the applicant and signed and sealed by his

- Engineer stating that the development has been completed according to the Rules and Regulations of the Planning Board and the Bylaws of the Town of Dedham.
- 3. Copies of or reference to the requisite number of Inspection Forms and Reports.
- 4. An As-built Plan (see below).
- 5. A written certification by the Planning Board's engineer that construction of all ways and sidewalks, installation of monuments, street signs, pavement, lighting, gutters and curbs, required grading and drainage, water mains, hydrants and appurtenances, all sewer mains and appurtenances and planting and seeding has been completed in accordance with the Definitive Plan.
- 6. A written certification by the Board of Health that the installation of sewage disposal facilities, if applicable, and provisions for surface drainage of all lots has been performed in accordance with the Definitive Plan and the requirements of the Board of Health.
- 7. A written certification by the Fire Chief as to the installation of the fire alarm system, all in accordance with the Definitive Plan.
- 8. Copies of or reference to the necessary instruments, executed by the applicant, transferring to the Town all utilities and easements as shown on the Definitive Plan (see below).
- **6.10.2 Refusal.** If the Planning Board determines that said construction or installation has not been completed, it shall specify to the Town Clerk and to the applicant, in writing by Registered or Certified mail, return receipt requested, the details wherein said construction and installation shall have failed to comply with the requirements contained within these Rules and Regulations.
- **6.10.3 Constructive Release.** Upon failure of the Planning Board to act on such application within fortyfive (45) days after receipt thereof by the Town Clerk and the Planning Board, all obligations under the bond shall cease and terminate by operation of law, and any deposit shall be returned and any covenant shall become void. In the event that said fortyfive (45) day period expires without such specification, or without the return of the deposit or release of the covenant as aforesaid, the Town Clerk shall issue a certificate to such effect, duly acknowledged, which may be recorded.
- **6.10.4 Conveyance of Utilities and Easements to the Town**. Prior to the release by the Planning Board of a surety bond or deposit, or, in the case of a covenant, the issuance of a Release Form, the applicant shall execute an instrument, on a Form approved by the Planning Board, transferring to the Town, without cost, valid unencumbered title to all common sewers, storm drains and water mains, and appurtenances thereto, constructed and installed in the

subdivision or portion thereof to be approved, and conveying to the Town without cost and free of all liens and encumbrances, perpetual rights and easements to construct, inspect, repair, renew, replace, operate and forever maintain the aforesaid underground utilities, with any manholes, pipes, conduits and other appurtenances, and to do all acts incidental thereto, in, through and under the whole of all streets in the subdivision or portion thereof to be approved, and if any such utilities have been constructed and installed in land not within such streets, then in, through and under an easement as shown on the Definitive Plan.

**6.10.5 As-Built Plans.** The following as-built plans and profiles, prepared by a Registered Professional Engineer or Registered Land Surveyor, based on an on-the-ground survey done within six weeks of submittal, shall be submitted to the Planning Board following the completion of construction and, in addition, at such time during the course of construction as required by the Director of Public Works. These may be new plans or full size prints of the approved definitive plans showing in red or other clearly distinguishable color all differences between the approved and the actual construction. Where the departures are considered to be significant, the Board may require corrective work or may require engineering calculations to substantiate acceptability of work as done.

- 1. A street layout plan, drawn in ink on linen, at a scale of 1"=40', in form approved by the Planning Board's engineer as suitable for submission to the Town Meeting for street acceptance for purposes and for filing in the Norfolk County Registry of Deeds.
- 2. A plan and profile, drawn in ink on linen, or prepared on another suitable, permanent reproducible material, at a scale of 1"=40', detailing street locations, house locations, if any, and grades and the location and elevation of all underground utilities and appurtenances, including rim grades, percent of slope for sewer and drain lines, and contours, of two foot (2') intervals, for a distance of forty feet (40') from the sideline of any street layout, utility easement, the boundaries of any Flood Plain and Aquifer Protection, and/or Flood Insurance District, and/or the boundary of any area which the Conservation Commission has previously determined to be subject to General Laws, Chapter 131, Section 40, "as built."
- 3. The Engineer shall obtain, from actual field survey and other sources as may be necessary, such information as is necessary to properly identify any "as built" locations of all underground utilities.

#### 6.11 RECORDING OF DEFINITIVE PLANS

If no notice of appeal has been filed with the Town Clerk or if an appeal has been taken and disposed of in a way which leaves the definitive plan approved, and the Town Clerk has endorsed the Plan to that effect, any required modifications have been made or referred to on the

plan, together with any conditions of approval, and the agreed-upon security has been accepted by the Board, the Board shall endorse its approval on the plan, including the dates of approval and of endorsement, and release the plan originals to the applicant. The applicant shall furnish the Board with four complete sets of full-size copies of the signed plans, and shall record the original lot plans, street layouts and profiles in the Norfolk Registry of Deeds or file the lot plans in the Land Court, as appropriate, within six months of the date of approval (plans are not accepted for recording after six months). The applicant shall inform the Board in writing of the date and book and page or document number of recording. The certificate of action and the covenant shall be recorded at the same time as the plans.

# SECTION 7.0 DESIGN STANDARDS AND REQUIRED IMPROVEMENTS

# 7.1 GENERAL REQUIREMENTS

- **7.1.1 Subdivision Requirements and Standards.** Subdivisions shall be designed in accordance with the requirements and standards of this Section.
- **7.1.2** Compliance with the Zoning By-Law. All lots within the Subdivision shall comply with all requirements of the Zoning By-Law in effect at the time of application. For existing lots outside the subdivision, the subdivision improvements shall not cause the following:
  - 1. Existing conforming lots to be rendered nonconforming with respect to setbacks or any other requirement of the Zoning By-Law in effect at the time of application.
  - 2. Existing nonconforming lots to increase non-conforming elements with respect to setbacks or any other requirement of the Zoning By-Law in effect at the time of application.
- **7.1.3** Compliance with Architectural Barriers Board Regulations. All subdivision improvements shall comply with the requirements of the Architectural Barriers Board, 521 CMR 1.00 et seq., in effect at the time of application. With the consent of the Board, the subdivision improvements shall be continuously modified and reconstructed ensuring that the subdivision improvements conform to the Architectural Barriers Board Regulations in effect at the time of fmal street acceptance.
- **7.1.4 Construction Specifications.** Design of the subdivision improvements shall conform to all requirements of the following:
  - 1. The Commonwealth of Massachusetts Department of Public Works, Standard Specifications for Highways and Bridges, 1988 Edition, including the latest addenda, revisions and supplements, all of which are hereinafter referred to as the Standard Specifications.
  - 2. The requirements of the *Dedham Department of Public Works Design and Construction Standards*, the *Dedham Drainage and Stormwater Design Standards*, the *Dedham Stormwater Management By-Law*, the *Dedham Wetlands Protection By-Law*, and the requirements of other Town Departments having jurisdiction.
  - 3. The requirements of the Dedham-Westwood Water District for design of water distribution system.

- 4. The most stringent of the above in the case of conflicting requirements.
- **7.1.5** Limit of One Dwelling Per Lot. Not more than one building designed or available for use for dwelling purposes shall be erected or placed or converted to use as such on any lot on a subdivision, or elsewhere in the Town, without the consent of the Planning Board. Such consent may be conditional upon the providing of adequate ways furnishing access to each site for such building, in the same manner as otherwise required for lots within a subdivision.
- **7.1.6 Easements.** Easements shall be provided across lands to remain in private ownership both within the subdivision and outside the limits of the subdivision to accommodate access, utilities, and the flow of runoff or channelized flow in accordance with the following:
  - 1. Easements shall be provided across lots and other tracts to remain in private ownership and shall preclude construction of buildings, structures, subsurface wastewater disposal systems, and other incompatible improvements.
  - 2. The form of the easement shall be acceptable to Board.
  - 3. The easement shall be obtained from the owner of the land whether lying inside or outside the subdivision boundary and rights therein shall be conveyed to the Town of Dedham and shall provide the Town with clear unencumbered rights in the easement in perpetuity.
  - 4. Easements shall be of the width required to accommodate convenient vehicular and pedestrian use for access, inspection, repair, replacement, and other necessary purposes.
  - 5. Easements shall have a minimum width of twenty (20) feet.
  - 6. Easements for utilities shall be centered on rear or side lot lines where practicable.
  - 7. Easements for watercourses, drainage ways, wetlands, streams, or channels, shall generally conform to the layout thereof. Easements for natural rivers or permanent streams shall extend 125 feet beyond the top of bank. Easements for drainage ways, wetlands, and channels shall extend 25 feet beyond the edge thereof. Easements for minimum sight distance triangles shall be provided at intersections in accordance with Section 7.4.6.

# 7.2 PROTECTION OF NATURAL FEATURES

**7.2.1 Preserving Natural Features.** Every effort shall be made in the design and construction of subdivisions to preserve and protect all natural features, such as trees, woodland areas, watercourses, wetlands, scenic vistas, historical and archaeological sites, stone walls, contiguous natural habitat areas, and similar community assets, which, if preserved, will add attractiveness

and value to the subdivision.

- **7.2.2 Grading and Topography.** The design of all subdivision improvements shall be in harmony with natural and topographic features. Minimize required cut and fill by minimizing the deviation between existing ground and the centerline grade (profile grade line) of the proposed subdivision road. Removal of earth beyond the boundaries of the subdivision is prohibited, except when authorized by an Earth Removal Permit in accordance with the Dedham *Zoning Bylaw* and other applicable Bylaws and regulations.
  - 1. Required cut and fill for roadways and sideslopes shall not exceed 40,000 cu. yd. per mile of subdivision road.
  - 2. Land within the subdivision shall not be clear cut except in conformance with the following:
  - a. No clearing shall commence prior to recording the approved definitive plan.
  - b. Lots shall not be cleared prior to establishment of a base course pavement on the roadway.
  - c. All clearing shall be limited to work areas and shall not extend beyond any limits of clearing shown on the definitive plan.

# 7.3 OPEN SPACE

**7.3.1 General.** Prior to approval of a plan, the Board may require the plan to show a park, or parks, suitably located for playground or recreational purposes, providing light and air, and protecting natural resources in accordance with the Subdivision Control Law. The park or parks shall not be unreasonable in area in relation to the land being subdivided and to the prospective uses of such land. The Board may, by appropriate endorsement on the plan, require that no building be erected upon such park or parks without its approval.

#### 7.4 STREETS AND ROADWAYS

- 7.4.1 Required Roadway Improvements. Required roadway improvements are established for the classes of roadways as defined herein and as follows:
  - 1. Residential Lane
  - 2. Residential Street
  - 3. Nonresidential Street
  - 4. Collector Street
- **7.4.2 Street Names.** Prior to approval of the Definitive Plan, the applicant shall obtain a valid address for each lot and unit shown on the plan. The Board shall select street names after

consultation with the Town public safety officials which shall be in accordance with the *Town of Dedham Addressing Standards and Regulations*. Proposed street names shall not duplicate or be phonetically similar to the name of any existing public ways, private way, or paper streets. Street names shall be in keeping with the character of the Town and shall reflect existing natural features and historical events related to the specific location of the subdivision within the Town. A proposed street, which aligns with an existing street, shall bear the same name as the existing street.

- **7.4.3 Street Location.** Streets in the subdivision shall be coordinated with each other and with the existing street system in a manner satisfactory to the Board, with due regard to securing safety and convenience of travel, providing good sight distance, and promoting good traffic flow
  - 1. Provision satisfactory to the Board shall be made for the proper extension of streets, or for access to adjoining property whether or not subdivided.
  - 2. Streets shall be located to create segments of continuous collector and arterial streets where appropriate.
  - 3. Reserve strips prohibiting access to streets or adjoining property may be prohibited or may be required on a site-specific basis as the Board determines best serves the public interest.
  - 4. Subdivision streets may connect to existing public ways only at locations where sight distance is adequate to provide stopping sight distance on all intersection approaches. Required stopping sight distance shall be the larger distance calculated using the design speed or the 85th percentile travel speed.
  - 5. Where proposed streets connect to existing public ways, the applicant shall obtain a Street Opening Permit from the Dedham Department of Public Works and deliver a copy to the Board prior to commencement of construction.
  - 6. Where proposed streets connect with a State Highway, a Curb Cut Permit shall be obtained from the Massachusetts Highway Department and furnished to the Board prior to the date of approval of the Definitive Plan.
  - 7. All required roadway improvements shall be located within the roadway right-of-way and shall not be placed within any lot
  - 8. Slopes less than 5 feet in height or depth may be located adjacent to roadways. Slopes exceeding 5 feet in height or depth shall be located within the roadway right of way or within separate parcels not included in any building lot and shall have guardrails in accordance with 7.4.15.

- 9. Sewer, water and drainage lines may be located within easements with the consent of the Board.
- **7.4.4 Handicapped Access.** All subdivision improvements shall comply with all pertinent requirements of the Architectural Barriers Board, 521 CMR 1.00 et seq, Dedham Standards, and the following additional standards.
  - 1. Sidewalk cross slopes shall not exceed 1.5 percent
  - 2. Sidewalks shall be kept clear of obstructions for a minimum width of 60 inches.
  - 3. Ramps shall be provided at all intersections along the path of travel.
  - 4. Normal sidewalk profiles shall be carried across driveways with the back of sidewalk 8 inches above the gutterline for Residential and Non-Residential Streets and 81/2 inches above the gutterline for Residential (SRA) and Collector Streets.
- **7.4.5 Cross Sections.** Roadway cross-sections shall be in accordance with the Typical Roadway Sections in Figures 7-1 through 7-3.
  - 1. The centerline of pavement shall coincide with the centerline of the right-of-way.
  - 2. The location of all utilities and plantings shall be in accordance with the Typical Roadway Section, Figure 7-1.
  - 3. Where a street is to provide the only access to a subdivision, or where potential traffic volume or safety warrants, the Board may require a greater right-of-way than that specified above and may require construction of a divided roadway.
  - 4. Where appropriate, the Board may require the construction of additional travel lanes and auxiliary lanes.
- **7.4.6 Alignment.** The horizontal and vertical alignment of all segments of all subdivision roadways shall provide adequate stopping sight distance to provide the design speed specified in Table 3-1 or such higher design speed as may be required by the Board
  - 1. Stopping sight distance shall be determined in accordance with AASHTO procedures utilizing a 3.50-foot height of observer and a 0.50-foot height of object.
  - 2. The minimum centerline radii of curved streets shall be as specified in Table 7-1.
  - 3. The minimum centerline offset for all streets whether on the same side or on the opposite side of the through street shall be 225 feet.

- 4. Streets shall be laid out so as to intersect at right angles for a distance of one hundred (100) feet from the intersecting street centerlines.
- 5. Minimum tangent lengths between horizontal curves shall be provided in accordance with Table 7-1, excepting that tangents are not required where the radius of curvature of both centerline curves is at least two (2) times the minimum specified in Table 7-1.
- 6. The distance between curb line and right-of-way line at any intersection shall be the same as the largest distance required for any of the intersecting streets.
- 7. Intersection rounding curbline radii shall be as set forth in Table 7-1. Where streets of different classifications intersect, the curbline radius shall be the smaller of the two radii required.
- 8. Minimum sight distance triangle easements shall be provided on all intersection approaches having the dimensions recommended in the Traffic Study (see Section 6.3.5). As a minimum, the sight distance triangle shall extend for 15 feet along the sidelines of the approaching street and 100 feet along the sidelines of the cross street. Sight distance triangles shall be kept free of all obstructions over 2 feet in height.
- 9. Streets shall be laid out so as to intersect with adjacent streets or adjacent unsubdivided land at intervals of from one thousand (1,000) feet to two thousand (2,000) feet.
- **7.4.7 Grade.** Minimum and maximum centerline grades for streets shall be in accordance with Table 7-1.
  - 1. Where changes in grade exceed one-half of one percent (0.5%), vertical curves shall be provided.
  - 2. The length of vertical curves shall provide the required stopping sight distance for each class of street.
  - 3. The Board may require superelevation for horizontal curves.
  - 4. Reverse crown superelevation shall be provided for curves on collector streets.
  - 5. The centerline grade of roadways shall not deviate from existing undisturbed ground by more than ten (10) feet at any point and the average of the absolute value of the deviation shall not be more than three (3) feet.
- **7.4.8 Dead-End Streets.** No subdivision street shall be less than two hundred fifty (250) feet in length. No subdivision street shall exceed the maximum length of a dead end street listed in

#### Table 7-1.

- 1. No subdivision street shall connect to or extend a system of dead end streets exceeding the maximum length of a dead end street listed in Table 7-1.
- 2. No dead end street or system of dead end streets shall be created or extended to provide frontage for more than twenty potential dwelling units in accordance with applicable provisions of the Dedham Zoning By-Law in effect at the time of application.
- 3. The Point of Beginning of a dead end street or a system of dead end streets is a point at the intersection of the centerline of the side road with the centerline of a through public way from whence there are two or more distinct vehicular access routes to the general roadway network of the Town. To be considered as a distinct vehicular access route, roadway centerlines shall be separated by a minimum of 250 feet.
- 4. The length of a dead end street shall be the distance measured along the roadway's centerline extending from the Point of Beginning of the Dead End Street to the terminus of the road. The terminus of the road is the center of the cul-de-sac, or if no cul-de-sac is provided, is the end of pavement.
- 5. The length of a system of dead end streets shall be the cumulative distance measured along the intervening segments of all roadway centerlines extending from the Point of Beginning of the System of Dead End Streets to the terminus of the road. The terminus of the road is the center of the cul-de-sac, or if no cul-de-sac is provided, is the end of pavement.
- 6. To ensure that a dead end street or system of dead end streets is not further extended, the Board may require the applicant to provide a covenant running withthe land, a dedicated reserve strip, or other acceptable legal instrument to the benefit of the Town prohibiting further extensions of the roadway.
- **7.4.9** Cul-de-Sac. A cul-de-sac shall be provided at the terminus of all dead end streets.
  - 1. The right-of-way of the cul-de-sac shall be circular with a diameter of one hundred fifty (150) feet for Nonresidential Streets and one hundred twenty feet (120) for all other streets.
  - 2. For Residential Lanes, pavement within the cul-de-sac shall use a "hammerhead" layout.
  - 3. For all other street classifications, pavement within the cul-de-sac shall be circular fully paved from curbline to curbline, with no central island.

- 4. The distance between curb line and right-of-way line at a cul-de-sac shall be the same as the distance required for the subdivision street.
- 5. Where appropriate, the Board may require the roadway right-of-way to extend beyond the terminus of the roadway to adjacent property.
- 6. If a dead-end street is subsequently extended beyond the required turn-around, the turn-around shall be modified or removed as directed by the Board. Modification of any cul-de-sac on a public way requires consent of the Board of Selectmen.
- **7.4.10 Roadway and Sidewalk Pavement and Base.** The free draining material layer shall conform to the thickness indicated in Figure 7-2 Pavement Section and shall conform to requirements of the *Dedham Department of Public Works Design and Construction Standards*. In-situ soils that do not conform to these requirements shall be removed and replaced.
  - 1. The roadway base course shall consist of compacted dense graded crushed stone layer overlaying a compacted gravel base layer of the thickness indicated in Figure 7-2 Pavement Section. The dense graded crushed stone and gravel base shall conform to the requirements of the *Dedham Department of Public Works Design and Construction Standards*.
  - 2. The free draining material layer and the gravel base course layer shall be compacted in conformance with the requirements of the *Dedham Department of Public Works Design* and Construction Standards.
  - 3. Bituminous Concrete Pavement shall be smooth, uniform, dense Class I Bituminous Concrete as specified in the Dedham *Department of Public Works Design and Construction Standards* for surface, binder, and leveling courses.
  - 4. Bituminous Concrete Pavement shall only be installed during the period beginning April 1 and ending November 15 and further shall only be installed when the temperature of both the existing base material and the ambient air will remain above 40°F throughout the installation process.
  - 5. Bituminous Concrete Pavement shall only be installed when the base receiving the pavement is clean and dry and when no precipitation will occur during installation.
  - 6. All frames, water gate boxes, and other castings shall be adjusted to finished grade prior to placing the top course of pavement. Castings shall be set in a bed of high-early strength cement mortar. A minimum of 24 hours "setting time" shall be allowed prior to paving.
  - 7. Top course and binder courses shall have the minimum rolled thickness indicated in

- Figure 7-2 Pavement Section for roadways and sidewalks. Roadway binder course shall be placed in two courses of equal thickness.
- 8. All bituminous concrete pavement courses shall be compacted in conformance with the requirements of the Dedham *Department of Public Works Design and Construction Standards*.
- **7.4.11 Curbing.** Vertical granite curbing, Type VA4, conforming to the requirements of the Dedham *Department of Public Works Design and Construction Standards is* required along both sides of all streets.
  - 1. Vertical granite curb having a radius of less than 100 feet shall be cut to a true radius.
  - 2. All curb and edging shall be set to provide a 6 inch reveal.
  - 3. Granite curbing that connects to an existing street that does not have curb or that has curb of a different type or shape shall have a sawcut tapered end piece providing a smooth transition.
  - 4. Granite curb inlets or throatstones shall be provided at all catchbasins.
- **7.4.12 Driveways and Curbcuts.** Driveways shall comply with Dedham DPW Design & Construction Standards Detail Nos. RS.08, RS.11, and RS.23.
  - 1. Driveways in non-residential districts shall conform to the above, except that the width may be increased upon submission of a certification from a registered Professional Engineer that the width must be increased to accommodate truck turns.
  - 2. Driveway curbcuts shall be shown on the definitive plan.
  - 3. Driveway curb cuts are prohibited in certain locations as follows.
    - a. Within one hundred fifty (150) feet of the intersection of the centerline of intersecting streets.
    - b. Within ten (10) feet of a fire hydrant.
    - c. Within 20 feet of a driveway where the finished grade of any segment of the driveway within 25 feet of the back of sidewalk lies at an elevation below the back of sidewalk.
- **7.4.13 Planting Strips; Shrubs**. Planting strips shall be provided that have the width and grades indicated in Figure 7-1.

- 1. Sign posts and other obstructions shall be installed so that the centerline of the object is at the center of the planting strip or shoulder, excepting mailboxes. Mailboxes shall be located to provide a 24-inch clearance between the front of the mailbox and the face of curb. For streets without planting strips, all objects shall be located to provide an (18) inch minimum clearance between the object and the face of the curb and a (42) inch minimum clearance between the object and the back of sidewalk. Hydrants, poles, and street trees shall be located behind the sidewalk as indicated in Figure 7-1 Typical Roadway Section.
- 2. Planting strips shall have a loam layer Loam Borrow underlain by a gravel layer having the minimum thickness indicated in Figure 7-1 and conforming to the requirements of the Dedham *Department of Public Works Design and Construction Standards*.
- 3.A vigorous growth of perennial turf-type tall fescue grass consisting of a minimum of 100 plants per sq. ft. that is free from weeds shall be established over the entire planting strip. Apply grass seed, fertilizer, and lime in accordance with the requirements of the Dedham *Department of Public Works Design and Construction Standards*. All seeded areas shall be irrigated twice per day until grass has been moved twice.
- 4. Where shrubs are used for screening, they shall be of a noninvasive species.
- **7.4.14 Slopes.** Slopes in earth shall be graded at 6 horizontal to 1 vertical or shallower excepting that slopes for embankments having a height of 5 feet or more and slopes for cuts having a depth of 5 feet or more may be graded at 2 horizontal to 1 vertical or shallower.
  - 1. The Board may allow cut slopes in rock as steep as 1 horizontal to 6 vertical, upon submission boring logs, rock cores, and a certification of slope stability from a Massachusetts Geotechnical Professional Engineer.
  - 2. All roadway sections in earth cut or rock cuts shall have a swale at least 2 feet in width extending 18 inches below the adjacent gutterline separated by at least 6 feet from the back of sidewalk or if none of back edge of the planting strip.
  - 3. Slopes may be located on lots adjacent to roadways, excepting that slopes for embankments having a height of 5 feet or more and slopes for cuts having a depth of 5 feet or more shall be located within separate parcels not included in any building lot.
  - 4. The surface of slopes shall have a loam layer six (6) inches in thickness conforming to the requirements of the Dedham *Department of Public Works Design and Construction Standards*.

- 5. A vigorous growth of perennial turf type tall fescue grass consisting of a minimum of 100 plants per sq. ft. that is free from weeds shall be established over the entire slope surface. Apply grass seed, fertilizer, and lime in accordance with the requirements of the Dedham *Department of Public Works Design and Construction Standards*. *All* seeded areas shall be irrigated twice per day until grass has been moved twice.
- **7.4.15** Guardrail. A guardrail shall be provided where the Height of Embankment exceeds 5 feet, where required to protect vehicles from obstructions or other hazards, and where required to protect persons or property from vehicle damage.
  - 1. Guardrails shall be pressure treated wood with 6 inch by 8-inch posts, 6-inch thick separator blocks, and 4 inch by 10-inch wood rails
  - 2. A level area shall be provided beneath the guardrail that extends at least 5 feet back of the face of guardrail.
- **7.4.16 Street Trees.** Street trees shall be provided adjacent to the right-of-way of all streets along all roadway segments.
  - 1. The average spacing shall be 50 feet on center.
  - 2. Trees shall be high branched nursery grown stock and shall have a minimum caliper of 3'/z inches measured 3 ft. above finished grade.
  - 3. Trees shall be planted by a specialty landscape contractor with at least 10 years of experience.
  - 4. Trees shall be guyed and staked for one year, at which time guys shall be removed.
  - 5. To limit the spread of pests and disease, no more than 20 trees of the same species may be planted contiguously and may not be planted again unless separated by a minimum distance of 500 feet.
  - 6. Street Trees shall be of the species listed in the Table of Large Street Trees, excepting that the Board may approve other suitable species and cultivars.

# **Table 7-2 Large Street Trees**

Acer platanoidesNorway mapleAcer rubrumRed mapleCeltis occidantalisHackberryCercidiphyllum japonicumKatssura

Fraximus americana Fraximus pennsylvanica

Ginko Biloba

Gleditsia triacanthos 'Moraine'

Liquidambar styraciflua Liriodendron tulipifera Platanus x acerifolia Platanus occidentalis

Pyrus calleryana 'Aristocrat'

Quercus coccinea Quercus imbricaria Quercus rubra Sophora japonica Tilia cordata

Tilia cordata

Tilia tomentosa 'Green Mountain'

Zelkova serrata Ulmus parvifolia White ash Green ash Maidenhair

Moraine honeylocust

Sweet gum Tulip Tree

London Plane Tree American sycamore

Callery pear Scarlet oak Shingle oak Red oak

Japanese pagoda tree (single trunk)

Small leafed linden

Green Mountain silver linden

Japanese zelknova Lacebark elm

7. In special situations where street trees are planted under existing powerlines or in other locations where overhead clearance is restricted, small street trees may be used. These small street trees include Acer campestre (Hedge maple), Acer truncatumn (Shantung maple), Crataegus crus-galli `inermus' (Thornless cockspur hawthorne), Malus `Aderondack' (Aderondack crabapple), and Sorbus intermedia (Swedish mountain ash).

**7.4.17 Traffic Management**. Where required by the Board, the developer shall engage a Massachusetts Traffic Professional Engineer to prepare a Traffic Control Plan.

- 1. Where required by the Board, the developer shall install pavement markings, signs, channelization, turning lanes, and upon satisfying warrants traffic signal systems.
- 2. Traffic control devices shall conform to requirements of the Manual on Uniform Traffic Control Devices.
- 3. All pavement markings shall be thermoplastic.
- 4. Stop signs, stop lines, and 100-foot long double yellow centerline markings shall be provided on the minor street approach to all intersections.

**7.4.18 Street Name Signs**. Signpost assemblies shall be provided at all intersections with two signs indicating the name of the through street and the minor street. One signpost assembly shall be provided at T intersections and two signpost assemblies shall be provided at four way intersections.

1. Signpost assemblies and signs shall conform to requirements of the *Dedham Department of Public Works Design and Construction Standards*.

# **7.4.19 Roadway Construction Specifications.** For each classification of roadway, construction shall conform to requirements as follows:

- 1. The requirements of the Typical Roadway Section, Figure 7-1.
- 2. The requirements of the *Commonwealth of Massachusetts Department of Public Works, Standard Specifications for Highways and Bridges, 1988 Edition,* including the November 8, 2000 *Supplemental Specifications* and all later addenda, revisions and supplements, all of which are hereinafter referred to as the Standard Specifications.
- 3. The requirements of the *Dedham Department of Public Works Design and Construction Standards*.
- 4. In the case of conflict between the requirements of the *Standard Specifications* and the *Dedham Department of Public Works Design and Construction Standards*, the requirements of the *Dedham Department of Public Works Design and Construction Standards* shall govern.
- **7.4.20 Earthwork.** Subgrade preparation shall extend for the width of Full Depth Construction indicated in Figure 7-1.
  - 1. Clear and grub and remove all topsoil, organic materials, and other deleterious materials.
  - 2. Unsuitable materials below normal depth within the right-of-way shall be completely removed and replaced with sand-gravel borrow.
  - 3. All fill placed within the right of way shall be sand-gravel conforming to requirements of the Dedham *Department of Public Works Design and Construction Standards*
  - 4. All fills, refills and backfills within the right-of-way and within utility trenches shall be placed in 1 foot lifts and compacted to not less than 95 percent of maximum dry density in accordance with requirements of the Dedham Department of Public Works Design and Construction Standards.
  - 5. All earthwork operations shall incorporate erosion and sedimentation controls.

# 7.5 BRIDGES

**7.5.1 General.** Bridges shall be designed in accordance with *Massachusetts Highway* 

Department Bridge Design Manual in force at the time of the filing of the application. The foundation design shall be prepared by a geotechnical Professional Engineer based upon site specific subsurface explorations. The bridge design documents shall be signed and sealed by a structural Professional Engineer registered in Massachusetts.

#### 7.6 STORMWATER MANAGEMENT

- **7.6.1 General.** All storm drain systems and stormwater management facilities including detention basins, retention basins, and water quality basins shall conform to the Dedham Drainage and Stormwater Design Standards.
  - 1. All stormwater detention basins, retention basins, and water quality basins be located on separate parcels and not located within any lot.
  - 2. Stormwater runoff shall be collected and treated to abate contaminants. Discharges of untreated stormwater to on-site retention basins, watercourses or wetlands are prohibited.
  - 3. Discharges to the municipal stormdrain system should be avoided where practicable and are prohibited where the municipal stormdrain system has insufficient capacity to accommodate additional runoff.
  - 4. All storm drain systems and stormwater management facilities shall be designed to accommodate the design flows without surcharging or overtopping for the design storm events specified in the Dedham Drainage and Stormwater Design Standards.
- **7.6.2 Performance Criteria**. Stormwater management measures shall be implemented to achieve the performance standards set forth in the Dedham Drainage and Stormwater Design Standards
- **7.6.3 Discharge Requirements.** The discharge of stormwater is permitted only if fully compliant with the Dedham Drainage and Stormwater Design Standards
- **7.6.4 Drainage Analysis**. A Drainage Analysis shall be submitted that incorporates methodologies that fully conform to the Dedham Drainage and Stormwater Design Standards
- **7.6.5 Drainage Report**. All drainage calculations shall be summarized in a detailed drainage report.
  - 1. The report shall be signed and sealed by a Massachusetts registered Professional Engineer (PE) and a DEP authorized Soil Evaluator.
  - 2. The drainage report shall include an Existing Case Drainage Study Area Plan and a Build Case Drainage Study Area Plan, both conforming to the requirements of the

# Dedham Drainage and Stormwater Design Standards

- 3. The drainage report shall include copies of all calculations and shall allow for independent verification of the analysis. As a minimum it shall include separate calculations for each catchment detailing, catchment area, areas for each type of cover (pavement, woodland, grass, etc.), weighted coefficients of permeability, runoff curve numbers, flow paths, individual and cumulative times of concentration, pipe flow and design capacity, ditch flow and design capacity, and detention and retention basins inflow/outflow routings.
- 4. The drainage report shall include a detailed narrative describing for both the Existing Pre-Development Case and the Proposed Post-Development Case, 1) physical conditions including soils, vegetation, topography, runoff, drainage patterns, site improvements, drainage systems, retention and detention facilities, 2) methodology, 3) measures to abate contaminants, 4) measures to abate increases in the peak rate and volume of stormwater discharge.
- **7.6.6 Stormdrain Collection Systems.** The location and layout of the stormdrain collection system including all stormdrain lines and drainage structures shall conform to the Typical Roadway Section, Figure 7-1.
  - 1. Storm drain collection system shall be designed to accommodate the design storm specified hereinbefore and shall be configured to prevent surface flow across paved areas exceeding 150 feet in length.
  - 2. Construction of the stormdrain system including methods of construction and quality of materials shall conform to all requirements of the Dedham Department of Public Works Design and Construction Standards, the *Dedham Drainage and Stormwater Design Standards*, the Dedham Department of Public Works, the Dedham Stormwater By-Law, and further to the requirements of the Standard Specifications.
- **7.6.7 Oil-Water Separators**. Oil-water separators shall be provided to treat the First Flush of Stormwater Runoff from all paved surfaces and shall conform to all requirements of the Dedham Drainage and Stormwater Design Standards.
- **7.6.8 Roofwater Recharge Facilities**. Subsurface roofwater leaching facilities shall be provided to recharge stormwater runoff from all building roofs and shall conform to all requirements of the Dedham Drainage and Stormwater Design Standards.
  - 1. Covenants running with the land shall be provided for all lots allowing inspection by agents of the Town and requiring proper construction, maintenance, repair and replacement of the roofwater collection and leaching facilities in perpetuity

- **7.6.9 First Flush Basins**. First flush basins shall be provided to hold the First Flush of Stormwater Runoff and shall conform to all requirements of the Dedham Drainage and Stormwater Design Standards
- **7.6.10 Detention and Retention Basins.** Detention and retention basins shall be constructed in accordance with all requirements of the Dedham Drainage and Stormwater Design Standards.

# 7.7 WATER DISTRIBUTION SYSTEM

- **7.7.1 General.** A water distribution system, including hydrant assemblies for fire protection shall be provided along all roadway segments and shall serve all subdivision lots.
  - 1. The location and layout of the water distribution system including all watermains and appurtenances shall conform to the Typical Roadway Section, Figure 3-1.
  - 2. Construction of water distribution system including methods of construction and quality of materials shall fully conform to all requirements of the Dedham-Westwood Water District and the Dedham Department of Public Works Design and Construction Standards.
- **7.7.2 Water Distribution Mains.** Water distribution mains shall be installed with a minimum 5 feet of cover and a maximum of 6 feet of cover.
- **7.7.3 Valves.** Line valves shall be spaced at intervals not to exceed 1000 feet on center.
  - 1. Additional valves shall be located in locations such that lines may be isolated by individual block for maintenance purposes.
  - 2. Where two water mains join, each leg shall be furnished with a gate valve with gate box, i.e. three gate valves shall be provided at "T" connections.
  - 3. Valve boxes shall be installed and adjusted to finished grade for all gate valves.
- **7.7.4 Hydrant Assemblies.** Hydrant assemblies shall be provided at the end of all dead end streets and at intervals not to exceed five hundred (500) feet on center.
- **7.7.5 Thrust Blocks.** Thrust blocks shall be provided at all fittings and angle points.
- **7.7.6 Water Service Connections.** Each individual lot or dwelling unit shall have a separate water service. Water services shall include a corporation cock, curb stop, and curb box. For all potential lots, water services shall be installed to a point 5 feet beyond the back of sidewalk prior to placing the top course of roadway or sidewalk paving.
- **7.7.7 Connection to Public System**. New watermains may be connected to the water

distribution system only if there is adequate flow and pressure to serve new development and only if authorized in writing by the Dedham-Westwood Water District.

- 1. Connection of new water mains to the existing water distribution system is only permitted if three gate valves are provided at the point of connection. In specific locations where the Dedham-Westwood Water District recommends that new line valves not be installed, the new connection shall be made using a tapping sleeve and valve.
- 2. Final connection of new water mains to the existing water distribution system is only permitted if leakage and chlorination test data has been submitted by the applicant's testing laboratory and approved by the Dedham-Westwood Water District.
- 3. Excavation within public ways shall fully conform to all requirements of the Street Opening Permit issued by the Dedham Department of Public Works.

# 7.8 SANITARY SEWER SYSTEM

- **7.8.1 General.** Wherever feasible, a sanitary sewer system shall be provided that serves all lots in the subdivision and conveys sewage flows to the public sewerage system of the Town of Dedham by gravity flow.
  - 1. All sanitary sewer mains, sewer manholes, and appurtenances including sewermains, manholes, lot service connections, pumping stations, and connections to the existing municipal sanitary sewer system shall conform to all requirements of the Dedham *Department of Public Works Design and Construction Standards*.
  - 2. Sewer systems shall be cleaned and inspected with video equipment. Sewer systems shall pass pressure and leakage tests and mandrel tests.
  - 3. The location and layout of the sanitary sewer system including sewer mains, sewer manholes, and appurtenances shall conform to the Typical Roadway Section, Figure 7-1.
  - 4. Construction of the sanitary sewer system including methods of construction and quality of materials shall conform in all respects to the requirements of the Dedham *Department of Public Works Design and Construction Standards* and further to the requirements of the Standard Specifications.
  - 5. When connection to the public sewer system is not feasible, on-lot sewerage systems may be constructed if approved by the Dedham Board of Health.
- **7.8.2 Sewermains**. Sanitary sewers shall be provided along all roadway segments to serve all lots.

- **7.8.3 Manholes**. Manholes shall be located at every change in grade, change in alignment, change in pipe size and at maximum intervals of 300 feet.
- **7.8.4 Lot Service Connections**. Sewer service connections shall be installed for all potential lots prior to placing the top course of roadway or sidewalk pavement and shall extend 5 feet beyond the back of sidewalk.

# 7.9 ELECTRIC DISTRIBUTION SYSTEM

- **7.9.1 General**. Underground electric distribution systems shall be provided along all roadway segments and shall serve all subdivision lots.
  - 1. The location and layout of the electric distribution system shall conform to the Typical Roadway Section, Figure 7-1.
  - 2. Construction of the underground electric distribution system including methods of construction and quality of materials shall conform to all requirements of the Dedham *Department of Public Works Design and Construction Standards, NSTAR*, and the Massachusetts Electrical Code.
  - 3. Coordinate the work to allow required inspections by NSTAR.
- **7.9.2 Electric Conduits.** Underground electric conduits shall conform to the above requirements and shall be installed at the depth indicated in Figure 7-1.
  - 1. Underground electric conduits shall be installed prior to placing the top course of roadway or sidewalk pavement and shall be concrete encased within roadway rights-of-way.
- **7.9.3 Manholes.** Manholes shall be located at maximum intervals of 200 feet.
- **7.9.4 Lot Service Connections**. Underground electric service connections shall be installed for all lots prior to placing the top course of roadway or sidewalk pavement and shall extend 5 feet beyond the back of sidewalk.

#### 7.10 TELEPHONE SYSTEM

- **7.10.1 General**. Underground telephone systems shall be provided along all roadway segments and shall serve all subdivision lots.
  - 1. The location and layout of the telephone system shall conform to the Typical Roadway Section, Figure 7-1.

- 2. Construction of the underground telephone system including methods of construction and quality of materials shall conform to all requirements of the Dedham *Department of Public Works Design and Construction Standards* and Verizon.
- 3. Coordinate the work to allow required inspections by Verizon.
- **7.10.2 Telephone Conduits.** Underground telephone conduits shall conform to the above requirements and shall be installed at the depth indicated in Figure 7-1.
  - 1. Underground telephone conduits shall be installed prior to placing the top course of roadway or sidewalk pavement and shall be concrete encased within roadway rights-of-way.
- **7.10.3 Manholes.** Manholes shall be located at intervals not more than 200 feet apart.
- **7.10.4 Lot Service Connections**. Underground telephone service connections shall be installed for all lots prior to placing the top course of roadway or sidewalk pavement and shall extend 5 feet beyond the back of sidewalk.

#### 7.11 CABLE COMMUNICATION SYSTEM

- **7.11.1 General.** Underground cable communication systems for the distribution of television signals or data shall be provided along all roadway segments and shall serve all subdivision lots.
  - 1. The location and layout of the cable communication system shall conform to the

Typical Roadway Section, Figure 7-1.

- 2. Construction of the underground cable communications system including methods of construction and quality of materials shall conform to all requirements of the Dedham *Department of Public Works Design and Construction Standards*, AT&T Cable, and RCN Cable or any other cable company licensed by the Board of Selectmen.
- 3. Coordinate the work to allow required inspections by AT&T Cable and RCN Cable or any other cable company licensed by the Board of Selectmen.
- **7.11.2** Cable Communication Conduits. Underground cable communication conduits shall conform to the above requirements and shall be installed at the depth indicated in Figure 7-1.
  - 1. Underground cable communication conduits shall be installed prior to placing the top course of roadway or sidewalk pavement and shall be concrete encased within roadway rights-of-way.

- **7.11.3 Manholes**. Manholes shall be provided at intervals not to exceed 200 feet apart.
- **7.11.4 Lot Service Connections.** Underground cable communication service connections shall be installed for all lots prior to placing the top course of roadway or sidewalk pavement and shall extend 5 feet beyond the back of sidewalk.

#### 7.12 FIRE ALARM SYSTEM

- **7.12.1 General**. Underground fire alarm system shall be provided along all roadway segments within the subdivision.
  - 1. The location and layout of the fire alarm system shall conform to the Typical Roadway Section, Figure 7-1 and to the requirements of the Dedham Fire Department.
  - 2. Construction of the fire alarm system including methods of construction and quality of materials shall conform to all requirements of the Dedham *Department of Public Works Design and Construction Standards*, Dedham Fire Department, and NFPA.
  - 3. Coordinate the work to allow required inspections by the Dedham Fire Department.
- **7.12.2 Fire Alarm Conduits**. Underground fire alarm conduits shall conform to the above requirements and shall be installed at the depth indicated in Figure 7-1.
  - 1. Underground fire alarm conduits shall be installed prior to placing the top course of roadway or sidewalk pavement and shall be concrete encased within roadway rights-of-way.
- **7.12.3 Manholes.** Manholes shall be provided at maximum intervals of 200 feet.
- **7.12.4 Pull Boxes.** Fire alarm pull boxes shall be installed at a maximum spacing of 1,000 feet on center.

#### 7.13 STREET LIGHTING SYSTEM

- **7.13.1 General**. Street lighting system shall be provided along all roadway segments and shall serve all subdivision lots.
  - 1. The location and layout of the street lighting system shall conform to the Typical Roadway Section, Figure 7-1.
  - 2. Construction of the street lighting system including methods of construction and quality of materials shall conform to all requirements of *NSTAR* and the Massachusetts Electrical Code.

- 3. Coordinate the work to allow required inspections by *NSTAR* and Town personnel.
- **7.13.2 Street Lighting Conduits**. Underground conduits shall conform to the above and shall be installed at the depth indicated in Figure 7-1.
  - 1. Underground conduits shall be installed prior to placing the top course of roadway or sidewalk pavement and shall be concrete encased within roadway rights-of-way.
- **7.13.3 Manholes**. Manholes shall be provided at intervals not to exceed 200 feet apart.
- **7.13.4 Pole and Luminaire Assemblies**. Luminaries and arms shall be *NSTAR* Standard "Cobra Head" fixtures. Lamps shall be 3,500-lumen soft tone mercury vapor type.
  - 1. Poles shall be concrete.
  - 2. Poles shall be located on the same side of the street as sidewalks at intervals not to exceed 300 feet on center.

#### 7.14 GAS DISTRIBUTION SYSTEM

- **7.14.1 General.** A gas distribution system shall be provided along all roadway segments and shall serve all subdivision lots.
  - 1. The location and layout of the gas distribution system shall conform to the Typical Roadway Section, Figure 7-1 and to all requirements of the gas utility.
  - 2. Construction of the gas distribution system including methods of construction and quality of materials shall conform to all requirements of *Keyspan*. e Coordinate the work to allow required inspections by *Keyspan* personnel.
- **7.14.2 Gas Distribution Mains.** Gas distribution mains shall be installed at the depth indicated in Figure 7-1.
  - 1. All gas distribution pipes and valves shall be installed prior to placing the top course of roadway or sidewalk pavement.
  - 2. Gas gates shall be provided in conformance with applicable codes and gas utility provider's requirements.
  - 3. Valve boxes shall be installed and adjusted to finished grade for all gate valves.

**7.14.3.Lot Service Connections.** Underground gas service connections shall be installed for all lots prior to placing the top course of roadway or sidewalk pavement and shall extend 5 feet beyond the back of sidewalk.

#### 7.15 MONUMENTS AND MARKERS

- **7.15.1 Locations**. Monuments shall be installed at all street intersections, at all points of change in direction or curvature of streets and at other points as shown on the definitive plan, at all corners of easements, at not less than three (3) corners of any lot, and at such other locations that the Board may determine are appropriate.
- **7.15.2 Requirements.** Granite monuments not less than four (4) feet in length dressed to six (6) inches in section at the top, and not less than six (6) inches by six (6) inches in section at the bottom shall be provided and shall be set so as to be visible prior to acceptance.
- **7.15.3 Setting**. Monuments shall be set flush in paved areas and set 6 inches high in landscaped areas.
- **7.15.4 Drill Holes**. The exact location point shall be indicated by a hole having a diameter of 1/4 inch. After the bound has been permanently set, the hole shall be drilled into the top of the bound to a depth of 1/2 inch.
- **7.15.5 Lot Markers.** Monuments shall be set where lot lines intersect streets and at not less than three (3) corners.
- **7.15.6 Coordinate Table.** Provide a table of coordinates for all monuments using the Massachusetts Stateplane Mainland Zone Coordinate System (FIPSZONE 2001).
- **7.15.7 Scheduling.** No permanent monuments shall be installed until all construction that could destroy or disturb the monuments is completed. In paved areas after the bounds have been set, bituminous concrete shall be placed around the bounds and compacted to the specified thickness.
- **7.15.8 Certification**. The Professional Land Surveyor must submit a written certification that the bounds have been set as shown on the definitive plan.

#### 7.16 "AS-BUILT" SURVEY

- **7.16.1 Reproducibles.** Prepare and furnish one (1) original reproducible linen or mylar copy and six (6) dark line on white background print copies and of "As-Built" Survey Plans conforming to the requirements set forth herein.
- **7.16.2 Computer File.** Prepare and furnish one computer file of "As-Built" survey that is fully compatible with the standards of the *Dedham GIS System*. The As-Built Plan shall utilize the

Massachusetts Stateplane Mainland Zone Coordinate System (FIPSZONE 2001) and the Datum NAD83.

#### SECTION 8.0 ADMINISTRATION

#### 8.1 WORK NOTIFICATION TO TOWN DEPARTMENTS

- **8.1.1 Preconstruction Conference.** Prior to the initiation of any work within the subdivision, there shall be a preconstruction conference to be attended by the applicant and the Planning Board's engineer, and by such other persons as the Planning Board shall require, at which time a work schedule, outlining all steps within the development process, shall be submitted by the applicant. Following approval of the work schedule by the Planning Board or its designee, the applicant shall be required to notify the Board, in writing, of any deviations from the proposed work schedule.
- **8.1.2 Notification.** The Planning Board and its designee shall be separately notified, at least forty-eight (48) hours prior to the commencement of any of the following works:
  - 1. Cutting of trees for roadway construction.
  - 2. Clearing and grubbing of roadway.
  - 3. Installation of storm drainage facilities.
  - 4. Installation of water and sanitary sewer facilities.
  - 5. Placing of material for subbase.
  - 6. Excavation for electric underground distribution system.
  - 7. Application of gravel in or above subbase.
  - 8. Laying of Bituminous Concrete Bottom Course.
  - 9. Laying of Bituminous Concrete Top Course.
  - 10. Installation of curbing and curb inlets.
  - 11. Spreading of gravel in sidewalks.
  - 12. Laying Bituminous Concrete for sidewalks and aprons.
  - 13. Spreading of loam for grass plots.
  - 14. Grading of slopes.

- 15. Construction of retaining walls.
- 16. Setting of bounds.
- **8.1.3** Allocation of Risk. If any of the above designated work is commenced without proper notification being given as specified, such work shall be performed at the risk of the applicant or owner; and the Director of Public Works may order the removal thereof at the expense of the applicant or owner. All inspections performed by the Director of Public Works or his designee shall be at the expense of the applicant. Subdivision bonds will not be released until all such expenses have been paid to the Board.

#### 8.2 INSPECTION

- **8.2.1 Access.** In order to verify that the required improvements are constructed or installed in accordance with these Rules and Regulations and with the applicable technical standards, the Board, its agents, and employees of the Town shall be allowed access to the subdivision during the normal working hours while it is under construction.
- **8.2.2 Notice.** The applicant shall be responsible for ensuring that written notice (Form N or similar) is delivered to the offices of the Planning Board and the Director of Public Works upon the completion of each of the tasks enumerated below and at least three working days before commencing the next task or covering the work performed. Work covered prior to expiration of three working days after such notice may be required to be uncovered or dug up or may be considered to have been done not in accordance with these Rules and Regulations.
- **8.2.3 Required Inspections.** Inspections by Board members, Board's Engineer, Director of Public Works or members of his department, or by other persons designated by the Board, shall be required promptly upon completion of the following operations and before the work is covered by commencing the next operation or otherwise. Prior to the start of construction in a subdivision, the Planning Board will designate either the Director of Public Works or his designee or another authorized Engineer selected by the Planning Board to be responsible for periodic inspection of construction. The inspector will utilize the standard inspection form (Form O) and will sign the form after the satisfactory completion of each work item described thereon.
  - 1. Clearing, grubbing, and excavation to firm subgrade;
  - 2. Fill and grading to rough grade, may include utility trenching;
  - 3. Bedding water, sewer, and drain pipes; installing manholes and catchbasins, valves and appurtenances (no backfilling trenches);

- 4. Backfilling trenches, rolling and compacting subgrade or surface;
- 5. Installing select gravel or crushed stone base in 6" layers, rolling, and compacting to grade;
- 6. Setting curbing, catch basin inlets and gratings, headwalls, retaining walls, other structural details;
- 7. Bituminous pavement binder or base course;
- 8. Bituminous pavement surface or wearing course;
- 9. Bituminous walks, binder and surface courses;
- 10. Grass plots, loaming and seeding;
- 11. Shade trees planting;
- 12. Adjusting manhole and catchbasin covers, valve covers, removing debris, leftover materials, correcting uneven spots, clean-up.
- **8.2.4 DWWD.** With respect to water mains, services, hydrants, and appurtenances, the required-inspections may be performed by Dedham-Westwood Water District. Repeat inspections will be required if any work is found not to have been performed to the satisfaction of the Board, its Engineer, or the Director of Public Works.
- **8.2.5 Cost.** The cost of inspections shall be borne by the applicant and those legally succeeding the applicant in title to the subdivision or any portion thereof. They shall be billed for the cost of inspections, including repeated inspections when necessary, when the cost exceeds the money left available from the consultant's review and inspection fees. Security for the construction of streets and utilities shall not be released until all money owed the Town in connection with a subdivision has been paid.
- **8.2.6 Certification of Monuments.** The required monuments (stone bounds or equivalent) shall be set by or under the direct supervision of a registered land surveyor after all construction which could disturb them has been completed, and two copies of a plan of the subdivision (which may be the "as built" plans) shall be submitted to the Board, showing the exact location and nature of the monuments set or found (identified as such), certified by a professional land surveyor licensed to work in Massachusetts.
- **8.2.7 Completion.** Notwithstanding the inspections and verifications by the Board and its agents, the applicant, the surety company, if any, and those succeeding the applicant in title to the subdivision or portions thereof are responsible for the subdivision being completed in

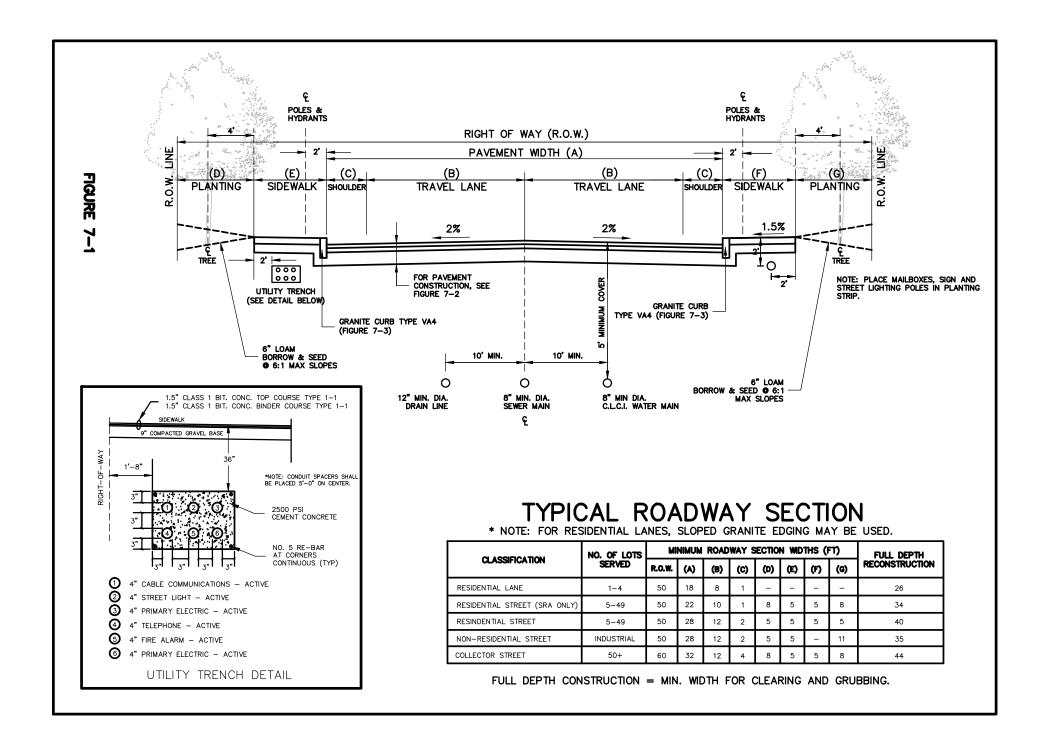
accordance with the approved plans and these Rules and Regulations, and in a satisfactory condition and without defects when requesting release of performance guarantees or acceptance of streets by the Town.

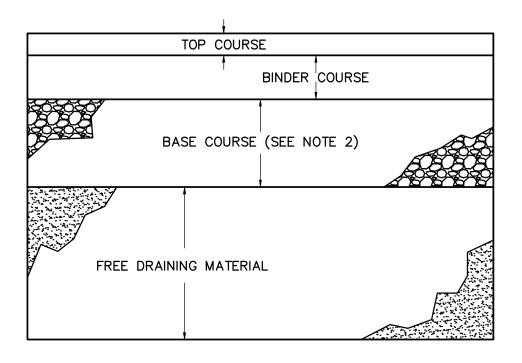
#### 8.3 WATER AND SEWER LINE TESTING

Prior to acceptance by the Town, all water and sanitary sewer lines shall be tested to the satisfaction of the Department responsible for their operation and maintenance. The results of each testing shall be conveyed, in writing, to the Planning Board and the Director of Engineering and the Dedham-Westwood Water District.

#### 8.4 DELAYS IN CONSTRUCTION

When any delay in completion of the construction of streets is anticipated in portions of a subdivision where houses are completed and occupied, the applicant may be required to construct certain portions of roads to the extent at least of grading the subbase, installing catch basin frames and manhole covers to a temporary grade, and penetrating the gravel with 0.5 gallons per square yard of MC70 cutback asphalt with sand cover to provide a temporary passable surface for the abutters.





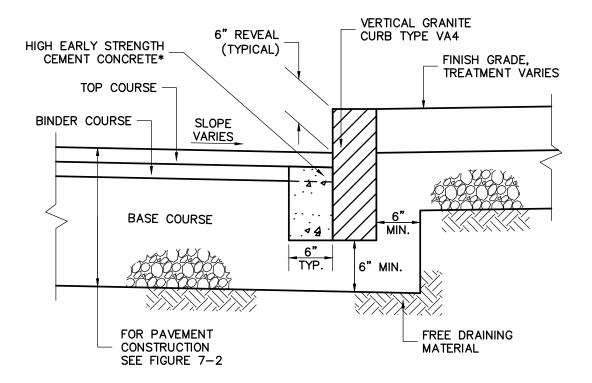
HOT MIX ASPHALT PAVEMENT CONSTRUCTION						
	RESIDENTIAL LANE/ RESIDENTIAL STREET	NON-RESIDENTIAL STREET	COLLECTOR			
TOP COURSE THICKNESS (IN):	1–1/2	2	2			
BINDER COURSE THICKNESS (IN):	2	3	3			
BASE COURSE THICKNESS (IN):	12	12	12			
FREE DRAINING THICKNESS (IN):	24	24	24			

#### NOTES:

- HOT MIX ASPHALT FOR BOTH THE TOP COURSE AND BINDER COURSE SHALL CONFORM TO SECTION 460 OF THE MASS DOT STANDARD SPECIFICATIONS.
- 2) BASE COURSE MATERIAL SHALL CONSIST OF EITHER A MINIMUM OF 12" OF GRAVEL BORROW M1.03.0 TYPE "B" OR RECLAIMED PAVEMENT BORROW M1.09.0 OR A COMBINATION OF 4" OF DENSE-GRADED CRUSHED STONE M2.01.7 UNDERLAIN BY EITHER 8" OF GRAVEL BORROW M1.03.0 TYPE "B" OR RECLAIMED PAVEMENT BORROW M1.09.0.
- 3) A TACK COAT CONSISTING OF ASPHALT EMULSION TYPE "RS-1" SHALL BE APPLIED OVER THE BINDER COURSE AT UNIFORM RATE OF 0.05 GALLONS PER SQUARE YARD IMMEDIATELY PRIOR TO INSTALLATION OF THE TOP COURSE.

## BITUMINOUS CONCRETE PAVEMENT SECTION

NOT TO SCALE FIGURE 7-2

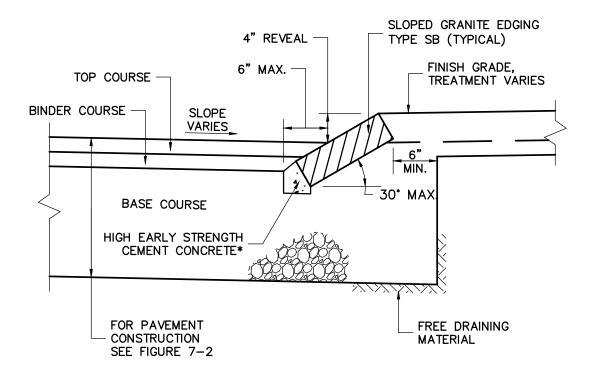


\* - CEMENT CONCRETE TO BE USED IF CURB IS SET AFTER BASE AND/OR BINDER IS IN PLACE.

## VERTICAL GRANITE CURB TYPE VA4

NOT TO SCALE

FIGURE 7-3

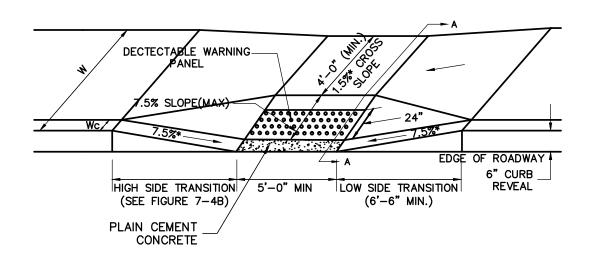


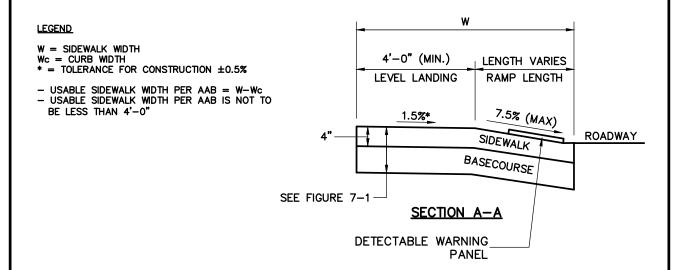
\* - GRAVEL BASECOURSE TO BE PLACED PRIOR TO SETTING EDGING.

## SLOPED GRANITE EDGING TYPE SB

NOT TO SCALE

FIGURE 7-3A



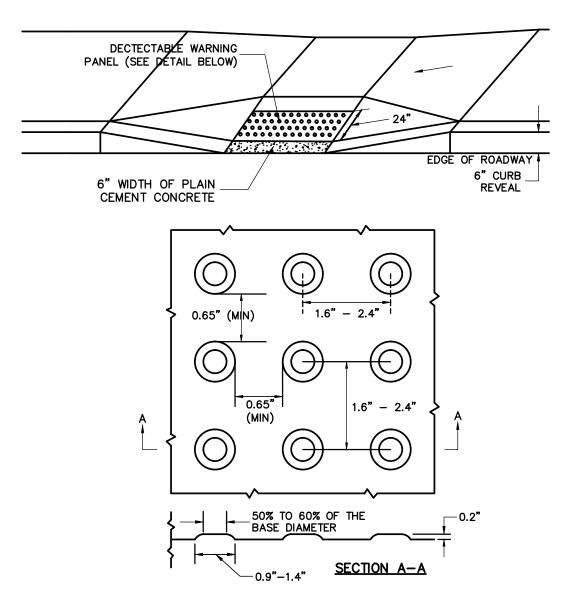


SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CURRENT REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD, THE AMERICANS WITH DISABILITIES ACT AND THE CURRENT MASSHIGHWAY CONSTRUCTION STANDARDS.

### **CONCRETE WHEELCHAIR RAMPS**

NOT TO SCALE

FIGURE 7-4



PANELS MAY BE CONCRETE PRECAST OR CAST IN PLACE OR OTHER SUITABLE MATERIAL PERMANENTLY APPLIED TO THE RAMP. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.

# DETECTABLE WARNING PANELS FOR WHEELCHAIR RAMPS

NOT TO SCALE FIGURE 7-4

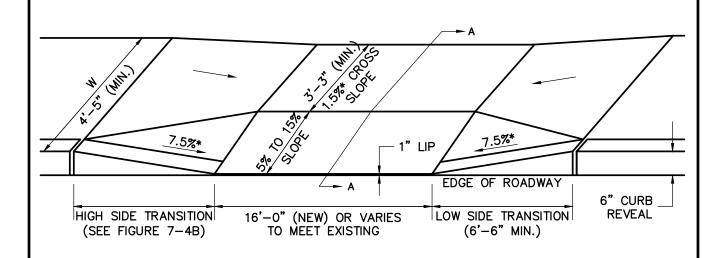
ROADWAY PROFILE GRADE (%)	*HIGH SIDE TRANSITION LENGTH				
0	6'-6"				
>0 TO 1	7'-8"				
>1 TO 2	9'-0"				
>2 TO 3	11'-0"				
>3 TO 4	14'-0"				
>4	15'-0" (MAX)				

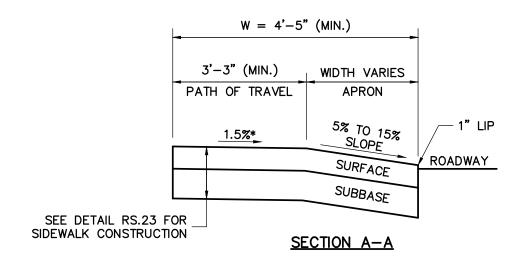
#### NOTE:

\* BASED ON DESIGN SLOPE OF 7.5% AND A CURB REVEAL OF 6"

# CURB TRANSITION LENGTH FOR WHEELCHAIR RAMPS

NOT TO SCALE FIGURE 7-4B





W = SIDEWALK WIDTH

\* = TOLERANCE FOR CONSTRUCTION  $\pm 0.5\%$ 

DRIVEWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CURRENT REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD, THE AMERICANS WITH DISABILITIES ACT AND THE CURRENT MASSHIGHWAY CONSTRUCTION STANDARDS.

## CEMENT CONCRETE SIDEWALK THROUGH DRIVEWAYS NO CURB RETURNS

NOT TO SCALE FIGURE 7-5

Table 7-1 Roadway Design Criteria

Classification	Residential Lane	Residential Street	Non- Residential Street	Collector Street
General				
Design Speed (miles per hour) Anticipated Travel Speed (miles per hour) Required Stopping Sight Distance	20	30	30	40
	15	25	25	35
	125 ft.	200 ft.	200 ft.	325 ft.
Horizontal Alignment				
Minimum Centerline Radius	100 ft.	325 ft.	325 ft.	700 ft.
Intersection Rounding Radius Radius at Curbline Radius at Right-of-Way	15 ft.	20 ft.	25 ft.	25 ft.
	N/A	25 ft.	25 ft.	25 ft.
Minimum Tangent Between Horizontal Curves	50 ft.	50 ft.	100 ft.	150 ft.
Vertical Alignment				
Minimum Centerline Grade	1%	1%	1%	1%
Maximum Centerline Grade	8%	8%	6%	5%
Minimum Leveling Area (feet)	25 ft.	100 ft.	100 ft.	100 ft.
"K" for Crest Vertical Cruve	10	30	30	80
"K" for Sag Vertical Cruve	20	35	35	70
<b>Street Length</b>				
Minimum Length	250 ft.	250 ft.	250 ft.	250 ft.
Maximum Length of Dead End Street	500 ft.	1,000 ft.	1,000 ft.	N/A

<sup>[1] &</sup>quot;K" = Length of vetical curve (ft) divided by algebraic difference in centerline grades (percent.)