



NORWOOD PLANNING BOARD
SUBDIVISION RULES AND REGULATIONS

APPROVED

May, 6, 1991

with revisions through March 8, 2010

**RULES AND REGULATIONS
GOVERNING THE SUBDIVISION OF
LAND IN THE TOWN OF NORWOOD**

Adopted under the Subdivision Control Law

(Sections 81K to 81-Z and 81-AA to 81-GG inclusive)

Chapter 41 of General Laws

APPROVED AS AMENDED

May 6, 1991

Revised as Follows:

<u>Date</u>	<u>Section</u>
5-11-92	5.23.16 (Detention Basin Design) 6.19.9 (Detention Basin Const. Specs) Appendix E - Plate #25 - (Detention Basin System)
12-2-96	4.3.2 (h) (Submittal Requirements) 4.5 (Review by Town Agencies)
3-11-02	5.23.1 (Storm Drain System)
8-13-03	7.4.5 (Fees for Inspection and other Services)
2-3-09	5.24 Municipal Electric System 5.25 Street Lighting
3-8-10	Fees and Fee Schedule

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SECTION 1
PURPOSE AND AUTHORITY

1.1 PURPOSE

The Rules and Regulations Governing the Subdivision of Land in Norwood, Massachusetts have been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of Norwood by regulating the laying out and construction of ways in subdivisions by 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 under these Rules and Regulations, as set forth in Sections 81K to 81Z and 81-AA to 81-GG, inclusive, Chapter 41, of General Laws shall be safe and convenient for travel; for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic, and other emergencies; for ensuring compliance with the Norwood Zoning Bylaws as last amended; for securing adequate provisions for water, sewerage, drainage, underground utility services, fire, police, street lighting and other municipal equipment, and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with the public ways in the Town and with the ways in neighboring subdivisions. It is the intent of these Rules and Regulations that any subdivision plan filed with the Planning Board shall receive the approval of such Board if said plan conforms to the recommendation of the Board of Health and to these Rules and Regulations; provided however, that the Planning board may, when appropriate, waive, as provided for in Section 9.1, such portions of these Rules and Regulations as is deemed advisable.

1.2 AUTHORITY

Under the authority vested in the Planning Board of the Town of Norwood by Section 81-Q of Chapter 41 of the General Laws, said Board hereby adopts these Rules and Regulations Governing the Subdivision of Land in the Town of Norwood, Massachusetts.

1.3 EFFECT OF SUBDIVISION CONTROL LAW

These Rules and Regulations shall encompass Sections 81K to 81Z and 81-AA to 81-GG, inclusive, Chapter 41, General Laws of the Commonwealth of Massachusetts known as "The Subdivision Control Law" as if these sections were set forth herein at length.

SECTION 2
DEFINITIONS

For the purpose of these Rules and Regulations, unless a contrary intention clearly appears herein, the terms and words defined in Section 81-L of the Subdivision Control Law shall have the meaning given therein. The following terms and words shall have the following meanings:

- 2.1 AASHTO:** The American Association of State Highway and Transportation Official.
- 2.2 ABUTTER:** The owner of an area of land which adjoins, or is adjacent to, or separated by only a street from land described in the application for subdivision
- 2.3 APPLICANT:** Either the owner of the land stated in the application for subdivision, the owner in equity or all the owners where title is held jointly, in common, or in tenancy by the entirety, including corporations. The owner in equity, an agent, representative, or his assigns may act for an owner, provided written evidence of such fact is submitted.
- 2.4 ASTM:** The American Society for Testing and Materials
- 2.5 BICYCLE PATH:** All land within the public right-of-way, including the bicycle path, grass strips and accompanying facilities, exclusive of land dedicated to the public use within .streets
- 2.6 BOARD:** The Planning Board of the Town of Norwood
- 2.7 CERTIFIED BY OR ENDORSED BY THE PLANNING BOARD:** As applied to the plan or other instrument required or authorized by the Subdivision Control law to be recorded, shall mean bearing a certification or endorsement signed by a majority of the members of the Planning Board or by its chairman or clerk or any other person authorized by it to certify or endorse its approval or other action and named in a written statement to the Registry of Deeds and Recorder of the Land Court, signed by a majority of the board
- 2.8 DEFINITIVE PLAN:**A plan of a proposed subdivision or re-subdivision of land drawn in accordance with Section 4.3 of these Rules and Regulations
- 2.9 DWELLING UNIT:** One or more living and sleeping rooms providing complete living facilities for the use of one or more individuals constituting a single housekeeping unit with permanent provisions for living, sleeping, eating, cooking, and sanitation
- 2.10 LOT:** An area of land in one ownership, with definitive boundaries, used or available for use, as the site of on or more buildings. All lots shall comply with the area, frontage, depth, width, and other requirements of the Norwood Zoning Bylaw
- 2.10.1 Commercial Lot** - A lot comprised of land termed "Limited Business District" (LB), "General Business District" (GB), "Highway Business

District" (HB), "Central Business District" (CB), or "Office Research District" (O)

2.10.2 Industrial Lot - A lot comprised of land termed "Limited Manufacturing District" (LB), or "Manufacturing District" (M)

2.10.3 Residential Lot - A lot comprised of land termed "Residential District" (R)

Said Districts shall be as defined in Section 2100, located and bounded as indicated on the current Town Zoning Map and defined in Section 2200 of the Norwood Zoning Bylaw.

2.11 LOT COVERAGE: The percentage of lot area covered by structures

2.12 MDPW: The Massachusetts Department of Public Works

2.13 NORWOOD ZONING BYLAW: The Zoning Bylaw of the Town of Norwood including all amendment thereto in effect at the time of application for subdivision

2.14 PEDESTRIAN PATHWAY: All land within the public right-of-way including the pedestrian path, grass strips, and supporting facilities exclusive, of the land dedicated to the public use within streets.

2.15 PRELIMINARY PLAN: A plan of a proposed subdivision or re-subdivision of land drawn in accordance with Section 4.2 of these Rules and Regulations.

2.16 RECORDED: Recorded in the Registry of Deeds, Norfolk County, except that, as affecting registered land, it shall mean filed with the Recorder of the Norfolk Registry District of the Land Court.

2.17 REGISTER OF DEEDS: The Register of Deeds, Norfolk County, and when appropriate, shall include the Recorder of the Norfolk Registry District of the Land Court.

2.18 REGISTERED MAIL: Registered or Certified Mail

2.19 REGISTERED PROFESSIONAL ENGINEER: A person who is registered by the Commonwealth of Massachusetts to perform professional land surveying services.

2.20 REGISTERED SURVEYOR: A person who is registered by the Commonwealth of Massachusetts to perform professional land surveying services.

2.21 REGISTRY OF DEEDS: The Registry of Deeds, Norfolk County, and when appropriate, shall include the Norfolk Registry District of the Land Court

2.22 ROADWAY: A paved area with the right-of-way for the operation of vehicles.

2.23 STANDARD SPECIFICATIONS: The Commonwealth of Massachusetts Department of Public Works, Standard Specifications for Highways and Bridges, 1988 Edition, including all amendments thereto.

2.24 STREETS: Streets shall mean all the land within the public right-of-way including the traveled way, curbing, grass strips, sidewalks, drainage, and utilities

2.24.1 Arterial Street A street so designated by the Board; a street which receives and distributes traffic from and to more than and distributes traffic from and to more than 500 dwelling units, 15 acres of commercial land, 70 acres of industrial land proportional combination of the above; or a street which provides access between or among neighborhoods, major commercial areas, other towns or highways such as Route I, 1A or I-95

2.24.2 Collector Street A street so designated by the Board; a street which receives and distributes traffic from and to between 100 and 500 dwelling units, between 3 and 15 acres of commercial land, between 15 and 709 acres of industrial land or a proportional combination of the above, or a street which intersects with 5 or more local streets or ways

- 1. Residential Collector Street** A street serving residential lots only
- 2. Commercial Collector Street** A street serving commercial lots of commercial and residential lots
- 3. Industrial Collector Street** A street serving industrial and commercial lots or industrial and residential lots or industrial, commercial and residential lots

2.24.3 Local Street A street so designated by the Board; a street which receives and distributes traffic from and to less than 100 dwelling units, 3 acres of commercial land, 15 acres of industrial land, or a proportional combination of the above

- 1. Residential Local Street** - A street serving residential lots only.
- 2. Commercial Local Street** - A street serving industrial lots, or industrial and commercial lots or industrial and residential lots or industrial, commercial, and residential lots

2.25 SUBDIVISION: The division of a tract of land into two or more lots including re-subdivision, and when appropriate to the context, relating to the process of subdivision of 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

- 1.** A public way, or a way which the Town Clerk certifies is maintained and used as a public way or
- 2.** A way shown on a plan theretofore approved and Control Law or
- 3.** A way in existence when the Subdivision Control Law became effective in the Town of Norwood, having in the opinion of the Board, sufficient width, suitable grades, and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby, and for the installation of municipal services to serve such land and the buildings erected or to

be erected thereon. Such frontage shall be of at least such distance as is than required by zoning or other bylaw for the erection of a building on such lot, and if no distance is so required, such frontage shall be of at least twenty (20) feet. Conveyance 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 Town of Norwood into separate lots on each of which one of such buildings remain standing, shall not constitute a subdivision.

2.25.1 Residential Subdivision: A subdivision comprised of residential lots only

2.25.2 Commercial Subdivision: A subdivision comprised of commercial and residential lots

2.25.3 Industrial Subdivision: A subdivision comprised of industrial lots, or industrial and commercial lots, or industrial and residential lots or industrial, commercial and residential lots

2.26 SUBDIVISION CONTROL LAW: Refers to Sections 81-K to 81-Z and 81-AA to 81GG inclusive, of Chapter 41 of the General Laws of the Commonwealth of Massachusetts, entitled "Subdivision Control", including all subsequent amendments thereto

2.27 SUBMITTED PLAN: A plan, along with the appropriate and properly executed submittal form, shall be officially submitted by delivery at a regularly scheduled business meeting of the Planning Board or by the Registered or Certified mail to the Planning Board, in care of the Town Clerk. If so mailed, the date of mailing shall be the date of submission of the plan. In addition, written notice of such submission on the appropriate form shall be given by the Applicant to the Town Clerk by delivery or by Registered or Certified mail

2.28 TOWN ENGINEER: The Town Engineer of the Town of Norwood or his authorized representative.

2.29 WAY: A right-of-way or means of access to a lot. A public way is a way which has been accepted by, and the land owned by the Town of Norwood; or by other means created as a public street. Any other way (private way) is a way over land which is owned by a private party but which is set forth by deed covenant, deed description, or other means as a private way.

SECTION 3

GENERAL

3.1 PLAN THOUGHT NOT TO REQUIRE APPROVAL

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 his plan does not require approval under the Subdivision Control law, shall submit a reproducible and four (4) contact prints of his plan and one (1) copy of application, Form A (see appendix), together with a non-refundable fee as specified in the Fee Schedule payable to the Town of Norwood, to the Planning Board accompanied by the necessary evidence to show that the plan does not require approval. Said person shall file, by delivery or registered or certified mail, a notice with the Town Clerk stating the date of submission for such determination accompanied by a copy of said application and describing the land to which the plan relates sufficiently for identification. If the notice is given by delivery, the Town Clerk shall, if requested, give a written receipt to the person who delivered such notice.

The plan shall conform to the requirements of the General Laws of the Commonwealth of Massachusetts, Chapter 36, Section 13A, for the plans to be filed with the Registry of Deeds.

Said plan shall have dimensions of eight and one-half inches by eleven inches (8 1/2" x 11"), or twenty-four inches by thirty-six inches (24" x 36"), be prepared by a professional Land Surveyor, and shall contain the following information:

1. Identification of the plan by name and address of owner of record, name and address of the applicant, and location of the land in question, cross referenced to page and parcel number on the Assessors' Maps.
2. The statement "Approval Under Subdivision Control Law Not Required" and shall provide sufficient space for the date and the signatures of all five members of the Planning Board.
3. Zoning classification and location of any zoning district boundaries that may lie within the locus of the plan.
4. In the case of the creation of a new lot, the remaining land area and frontage of the land in the ownership of the applicant shall be shown.
5. Notice of any decision of the Zoning Board of Appeals, including but not limited to variances and exceptions regarding the land or any building thereon.
6. Abutters from latest available Assessors' records unless the applicant has knowledge of any changes subsequent to the latest available Assessor records.
7. Distance to the nearest road or to other permanent monument.
8. Location of all existing buildings, including setback and side and rear yard designations.

9. A locus map at a scale of 1" – 500' showing the land in question in conjunction with other roadways and properties. A key map at a scale 1" – 200', showing the same information as the locus map.

If the Board determines that the plan does not require such approval, it shall, without a Public hearing, and within twenty-one (21) days of formal submission, endorse, or cause to be endorsed on the reproducible copy of the plan by a person authorized by it the words "Planning Board Approval Under the Subdivision Control Law Not Required" or words of similar import with appropriate name of names signed thereto, and such endorsements shall be conclusive on all persons. The Board may add to such endorsement, a statement of the reasons approval is not required. Such endorsement shall be withheld unless such plan shows a subdivision. Said plan shall be returned to the applicant and the Board shall notify the Town Clerk of its action.

If the Board shall determine that in its opinion the plan requires approval under the Subdivision Control Law, it shall, within twenty-one (21) days of submittal of said plan, give written notice of its determination to the Town Clerk and to the applicant and return the plan to the applicant. The applicant may submit a Definitive Plan for approval as required by these Rules and Regulations or he may appeal from the determination of the Board in accordance with Section 81-BB of Chapter 41, Massachusetts General Law.

If the Planning Board fails to act upon the plan or fails to notify the Town Clerk or the applicant of its action within twenty-one (21) days after its submission, it shall be deemed to have determined that approval under the Subdivision Control Law is not required, and it shall forthwith make such endorsement on said plan, and on its failure to do so forthwith, the Town Clerk shall issue a certificate, to the same effect. The plan bearing such endorsement, or the plan and such certificate, as the case may be, shall be delivered by the Board, or in case of the certificate, by the Town Clerk, to the applicant.

3.2 SUBDIVISION

No person shall make a subdivision of any land in the Town unless he has first submitted to the Planning Board for its approval of a Definitive Plan of such proposed subdivision, showing the lots into which such land is to be divided and the ways already existing or which are to be proved by him for furnishing access to such lots, and the Board has approved such plan in the manner required by these Rules and Regulations.

After the approval of the Definitive Plan, the location and width of ways shown thereon shall not be changed unless the plan is amended accordingly as provided in Section 81-W of the Subdivision Control Law, but the number, shape, and size of the lots shown on a Definitive Plan so approved may, from time to time, be changed without action by the Board, provided every lot so changed still has frontage on a public way or way shown on a plan approved in accordance with the Subdivision Control Law of at least such distance, if any, as is then required by the zoning or building bylaw of the Town for erection of a building on such lot, and if no distance is so required, has such frontage of at least twenty (20) feet.

3.3 EFFECT OF PRIOR RECORDING OF SUBDIVISION LAND

The recording of a plan of land within the Town in the Registry of Deeds of Norfolk County prior to the effective date of the Subdivision Control Law in the Town of Norwood,

showing the division and ways furnishing access thereto, shall not exempt such land from the application and operation of these Rules and Regulations except as specifically exempt by Section 81-FF of the Subdivision Control Law.

3.4 TIME OF COMPLETION

For each subdivision or each stage of a staged subdivision, the construction of all ways and the installation of all required municipal services specified in Section 8, shall be completed within eighteen (18) months of the date of receipt of bond or surety by the Board or within two years of the date of approval of the Definitive Plan by the Board, whichever is earlier. Failure to do so shall automatically rescind approval under covenant conditions or rescind approval subject to Section 81-W of the Subdivision Control Law for performance secured by bond or deposit of money or negotiable securities. The Board may, at its discretion, grant a time extension to the applicant.

3.5 LIMITATION OF ONE BUILDING ON ANY 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 in a subdivision or elsewhere in the Town of Norwood without the written consent of the Board of Appeals. Such consent may be conditional upon the providing adequate ways furnishing access to each site for such building, in the same manner otherwise required for lots within a subdivision. Submission of site plans subject to this section shall be in accordance with the Town of Norwood Zoning Bylaws.

3.6 ADEQUATE ACCESS

3.6.1 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 plans has adequate access as intended under the Subdivision Control Law, Chapter 41, M.G.L., Section 81-K through 81-GG.

3.6.2 Standards of Adequacy

a. Ways shall normally be considered to provide adequate access to proposed lots not constituting a subdivision only if having paved of at least twenty (20) feet, 150 feet stopping sight distance, drainage assuring uninterrupted access, and other design and construction features which, in the judgment of the Planning Board, similarly provide for basic movement and safety.

b. Ways shall normally be considered to provide adequate access to or within proposed subdivisions only if meeting the standards of these Subdivision Regulations.

3.6.3 Obligations

The Board may require, as a condition of its approval of the subdivision plan, that the developer dedicate, or acquire and dedicate, a strip of land for widening the right-of-way by which the subdivision is accessed, and that the developer either make physical improvements in that way or compensate the Town for the cost of doing so.

3.6.4 Waiver

The Board may waive strict compliance with these access requirements only upon its determination that the way in question will still provide adequate width, grades, and construction to serve potential uses of land abutting on or served by the way in question. In reaching such determination, the Board shall consult with the Town Manager, Town Engineer, Police Chief and Fire Chief.

3.7 CRITERIA FOR BOARD ACTION

In considering any subdivision plan, the Board shall be guided by the needs of the Town and the highest and best use of the land subdivided.

3.8 APPLICATION REVIEW FEES- Special Municipal Account

1. When reviewing an application for approval, the Board may determine that the assistance of outside consultants is warranted due to the size, scale, or complexity of a proposed project or because of a project's potential impacts. The Board may require that applicants pay a "Review Fee" consisting of the reasonable costs incurred by the Board for the employment of outside consultants engaged by the board to assist in the review of the application.
2. In hiring outside consultants, the Board may engage engineers, planners, lawyers, urban designers or other appropriate professionals who can assist the Board in analyzing a project to ensure compliance with all relevant laws, bylaws, and regulations.
3. Funds received by the Board pursuant to this section shall be deposited with the municipal treasurer who shall establish a special account for this purpose. Expenditures from this special account may be made at the discretion of the Board without further appropriation. Expenditures from this special account shall be made only in connection with the review of a specific project or projects for which a review of a specific fee has been or will be collected from the applicant. Failure of an applicant to pay a review fee shall be grounds for denial of the application.
4. Review fees may only be spent for services rendered in connection with the specific project from which they were collected. At the completion of the Board's review of a project, any excess amount in the account attributable to a specific account shall be repaid to the applicant or the applicant's successor in interest. For the purpose of this regulation, any person or entity claiming to be an applicant's successor in interest shall provide the Board with documentation establishing succession in interest.
5. Any applicant may take an administrative appeal from the selection of the outside consultant to the Board of Selectmen. The grounds for such an appeal shall be limited to claims that the consultant selected has a conflict of interest or does not possess the minimum qualifications. The minimum qualifications shall consist either of an educational degree in, or related to, the field at issue or three or more years of practice in the field at issue or a related field. The required time limit for action upon an application by the Board shall be extended by the duration of the administrative appeal. In the event that no decision is made by the Board of Selectmen within one month following the filing of the appeal, the selection made by the Board shall stand.

SECTION 4

PROCEDURES FOR THE SUBMISSION AND APPROVAL OF PLANS

4.1 SKETCH PLAN

4.1.1 General

A Sketch Plan and assessment of possible environmental impacts may be submitted by the applicant to the Board for informal discussion with the Board prior to submission of a Preliminary Plan and/or Definitive Plan. The submission may be in sketch or draft form as determined by the applicant.

4.2 PRELIMINARY PLAN

4.2.1 General

A Preliminary Plan of a subdivision may be submitted by the applicant to the Board of Health and the Board for discussion and approval by the Board. To subdivide non-residentially zoned land, a Preliminary Plan will enable the sub-divider, the Board, 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, for residential land, it is strongly recommended that a Preliminary Plan be filed in every case. A properly executed application, Form B (see Appendix D), shall be filed with the Preliminary Plan submitted to the Board.

4.2.2 Submittal Requirements

The Preliminary Plan, along with a properly executed Form B, shall be submitted by delivery at a regularly scheduled business meeting of the Board or by registered or certified mail to the Board, in care of the Town Clerk. If so mailed, the date of mailing shall be the date of submission of the plan. In addition, written notice of such submission using Form B, shall be given by the applicant to the town Clerk by delivery or by registered or certified mail. The Town Clerk shall give a written receipt, if requested, by the person who delivered such notice. With submission of the Preliminary Plan, the Applicant shall also file a copy of said written notice and receipt with the Planning Board. The following shall be submitted by the Applicant:

- a. Six (6) contact prints, dark line on white background, containing the information required in Section 4.2.3 filed with the Board.
- b. One (1) contact print, as in “a” above, filed with the Board of Health. The applicant shall obtain a receipt from the Board of Health, a copy which shall be submitted to the Planning Board

Where any contiguous un-subdivided land is owned or controlled by the owner of applicant, a sketch plan shall be submitted showing the proposed subdivision parcel, streets, the boundaries of the contiguous un-subdivided land, and a possible or prospective street layout.

- c. An initial non-refundable fee as specified in the Fee Schedule shall be paid to the Town of Norwood at the time of submission.

4.2.3 Contents

The Preliminary Plan shall be drawn on Mylar or tracing paper 24 inches by 36 inches at a scale of one inch equals 40 feet and shall show sufficient information as listed below about the subdivision to form a clear basis for review and discussion and for the preparation of the Definitive Plan.

- a. Subdivision name, boundaries, north point, date of submission, required scale, legend, and the title "Preliminary Plan"
- b. Name and addresses of record owner and applicant
- c. Name, address, and seal of the Registered Professional Engineer, or Land Surveyor who prepared said plan
- d. Names and plan location of all abutters indicating limits of contiguous boundaries and those owners of land separated from the subdivisions only by a street, as determined from the most recent local tax list (Form C)

The following information shall be shown in a preliminary (general) manner:

- e. Existing and proposed lines of streets, ways, rights-of-way, easements including their purpose, and any public or common areas within the subdivision
- f. Proposed system of drainage including the location of natural waterways, indicating direction of flow, and all water bodies or areas classified as wetlands adjacent to or within the proposed subdivision
- g. Proposed sanitary sewer system and water distribution system, where applicable
- h. Approximate boundary lines of proposed lots with approximate dimensions and areas

- i. Location, names, and present widths of adjacent streets, bounding, approaching, or within 400 feet of the subdivision
- j. Topography of the land at ten (10) foot contour intervals are required by the Board. Two (2) foot contour intervals may be required. The appropriate U.S.G.S. map, enlarged to a scale of 1" – 40', is acceptable. The contour map should also show such pertinent information as watercourses, ledge outcroppings, and the location of any borings that have been taken.
- k. Profiles of proposed streets may be submitted separately.
- l. A locus map of the vicinity at a scale of 1" – 500' showing the proposed subdivision area in conjunction with other roadways and properties. A key map at a scale of 1" – 200' showing the same information as the locus map.
- m. When multiple sheets are necessary, match lines shall be used and referenced, and an index plan, graphically indicating the arrangement of said multiple sheets, shall be submitted on one standard (24" X 36") sheet at a suitable scale.

During discussion of the Preliminary Plan, the complete information required by the Definitive Plan, Section 4.3, and the financial arrangements, Section 4.9.1, will be developed.

4.2.4 Action By The Board

The Board may give such Preliminary plan its approval, with or without modification. Such approval does not constitute approval of a subdivision but does facilitate the procedure in securing approval of the Definitive Plan.

The Board may also disapprove the plan. A disapproval will be accompanied by a detailed statement of reasons for the action. Such reasons may include violations of sound land use planning principles and design.

Notice of its action must be given by the Board to the applicant and the Town Clerk within 45 days of the date of submission. Failure to act within that time shall be considered as approval of the Preliminary Plan.

4.3 DEFINITIVE PLAN

4.3.1 General

A Definitive Plan shall be governed by the Subdivision Regulations in effect at the time of submission of such plan or in effect at the time of the submission of a Preliminary Plan provided that a Definitive Plan evolved there from shall have been submitted to the Planning Board within seven (7) months from the date of submission of the Preliminary Plan.

A Definitive Plan shall be governed by the zoning in effect at the time of submission of such plan or in effect at the time of submission of the Preliminary Plan from which the Definitive Plan is evolved in accordance with the provisions of Section 6 of Chapter 40A of the General Laws of the Commonwealth.

4.3.2 Submittal Requirements

The Definitive Plan, along with a properly executed Form B, shall be submitted by delivery at a regular business meeting of the Board, or by registered or certified mail to the Board, in care of the Town Clerk. If so mailed, the date of mailing shall be the date of submission of the plan. In addition, written notice of such submission using Form B shall be given by the applicant to the Town Clerk by delivery or registered or certified mail. The Town Clerk shall give a written receipt, if requested, by the person who delivered such notice. With submission of the Definitive Plan, the Applicant shall also file a copy of said written notice and receipt with the Planning Board. The following shall be submitted by the Applicant:

- a. An original drawing of the Definitive Plan, another duplicate mylar reproducible, and six (6) contact print thereof, dark line on white background containing the information required in Section 4.3.3 shall be filed with the Board. The original drawing will be returned after approval or disapproval.
- b. Two (2) contact prints, as in “a” above, filed with the Board of Health. The Applicant shall obtain a receipt from the Board of Health, a copy of which shall be submitted to the Planning Board.
- c. A sketch plan showing a possible or prospective street layout for an contiguous un-subdivided land owned or controlled by the owner or applicant unless such a plan has already been submitted to the Board under the provisions of Section 4.2.2.c.
- d. A nonrefundable fee as specified in the Fee Schedule payable to the Town of Norwood shall be made at the time of submission. Additional costs will be billed as incurred to cover the cost of advertising and notices.
- e. List of Abutters, (Form C), showing the name and mailing address of each of the abutters as they appear in the most recent tax list, including owners of land separated from the subdivision only by a street, shall be presented after the applicant obtains a certificate from the Board of Assessors that all abutters are listed.
- f. When the Applicant is a corporation, evidence from the Clerk of the Corporation certifying authorization of individual(s) to act for the Corporation will be needed.
- g. Evidence that, when applicable, the Definitive Plan conforms to the Approved Preliminary Plan or that the Definitive Plan includes the modifications required by the Board’s action on the Preliminary Plan.

- h. Evidence that one (1) print of the Definitive Plan has been submitted to each of the following Town Departments:

Board of Health, Board of Selectmen, Fire Department, Police Department, Town Engineer, Public Works Department, Conservation Commission, Municipal Light Department and Town Treasurer/Tax Collector

- i. In connection with any Definitive Plan or plan for access ways submitted for review by the Planning Board, the Applicant shall also submit an Environmental Impact Statement which shall provide the information shown in Appendix A to these Rules and Regulations and clearly show the relation of the proposed project to the total environment of the Town and its inhabitants. Said Appendix A shall be considered a part of these Rules and Regulations. Any map submitted as part of the statement shall be at a scale of 1" – 500'.

In reviewing the statement, the Town Boards will consider the degree to which water is recycled back into the ground, the maintenance and improvement of the flow and quality of surface waters; the preservation or promotion of wildlife refuges, historic sites, unique geological, botanical and archaeological features, existing or potential trails and accesses to open space areas; and the health and safety of the inhabitants of the area.

The Board may waive any section, or sections, of the Statement which it deems inapplicable to the proposed project or may require additional information on any aspect of the Statement. The Board requires that the Statement be prepared by a Registered Professional Engineer. The developer should discuss the requirements with the Board prior to the preparation of the Statement.

4.3.3 Contents

The Definitive Plan shall be clearly and legibly drawn at a scale of 1" – 40', or such other scale as the Board may accept to show details clearly and adequately. The Definitive Plan shall conform to the requirements of the General Laws of the Commonwealth of Massachusetts, Chapter 36, Section 13A for plans to be filed with the Registry of Deeds. The plan size shall be 24" X 36" and shall have a one (1) inch border. The plan shall contain a 1-1/2" square reserved for the use of the Registry of Deeds or the Land Court.

The Definitive Plan shall be drawn on linen or polyester film, single matte with a thickness of 0.004 mils having the opacity to allow consistent diazo and microfilm reproduction. A compatible ink with long-term durability having excellent cohesiveness which will produce a permanent bond shall be used. The minimum size of lettering shall be 1/8 inch in height. The Definitive Plan shall contain at least the following information:

- a. Subdivision name, boundaries, north point, scale (written and graphic), date of submission, and legend.
- b. Names and addresses of recorded owner and applicant.
- c. Name and address of the Registered Professional Engineer and Land Surveyor who prepared the plan with respective certifications and seals.

The Registered Land Surveyor shall certify that all surveying conforms to the Technical Standards for Property Surveys of the American Congress on Surveying and Mapping and to the requirements of the Registry of Deeds or the Land Court. Source or sources of information about the location of the boundaries shall appear on the plan.

The Registered Professional Engineer shall certify that the design of all subdivision improvements conforms to or exceeds, where necessary to insure the adequacy of the improvements for their intended use in conformance with standard engineering practice, the standards set forth in the Rules and Regulations of the Norwood Planning Board governing the Subdivision of land. The Registered Professional Engineer shall certify that the plan conforms to the regulations of the Registry of Deeds or the Land Court.

- d. Names and plan locations of all abutters, indicating limits of contiguous boundaries and those owners of land separated from the subdivision only by a street. This must agree with Form C.
- e. Existing and proposed lines of streets, ways, turnarounds, including whether permanent or temporary, lots, rights-of-way, including easements, including purpose, zoning district boundaries, and public or common areas within the subdivision. (The names of proposed streets shall be shown in pencil until they have been approved by the Board).
- f. Sufficient data, including lengths, bearings, radii, tangent distances, and central angles to determine the exact location, direction, and length of every street and way line, lot line and boundary line, and to establish these lines on the ground; all bearings and distances shall be connected with adjoining subdivisions or Town, County, or State road layouts. Bearings and distances shall be given to the nearest second and 0.01 foot, respectively.
- g. The location of all permanent monuments identified as to type and whether existing or proposed.
- h. Boundary lines, areas in square feet, and dimensions of all proposed lots, with all lots designated numerically and in sequence.
- i. Boundary lines of the entire original tract of land if the particular lot or lots to be recorded has been severed from a larger tract; or, if not practical, the boundary lines of the entire original tract shall be shown on

an attached sketch with the error of closure of the perimeter traverse clearly shown.

- j. Location, names, and present width of streets, bounding, approaching, or within 400 feet of the subdivision.
- k. Major site features, such as existing stone walls, fences, buildings, large trees, eight inches (8") in diameter or larger, measured four feet (4') above the ground, rock ridges, and outcroppings, historic features, wooded areas, bridle trails or paths, natural waterways indicating direction of flow, all water bodies or areas classified as wetlands and the 100 – year flood contour line.
- l. A locus map at a scale of 1" – 500" included in the lower left hand corner of the Definitive Plan showing the right-of-way lines of all proposed streets in the subdivision, the subdivision's boundaries and the subdivision's location in relation to two or more existing streets, or portions thereof shown and readily identifiable as to locus in the Town.
- m. Suitable space to record the action of the Board and the signatures of the members of the Board on each sheet of the Definitive Plan. Where the Applicant elects to secure completion of required improvements by covenant (rather than bonds or surety), there shall be a notation above such space as follows:

Approved _____ subject to a covenant,
conditions set forth in a covenant, executed by _____
_____ dated _____ and recorded at Norfolk
Registry of Deeds, Book No. _____, Page No. _____.

Suitable space to record that no appeals have been filed within the 20-day appeal period on each sheet as follows:

I certify that 20 days have elapsed since Planning Board Approval and no appeal has been filed in this office.

Date _____
_____ Town Clerk, Norwood MA

Items n, o, p, q, r, and s shall be submitted combined on separate sheets as is necessary to clearly show the required information to the satisfaction of the Board. The plans shall be at a scale of 1" – 40', or such other scale as the Board may accept to show details clearly and adequately. Sheet size shall be 24" X 36" with a 1-inch border on all sides.

- n. Existing and proposed topography (sufficiently differentiated) with two foot (2') intervals, unless the Board agrees that the natural surface of the ground may be adequately represented by contours with larger intervals or by figures of elevations, extending one hundred and fifty feet (150') on either side of all proposed roads, and at five foot (5') for the balance of the subdivision; existing elevations, location and direction of flow of all natural watercourses, brooks, streams and drainage ditches with existing spot elevations from their respective source or entrance into the proposed subdivision to their termination or exit there from; all ponds, swamps and low areas subject to flooding, with elevations; all existing drainage structures with elevations; all outcroppings of rock and ledge. Show by shading or other method, the areas within the subdivision that are to be excavated or filled.

- o. General soil types and information as to the suitability of each lot for on-lot sewage disposal and the depth to the groundwater table based on the most recent U.S. Conservation Services Operations Soils Survey; location results, and dates of all borings; the level of the water table and results of soil percolation tests on all lots, indicating elevation at which such tests were taken, elevation of proposed leaching facility, and the soil conditions at the level of the test were taken and proposed grade. Depth to groundwater table shall be determined at maximum groundwater elevation. Maximum groundwater elevation shall mean the height of the groundwater table when it is at its maximum level or elevation. This level shall be determined during the months of December through April. Percolation tests shall be made in frozen ground. All tests shall be executed at the applicant's expense, in the presence of a representative of the Board of Health, and in accordance with Article XI of the Commonwealth of Massachusetts Sanitary Code and the regulations of the Town Of Norwood board of Health.

- p. Location and species of proposed street trees and location of existing trees to be retained with trunks of over eight (8") in diameter, measured four feet (4') above the finished grade.

- q. Location of proposed street light and sidewalks.

- r. Existing and proposed profiles of the centerline of proposed streets of horizontal scale of 1" – 40', and a vertical scale of 1" – 4', Town of Norwood datum if referenced datum has been established within ½ mile of the subdivision. If such datum is not available, an appropriate datum shall be used and a permanent bench mark established within the subdivision with adequate description shown on the plan. Profiles shall also indicate the location of any intersecting public or private ways, and the location and size of existing and proposed storm drains, water mains, and sewers and their appurtenances, and other underground utilities to be placed in the right-of-way. The stationed centerline corresponding to the profile upon which the above profiles are taken shall be shown in plan view. The design computations for determining the elevation, grades,

and sight distances of horizontal and vertical curves shall be submitted with the said profiles.

- s. Proposed layout of storm drainage, including all interceptor drains and site drainage systems required by particular soil conditions, water supply, and sewage disposal and all other underground utility (gas, electric, etc) systems. The design computations for determining the required sizes of the storm drainage, water supply, and sewer systems shall be submitted with the said proposed utility layout.
- t. When multiple sheets are necessary, match lines shall be used and referenced, and an Index Plan, graphically indicating the arrangement at a suitable scale.
- u. A Site Plan showing the layout of the entire subdivision if submitted by section, including street names, lot numbers, and areas at a scale suitable to the Board.
- v. Any other pertinent information, unique to the particular subdivision, which the Board shall request, including necessary engineering calculations to provide assurance to the Board that fire protection, vehicular traffic flow, and all other safety precautions are being provided.

4.4 SUITABILITY OF THE LAND

4.4.1 Review by Board of Health

At the time of filing of the Definitive Plan, the applicant shall file, in accordance with Section 4.3.2.b of these Rules and Regulations, with the Board of Health, two contact prints of the Definitive Plan, dark line on white background, including all items of the Contents of Definitive Plan described above and any supplemental information required by rules of the Board of Health.

The Board of Health shall report to the Board in writing, approval or disapproval of said plan, and in the event of disapproval shall make specific findings as to which, if any, of the lots shown on such plan cannot be used for building sites without injury to the public health, and include such specific findings and the reasons therefore in such report, and where possible, shall make recommendations for the adjustment thereof, provided however, if a municipal sewerage system will service the proposed subdivision, then failure of the Board of Health to make such a report within 45 days after the plan is filed with their office shall be deemed approval by such Board of Health. Such Board of Health shall send a copy of such report, if any, to the applicant.

4.4.2 Wetlands Protection

Floodplains, marshes, ponds, watercourses, or seasonal wet areas may be included as part of a lot subject to the approval of the Board of Health; however, no person shall

remove, fill, dredge, or alter any bank, beach, dune, flat, marsh, meadow, or swamp bordering on any existing creek, river, stream, pond, or lake or any land under said waters or any land subject to storm flowage, or flooding without filing written notice of intention and receiving authorization to so remove, fill dredge, or alter, including such plan as may be necessary to describe the proposed activity and its effect on the environment in accordance with Chapter 131 of the Massachusetts General Laws including all subsequent amendments.

Information describing this activity and its effects on the natural resources shall be submitted to the Board with the Definitive Plan.

Approval by the Board of any Definitive Plan proposing such removal, filling, dredging, or alterations shall be conditional, subject to final approval of such actions by the Conservation Commission.

4.4.3 Watercourses and Pond Protection

Natural watercourses and ponds may not be altered, filled, drained or relocated. Any pond that has been in existence for over 25 years shall be deemed to be a natural pond subject to these regulations.

4.4.4 Soil Surveys

Where appropriate, the Board may require soil surveys to establish the suitability of the land for the proposed storm and sanitary sewerage installations. The Board may also require that soil percolation tests be made on all lots at the proposed bottom-grade of the leaching facility.

4.5 REVIEW BY TOWN AGENCIES

The applicant shall request, before the Public Hearing, using Form D, that the appropriate Town Departments review and comment on the design of their respective services. The Town Treasurer/Tax Collector shall report the nonpayment of any local tax, fee, assessment, betterment, or municipal charge. Where a bond is to be filed, cost estimates of the required work shall be prepared by the applicant's Registered Professional Engineer and reviewed by the various Town Departments. In addition, the Board may engage the services of such persons, consultants, or firms which it deems appropriate to assist with its review of the Definitive Plan or Environmental Impact Statement. The applicant shall compensate the Town in full for all costs associated with the above before any action is taken on the Definitive Plan by the Board.

4.6 PUBLIC HEARING

Before approval, modification and approval, or disapproval of the Definitive Plan is given, a public hearing shall be held by the Board.. Notice of the time and place of the hearing and subject matter, sufficient for identification, shall be given by the Board at the expense of the applicant by advertisement in an official publication or newspaper of general circulation in the Town of Norwood in each of two successive weeks, the first publication being not less than fourteen (14) days before the day of such hearing. A copy of said notice shall be sent by registered or certified mail to the applicant and by regular mail to all owners of land abutting

upon the subdivision or separated from such land only by a street as appearing in the most recent tax list (Form C). The Planning Board shall notify the Town Departments of the date and time of the public hearing.

4.7 APPROVAL, MODIFICATION AND APPROVAL, OR DISAPPROVAL

The Planning Board shall take action on the Definitive Plan after the required hearing and after the report of the Board of Health as provided in the preceding section or when the proposed subdivision will be serviced by a municipal sewerage system, after the lapse of forty-five (45) days without such report. Action shall be taken within ninety (90) days after submission for a Definitive Plan preceded by a Preliminary Plan or 135 days for a Definitive submission not preceded by a Preliminary Plan, or such further time as may not be agreed upon, at the written request of the applicant. Notice of such extension of time shall be filed forthwith by the Planning Board with the Town Clerk.

The Planning Board shall approve, or if such plan does not comply with the Subdivision Control Law or these Rules and Regulations or the recommendations of the Board of Health, shall modify and approve, or shall disapprove such plan. The action of the Planning Board in respect to such plan shall be by vote, copies of which shall be certified and filed with the Town Clerk and sent by delivery, registered or certified mail, postage prepaid to the applicant at this address stated on the application (Form E). Favorable action shall require a majority of the Planning Board members.

If the Planning Board modifies or disapproves such plan, it shall state with its vote the reasons for its action. In the event of disapproval, the Planning Board shall state in detail wherein, the plan does not conform to these Rules and Regulations or to the recommendation of the Board of Health and shall revoke its disapproval and approve a plan which, as amended, conforms to these Rules and Regulations or recommendations.

If the report of the Board of Health shall so require, the approval by the Planning Board shall be on condition that not building or structure shall be built or placed upon the areas designated without consent by such Board of Health.

Failure of the Planning Board either to take final action or to file with the Town Clerk a certificate of such action regarding a plan submitted by an applicant within the 90 or 135 days as specified above shall be deemed to be an approval thereof.

Final approval, if granted, shall be endorsed on the reproducible drawing of the Definitive Plan by the signatures of the majority of the Planning Board but not until the statutory 20-day appeal period has elapsed following the filing of the certificate of the action of the Planning Board with the Town Clerk and said Clerk has notified the Planning Board that no appeal has been filed, or if appeal has been taken not until the entry of a final decree of the court sustaining the approval of such plan. After the Definitive Plan has been approved and endorsed, the applicant shall furnish the Planning Board with two (2) prints as recorded and stamped at the Registry of Deeds, and the Town Engineer, Building Inspector, Board of Health, Board of Selectmen, Fire Department, Police Department and the Assessor with one print each. No release of lots shall be made prior to receipt of these prints.

Final approval of the Definitive Plan does not constitute the laying out or acceptance by the Town of streets within a subdivision which action is reserved by statute to the Town Meeting.

4.8 RECORDING OF PLAN

Within ten days after the Definitive Plan, as approved and endorsed, has been recorded at the Norfolk County Registry of Deeds and, in the case of registered land, with the recorder of the of the Norfolk registry District of the Land Court, the applicant shall notify the Board in writing of the date and file number, as appropriate, of such recording.

The applicant shall file the complete Definitive Plan.

At the time of recording, all public easements shall be duly documented and copies thereof sent to the Board.

Upon receipt of notification of recording, the Board shall file one print of the Definitive Plan with the Building Inspector or his appointed agent. Unless the Building Inspector or his appointed agent has received such print as required in Section 4.7, he shall issue no permit for building on any lot within the subdivision. Further, in accordance with the statute, where approval with covenant is noted thereon, they shall issue no permit for the construction of a building on any lot within the subdivision except upon receipt from the Board, of a copy of the Certificate of Performance (Form L), releasing the lot in question.

4.9 PERFORMANCE

4.9.1 Performance guarantee Before endorsement of the Board's approval of a Definitive Plan of a subdivision, the applicant shall agree to complete the required construction of ways and the installation of municipal services specified in Section 8 for all lots in the subdivision, such construction and installation to be secured in accordance with Section 81-U of the Subdivision Control Law by one, or in part by one and in part by the other, of the following methods which method may be selected, and from time to time, be varied by the applicant with the approval of the Board.

a. Approval with Bonds and Surety Before endorsement of the Board's approval of the Definitive Plan of a subdivision, the Applicant shall file with a surety company performance bond (Form G) or provide a deposit of money or negotiable securities (Form F) in an amount determined by the Board, which may consult with the appropriate Town Departments (see Form D), to be sufficient to cover performance of the construction of ways and the installation of municipal services specified in Section 8 not covered by a covenant under "b" below, plus an additional amount satisfactory to the Board to allow for the removal and reconstruction of unsatisfactorily constructed improvements. Such bond or security, if filed or deposited, shall be approved as to form and manner of execution by the Board and as to acceptability of the sureties by the Board and shall be contingent on the completion of such improvements within eighteen (18) months of the date of receipt of bond or surety by the Board or within two (2) years of the date of approval of the Definitive Plan by the Board, whichever is earlier. The Board may require that the time be specified within which such construction and

installation shall be resubmitted for approval under the then existing Rules & Regulations. At the discretion of the Board, a time extension may be granted.

b. Approval with Covenant Instead of filing a bond or depositing a surety, the applicant may request approval of his Definitive Plan on condition that no lot in the subdivision shall be erected thereon until the construction of ways and municipal services specified in Section 8 are constructed and installed so as to serve the lots adequately (Form H). The Board may give approval with the condition that the applicant will fulfill all requirements of the Board of Health, and he will complete all such ways and services within the time period the Board specified or else the applicant's approval will be automatically rescinded.

Such conditions shall be contained in a separate agreement (Form H) and be referred to on the plan and recorded in the Registry of Deeds, and when the applicant has completed the required improvements specified in Section 8 for any lots in a subdivision, he may request a release for said lots. The Board shall then submit to each involved Department a Form I, which shall be completed and returned by said Department. When a Form I has been received indicating satisfactory performance, the Board shall then execute and deliver to the applicant such release, which shall be in a form for recording in the Registry of Deeds (Form L). Thereafter, the conditions relating to such lots and so released shall terminate.

4.9.2 Reduction of Bond or Surety The penal sum of any such bond or the amount of any deposit held under clause "a" of Section 4.9.1 above, may, from time to time, be reduced by the Board and the obligations of the parties thereto released by said board in whole or part. If release is by reason of covenant, a new plan of the portion to be subject to the covenant shall be required.

4.9.3 Alternate Methods of Guaranteeing Performance Following the recording of a first mortgage on a lot or lots in the subdivision given as security for advances to the sub-divider by the lender, the Board may, at its option, pursuant to Clause b of Section 4.9.1 above without receipt of a bond or deposit of money upon delivery to the Board of an agreement with the Board, which agreement shall be executed by the applicant and the lender of sufficient funds otherwise due the applicant to secure the construction of ways and installation of municipal services. Said agreement shall also provide for a schedule of disbursements which may be made to the applicant upon completion of various stages of the work and shall further provide that in the event the work is not completed within the time set forth by the applicant, any funds remaining un-disbursed shall be available for completion.

4.9.4 Inspection of Construction Performance At the appropriate stages of construction of the improvements specified in Section 8, the applicant shall submit to the appropriate department a Request for Inspection of Construction (Form J) specifying the improvement to be inspected and shall notify the Board of his completion of improvements required under Section 8.

4.9.5 Release of Performance Guarantee Upon the completion of the construction of ways and the installation of municipal services required under Section 8, security for the performance of which was given by bond, deposit or covenant, or upon the performance of any covenant with respect to any lot, the applicant shall send by registered or certified mail to the Town Clerk and to the Board written statement in duplicate that the said construction or installation in connection with which such bond, deposit or covenant has been given, has been

completed in accordance with the requirements contained under Section 8, such statement to contain the address of the applicant. If the Board determines that said construction or installation has not yet been completed, it shall specify in writing to the applicant and to the Town Clerk in a notice sent by registered or certified mail, the details wherein said construction and installation fails to comply with the requirements contained under Section 8.

Upon failure of the Board to act on such application by the Town Clerk, all obligations under the bond shall cease and terminate by operation of law, and any deposit shall be returned, except that a continuing bond or deposit of one dollar (\$1.00) per linear foot of roadway shall be retained for one (1) year after application of the finished road surface or until acceptance of the road by Town Meeting without condition, whichever is earlier, and any such covenant shall become void. In the event that the said 45-day period expires without such specification, or without the release and return of the bond or 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.

4.9.6 Evidence of Satisfactory Performance Before the Board will release the interest of the Town in a performance bond or deposit or, in the case of approval with covenant, issue a release of covenant:

- a. The applicant shall file with the Board a certified copy of the layout plan with accompanying profiles for each street in the subdivision. Certification shall be by a Registered Professional Engineer and Registered Land Surveyor employed by the applicant at his own expense, and shall indicate that all streets, sidewalks, sewers, storm drains, and water mains, and their appurtenances have been constructed in accordance with the lines and grades of said plan and are accurately located as shown thereon. The applicant shall also file a street acceptance plan or plans, as the case may be, suitable for recording in a form acceptable to the Board and showing such data and boundaries as are necessary for the Town to properly accept the street or streets shown thereon (see Section 7.12, Record Plans).
- b. The applicant shall file a properly executed petition (Form M) in duplicate petitioning the Board of Selectmen to insert an application for acceptance of the streets within his subdivision in the warrant for the Annual Town Meeting.
- c. The Board shall notify the various involved Town Agencies using a Form I and shall obtain in writing, using a Form I from these agencies, a statement that all work required by these Rules and Regulations has been inspected by them and completed in the subdivision and that they have approved the methods of construction and materials used in the performance of such work.
- d. The Board shall obtain in writing (Form I) from the Board of Health, a statement that each already installed on-lot sewerage system was installed in accordance with the Norwood Board of Health's Rules and Regulations and Article XI of the Sanitary Code of the Department of Health of the Commonwealth of Massachusetts.

e. The Applicant may be required to execute an instrument, in a form approved by the Board, transferring to the Town or to an approved public utility company, without cost, valid unencumbered title to all sanitary sewers, water mains, and appurtenances thereto, and other utilities constructed and installed in the subdivision or approved portion thereof, and conveying to the Town or to an approved public utility company without cost and free of all liens and encumbrances, perpetual rights and easements to construct, inspect, such storm drains or drainage ways, water mains, and other utilities, with any manholes, conduits, and other appurtenances, and to do all acts incidental thereto, and if any such sewers or water mains have been constructed and installed in land not within such streets, then in, through, and under a strip of land extending ten (10) feet in width on each side of the centerline of all such drains and water mains. The Board may require greater than ten (10) feet in width on each side of the centerline where it deems necessary.

4.10 MODIFICATION, AMENDMENT, OR RESCISSION

The Board, on its own motion or on the petition of any person interested, shall have power to modify, amend, or rescind its approval of a Definitive Plan on a subdivision or to require a change in a Definitive Plan as a condition of its retaining the status of an approved plan. All of the provisions of the Subdivision Control Law relating to the submission and approval of a plan of a subdivision shall, so far as apt, be applicable to the approval of the modification, amendment, or rescission of such approval and to a plan which has been changed under this section.

No modification, amendment, or rescission of the approval of a definitive Plan of a subdivision or change in such plan shall affect the lots in such subdivision which have been sold or mortgaged in good faith and for a valuable consideration subsequent to the approval of the plan, or any rights appurtenant thereto, without the consent of the owner of such lots, and of the holder of the mortgage or mortgages, if any thereon, provided, however, that nothing herein shall be deemed to prohibit such modification, amendment or rescission when there is a conveyance or a mortgage to a single grantee or mortgagee of either the entire parcel of land shown on the subdivision plan or of all the lots not previously released by the Planning Board.

So far as unregistered land is affected, no modification, amendment, or rescission of the approval of a Definitive Plan or change in a plan under this section shall take effect until:

1. the plan as originally approved, on a copy thereof, and a certified copy of the vote of the Board making such modification, amendment rescission or change, and any additional plan referred to in such vote, have been recorded;
2. an endorsement has been made on the plan originally approved as recorded referring to such vote and where it is recorded; and
3. such vote is indexed in the grantor index under the names of the owners of record of the land affected. So far as registered land is affected, no modification, amendment, or rescission of the approval of a

plan nor change in a Definitive Plan under this section shall take effect, until such modification, amendment, or change has been verified by the Norfolk Registry District of the Land Court pursuant to Chapter 185, and in case of rescission or modification, amendment, or change not so verified until ordered by the court pursuant to Section 114 of said Chapter 185.

SECTION 5

MINIMUM DESIGN STANDARDS

5.1 GENERAL

The design standards for subdivision improvements set forth herein are minimum standards only. It is the policy of the Board to encourage the implementation of improvements which exceed these minimums wherever feasible.

The Board reserves the right to waive any portion of these standards or to prescribe standards which exceed those set forth herein as detailed in Section 9.1

It shall be the responsibility of the Registered Professional Engineer who prepares a subdivision plan to exceed the standards set forth herein or the standards prescribed by the Board whenever necessary to insure that all subdivision improvements shall be adequate for all present and future use in conformance with standard engineering practice.

5.2 CONSTRUCTION SPECIFICATIONS

The construction of all subdivision improvements shall conform to the requirements of Section 6 of these Rules and Regulations and the procedures set forth in Section 7 of these Rules and Regulations shall be strictly adhered to during the construction of all subdivision improvements.

5.3 SITE AND EARTHWORK

Site and earthwork shall include all clearing and grubbing, demolition, topsoil removal, excavation, embankment, and related work.

5.4 PROTECTION OF NATURAL FEATURES

It is the policy of the Board to encourage geomorphic character in subdivision design. The subdivision improvements shall adhere closely to the existing topography, preserve surficial drainage patterns, preserve or improve aquifer recharge areas, preserve and enhance scenic spots and historic sites, preserve rock outcroppings and large or unusual trees and plants, avoid the creation of slopes prone to erosion, avoid encroachment upon watercourses and wetland areas, and preserve other such community

and natural resources, the retention of which will add to the amenity and value of the subdivision.

5.4.1 Trees - At least twenty (20) percent of all trees in residential subdivisions and at least ten (10) percent of all trees in commercial and industrial subdivisions having a caliper of eight (8) inches or more measured four (4) feet above the existing ground shall be preserved and pruned. Trees so selected for preservation shall be located within the planting strips of proposed local or collector streets, within the right-of-way of bicycle or pedestrian pathways, within proposed open space areas, within the building setback portions of lots as prescribed in the Norwood Zoning Bylaw, and in other areas where their future removal will be unlikely.

5.4.2 Earthwork - The total volume of excavation and embankment within a subdivision shall not exceed five (5) acre-feet per acre of land subdivided. All topsoil removed must be reused within the same subdivision.

5.5 OPEN SPACE

The Board shall require, in proper cases, the provision within the subdivision of a suitable located park or parks for playground, recreation or conservation purposes or to provide light and air. 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. At least five (5) percent of the land within a subdivision shall be reserved for park purposes. The Board shall, in proper cases by appropriate endorsement on the plan, require that no building be erected upon such park or parks without its approval, for a period of not more than three (3) years. If the Town wishes to acquire the above said parks for public use it shall so inform the owner within three years and the owner will be compensated as provided in Section 81-G of the Subdivision Control Law. Each area reserved for such purposes shall be located to serve adequately all portions of the subdivision as approved by the Board.

All areas reserved for park purposes shall be of suitable area, dimensions, topography and character for the purpose intended by the Board.

5.6 STREETS

The street system within a subdivision shall: inter-relate with the existing and planned street, bicycle, pedestrian, and public transportation systems in the Town as a whole; minimize overall street length; restrict through traffic on local streets; provide safe and convenient access to principal community facilities and major streets and highways; relate to existing topographic and soil conditions and drainage patterns; preserve natural and historic features; emphasize aesthetic qualities in design; and consider the interrelationship of the street system to the nature of development in adjacent lots with the intention of enhancing the amenity, livability and value of the subdivision, as a whole.

5.6.1 Acceptance of Streets by the Town - No street shall be accepted by the Town unless it shall have been previously completed in strict conformance with the standards set forth herein and with the approved Definitive Subdivision Plan using construction methods acceptable to the Board.

5.6.2 Location -

- A. All streets in a subdivision shall be designed so that, in the opinion of the Board, they will provide safe vehicular travel.
- B. The proposed streets shall provide direct access to all lots within a subdivision.
- C. The proposed streets shall conform to any master plan or study plan or study plan as adopted in whole or in part by the Board.
- D. Provision satisfactory to the Board, shall be made for the proper extension of streets, or for access to adjoining property which is not yet subdivided.
- E. Reserve strips prohibiting access to streets or adjoining property shall not be permitted, except where, in the opinion of the Board, such strips shall be in the public interest.
- F. It is the policy of the Board to discourage the inclusion of dead-end streets, as they do not provide for adequate traffic circulation and safety in case of emergency. The dead-ending of collector and arterial streets will not be permitted. The Board may permit local streets to be dead-ended on a temporary (or in some instances on a permanent) basis if it deems such action to be in the public interest. When the Board does permit the inclusion of a dead-end street, it shall not exceed 600 feet in length and shall be provided with a paved turnaround (cul-de-sac) having an outside roadway diameter of 110 feet and an outside right-of-way diameter of 130 feet. In cases where such a cul-de-sac is temporary, no sale of lots facing the cul-de-sac will be permitted and all municipal services shall be extended to the far side of the cul-de-sac right-of-way to provide for their orderly extension.

5.6.3 Cross Sections - Cross sections of streets shall be shown in Plates 1, 2, 3, and 4. Super-elevation will not be permitted on local streets and shall not exceed six (6) percent on other street.

5.6.4 Alignment and Intersection Design - Alignment and intersection design shall be in accordance with the standards shown in Table1 and as stated herein:

- A. Horizontal Alignment Streets shall be laid out in a series of tangents, joined by curves whose radius at the centerline equals or exceeds the values given in Table 1.
- B. Vertical Alignment
 - 1. Streets shall be laid out in a series of tangents, when the algebraic differences in centerline tangents slope exceeds ½ percent at their point of intersection (pvi), a parabolic vertical curve shall be used,

the length of which, in feet shall exceed the greater of the two following values.

$$L = KA \text{ or } L = 3V$$

Where

L = length of the vertical curve in feet

K = the value given in Table 1

A = algebraic difference in percent of successive centerline tangent grades

V = design speed in miles per hour

2. Proposed streets shall be closely coordinated with the existing topography. At least 75 percent of the lengths of street centerline in a subdivision shall differ in elevation by less than five (5) feet from the existing ground and no portion of any street centerline shall differ in elevation by more than fifteen (15) feet from the existing ground.

C. Relation of Horizontal and Vertical Alignment

To maximize safety and aesthetic quality, the design of horizontal and vertical alignment shall be closely coordinated. Proper consideration shall be given to the balance of curvature and grades and the relationship between horizontal and vertical curvature.

D. Intersection Design

1. The number of intersections shall be minimized.
2. Four-way intersections of local streets shall be avoided.
3. Sight distance equal to the stopping site distance given in Table 1 shall be maintained on all intersection approaches.
4. The centerline of all intersecting streets shall be tangent.
5. Intersections will not be permitted near the crests of hills.
6. The angle of intersection of street centerline shall preferably be 90 degrees but shall not be less than the values given in Table 1.
7. Intersections joining streets in a subdivision with the existing street system in the Town will be permitted only if, in the opinion of the board, such intersections will be safe and will not contribute to traffic congestion
8. The right-of-way line adjacent to curb returns shall

be rounded using a radius equal to the radius of the curb return less the width of the wider intersecting sidewalk (including the grass strip, if any).

9. The Board may require the inclusion of traffic islands, turning lanes, and other channelization elements when it deems them necessary.
10. The Board may require the inclusion of a traffic signalization system when it deems such to be necessary. The signal system shall include a fully actuated solid state digital traffic controller capable of apportioning green time on the basis of demand with separate vehicular and pedestrian phases, electrical conduit and wiring, 12 inch traffic signal heads mounted on galvanized steel mast arm and pole assemblies, 12 inch pedestrian signal heads, pushbutton assemblies, vehicle sensing detectors, hand holes, and pavement markings.

5.6.5 Street Names

All street names shall be approved by the Board. In addition to the street names shown on the plans, the Applicant shall submit a list of alternative street names equal in number to one-half those shown on the plans. Each street name shall have no similarity in spelling or pronunciation to any street now existing in Norwood. The Board shall consult with the Police and Fire Departments to determine that duplicate or similar street names do not exist. It is the intention of the Board that all street names shall be descriptive of topographic features within the subdivision or shall have significance to local history or culture. The Applicant shall submit a brief statement describing the significance of each street name proposed for use.

5.7 PAVEMENT

All roadway surfaces within a subdivision shall be paved with a Class I Bituminous Concrete Pavement of the width indicated in Plates 1, 2, 3, and 4. The pavement for each type of street shall be of the materials and at least equal to the minimum thickness given in Table 2. For all streets, two alternative pavement sections are given which may be selected on the basis of lowest cost.

5.8 CURBING

Granite curbing shall be installed along both sides of all streets within subdivisions in the locations indicated in Plates 1, 2, 3, and 4. A gravel base shall be provided as indicated in Plate 6. Depressed and sloped curb at driveways and sidewalk ramps shall be as indicated in Plates 8 and 9. Granite curb inlets at catch basins shall be as indicated in Plate 5.

5.9 SIDEWALKS

Sidewalks shall be installed on both sides of all streets within subdivisions and shall be of the width and placed in the location indicated in Plates 1, 2, 3, and 4. Cement concrete sidewalks shall be used on Commercial Local and Commercial Collector Streets and where required by the Board. Class I Bituminous Concrete sidewalks shall be used elsewhere. Sidewalks shall be as indicated in Plate 6.

On Commercial Local and Commercial Collector Streets and where required by the Board, pre-cast concrete tree wells shall be placed along the sidewalk adjacent to the curb to accommodate street trees. Pre-cast concrete tree wells shall be as indicated in Plate 7 and shall have a minimum spacing of forty (40) feet and a maximum spacing of eighty (80) feet.

On all other streets, planting strips shall be placed between the sidewalk and curb. The planting strip shall be discontinued at intersections and the sidewalk extended to full width in its place from ten (10) feet before the point of curvature of the curb return to ten (10) feet beyond its point of tangency.

Sidewalk ramps conforming to the dimensions indicated on Plate 8, shall be placed at the midpoint of each corner of an intersection or centered at the crosswalk sideline at "T" type intersections.

5.9.1 Cement Concrete Sidewalks Cement concrete sidewalks shall be four (4) inches in depth except at driveways where they shall be six (6) inches thick with the limits indicated in Plate 9.

5.9.2 Bituminous Concrete Sidewalks Class I Bituminous Concrete sidewalks shall have a two (2) inch binder course and a one and a half (1 1/2) inch top course.

5.10 **DRIVEWAY**

5.10.1 Major Driveways Major driveways shall be any driveway so designated by the Board or any driveway serving one-hundred or more parking spaces. No more than two (2) driveways per parking lot will be permitted. The curbing and sidewalk on the adjacent street shall be deleted across the driveway opening and the driveway shall be provided with at twenty-eight (28) foot minimum width opening.

The major driveway entrance shall be provided with the type of pavement section, sidewalks, curbing, and curb radii required for the type of street upon which the driveway entrance is located, to the point of tangency of the above curb radii. Major driveways shall conform in alignment and intersection design requirements with the requirements for the type of street upon which the driveway is located.

5.10.2 Minor Driveways A minor driveway shall be any driveway not classified as a major driveway. Minor driveway entrances will not be permitted on arterial

streets, within the minimum site distance triangle legs at intersections given in Table 1, or at locations deemed hazardous by the Board. No more than one minor driveway entrance per residential lot and nor more than two entrances per commercial or industrial lot will be permitted.

Minor driveway entrances shall be as indicated in Plate 9 and shall extend to the street right-of-way line.

5.11 LANDSCAPING

5.11.1 Loam Loam shall be placed within the planting strips, medians, and side slopes of streets as indicated in Plates 1, 2, 3, and 4 and along the sides of bicycle and pedestrian pathways to a depth of six (6) inches and elsewhere to a depth approved by the Town Engineer. Planting strips and medians shall be sloped at ¼ inch per foot towards the curb line. Planting strips shall be discontinued at intersections.

5.11.2 Grass A continuous healthy growth of grass shall be established and maintained during the one year guarantee period described in Section 7.13 on all areas to be loamed as described in Section 5.11-1.

5.11.3 Trees and Shrubs Trees, shrubs, and ground cover shall be planted in appropriate locations within the subdivision. A continuous healthy growth shall be maintained during the one year guarantee period described in Section 7.13. The Board may require that landscaping within a subdivision be designed by a Landscape Architect registered in the Commonwealth of Massachusetts.

A. **Street Trees** Street trees shall be planted at intervals averaging forty (40) feet on each side of the street after the driveways to the lots have been located. Street trees shall be planted within the planting strips or in tree pits along all local streets and more than five (5) feet but less than ten (10) feet beyond the back edge of the sidewalk on all Collector and Arterial Streets. Trees to be planted shall be well branched, nursery grown stock, at least two (2) inch trunk diameter at four (4) feet above ground, and shall be free of injury, harmful insects and diseases. Trees shall be planted in ½ cubic yards of loam, guy wired and wrapped as necessary for protection. Street trees shall be selected from the following species exclusively, unless special permission to use other species is granted by the Board upon recommendation of the Town Engineer;

Acer Platanoides	Norway Maple
Acer Platanoides	“Crimson King” Norway Maple
Acer Rubrum	Red Maple
Fraxinus Lanceolata “Marshalls Seedless”	“Marshalls Seedless” Green Ash

Ginko Biloba (male only)	Maidenhair Tree (male only)
Gleditsia Triacanthos Inermus	Thornless Honey Locus
Platanus Acerifolia	London Plane Tree
Prunus Serrulata Pyrus Callergana “Bradfordi”	Kwanzan Cherry Bradford Callery Pear
Tilia Cordata	Little Leaf Linden

- B. Pruning Existing trees selected for preservation as required in Section 5.4, shall be pruned.

5.12 **BRIDGES**

Bridges shall be provided when necessary or when required by the Board. Bridges shall have full width roadways and sidewalks, shall be designed using the AASHO HS20 Design Vehicle, and shall feature low maintenance materials such as weathering steel where practicable. Bridges over roadways shall provide for a sixteen (16) foot minimum clearance and bridges over water courses shall be designed to pass the two-hundred (200) year storm.

5.13 **RETAINING WALLS**

5.13.1 Gravity Retaining Walls Gravity retaining walls shall meet or exceed the requirements indicated in Plate 10.

5.14 **SIGNS**

5.14.1 Signposts Shop drawings of proposed signposts shall be submitted. All signposts shall be aluminum or hot dipped galvanized steel. They shall be anchored in a minimum. Of one cubic yard of Class B concrete and shall be of the breakaway type.

5.14.2 Street Name Signs Street name signs shall show the names of both intersecting streets. Two signposts, each bearing two street name signs, each shall be installed at diagonally opposite corners of each intersection. Street name signs shall conform to the requirements of the Norwood Police Department.

5.14.3 Traffic Regulatory Signs Traffic regulatory signs shall conform in size, number, type, color, and location to the requirements of the Norwood Police Department.

5.15 GUARD RAILS

Guard rails shall be provided at the back of the sidewalk at all points of hazard, along streets such as fixed objects, high fills, along water courses, and at any additional location required by the Board.

5.16 PAVEMENT MARKINGS

Pavement markings shall conform in type, color, width and location to the requirements of the Norwood Police Department.

5.17 FENCING

Fencing shall be provided wherever the subdivision abuts a limited access highway, in areas where natural features or man-made facilities present potential danger, to screen lights or unpleasant view, and at such other locations as may be required by the Board.

5.18 BICYCLE PATHWAYS

Bicycle pathways shall be provided wherever the existing and proposed street system does not provide optimum access to scenic spots, park areas, community facilities, transportation facilities, or commercial centers.

Bicycle pathways shall be located to be compatible with the street system as a whole, shall have a minimum pave width of five (5) feet and a right-of-way width of ten (10) feet, shall have grades as flat as possible and shall be designed with due consideration to the direction of prevailing wind. Appropriate auxiliary facilities shall be provided, such as lighting, rest areas, and bicycle racks.

5.19 PEDESTRIAN PATHWAYS

Pedestrian pathways shall be provided wherever the existing and proposed street system does not provide optimum access to scenic spots, park areas, community facilities, transportation facilities, or commercial centers.

Pedestrian pathways shall be located to be compatible with the street system as a whole, shall have a minimum walk width of three (3) feet and a right-of-way width of five (5) feet. Appropriate auxiliary facilities shall be provided, such as lighting, and benches.

5.20 PARKING FACILITIES

When parking facilities are installed as part of the subdivision improvements, they shall be all paved, well drained, and when required, well lighted. Entrances shall conform to the requirements of Section 5.10

Large parking areas of continuous paving will not be permitted. Parking areas shall be buffered and interspersed with well landscaped planting spaces. Trees shall be scattered throughout the parking area. Landscaping shall conform to the requirements of the Zoning Bylaw.

5.21 WATER DISTRIBUTION SYSTEM

5.21.1 General The water distribution system shall be an extension of existing town water system when practical. This system shall be capable of delivering an ample supply of pure, potable water to all lots within the subdivision and to hydrants for use in the control of fires.

When extension of the existing town water distribution system is not practicable, lots shall be provided with private on-lot water supply systems conforming to the requirements of the Board of Health. The Planning Board will, in such cases, require the installation of a complete “dry” water system for all lots within the subdivision to provide for future extension of the town water distribution system.

The water distribution system shall conform to the requirements of the Norwood Public Works Department.

5.21.2 Conformity The water distribution system within a subdivision shall conform to the requirements of the “Town of Norwood, Massachusetts Plan for Water Distribution System” prepared by Fay, Spofford & Thorndike, Inc., Engineers in 1972, including any amendments thereto and to all other master or study plans which may subsequently be adopted by the Board. When, in the opinion of the Board, adjacent areas can be served by connection to water mains within a subdivision, the capacity of the water mains within the subdivision shall be made adequate to serve these adjacent areas.

5.21.3 Location All waterlines shall be installed in the location and with the minimum pipe cover indicated in Plates 1, 2, 3, and 4. In no case shall any waterline be installed closer than seven (7) horizontally to a sanitary sewer line, the water line shall be located at least eighteen (18) inches above the sewer line.

5.21.4 Pipe Size Pipe size shall be adequate to deliver the quantity of water specified in Section 5.21.6. The minimum pipe diameter shall be eight (8) inches.

5.21.5 Looping Water mains shall be interconnected at all street intersections. No water main shall extend for more than one-thousand (1,000) feet without an interconnection to another water main.

5.21.6 Design Flows The water distribution system shall be capable of delivering an adequate supply of water to all lots within the subdivision and adjacent areas as required in Section 5.21.2 during the maximum demand hour of the year, assuming maximum permitted development density on all lots. Design values shall in all cases equal or exceed the following minimum values:

- a. Residential Lots – 90.0 gpcd
2.5 peaking factor
- b. Commercial Lots – 60.0 ged

1.5 peaking factor

c. Industrial Lots – 250.0 gpd

In addition to the above flows, the system shall be capable of delivering a fire flow of 3,500 gallons per minute to hydrants in commercial and industrial areas and 1,500 gallons per minute in residential areas.

Residual pressure at ground level must be at least twenty (20) pounds per square inch.

5.21.7 Trenches Trenches shall be excavated and backfilled in conformance with the requirements of Section 6.2.9 and shall be as indicated on Plate 11.

5.21.8 Hydrants Hydrants shall be located at all street intersections and spaced not more than five-hundred (500) feet apart. Each hydrant shall be equipped with a water gate valve and shall be as indicated on Plate 12.

5.21.9 Water Gate Valves At water main intersections, gate valves shall be installed in all lines. The valve size shall equal that of the water main to which it is connected. The maximum spacing between gate valves on any one line shall be six-hundred (600) ft.

5.21.10 Fittings Fittings such as tees, bends, plugs, etc., shall be installed required.

5.21.11 Thrust Blocks Thrust blocks shall be used at all changes in horizontal and vertical pipe alignment to provide stability. Thrust blocks shall be in accordance with Plate 13.

5.21.12 Water Service Connections Water service connections shall be provided to all lots within the subdivision and shall be as indicated in Plate 14. Larger diameter pipe shall be provided as required. Service connections shall be clearly marked so as to be easily located in the future.

5.21.13 Pressure and Leakage Tests All pipelines shall be given combined pressure and leakage tests at the direction of the Town Engineer. The average leakage shall meet the latest ASTM Standards. All water lines shall be disinfected according to AWWA Designation C-106-68.

5.22 SANITARY SEWER SYSTEM

5.22.1 General The sanitary sewer system shall be an extension of the existing town sanitary sewer system when practicable. This system shall be capable of providing basement floor-level sewer service to all lots within the subdivision.

When extension of the existing town sanitary sewer system is not

practicable, private on-lot sewerage treatment systems shall be provided. The Board may, in such cases, require the provision of a complete “dry” sanitary system to provide for future extension of the town sanitary sewer system.

5.22.2 Conformity The sanitary sewer system within a subdivision shall conform to the requirements of any sanitary sewerage study or master plan which may be adopted in whole or in part by the Board. When, in the opinion of the Board, adjacent areas can be served by connection to sanitary sewer lines within a subdivision shall be adequate sewer lines within a subdivision, the capacity of the sewer lines within the subdivision shall be adequate to serve these adjacent areas.

5.22.3 Location All sanitary sewer lines shall be installed in the location and with the minimum pipe cover indicated in Plates 1, 2, 3, and 4. In no case shall any sanitary sewer line be installed closer than seven (7) feet horizontally to a water line. When a sanitary sewer line crosses a water line, the sanitary sewer line shall be located at least eighteen (18) inches below the water line.

5.22.4 Pipe Size The pipe size (for a given pipe slope) shall be adequate to provide the capacities required in Section 5.22.5. The minimum pipe diameter shall be eight (8) inches. The down-stream pipe size shall be at least equal to the up-stream size.

5.22.5 Design Flows The sanitary sewer system shall be capable of providing sewer service to all lots within the subdivision and adjacent areas as required in Section 5.22.2 during the period of peak daily demand assuming maximum permissible development density on all lots. Design flows shall be calculated as detailed in Section 7.15 or 314 CMR. Design values in all cases equal or exceed the following minimum values:

- a. Residential Lots: 90.0 gpcd
5.0 peaking factor
- b. Commercial Lots: 60.0 gallons per employee per day
- c. Industrial Lots: 250.0 gallons per employee per day

In addition to the above, the system shall be designed for an allowance of ground water infiltration of 2,000 gallons per acre of service area per day.

The capacity of sewer lines shall be determined by use of the Manning Formula as follows:

Where: Q = capacity in cu. ft. per second
A = cross sectional area of the pipe in s.f.
R = hydraulic radius, the ratio of flow area to wetted perimeter
S = pipe slope in ft. per ft

- 5.22.6 Velocity** The slope of all sanitary sewer lines shall be such that the minimum velocity of sewerage is greater than 2.5 ft per second and the maximum velocity is less than eight (8)ft. per second.
- 5.22.7 Alignment** The use of sewers which are curved horizontally or vertically will not be permitted. When sewers of different sizes are joined at manholes, the elevation of the crowns of the two pipes shall match.
- 5.22.8 Trenches** Trenches shall be excavated and backfilled in conformance with the requirements of Section 6.2.9 and shall be indicated as in Plate 15.
- 5.22.9 Strength** The structural design of sanitary sewer pipes shall be adequate for the depth of bury and soil conditions in which the pipe will be used and to withstand all equipment loading during construction. Concrete arches or specially designed pipe shall be used where required.
- 5.22.10 Manholes** Manholes shall be used wherever necessary to provide access, at all changes in slope or alignment, and at intervals not to exceed 300 feet. Sanitary sewer manholes shall be as indicated in Plate 16. Where inverts of the pipe crowns cannot be matched, a drop inlet of the full diameter of the pipe shall be used.
- 5.22.11 Sewer Service Connections** Sewer service connections shall be provided to all lots within the subdivision and shall be as indicated in Plate 17. Larger diameter pipe shall be provided as required. Service connections shall be clearly marked so as to be easily located in the future.
- 5.22.12 Sewer Chimneys** Sewer chimneys shall be used where necessary to connect sewer service connections to sewer lines with large depths of cover. Sewer chimneys shall be as indicated in Plate 18.
- 5.22.13 Pressure and Leakage Tests** All sanitary sewer pipe lines shall be given combines pressure and leakage tests. All manholes shall be given leakage tests.

Where the groundwater level is more than one (1) foot above the top of the pipe at its upper end, the Contractor shall conduct either infiltration tests or low-pressure air tests.

Where the groundwater level is less than one (1) foot above the top of the pipe at its upper end, the Contractor shall conduct either exfiltration tests or low-pressure air tests.

The leakage test using low-pressure air shall be made on each manhole-to-manhole section of pipeline after placement of the backfill.

All air used shall pass through a single control panel.

Low pressure air shall be introduced into the sealed line until the internal air pressure reaches a 4 psig. greater than the maximum pressure exerted by groundwater that may be above the invert of the pipe at the time of the test. However, the internal air pressure in the sealed shall be allowed to exceed 8 psig. When the maximum pressure exerted by the groundwater is greater than 4 psig., the Contractor shall conduct only an infiltration test.

At least two minutes shall be allowed for the air pressure to stabilize in the section under test. After the stabilization period, the low-pressure air supply hose shall be quickly disconnected from the control panel. The time required in minutes for the pressure in section under test to decrease from 3.5 to 2.5 psig. (greater than the maximum pressure exerted by groundwater that may be above the invert of the pipe) shall not be less than that shown in the following table:

Pipe Diameter In Inches	Minutes
4	2.0
6	3.0
8	4.0
10	5.0
12	5.5
15	7.5
18	8.5
21	10.0
24	11.5

When the sewer section to be tested contains more than one size pipe, the minimum allowable time shall be based on the largest diameter pipe in the section, and shall be the time shown in the cable reduces by 0.5 minutes. pipelines and manholes with clean water to a height of two (2) feet above the top of the sewer at its upper end. Where conditions between manholes may result in test pressures which would cause leakage at the stoppers in branches, provisions shall be made by suitable ties, braces, and wedges to secure the stoppers against leakage resulting from the test pressure.

The rate of leakage from the sewers shall be determined by measuring the amount of water required to maintain the level two (2) feet above the top of the pipe.

Leakage from the sewers under test shall not exceed the requirements for leakage into sewers as previously specified.

The sewers shall be tested before any connections are made to buildings.

Manholes shall be tested prior to placing the shelf and invert. Groundwater level shall be lowered during the test.

The manhole shall be filled with water to the top of the cone section. If the excavation has not been backfilled and observation indicates no visible leakage, that is, no water visibly moving down the surface of the manhole, the manhole may be considered to be satisfactory watertight. If the test as described above is unsatisfactory or if the manhole excavation has been backfilled, the test shall be continued. A period of time may be permitted, if requested, to allow for absorption. At the end of this period, the manhole shall be refilled to the top of the cone, if necessary, and the measuring time of at least eight (8) hours begun. At the end of the test period the manhole shall be refilled to the top of the cone, measuring the volume of water added. This amount shall be extrapolated to a twenty-four (24) hour rate and the leakage determined on the basis of depth. The leakage for each manhole shall not exceed one (1) gallon per vertical foot for a twenty-four (24) hour period.

5.23 STORM DRAIN SYSTEM

5.23.1 General The storm drain system shall be adequate to drain all storm water from paved areas within the subdivision.

All elements of the storm drain system shall be of adequate capacity to accommodate flows from a minimum ten (10) year frequency storm. However, major drains shall be adequate to accommodate flows from the twenty-five (25) year frequency storm, and bridges and major culverts shall be adequate to pass flows from the one-hundred (100) year frequency storm.

The design and construction of the storm drain system will be consistent with the following:

1. Discharging untreated storm water runoff directly into rivers, streams, watercourses, or increasing the volume, rate, or further degrading the quality of existing discharges/runoff is prohibited.
2. Post-development peak runoff shall be maintained at or below pre-development peak runoff rates.
3. Storm water runoff shall be routed through structural and nonstructural systems designed to increase time of concentration, decrease velocity, increase infiltration, and allow suspended solids to settle and remove pollutants. These systems shall utilize subsurface infiltration as the primary technique to treat runoff and shall be designed to remove eighty (80%) percent of the annual average load (post-development conditions) of Total Suspended Solids (TSS).
4. When in the Board's opinion subsurface infiltration of runoff is deemed infeasible because of soil conditions, retention and detention ponds, and methods of overland flow may be used to retain, detain, and treat runoff.

However, there shall be a minimum of two (2) feet of naturally occurring soils between the basin bottom and the ground water table.

5. Storm management systems shall have an operation and maintenance plan to ensure that systems function as designed.

5.23.2 Conformity The storm drain system within a subdivision shall conform to the requirements of any storm drainage study or master plan which may be adopted in whole or in part by the Board. When in the opinion of the Board, adjacent areas can be served by the connection to storm drain lines within the subdivision, the capacity of the storm drain lines within the subdivision shall be adequate to serve these adjacent areas.

5.23.3 Location All storm drain lines shall be installed in the location and with minimum pipe cover indicated in Plates 1, 2, 3, and 4.

5.23.4 Pipe Size The pipe size shall be as required herein. The minimum pipe diameter shall be twelve (12) inches.

5.23.5 Design Flows The storm drain system shall be capable of accommodating the quantities of storm water specified in 5.23.1.

The quantity of storm water runoff in the design of the storm drain system shall equal or exceed the value obtained by the rational method as follows:

Where:

- Q = quantity of storm water runoff in cu. ft. per second
- C_n = the coefficient of permeability of each sub area
- A = the area of each sub area in acres
- R = intensity of rainfall in inches per hour
- N = the number of sub areas
- I = rainfall intensity in one (1) hour

Drainage basins shall be determined by the topography.

The coefficient of permeability shall be determined assuming maximum permissible development density on all lots. The following minimum values shall be used:

- C = 0.90 – pavement and roofs
- C = 0.50 – thin grass
- C = 0.25 – average grass
- C = 0.15 – thick grass

The intensity of runoff shall be determined as follows:

$$i = \frac{29.8}{(T+7)^{0.7}}$$

where: t = inlet time plus the flow time, in seconds

The inlet time shall be determined in accordance with Plate 19.
The minimum inlet time shall be fifteen (15) minutes.

The capacity of storm drain lines shall be determined by the Manning Formula as given in Section 5.22.5.

- 5.23.6 Velocity** The slope of all storm drain lines shall be such that the minimum velocity of the storm water is greater than 3.0 feet per second and the maximum velocity is less than ten (10) feet per second.
- 5.23.7 Alignment** The use of storm drains which are curved, horizontally or vertically, will not be permitted. When storm drains of different sizes are joined at manholes, the elevation of the crowns of the two pipes shall match.
- 5.23.8 Trenches** Trenches shall be excavated and backfilled in conformance with the requirements of Section 6.2.9 and shall be indicated in Plate 20.
- 5.23.9 Strength** The structural design of storm drain pipes shall be adequate for the depth of bury and soil conditions in which the pipe will be used and to withstand all equipment loading during construction.
- 5.23.10 Manholes** Manholes shall be used wherever necessary to provide access, at all changes in slope or alignment, and at intervals not to exceed three-hundred (300) feet. Storm drain manholes shall be as indicated in Plate 21.
- 5.23.11 Catch basins** Catch basins shall be used at all low points where stormwater collects, upgrade of all intersections and crosswalks, and at intervals not to exceed three-hundred (300)feet. All pavement shall be graded to drain towards the catch basins.
- Catch basins shall be as indicated in Plate 22. The frame and grate shall be the standard catch basin frame and Type A-1 catch basin grate (modified as indicated in Plate 22) as detailed in the Commonwealth of Massachusetts, Department of Public Works, 1966, Construction Standards, revised in 1972.
- 5.23.12 Headwalls** Headwalls shall be used at all exposed ends of pipes culverts. Headwalls shall be as indicated in Plate 23.
- 5.23.13 Culverts** Storm water from adjacent areas to a street, shall not be permitted to flow across any roadway upon the surface but shall be piped in an underground culvert.
- Culverts shall not be used to enclose watercourses except beneath Streets. Watercourses shall be preserved in their natural state as required in Section 5.4. No form of development will be permitted in the vicinity of a watercourse which would give impetus towards its future enclosure.
- 5.23.14 Subdrains** Subdrains shall be used wherever the presence of groundwater

could cause disturbance of the pavement structure. Subdrains shall be as indicated in Plate 24.

5.23.15 Pressure and Leakage Tests All storm drain lines shall be given combined pressure and leakage tests as detailed in Section 5.22.13.

5.23.16 Detention Basins One or more detention basins may be required Planning Board in each subdivision or site plan at a suitable location to control runoff from the site. The following detention basins design standards shall apply.

1. **Stage/Storage** Provide stage/storage and stage discharge information.
2. **Routing** Provide hydraulic routing calculations for the peak flow from the 2, 10, 25 and 100 year storm events. No credit will be allowed for exfiltration through the sides and bottom of the basin.
3. **Maximum Storage Volume** Indicate maximum volume stored in detention basin and the corresponding elevation.
4. **Hydraulic Calculations** Outlet structures provide hydraulic calculations showing that the outlet structure can safely pass the peak flow from the 100-year design storm. Basin outlet is assumed blocked for design purposes.
5. **Hydraulic Calculations** Emergency outlet provide hydraulic calculations showing that the emergency outlet structure/overflow spillway have the capacity for the peak flow from the basin for the 100-year storm. Basin outlet is assumed blocked for design purposes.
6. **P.E. Stamp** All calculations and drainage plans to be signed and stamped by a Registered Professional Engineer.
7. **Bottom of Basin** provide a low flow non-erodible paved channel from the basin inlet to the outlet structure to prevent standing water. The invert of the lowest outlet pipe must be at or below the same elevation as the lowest point in the basin. Slope bottom towards low flow channel. Low flow channel should be three (3) feet wide and shaped appropriately for low flow conditions.
8. **Basin Outlets** Outlet sizes should be as large as practicable. Minimum diameter is six (6) inches, with approval from the Planning Board for all outlet sizes less than twelve (12) inches. Basin shall drain completely dry. Under drains, six-inch diameter minimum, are recommended to ensure that bottom has proper drainage. Under drains shall be designed for ease of maintenance and cleaning. Clean outs provided with metal marking device to facilitate locating with a metal detector.
9. **Cross Sections** Provide sufficient cross sections through the detention basin to fully show all pertinent features and to permit easy verification of storage volume.

10. **Inlet/Outlet Protection – Rip Rap** Provide rip rap at all inlets and outlets to the basin over an appropriate area to a minimum depth of eighteen (18) inches. Provide rip rap at the outlet from the detention basin. Provide design calculations for rip rap.
11. **Depth of Water** Depth of water during the 100-year design storm may exceed three (3) feet with the approval of the Planning Board.
12. **Drainage Areas** Clearly delineate the entire pre-development and post development drainage areas tributary to all discharge points on a plan with legible contours. Show design outlet points on drainage area plan.
13. **Drainage Area Descriptions** Provide cover descriptions, area and curve numbers (SCS Method) for all pre and post development drainage areas.
14. **Drainage Swales for Overland Flow** Provide drainage swales that direct overland runoff to the detention basin to ensure that runoff does not by pass the detention basin. Provide design computations to show that sufficient erosion control methods are employed in swales
15. **Time of Concentration** Provide time of concentration calculations for all pre-development drainage areas. Show all travel paths on the drainage area plan. Provide all channel characteristics for open channel flow.
16. **Freeboard** Provide six (6) inches of freeboard above the 100-year water elevation in the emergency spillway during emergency overflow conditions.
17. **Outlet Structure** Provide complete dimensions of the outlet control structure. Structure must be vandal proof and easily accessible for maintenance.
18. **Emergency Outlet Structure** An emergency outlet structure must be provided; e.g. a catch basin structure with grate welded to the frame. The emergency structure shall be designed to pass the 100-year design storm basin outflow rate out of the basin.
19. **Emergency Overflow Spillway** An emergency overflow spillway must be provided. The emergency structure spillway shall be designed to pass the 100-year design storm basin outflow rate out of the basin. Basin outlet is assumed blocked for design purposes.
20. **Runoff Rates** Post-development peak runoff rates shall be maintained at or below pre-development peak runoff rates at each drainage design outlet point on site. Point discharge of runoff after development shall not adversely affect adjacent properties.

Provide summary of peak runoff from all drainage areas for all storm events and net runoff from the site.

21. **Side Slopes** The interior and exterior slopes of the basin

should be no steeper than three (3) horizontal to one (1) vertical (i.e., 3:1) unless approved by the Planning Board.

22. Soil Information Provide a soils map and description of all soils on site. Provide Hydrologic Soil Group (HSG) for each soil type.

23. Berm Provide at least one access route to outlet control and emergency overflow facilities for maintenance equipment. The top width of the berm shall be a minimum of ten (10) feet unless otherwise approved by the Planning Board. Where used for access to the outlet/overflow structures the top width shall be a minimum of ten (10) feet wide to facilitate emergency and maintenance equipment.

24. Trash Rack Provide a trash rack or other means of maintaining an unrestricted basin outlet.

25. Access Provide access for equipment to bottom of basin for cleaning and maintenance (a minimum ten (10) foot wide access way – no steeper than 6:1).

26. Easement A drainage easement must be provided around the entire basin, including the downstream outlet and rip rap to the receiving body of water. Easement to include sufficient frontage on a Town road for access by maintenance vehicles.

27. Separate Lot Each detention basin shall be located upon one lot upon which no structure may be built. The subdivision plan shall designate such lot upon which the detention basin is to be built as follows: NON-BUILDABLE LOT FOR DETENTION BASIN PURPOSES ONLY. In all cases, a separate lot for detention basin purposes shall have adequate frontage to insure access to the basin, its slopes, sides and the lot interior. Any less than that required for a building lot shall be conclusively presumed to have adequate frontage.

28. Maintenance Detention basin maintenance is the responsibility of the owner, until such time as the detention basin is accepted by the Town as part of the street drainage system.

29. Escrow Account Prior to the final release of the performance guarantee for the satisfactory completion of ways and the installation of municipal services, the owner shall establish an escrow account with the Town Treasurer, in an amount set by the Planning Board and in a form approved by Town Counsel, to guarantee the maintenance of the detention basin. Said escrow account may be used to reimburse the Town for detention basin maintenance activities (grass moving, pipe cleaning, etc) should the owner fail to maintain the basin. The escrow account shall be retained for a period of one (1) year from the date of the final release of the performance guarantee or until such time the detention basin is accepted by the Town as part of the street drainage system, whichever is earlier.

5.24 MUNICIPAL ELECTRIC SYSTEM

5.24.1 General

- a. Underground electric distribution systems including all appurtenances (i.e. transformers, cable, conduits, handholes, manholes, transformer pads, riser poles, etc.) shall be installed and paid for by the applicant along all roadway segments and shall serve all subdivision lots.
- b. The location and layout of the electric distribution system shall conform to the Typical Roadway Section (see Plates 1-4) and to Norwood Municipal Light Department (NMLD) requirements.
- c. Construction of the underground electric distribution system including methods of construction and quality of materials shall conform to all requirements of the NMLD and the Massachusetts Electrical Code.
- d. Coordinate the work to allow required inspections by the NMLD.

5.24.2 Electric Conduits

- a. Underground electric conduits shall conform to the above requirements and shall be installed at the depth indicated in Typical Roadway Section (see Plates 1-4)) and to NMLD requirements.
- b. 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 and shall conform to NMLD requirements in all other areas.

5.24.3 Manholes and Handholes – Manhole and handhole locations shall conform to NMLD requirements and locations shall be determined by the NMLD.

5.24.4 Lot Service Connections - Underground electric service conduits 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.

5.25 STREET LIGHTING

5.25.1 General

- a. A Street lighting system installed and paid for by the applicant shall be provided along all roadway segments and shall serve all subdivision lots.
- b. The location and layout of the street lighting system shall conform to the Typical Roadway Section (see Plates 1-4) and to NMLD requirements in all other areas. Lighting design must meet the Illuminating Engineering Society of North America (IESNA) Standards and the design must be approved by NMLD.
- c. Construction of the street lighting system including methods of construction and quality of materials shall conform to all requirements of the NMLD.
- d. Coordinate the work to allow required inspections by the NMLD.

5.25.2 Street Lighting Conduits

- a. Underground conduits shall conform to the above and shall be installed at the depth indicated in Plates 1-4.
- b. 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.

5.25.3 Handholes

- a. Handhole locations shall conform to NMLD requirements.
- b. Handholes are required at all street light locations.
- c. Additional handholes shall be provided at intervals not to exceed 200 feet apart.

5.25.4 Pole and Luminaire Assemblies

- a. The luminaire shall be Model #K204 “Viscount” Style as manufactured by King Luminaire Company, or approved equal. The luminaire mounting bracket shall be Model #KA72-T-1-4 as manufactured by King Luminaire, or approved equal. Lamps shall be High Pressure Sodium type with wattage to be determined by the NMLD.
- b. Poles shall be fiberglass with an overall post height of 20 feet. Pole shall be Model #OA419-20-BK-2SPL as manufactured by W,J. Whatley Inc., or approved equal Base covers shall be Xtreme Base Covers as manufactured by W. J. Whatley Inc., or approved equal.

5.26 POLICE CALL AND FIRE ALARM SYSTEM

A complete police call and fire alarm system shall be provided in all subdivisions. The system shall include street alarm boxes with separate sections and circuits for Fire and Police calls (the police call section only shall be provided with a suitable lock); underground conduit in conformance with the locations indicated in Plates 1, 2, 3, and 4; wiring; handholes; and building alarm service connections (for commercial and industrial lots).

5.27 PRIVATE UTILITY SYSTEMS

All elements of private utility distribution systems shall be furnished, installed, and maintained by the respective private utility company.

Private utilities shall include telephone, gas, cable television and any similar services. All private utility distribution lines shall be installed underground; their location shall be in conformance with the locations indicated in Plates 1, 2, 3, and 4 or in such locations as may be directed by the Town Engineer. The applicant shall be solely responsible for coordinating the installation of private utility systems with the construction of subdivision improvements.

5.28 EASEMENTS

5.28.1 Slope Easements When street grades are such that sloped embankments or cuts are necessary adjacent to the streets and extend beyond the street right-of-way lines, a slope easement of sufficient width to accommodate the slope shall be provided.

5.28.2 Utility Easements Utility easements for the accommodation of sewers, drains, water, gas, electric, telephone or other utilities shall be provided where necessary and shall be at least twenty (20) feet wide unless, in the opinion of the Board, a different width is warranted. Utility easement shall be centered on lot lines, where practical.

Open Watercourse, Drainage Way, Channel or Stream The Board shall require that there be provided a water easement or drainage right-of-way of adequate width (minimum thirty (30) feet) to conform substantially to the lines of such watercourse, drainage way, channel or stream and to provided for maintenance or other necessary purposes.

5.28.3 Conservation Easements The Board will require that conservation and/or recreation easements be provided where necessary.

5.29 MONUMENTS

5.29.1 Granite Monuments Granite monuments shall be installed at all street intersections, at all points of change in directions, or curvature of streets, and at other points as shown in the Definitive Plan and where, in the opinion of the Board, permanent monuments are necessary.

5.29.2 Iron Pipe Markers Iron pipe markers, set in concrete, shall be installed at the intersection of all lot lines with street right-of-way lines and along all lot boundaries at corners and changes in course.

5.30 STREET ACCEPTANCE

Subsequent to paving and acceptance of the street by the Town as petitioned, using Form M, no excavations shall be made in the road surface for a period of five (5) years except in emergency cases. In such instances, written permission from the Board of Selectmen shall be required.

SECTION 6
CONSTRUCTION SPECIFICATIONS

6.1 General

Unless otherwise specified herein, the construction of all subdivision improvements shall conform in installation procedures, materials and workmanship to the requirements of the most current edition of the

Standard Specifications of the Massachusetts Department of Public works. Hereinafter, unless otherwise stated, references are to the aforesaid Standard Specifications. In case of conflict between the Standard Specifications and the Construction Specifications herein, the latter shall take precedence. Any reference to or repetition of particular sections of the Standard Specifications, does not limit the application of the complete Standard Specifications.

Wherever in the Standard Specifications the following terms (or pronouns in their place) are used, the intent and meaning shall be ascertained by substitution as follows;

- a. "Commonwealth" – Town of Norwood
- b. "Department" – Engineering Department of the Town of Norwood
- c. "Board" – Planning Board of the Town of Norwood or its authorized representative

6.2 Site Preparation and Earthwork

Site work, excavation and embankment shall conform to the requirements of Section 100 of the Standard Specifications, Section 6200 (Earth Removal) of the Norwood Zoning Bylaw, and to the requirements set forth herein. All necessary precautions shall be taken to protect persons and property from injury or annoyance at the site and during the transportation of equipment, materials and debris.

6.2.1 Clearing and Grubbing The entire area within the rights-of-way of streets and beneath structures shall be cleared and grubbed of all stumps, brush, roots, boulders and like materials. All rock or masonry with a maximum dimension over three (3) inches and within six (6) inches of the top of the subgrade shall be removed. Trees intended to be preserved shall be protected by suitable boxes, fenders, or wells. The trimming of branches overhanging rights-of-way shall be to the limits indicated by the Board. Stumps shall be disposed of in a manner approved by the Board.

No area shall remain cleared of vegetation and topsoil for a period in excess of ninety (90) day, unless a system for controlling sediment-laden runoff is provided which shall be acceptable to the Town Engineer.

6.2.2 Demolition Demolition shall conform to the requirements of Section 112 of the Standard Specifications. Disposal of debris shall be as approved by the Town Engineer.

- 6.2.3 Topsoil Removal All topsoil, defined as fertile, friable, natural material which has demonstrated vegetative growth, shall be removed from within street rights-of-way and from beneath structures, and shall be used elsewhere within the subdivision.
- 6.2.4 Limits of Excavation Excavation for streets and structures shall be to the subgrade or to the limits indicated on the details herein unless additional excavation is required for the removal of unsuitable material.
- 6.2.5 Earth Excavation Earth excavation shall include the removal of all material not classified as rock excavation to the subgrade of streets. The existing subgrade material shall be compacted to ninety-five (95) percent of maximum density for a depth of six (6) inches determined by ASTM Designation 1557 Method D.
- 6.2.6 Excavation for Structures Excavation for structures shall include the removal of all material not classified as rock excavation to the limits of excavation. The existing ground shall be compacted to one-hundred (100) percent of maximum density as determined in Section 6.2.5.
- 6.2.7 Excavation of Unsuitable Material All unsuitable material below the subgrade or limits of excavation, such as peat, organic silt, clay or any material considered detrimental by the Board shall be removed to the depth and width indicated by the Board and replaced with Gravel Borrow conforming to ML.03.0 of the Standard Specifications. The Gravel Borrow shall be placed and compacted as indicated in Section 6.2.10.
- 6.2.8 Rock Excavation Rock excavation shall be by approved pneumatic equipment. Rocks within the limits of excavation shall be shattered and proper care shall be taken to protect persons and property. In general, all rock within six (6) inches of pipes, structures, and subgrade shall be removed and replaced with Gravel Borrow, placed and compacted as specified in Section 6.2.7.

Any blasting or excavation by explosives on the site shall conform to the Massachusetts Board of Fire Prevention Regulations on Explosives 527.CMR 13. Required notice shall be made to the Norwood Fire Department.

- 6.2.9 Trenches The extent of open trench at any time shall be subject to the requirements of the Board. The width of the trench shall be kept as narrow as practicable and, within twelve (12) inches of the top of the pipe, shall not exceed the line of narrow trench limits.

Sheeting, if used, shall be cut off and removed within three (3) feet of the subgrade and the remainder left in place unless otherwise directed by the Board. If sheeting is directed to be removed, it shall be left in place within twelve (12) inches of the top of the pipe.

For installation of embankments, the embankment shall be completely constructed and compacted to the subgrade in accordance with Section

6.2.10. The trench shall then be excavated as in undisturbed material.

The excavation shall be kept continuously de-watered as necessary to render the bottom of the trench firm and dry. Proper care shall be taken not to disturb material below the bottom of the trench, excepting all unsuitable material which shall be excavated as indicated in Section 6.2.7. All necessary precautions shall be taken to protect existing utilities and structures.

As soon as possible after installed utilities have passed required pressure and leakage tests, the trench shall be backfilled with suitable material in layers not exceed twelve (12) inches in depth and compacted to ninety-five (95) percent as prescribed in Section 6.2.5. For pavement and infra-red treatment requirement, refer to Section 6.4.7.

6.2.10 Embankment Embankment shall be placed after all topsoil and unsuitable material have been removed. Embankment shall consist of suitable material removed during excavation within the subdivision or Gravel Borrow shall conform to M1.03.0 of the Standard Specifications and shall be well graded from coarse to fine and shall be well graded from coarse to fine and not more than two (2) percent shall pass the No 200 sieve. Type C shall be used within twelve (12) inches of the top of subgrade and Type A below. Gravel Borrow shall be placed in twelve (12) inch lifts and compacted to ninety-five (95) percent beneath streets and one-hundred (100) percent beneath structures as determined in Section 6.2.5.

6.2.11 Street Subgrade The subgrade shall be shaped to a true surface conforming to the lines and grades indicated on the approved Definitive Plan (cross section and profile) and where original ground, shall be compacted to ninety-five (95) percent, as defined in Section 6.2.5 to a depth of six (6) inches. A tolerance of ½ inch above or below finished subgrade will be permitted, provided this difference is not maintained over fifty (50) feet and the required crown (cross slope) is maintained. All drain, sewer, and water pipes and service connections, structures, and curbs shall be installed upon completion of the subgrade and completed prior to placing the gravel base. Fine grading and finishing of the subgrade following the above installation work shall be as approved by the Board.

6.2.12 Side Slopes The area beyond the right-of-way lines of streets shall be graded to a point where it coincides with the finished grade of abutting lots in such a manner that no portion thereof will project above a plane having a slope of four horizontal to one vertical. Under special circumstances the Board may allow the use of a steeper slope but in no case shall any portion of such a slope project above a plane having a slope of two horizontal and one vertical in earth or of one horizontal to four vertical in rock, the toe of the rock slope being set back at least two (2) feet from the back of the sidewalk.

Loaming and seeding shall conform to the requirements of Section 6.7.

6.3 Protection of Natural Features

6.3.1 Trees Tree pruning shall conform to the requirements of Section 6.7

6.3.2 Earthwork Earthwork shall conform to the requirements of Section 6.2.

6.4 Pavement

6.4.1 Gravel Base Course Gravel Base Course shall conform to the requirements of Section 405 of the Standard Specifications and to the requirements herein specified. Gravel shall be M1.03. Type B.

The Gravel Base Course shall be compacted to ninety-five (95) percent of maximum density for its entire depth on Local Streets. The top six (6) inches shall be compacted to one-hundred (100) percent of maximum density and the remainder to ninety-five (95) percent of maximum density on Collector and Arterial Streets as determined by ASTM Designation 1557 Method D.

6.4.2 Processed Gravel Base Course Processed Gravel Base Course shall conform to the requirements of Section 40C of the Standard Specifications and to the requirements herein specified: Processed Gravel shall be M1.03.01.

The Processed Gravel Base Course shall be compacted to one-hundred (100) percent of maximum density for its entire depth as determined by ASTM Designation 1557 Method D.

6.4.3 Prime Coat After the Gravel Base Course or Gravel and Processed Gravel Base Courses have been placed and compacted, they shall be swept free of dust and a uniform coating of M.C. asphaltic oil applied at a rate of 0.15 to 0.35 gallons per square yard.

Prime coat shall conform to the requirements of Section 460 of the Standard Specifications and to the requirements herein specified. M.C. asphaltic oil shall be M3.02.1.

6.4.4 Class I Bituminous Concrete Base Course Type I Class I Bituminous Concrete Base Course Type I shall conform to the requirements of Section 420 of the Standard Specifications and to the requirements herein specified. Class I Bituminous Concrete Base Course shall be M3.11.03 Base Course.

6.4.5 Class I Bituminous Concrete Binder Course Type I Class I Bituminous Concrete Binder Course Type I shall conform to the requirements of Section 460 of the Standard Specifications and to the requirements herein specified. Class I Bituminous Concrete Binder Course shall be M3.11.03 Binder Course.

6.4.6 Class I Bituminous Concrete Top Course Type I-1 Class I Bituminous

Concrete Top Course Type I-1 shall conform to the requirements of Section 460 of the Standard Specifications and to the requirements herein specified. Class I Bituminous Concrete Top Course shall be M3.11.03 Top Course.

6.4.7 Trench Patching and Permanent Infra-Red Method Repair

1. The hardened surface shall only be disturbed within the area requiring excavation for repair. All excavations are to be squared off or angular in appearance.
2. In the surfaced area, backfill shall be placed and compacted as outlined in Sections 6.2, 6.4.1, and 6.4.2 to the underside of the existing pavement or to within four (4) inches of the pavement surface, whichever is greater.
3. The excavation shall have a temporary patch placed immediately after backfilling.
4. The temporary repair shall be performed as follows:
 - a. The vertical sides of the pavement cut are to be thoroughly cleaned paying particular attention to the corners, and a suitable approved emulsified asphalt must be applied to the vertical sides prior to the pavement of any bituminous patching material. Refer to Table 4 for Emulsified Asphalt Specifications.
 - b. Only then shall Class I bituminous concrete be placed in two (2) inch layers wherever possible, and compacted sufficiently until level with the surrounding surface of the pavement.
 - c. Surface of butted joint will also be sealed with emulsion referred to previously.
5. The temporary pavement shall be reasonable smooth and the permittee shall be responsible for its maintenance during the settlement period.
6. After the settlement period, the permanent repair shall consist of infra-red treatment of the temporary pavement in the following manner:
 - a. Areas to be repaired shall be swept clean to remove all loose and foreign materials.
 - b. An approved infra-red heater shall be positioned over the area to be repaired for the period of time required for the heat to penetrate and soften the existing pavement to a depth of two or more inches without oxidation.
 - c. The softened surface shall be scarified to the area required

to restore the pavement to space its original condition and/or grade. All repairs are to be squared off or angular in appearance.

- d. Any necessary additional bituminous concrete mix must be obtained from a suitable infra-red heated storage unit capable of keeping asphalt at near constant temperature throughout the working day. Under no circumstances shall any asphalt mix to be used which registers a temperature of under two-hundred (200) degrees F.
- e. After the paving mixture has been properly mixed and raked to grade, compaction shall be obtained by use of a steel wheeled roller of sufficient weight to establish a uniform density comparable to that of the adjacent surface within the work area. Compacted area shall be level with no depression (s) retaining water on any of the surface.
- f. Edges of the scarified area shall be sealed with a suitable asphalt emulsion.
- g. At the discretion of the Director of Public Works a cationic maltenes emulsion works shall then be applied to the finished area (s). Refer to table 3 for cationic maltenes emulsion specifications.

6.5 Curbing

Curbing shall be six (6) inch by seventeen (17) to nineteen (19) inch granite curb Type VA4 in conformance with the requirements of Section 500 of the Standard Specifications and with the requirements set forth herein. Curbing having a radius of less than fifty (50) feet shall be cut to a true radius. Depressed and sloped curbs shall be full depth and width. The standard curb reveal shall be seven (7) inches, except as noted.

Granite curb inlets shall conform to M9.04.5 except that they shall be seven (7) inches wide at the top and at least seven (7) inches wide at the bottom.

Foundations for all curb inlets shall consist of a full bet of Portland Cement Mortar on the back wall of the catch basin, and an approved foundation on each side to support the overhang. Joints between curbstones and curb inlet stones shall be carefully filled with cement mortar and shall be neatly pointed on top and exposed front portions.

6.6 Sidewalks

6.6.1 Cement Concrete Sidewalks Cement concrete, reinforcing steel, pre-formed joint filler, joint sealer, and curing shall be in conformance with the requirements of Section 701 of the Standard Specifications and with the requirements herein specified. Cement concrete shall be M4.02 Class D. The cement concrete sidewalk shall have six (6) inch by six (6) inch 10-gage steel wire fabric reinforcing placed at the mid-point of slab. Contraction joints shall be completely sealed with Polyurethane Joint Sealer M9.14.3.

Expansion joints of ½ inch shall be placed at a maximum distance of thirty (30) feet on center extending across the entire sidewalk, between the curb and sidewalk where they abut, at driveways, and at all fixed objects abutting or contained within the sidewalk. Expansion joint filler shall be M9.14.0.

6.6.2 Bituminous Concrete Sidewalks Bituminous concrete sidewalks shall conform to the requirements of Section 701 of the Standard Specifications and to the requirements specified herein. Bituminous concrete sidewalks shall be Class I Bituminous Concrete Top Course M3.11-03 and shall be placed in one layer.

6.6.3 Gravel Base Gravel Base shall be eight (8) inches thick M1.03.0 Gravel Borrow Type b in conformance with the requirements of Section 701 of the Standard Specifications.

6.7 Landscape

6.7.1 Loam Loam shall conform to the requirements of Section 751 of the Standard Specifications.

6.7.2 Seeding Soil conditioning and seeding shall conform to the requirements of Section 765 of the Standard Specifications and the requirements set forth herein. Grass seed M6.03.0 shall be used on all slopes of four to one (horizontal to vertical) or flatter.

6.7.3 Trees The planting of trees, shrubs, and ground cover shall conform to the requirements of Section 771 of the Standard Specifications and to the requirements set forth herein.

a. Street Trees Street trees shall have a minimum caliper of two (2) inches measured four (4) feet above ground level.

b. Pruning Pruning shall be done by an experienced nursery man using accepted tree surgery procedures approved by the Board. Pruning shall include general shape, removal of dead or diseased material and undesirable growth, and removal of v-notch branches, water sprouts and base or root suckers. All cuts over one (1) inch in diameter shall be treated with two (2) coats of an approved tree paint.

6.8 Bridges

Bridges shall conform to the requirements of Section 900 of the Standard Specifications.

6.9 Retaining Walls

Retaining walls shall conform to the requirements of Sections 685 and 900 of the Standard Specifications.

6.10 Signs

Signs, reflectors and signposts shall conform in materials, installation and workmanship to the requirements of Section 800 of the Standard Specifications.

6.11 Guard Rails

Guard rails shall be of Galvanized Steel Beam Highway Guard Rail Type SS conforming to the requirements of Section 600 of the Standard Specifications and shall be as indicated in the Massachusetts Department of Public Works Construction Standards.

6.12 Pavement Markings

White and yellow pavement markings shall be Thermoplastic ReflectORIZED Pavement Markings in conformance with the requirements of Section 860 of the Standard Specifications and to the requirements set forth herein. White lines shall be M7.01.03 and yellow lines shall be M7.01.04.

6.13 Fencing

Fencing, when used, shall be of a safe and secure type and consisting of maintenance materials. Where security or pedestrian protection is required, the top rail of the fence shall be capable of supporting a two-hundred (200) pound load applied in any direction. Details of proposed fences shall be submitted to the Board for approval.

6.14 Bicycle Pathways

Surfacing for bicycle pathways shall be as approved by the Board.

6.15 Pedestrian Pathways

The surface of pedestrian pathways shall be of a type approved by the Board.

6.16 Parking Facilities

Pavement for parking facilities shall be as approved by the Board.

6.17 Water Distribution System

6.17.1 General The water distribution system shall conform to the requirements of Section 300 of the Standard Specification and to the requirements specified herein.

6.17.2 **Pipe** Pipe and fittings for water mains shall conform to the requirements of the American National Standards Institute (ANSI) including all amendments and revisions in effect at the time of application for subdivision. Pipe shall be bituminous coated, cement lined Class 150 (the working pressure under five feet of cover with soil condition B) gray cast-iron or Class 52 ductile iron pipe.

- a. Cast-iron pipe shall be designed in accordance with ANSI-A21.1- and shall be manufactured in accordance with ANSI-A21.6- and ANSI-A21.8.
- b. Ductile iron pipe shall be designed in accordance with ANSI-A21.50- and shall be manufactured in accordance with ANSI-A21.51.
- c. Fittings and couplings shall conform to ANSI-A21.10- and supplement and shall be of a pressure classification at least equal to the pipe with which they are used.
- d. Joints shall be push-on joints except that mechanical joints may be used at gate valves and mechanical joints shall be used at hydrants.

Joints shall conform to ANSI-A21.11. The plain and of push-on pipe shall be machine smoothed and chamfered to fit. Gaskets shall be of a composition suitable for exposure to all substances within and exterior to the pipe.

- e. The inside of the pipe shall be given a cement lining and bituminous seal coat in accordance with ANSI-A21.4.
- f. The outside of pipe shall be given a bituminous coating in conformance with the appropriate ANSI specification for the pipe used.

6.17.3 **Hydrants** Fire hydrants shall conform to AWWA Standard Specifications for Fire Hydrants for Ordinary Water Works Service (C502-64). Hydrants suitable for the depth of bury shall be of the anti-freeze type. Hydrants shall have a five and one-quarter (5 1/4 “) inch valve and shall be opened by turning the operating unit in a counterclockwise direction with the direction of opening cast on the head of the hydrant. Hydrants shall have one four and one-half (4.5”) inch pumper and two and one-half (2.5”) inch hose connections. Hose and pumper connections shall have National Standard Thread. Operating nuts shall be pentagonal in shape, one and one-half (1.1”) inches from point to opposite flat.

The pipe connection shall be of six (6) inch size and shall be of the typical tied mechanical joint type.

Hydrants shall be installed so that the pumper nozzle shall be at least eighteen (18) inches above the finished grade.

6.17.4 Gate Valves Gate valves shall be iron-body, bronze-mounted solid-wedge gate valves, with bell or mechanical joint ends. Valves shall be designed for working water pressure of 175 psi and shall conform to AWWA Standard Specification for Gate Valves, three (3) inch through forty-eight (48) inch for water and other liquids, Designation C500. They be double disk type.

Buried valves shall be inside-screw, non-rising stem, having bell or mechanical-joint ends and two (2) inch square operating nuts.

Bronze gate-rings shall be fitted into grooves of dovetail or similar shape in the gates. For grooves of other shapes, the rings shall be firmly attached to the dates with bronze rivets

Operating nuts shall be turned to the left (counter clockwise) to close all valves.

O-ring stuffing boxes shall be used.

The T-handle wrenches shall be furnished with each gate valve which shall permit operation from a standing position.

All valve boxes shall be adjusted to the final grade.

6.17.5 Thrust Blocks Concrete for thrust blocks shall be Class B concrete in conformance with Section M4.12.00 of the Standard Specifications.

6.17.6 Water Service Connections Water service connections shall be tapped to water mains using bronze corporation cocks with steep taper threads and lapped ground keys. Corporation cocks shall be installed on the horizontal axis of the water main.

Copper tubing shall conform to ANSI-23.1 for Type K, soft annealed tube.

6.18 Sanitary Sewer System

6.18.1 General The sanitary sewer system shall conform to the requirements specified herein.

6.18.2 Pipe Polyvinyl chloride (PVC) pip and fittings shall be type PSM, PVC, SDR, with full diameter dimensions conforming to ASTM-D3.034, or Type P-46 PVC conforming to ASTM F789.

Pipe eight (8) inches in diameter and larger shall be furnished in thirteen (13) foot lengths, except that sufficient fully machined short lengths shall be provided for use at connections and appurtenances.

If cutting is necessary, it shall be by means of a hand saw, metal-inserted abrasive wheels, or by pipe cutters with blades, not rollers, doing the cutting. All cut ends shall be examined for possible cracks.

The pipe shall be properly handled at all times. All parts of the pipe shall be supported when it is lifted. Dirt and debris shall be prevented from entering the pipe.

6.18.3 Joints Joints shall be made with suitable couplings and gaskets. The couplings shall be of the same quality as the pipe with which they are to be used and shall provide tight joints when subjected to the same hydrostatic test designated for the pipe.

Before any joint is made, the previously installed unit shall be checked to assure that a close joint with the adjoining unit has been maintained and that the inverts are matched and conform to the required grade. The pipe shall not be driven down to the required grade by striking it with a shovel handle, or other unyielding object.

All joint surfaces shall be cleaned. Immediately before jointing the pipe, the machined end shall be lubricated in accordance with the manufacturer's recommendation. Each pipe unit shall then be carefully pushed into place without damage to pipe or gasket. Suitable devices shall be used to force the pipe units together so that they will fit with a minimum open recess inside and outside and have tightly sealed joints. Care shall be taken not to use such force as to split or otherwise damage the coupling or machined ends. Joints shall not be pulled or cramped.

Immediately after the pipe joint is completed, the position of the gasket in the joint shall be inspected using an approved feeler gauge to be sure it is properly put together and is tight. Joints in which the gasket is damaged or not properly positioned shall be pulled apart and remade using a new gasket.

Where any two pipe units do not fit each other closely enough to enable them to be properly jointed, they shall be removed and replaced with suitable units and gaskets.

Details of gasket installation and joint assembly shall follow the directions of the manufacturers of the joint material and of the pipe, all subject to approval of the Board. The resulting joints shall be watertight and flexible.

Open ends of pipe and branches shall be closed with plugs or stoppers secured in place in a satisfactory manner.

6.18.4 Manholes Manholes shall be designed to withstand loads of eight tons (H2O loading) and shall prevent leakage in excess of one gallon per twenty-four (24) hours per vertical foot of manhole for life of the structure. Cement concrete shall be M4.02.0 Class D. Reinforcing steel shall be

billet steel bars or welded steel wire fabric in conformance with Section 901.61 of the Standard Specifications.

Castings shall be at least Class 30 conforming to the ASTM Standard Specification for Gray Iron Castings, Designation A48; they shall be given two coats of coal-tar-pitch varnish. Covers shall have the word "SEWER" cast in three inch high raised letters and shall be carefully machined to prevent rocking. Manholes with elevations below the 100-year flood contour line shall have sealed covers to prevent the entrance of flood waters.

Brick shall conform to the ASTM Standard Specification for sewer brick (made from clay or shale), Designation C32, for Grade SS, hard brick.

The mortar shall be composed of Portland cement, hydrated lime and sand, in the proportions of one part cement to one-half part lime to four and one-half parts sand, (by volume). The proportion of cement to lime may vary from 1:1/4 for hard brick to 1:3/4 for soft brick, but in no case shall the volume of sand exceed three times the sum of the volume of cement and lime.

Cement shall be TYPE II Portland cement conforming to ASTM C-150, Standard Specifications for Portland cement.

Hydrated lime shall be Type S conforming to the ASTM Standard Specification for Hydrated Lime for Masonry Purposes, Designation C207.

Sand shall consist of invert natural sand conforming to the ASTM Standard Specifications for Concrete (fine) Aggregates, Designation C33 as follows:

Grading:

<u>Sieve</u>	<u>Percent Passed</u>
3/8	100
4	95-100
8	80-100
16	50-85
50	10-30
100	2-10
Fineness Modulus	2.3 – 3.1

Barrels and cone sections shall be pre-cast or cast-in place reinforced Concrete.

Base sections shall be monolithic to a point six inches above the crown of the incoming pipe, and shall be pre-cast or cast-in-place reinforced concrete.

Pipe to manhole joints shall be either an approved non-shrinking mortar or an approved alternate pipe joint.

All pre-cast sections and bases shall conform to the ASTM Specifications for reinforced concrete manhole sections, ASTM C478 and shall have the date of manufacture and the name or trademark of the manufacturer impressed or indelibly marked on the inside wall.

6.18.5 Building Service Connections Pipe for service connections shall be polyvinyl chloride (PVC) conforming to the requirements of Section 6.18.2 except that the pipe shall be furnished in five (5) foot lengths.

6.19 Storm Drain System

6.19.1 General The storm drain system shall conform to the requirements of Section 200 of the Standard Specifications and to the requirements specified herein.

6.19.2 Pipe Each unit of pipe shall have an interior surface which is free from roughness, projections, indentations, offsets, or irregularities of any kind. The pipe units shall conform to ASTM Standard Specifications for Reinforced Concrete Culvert, Storm Drain, and Sewer pipe, Designation C76 with the following exceptions and additions:

- a. Pipe shall be manufactured by one of the following processes:
 1. Centrifugally cast.
 2. Roller suspension.
 3. Vibro-roller-centrifutaion (Cen-vi-ro)
 4. Packerhead, with a supplementary concrete densification operation that shall assure the attainment of full bond between reinforcement. Additional passes with the revolving packerhead or the use of additional vibrators attached to the platform or exterior forms will not be acceptable.
 5. Tamped, with a supplementary concrete densification operation as required for packerhead process pipe.

Pipe 54-inch in diameter and larger may be vertically cast, wither by vibration-under-pressure vibrocast processes. During the latter mentioned process, concrete shall be compacted by high speed form vibrators operating at a frequency of a least 7,500 vibrations per minute.

- b. Type II cement shall be used. Admixtures shall not be used.
- c. Aggregates shall conform to the requirements set forth hereinafter.

- d. Elliptical reinforcement shall not be permitted. Longitudinal reinforcement shall be continuous. Reinforcement shall have a minimum cover of $\frac{3}{4}$ inches.
- e. Absorption shall be as specified under “Inspection, Tests, and Acceptance”.
- f. Pipe units shall have a minimum laying length of eight (8) feet, except as otherwise indicated or approved by the Board.
- g. Pipe units shall be cured by subjecting them to thoroughly saturated steam at a temperature between 100 and 130 degrees for a period of not less than twelve (12) hours or when necessary, for such additional time as may be needed to enable the pipe units to meet the strength requirements.
- h. Pipe units shall not be shipped until they have aged for at least 450 day-degrees which includes the steam curing period. Day-degrees is the total number of days times the average daily air temperature at the surface of the pipe units. (Example: Five days at a daily average temperature of 60 degrees F. equals 300 day-degrees). Whenever the average daily temperature is below sixty (60) degrees F., the Contractor shall submit to the Board records of average daily temperatures and number of days the pipe units have been cured.
- i. Mortar used for repairs shall have a minimum compressive strength of 4,000 psi at the end of seven (7) days and 5,000 psi at the end of twenty-eight (28) days, when tested in three (3) inch by six (6) inch cylinders stored in the standard manner. Only those repairs permitted by the above-mentioned ASTM C76 will be allowed.
- j. The date of manufacture, class of pipe unit, size of the pipe unit, consecutive number of pipe unit, and trademark of the manufacturer, shall be clearly and permanently marked on the inside and the outside, at one end of each pipe unit.
- k. Certified copies of tests on materials and the pipe units will be required.

6.19.3 Joints pipe joints shall be of the rubber gasket type in which the gaskets are in compression and which will permit both longitudinal and angular movement. Each unit of pipe shall be provided with proper ends made of concrete formed true to size and formed on machined rings to ensure accurate joint surfaces. Joints and gaskets for pipe thirty-six (36) inches or less in diameter shall be the O-ring gasket type and shall conform to the requirements of ASTM Standard Specifications for Reinforced Concrete Low-Head Pressure Pipe, Designation C361 and the additional requirements specified. Joints and gaskets for pipe larger than thirty-six (36) inches in diameter shall be O-ring or ribbed gasket type and shall conform to the requirements of ASTM Standard Specifications for Joints for Circular Concrete Sewer and Culvert Pipe, using Rubber Gaskets, Designation C443 and the additional requirements specified.

Joints shall be of such design that when tested under an average internal hydrostatic pressure of 10 psi., no visible leakage will result. The diameters of the joint surfaces which compress the gasket shall not vary from the true diameters by more than 1/16 inch or the amount permitted by the appropriate above-mentioned ASTM Standard Specifications, whichever is less.

Gaskets shall be of a composition and texture which is resistant to common ingredients of storm and groundwater, and which will endure permanently under the conditions likely to be imposed by this service. Gaskets shall be the product of a manufacturer having at least five (5) years experience in the manufacture of rubber gaskets for pipe joints.

All joint surfaces shall be cleaned. Immediately before jointing the pipe, the bell or groove shall be lubricated in accordance with the manufacturer's recommendation. Each pipe unit shall then be carefully pushed into place without damage to pipe or gasket. Suitable devices shall be used to force the pipe units together so that they will fit with a minimum open recess inside and outside and have tightly sealed joints. Care shall be taken not to use such force as to wedge apart and split the bell or groove ends. Joints shall not be pulled or cramped without approval of the Board.

Immediately after the pipe joint is completed, the position of the gasket in the joint shall be inspected using an approved feeler gage to be sure it is properly put together and is tight. Joints in which the gasket is damaged or not properly positioned shall be pulled apart and remade using a new gasket.

6.19.4 Manholes Manholes shall be designed to withstand loads of eight tons (H₂O loading). Manholes shall conform to the requirements of Section 6.18.4 and to the requirements specified herein. Leakage in excess of one gallon per twenty-four (24) hours per vertical foot of manhole will be permitted.

Barrels and cone sections shall be pre-cast or cast-in-place reinforced concrete or cement concrete blocks. Cement concrete shall be M4.05.1. Base sections shall be monolithic pre-cast or cast-in-place reinforced concrete.

6.19.5 Catchbasins Catchbasins shall conform to the requirements of Section 6.19.4.

6.19.6 Headwalls Headwalls shall conform to the requirements of Sections 685 and 900 of the Standard Specifications.

6.19.7 Culverts Culverts shall conform to the requirements of Section 230 of the Standard Specifications. All culverts shall have headwalls.

6.19.8 Subdrains Subdrains shall conform to the requirements of Section 260 of the Standard Specifications.

6.19.9 Detention Basins

1. **Pipe and Structures** All pipes and structures shall be as specified in Section 6.

2. Earthen Berm Basin shall be assumed full for design purposes.(see Plate 25)

Six inches of loam shall be applied to the top slopes as well as all areas disturbed during construction. All areas shall be seeded after loaming and shall be maintained, re-loamed and seeded if necessary until final acceptance by the Town. Grass shall be specifically selected for use in areas subject to frequent flooding.

3. Bottom The bottom of the basin shall be provided with six (6) inches of loam on a minimum of twelve (12) inches of well graded gravel. Type and depth of gravel shall be designed to support the weight of a 12 ½ ton dump truck, backhoe or other equipment to be used for cleaning and maintenance purposes.

4. Rip-Rap Rip-rap shall be sufficient size to ensure that movement of stones will not occur during the maximum flow rates expected up to and including the 100-year event. Rip-rap shall be extended to a minimum of ten (10) pipe diameters, unless design calculations indicate a shorter length is acceptable. Rip-rap is to prevent scouring of soil during peak flows.

5. Underdrains Underdrains shall conform to the requirements of Section 260 of the Standard Specifications except as amended by these specifications.

Underdrains shall be slot-perforated corrugated plastic pipe installed in crushed stone, wrapped in filter fabric to prevent fines from plugging underdrains.

6. Downstream Channels Channels downstream of the outlet structure must be designed and constructed to protect downstream properly from erosion.

6.20 Municipal Electric System

The municipal electric system shall conform to the requirements of the Municipal Light Department of the Town of Norwood.

The backfilling of trenches shall conform to Section 6.2. Pavement replacement shall be to full depth, in kind, in conformance with Section 6.4.

Portions of the system below the 100-year flood contour elevation shall be sealed to prevent damage from flood waters

6.20.1 Street Lighting The street lighting system shall conform to the requirements of the Municipal Light Department of the Town of Norwood.

The backfilling of trenches shall conform to Section 6.2.9. Pavement replacement shall be to full depth, in kind, in conformance with Section 6.4.

Portions of the system below the 100-year flood contour elevation shall be sealed to prevent damage from flood waters.

6.20.2 Police Call and Fire Alarm System The police call system shall conform to the requirements of the Norwood Police Department. The fire alarm system shall conform to the requirements of the National Fire Protection Association Standard 72 and to the requirements of the Norwood Fire Department.

The backfilling of trenches shall conform to Section 6.2.9. Pavement replacement shall be to full depth, in kind, in conformance with Section 6.4. Portions of the system below the 100-year flood contour elevation shall be sealed to prevent damage from flood waters.

6.20.3 Private Utility System The backfilling of trenches shall conform to Section 6.2.9. Pavement replacement shall be to full depth, in kind, in conformance with Section 6.4.

6.20.4 Monuments No permanent monument shall be installed until all construction which would disturb the monument is completed.

- a. **Granite Monuments** Granite monuments shall be three (3) 3/8 in drill hole in the center, and not less than six (6) inches square at the bottom. They shall be set flush to finished grade in paved areas and shall be set two (2) inches below the finished grade in grass areas.
- b. **Iron Pipe Markers** Iron pipe markers shall be at least three (3) feet in length and one (1) inch in diameter and shall be set in at least one (1) cubic foot of Class B Concrete. They shall project at least one (1) inch above finished grade.

SECTION 7

CONSTRUCTION PROCEDURES

7.1 **General**

The construction of all subdivision improvements shall be performed in strict conformance with the requirements and procedures set forth herein.

7.2 **Progress Schedule**

Prior to beginning the construction of subdivision improvements, a detailed progress schedule shall be submitted to the Board showing the dates of beginning and completion of each item of construction. The progress schedule shall be revised and re-submitted monthly.

7.3 **Layout**

The applicant shall employ, at his own expense, a Massachusetts Registered Professional Engineer or Registered Land Surveyor to set all lines and grades during the construction of subdivision improvements in a manner acceptable to the Town Engineer.

7.4 **Inspection**

7.4.1 **General** The applicant shall make all necessary arrangements to insure that the Board's agents can at any time inspect all materials and workmanship at the site and at the location of their manufacture.

7.4.2 **Agents of the Board** The Board may designate the Town Engineer of the Town of Norwood as its agent to act in its behalf to oversee the construction of subdivision improvements. In addition, the Board may, from time to time, designate the Board of Health or other Departments of the Town of Norwood to act on its behalf to oversee construction of a specific improvement. When acting in such a capacity, the Town Engineer, Board of Health, or other Town Department, or their designated representative shall speak for and with the authority of the Board.

7.4.3 **Scheduling** At the points hereinafter indicated, the construction of required streets and other improvements shall be inspected by the Board's agent.

- a. The installation of underground utilities and services shall be inspected by the Board's agent.
- b. The installation of underground utilities and services shall be inspected by the Board's agent before the backfilling of trenches.

- c. The roadway shall be inspected prior to each required construction step by the Board's agent upon completion of the subgrade, base course, binder, and surface course.
- d. The sidewalk shall be inspected prior to each required construction step.
- e. Following the completion of all subdivision improvements, the subdivision shall be inspected by the Board or its agent.

Unless the approval of the work completed, including approval of materials used, to each point has been given in writing, no further work shall be done until such work is subsequently completed to the satisfaction of the Town Engineer or the appropriate Town department.

7.4.4 Requests for Inspection Inspections shall be requested by the Applicant at least forty-eight (48) hours in advance by notice to the Town Engineer using Form J.

7.4.5 Fees for Inspections and other Services (NEW)

“Under the authority of c.40 Section 22F of the General Laws, the Board shall establish and may from time to time amend the schedule of fees for services provided.

7.5 Samples and Tests

Prior to installation, samples of all materials to be used for subdivision improvements shall be submitted to the Town Engineer for approval. Each sample shall be clearly labeled to show the name of the subdivision, the name of the product, and the name and address of its manufacturer. The applicant shall pay all costs involved in furnishing and testing samples.

7.6 Safety

All necessary precautions shall be taken to protect persons and public and private property from injury or damage. The construction of subdivision improvements shall be done in conformance with Federal, State and Town laws and regulations. A responsible person shall be on the site at all times during construction who shall have the authority to take immediate action to correct unsafe conditions.

7.7 Coordination

The applicant shall be personally responsible for fitting and coordinating the installation of all Subdivision improvements and all work within and adjacent to the subdivision.

7.8 Water Supply

The applicant shall be responsible for making all arrangements with the Town Public Works Department to obtain temporary water service connections. Each connection shall be metered and shall have a maximum pipe diameter of one (1) inch. The number of temporary connections shall be minimized.

7.9 Sanitary Facilities

The applicant shall furnish and maintain proper, enclosed sanitary facilities and sources of pure drinking water in conformance with the requirements of the Board of Health.

7.10 Permits and Codes

The construction of subdivision improvements shall be done in strict conformance with all applicable Federal, State and Town laws, ordinances and codes. The applicant shall, at his own expense, obtain all required permits from the Town.

7.11 Cleaning Up

During construction of subdivision improvements, the work area shall be kept continuously cleaned up and streets and ways kept clear of parked vehicles and other obstructions, with final cleanup completed within thirty (30) days following the completion of construction. All damage to public and private property shall be repaired expeditiously. All manholes, sewers, drains, catch basins, and water courses shall be properly cleaned of debris and sediment. The entire area within the subdivision shall be left neat and orderly, free from debris, equipment, temporary buildings, surplus materials and any other objectionable clutter.

7.12 Record Plans

The applicant shall employ, at his own expense, a Massachusetts Registered Professional Engineer, regularly engaged in his own private practice for a least five (5) years, who shall have in his employ qualified field survey parties. Said Engineer shall establish all lines and grades necessary for the construction of subdivision improvement in strict accord with the approved Definitive Plan, and shall take accurate measurements of all completed work and neatly record this information in hard bound field books which shall be signed, dated, sealed, and turned over to the Town Engineer.

The applicant's Registered Professional Engineer shall prepare and turn over to the Town Engineer a set of reproducible record plans within six (6) months following the final approval of the improvements as hereinafter provided. The record plans shall be individually signed, sealed, dated and certified as to accuracy and completeness.

The record plans shall be drawn with black India ink on mylar or similar quality material. Submittal of the original plans revised to show actual record conditions will be acceptable.

The record plans shall accurately show the location, grades, inverts, elevations and other significant information regarding municipal utilities, roads, private utility systems and other subdivision improvements. A grade table shall be provided which shall give as-built elevations of all cross-section elements at intervals not to exceed fifty (50) feet.

7.13 Guarantee

The applicant shall, at his own expense, promptly remedy any defects in any subdivision improvement and pay for any damage to persons or property resulting therefrom which shall occur within 365 days following final approval of the improvements as hereinafter provided. The Board will give notice of defects in subdivision improvements with reasonable promptness.

SECTION 8

REQUIRED IMPROVEMENTS FOR AN APPROVED SUBDIVISION

- 8.1** All streets (including pavement, curbing, sidewalks, planting strips, tree pits, street trees, sidewalk ramps, side slopes, driveway entrances, bridges, guard rail, pavement marking, signalization, and signing) underground municipal utilities, (including the water distribution, sanitary sewer, storm drain, municipal electric, street light, fire and police call systems) street light poles and standards, landscaping, retaining walls, fencing, pathways, easements, monuments and markers are required to be installed by the applicant in an approved subdivision.

SECTION 9

ADMINISTRATION

9.1 Waiver of Compliance

The Board may in any particular case where such action is in the public interest and not inconsistent with the intent and purpose of the Subdivision Control Law, waive strict compliance with these Rules and Regulations and with the frontage or access requirements specified in said law, and may, where the ways are not otherwise deemed adequate, approve a Definitive Plan on conditions limiting the lots upon which building may be erected and the number of buildings that may be erected on particular lots and the length of time for which particular buildings may be maintained without further consent by the Board to the access provided. The Board shall endorse such conditions on the plan to which they relate, or set them forth in a separate instrument attached thereto to which reference is made on such plan and which shall, for the purpose of the Subdivision Control Law, be deemed to be a part of the plan.

9.2 Board of Appeals

The Board of Appeals for these Rules and Regulations as provided for by Section 81-Z of the Subdivision Control law, shall be the same Board of Appeals provided for the Town of Norwood for administering its zoning bylaw.

9.3 Amendments

These Rules and Regulations may be amended from time to time in accordance with Section 81Q of the Subdivision Control Law.

9.4 Validity

The invalidity of any of the foregoing rules, regulations, and requirements shall not affect the validity of the remainder.

9.5 Interpretation

Whenever these Rules and Regulations made under the authority hereof differ from those prescribed by any local bylaw or other local regulations, the provision which imposes the greater restriction or the higher standard shall govern.

9.6 Enforcement by Denial of Building Permit

Any Board or officer of the Town of Norwood, having the power and duty to issue permits for the erection of buildings, shall not issue any permit for the erection of a building until first satisfied that the lot on which the building is to be erected is not within the subdivision, or that a way furnishing the access to such lot as required by the Subdivision Control Law, is shown on a plan recorded or entitled to be recorded under these Rules and Regulations, and that any condition endorsed thereon limiting the right to erect or maintain buildings on such lot have been satisfied. In the event that more than one building for dwelling purposes is proposed to be erected or placed or converted to use as such on any lot, that such consent has been obtained from the Planning Board.

SECTION 10

EFFECTIVE DATE AND REPEALER

10.1 Effective Date

These Rules and Regulations were effected on and after the date a separate copy, certified by the Town Clerk as adopted by the Planning Board, was transmitted by the Planning Board to both the Register of Deeds, Norfolk County and the Recorder of the Norfolk Registry District of the Land Court.

10.2 Repealer

Any previous Rules and Regulations Governing the Subdivision of Land in the Town of Norwood as adopted by the Norwood Planning Board, including those adopted on October 7, 1957, including all amendments thereto, are repealed in whole.

APPENDIX A
REQUIREMENTS FOR
ENVIRONMENTAL IMPACT STATEMENT

In accordance with Section 4.3.2.1, the applicant shall submit and Environmental Impact Statement. The statement shall discuss the following:

Natural Environment

1. Air

- a. Describe possible sources and duration of significant amounts of odors, smoke and dust.
- b. Describe pre-caution to be taken to eliminate or minimize the adverse environmental effects of the smoke, dust or odors generated.
- c. Describe the relationship of the location of the subdivision and prevailing wind patterns to nearby residences, businesses, recreation areas, and other public areas.
- d. If incineration of refuse is proposed for the subdivision, describe the effects resultant emission will have on air quality in the area. Include proof that the incinerator complies with the latest local and state standards.

2. Land

- a. Describe the existing general physical conditions of the site, including existing use, general topography, unusual geologic formations and soils, and how the project will effect these features.
- b. Describe any limitations on proposed project caused by subsurface soils and water conditions, and methods to be used to overcome them.
- c. Describe procedures and findings of percolation tests conducted on the site.
- d. Describe the types and amounts of land which will be permanently affected by construction of the subdivision.

- e. Describe proposed rough grading plans.
- f. Describe location and extent of existing swamps, wetlands, or seasonal wet areas and any proposed alterations.

3. Water and Wetlands

- a. Evaluate how and to what extent the project will affect the quality and quantity of any existing or potential public or private water supply, including watersheds, reservoirs, and groundwater.
- b. Describe the methods to be used during construction to control erosion, sedimentation and siltation including use of sediment basins and type of mulching, matting or temporary vegetation; approximate size and location of land to be cleared at any given time and length of time to exposure; covering of soil stockpiles; and other control methods use. Evaluate effectiveness of proposed methods on the site and on the surrounding areas.
- c. Describe the permanent methods to be used to control erosion and sedimentation. Include description of
 - 1. any areas subject to flooding or ponding;
 - 2. proposed surface drainage system;
 - 3. proposed land grading and permanent vegetation cover;
 - 4. methods to be used to protect existing vegetation;
 - 5. the relationship of the development to the topography;
 - 6. any proposed alterations of shorelines, marshes or seasonal wet areas;
 - 7. any existing or proposed flood control or wetland easements;
 - 8. estimated increase of peak run off caused by altered surface conditions, and methods to be used to return water to the soils.
- d. Discuss probability that project will increase pollution or turbidity levels within receiving waterway and the precautions to be taken to minimize the effects.
- e. Discuss the project's effect on the waterway's aquatic biota and use as habitats.
- f. Discuss the project's effects on groundwater quality and supply, and efforts to recharge groundwater supplies.

- g. Discuss what effect the project will have on increasing the incidents of flooding, including areas outside the subdivision.
- h. Discuss the effect of the proposed sewage disposal methods on surface and groundwater supplies and quality.

4. Energy

- a. Describe the types and increased quantity of energy required to serve the needs of the project residents.
- b. Indicate what the sources of this energy will be.

5. Noise

- a. Describe the time, duration and types of noises generated by the project, both during and after construction.
- b. Discuss what effect these noises will have on both humans and wildlife.
- c. Describe the control which will be used to eliminate or minimize the effects of these noises.

6. Local Flora and Fauna

- a. Discuss the project's effect on land-based ecosystems, such as the indigenous wildlife, stream bank cover and vegetal or wooden growth.
- b. Describe proposed types and amounts of vegetal cover.
- c. Discuss the existence of rare or endangered plant, wildlife or fish species in the project area.

Man-made Environment

1. Land Use

- a. Describe how the proposed project conforms with the growth plans for the area and the Town in general.
- b. Describe land used adjacent to the project.
- c. Describe any existing or proposed public or common recreational or open areas with the subdivision.
- d. Discuss the site's proximity to transportation, shopping, educational facilities, recreational facilities, etc.

2. Density

- a. Provide a tabulation of proposed building by type, size, (number of bedrooms, floor area) ground coverage, and a summary showing the percentage of the tract to be occupied by buildings, parking and other paved vehicular areas, and usable open space.

3. Zoning

- a. Indicate the zoning designations for the site and the adjacent areas.

4. Architecture

- a. Describe the architectural and landscaping techniques which will be used to blend the structures with the surrounding area.
- b. Discuss the heights of the structures in relation to the surrounding area.
- c. Discuss the project's visual impact and possible interference with natural views.
- d. Describe type of construction, building materials used, location of common areas, location and type of service facilities (laundry, trash, garbage disposal).

5. Historic Buildings, Historical Sites and Archeological Sites

- a. Indicate location and significance of any historic buildings or sites on or adjacent to the project.

Public Facilities

1. Water Supply, Flow, Pressure, and Distribution

- a. Describe the groundwater and/or surface water supply to be used.
- b. Discuss the demands of the project for consumption and fire protection.

2. Sanitary Sewerage Connection, Distribution and Facilities

- a. Discuss the quantity and type of sewerage which will be generated by the project.
- b. Describe the method of sewerage treatment, if any, proposed for the project.

3. Storm Drain Facilities

- a. Describe where connection to the Town system is proposed.

4. Disposition of Stormwater

- a. Indicate the location of all proposed out falls.
- b. Describe the effect of the out falls and their discharge on the Receiving waters, i.e., increased flows, pollution, etc.
- c. Discuss the quantity of stormwater to be discharged.

5. Refuse Disposal

- a. Estimate the quantity and types of refuse that will be generated by the subdivision.
- b. Describe the proposed methods of refuse disposal.

6. Traffic Facilities

- a. Discuss future vehicular circulation patterns including number and types of vehicles.
- b. Describe the proposed bicycle and pedestrian circulation pattern.
- c. Discuss the location and number of parking spaces provided.

7. Electric Power

- a. Discuss the power demand of the subdivision.
- b. Discuss the source of the electric power and the method of supplying the area.

8. Gas

- a. Discuss the demands of the subdivision.
- b. Describe what the gas will be used for in the area.
- c. Describe the source of gas supply and the proposed method of supplying the area.

Community Services

1. Schools

- a. Discuss the effect of the subdivision on existing schools, including number and ages of children generated by the subdivision.
- b. Describe the location of the nearest existing schools.

2. Recreation

- a. Describe existing and proposed recreational facilities, including active and passive types; and age groups participating, and state whether recreational facilities and open space are available to all Norwood Residents.
- b. Indicate location and type of existing and proposed pedestrian, bicycle and bridle pathways and support facilities.

3. Police

- a. Estimate the total population or employment projected for the subdivision.
- b. Estimate the total number of automobiles for the area.

4. Fire

- a. Discuss the total number of buildings to be constructed, their types and construction.
- b. Describe the source and quantity of water available for fire protection for the area.

5. Public Works

- a. Calculate the total linear feet of roadway to be publicly maintained and plowed.
- b. Calculate the linear feet of street drains, culverts, sanitary sewers, and municipal electric system to be maintained.

Human Considerations

1. Aesthetics and Visual Support

- a. Discuss the change in the present character of the area due to the project, i.e. land use, density of development, etc.
- b. Discuss the measures to be take to minimize the adverse effects of the project, i. e., architecture, buffers, etc.

2. Parks, Forests and Recreational Areas

- a. Discuss how the siting and construction of the project will affect existing and potential park and recreation areas, open spaces, natural areas, and scenic values.
- b. Discuss how the project will affect public recreational opportunities in the area due to the addition or removal of parks, forests or open areas.

3. Public Health

- a. Discuss the project's effects on residents' public health due to changes in water quality, air quality, noise levels, etc.

APPENDIX B
SUBDIVISION PROCEDURE

Plan Thought Not to Require Approval

<u>Task</u>	<u>Time Period</u>
1. Applicant submits plan to Planning Board including: <ul style="list-style-type: none">a. Reproducible of planb. Four (4) contact printsc. One (1) copy of application (Form A)d. Non-refundable fee	
2. Applicant submits to Town Clerk: <ul style="list-style-type: none">a. Notice of date of submissionb. Copy of applicationc. Description of land	
3. If submittal to Town Clerk is delivered, Town Clerk shall be given written receipt.	
4. Planning Board action: <ul style="list-style-type: none">a. If Board determines plan does not require approval, it shall:<ul style="list-style-type: none">1. Endorse this determination on the plan “Approval Under Subdivision Control Law Not Required”.2. Return the plan to the applicant3. Notify Town Clerk of actionb. If Board determines plan requires approval, it shall:<ul style="list-style-type: none">1. Give written notice of determination to Town Clerk and Applicant2. Return plan to Applicant	<p>Within twenty-one (21) days of formal submission</p> <p>Within twenty-one (21) days of submission</p>

Task

Time Period

c. If Board fails to act upon plan or fails to notify Town Clerk or Applicant of action, it shall be deemed to have determined Planning Board approval not required and shall:

Within twenty-one (21) days of submission

1. Endorse this determination on plan
2. Town Clerk shall issue certificate certifying approval not required if Board fails to take action
3. Plan bearing endorsement and/or certificate shall be returned to the Applicant.

Forthwith
After twenty-one (21) day of submission

Preliminary Plan

<u>Task</u>	<u>Time Period</u>
1. Applicant submits sketch plan and assessment of possible environmental impacts to Planning Board for informal discussion.	
2. Applicant files preliminary plan with Planning Board:	
a. Preliminary plan on tracing paper	By delivery at regularly scheduled business meeting of Board or by registered or certified mail in care of Town Clerk
b. Form B	
c. Copy of notice to Town Clerk and receipt therefrom (if requested)	
d. Sketch plan of any contiguous un-subdivided land owned or controlled by owner or applicant.	
e. Non-refundable fee as specified in the fee schedule.	
3. Applicant submits preliminary plan to Board of Health for discussion.	
4. Applicant gives written notice of submission of preliminary plan to Town Clerk using Form B	
a. Town Clerk shall give written receipt.	
5. Discuss Plan	
a. Develop complete information required by Definitive Plan, Section 4.3 and Financial Arrangements, Section 4.9.1	
6. Planning Board Action	
a. Approval	
1. With or without modification	
2. Does not constitute approve of subdivision	

Task

Time Period

- | | |
|---|---|
| b. Disapproval | |
| 1. Provide detailed statement of reasons for such action, | |
| c. Notice of Planning Board's action to Applicant and Town Clerk, returning plan to Applicant | Within forty-five (45) days from date of submission |
| d. Failure to act, constitutes approval of Preliminary Plan | After forty-five (45) days from date of submission |

Definitive Plan

Task

Time Period

- | | |
|---|---|
| Applicant files Definitive Plan with Board: | By delivery at regularly scheduled business meeting of Board or by registered or certified mail in care of Town Clerk |
| a. Form B | |
| b. Original Definitive Plan | |
| c. Another mylar or linen reproducible plan | |
| d. Six contact prints | |
| e. Sketch plan or any contiguous un-subdivided land owned or controlled by owner or applicant | |
| f. Copy of Notice to Town Clerk and receipts from Board of Health and Town Clerk | |
| g. Non-refundable fee as specified in the Planning Board fee schedule | |
| h. List of Abutters with addresses, Form c | |
| i. Board of Assessors Certificate | |
| j. If Applicant is a corporation, evidence from Clerk of corporation certifying authorization of individual to act for corporation | |
| k. Evidence Definitive Plan conforms to approved Preliminary Plan or includes required modifications. Reference by owner, title and date to Preliminary Plan submitted if applicable. | |
| l. Form D, Departmental Review | |
| m. Environmental Impact Statement | |

<u>Task</u>	<u>Time Period</u>
<ul style="list-style-type: none"> b. After report of Board of Health 	<p>When subdivision will be serviced by municipal sewerage system, Board may take action after lapse of forty-five (45) days without such a report</p>
<ul style="list-style-type: none"> c. Board may approve, modify and approve or disapprove plan <ul style="list-style-type: none"> 1. Certified copies of vote filed with Town Clerk and sent to Applicant, Form E. 	
<ul style="list-style-type: none"> d. If Board modified or disapproves Plan; <ul style="list-style-type: none"> 1. Shall state with its vote detailed reasons for actions 2. If Plan is disapproved, shall state in detail wherein Plan does conform to Rules and Regulations or Recommendations of Board of Health 3. Disapproval of Plan shall be revoked and Plan approved when amended to conform to Rules and Regulations or Board of Health Recommendations 	
<ul style="list-style-type: none"> e. If required by the Board of Health Report, approval may be conditional with no buildings or structures to be built upon designated areas. 	
<ul style="list-style-type: none"> f. Failure of Board to act or file with Town Clerk, Certificate of Action shall be deemed approval. <ul style="list-style-type: none"> 1. If extension of time granted, Board must file notice with Town Clerk 	<p>Within ninety (90) days* after submission unless further time agreed upon at written request of Applicant</p> <p>Forthwith</p>
<ul style="list-style-type: none"> g. If final approval is granted, Board shall so endorse reproducible plan: 	<p>Not before applicant agrees to completed required construction</p>

1. Construction to be secured by surety (Form F), bonds (Form G), or covenant (Form H)
 2. Specification of time within which such construction and improvements shall be completed if required by the Board.
- of improvements nor until statutory 20-day appeal period elapsed following filing of Certificate of Action with Town Clerk and Town Clerk has notified Board that no appeal has been filed or, if appeal is filed, not until entry of final court decree sustaining approval of Plan.

*Within ninety (90) days after submission if a Preliminary Plan has been filed on the land, otherwise within one-hundred and thirty-five (135) days after submission unless further time agreed upon at the written request of the applicant.

APPENDIX C

CHECKLISTS

CHECKLIST FOR REVIEW OF
PRELIMINARY/DEFINITIVE PLAN

Norwood, MA _____
Date

The accompanying Preliminary/Definitive Plan (circle one) was submitted on _____, for the following property located in the Town of Norwood:

1. Name of Applicant _____
Address _____
2. Name of Owner of Record _____
Address _____
3. Name of Registered Architect, Registered Landscape Architect

4. Name of Registered Professional Engineer

5. Name of Registered land Surveyor

Address _____

Location and Description of Property:

The following materials are required for review of the Preliminary/Definitive (circle one) Subdivision Plan under the Town of Norwood Rules and Regulations.

	<u>Preliminary Plan</u>		<u>Definitive Plan</u>	
	Not Needed or <u>Complete</u>	Missing or Not <u>in Order</u>	Not Needed or <u>Complete</u>	Missing or Not <u>in Order</u>
1. Completed and Signed Application (Form B)	_____	_____	_____	_____
2. General Requirements				
a. Copy of written notice of submission and receipt from Town Clerk	_____	_____	_____	_____
b. Original Drawing of Definitive Plan	<u>*</u>	_____	_____	_____
c. Another mylar or linen reproduction of Definitive Plan	<u>*</u>	_____	_____	_____
d. Six contact prints, dark line on white background	_____	_____	_____	_____
e. Contact print, dark line on white background, filed with Board of Health				
1. one print	_____	_____	<u>*</u>	_____
2. two prints	<u>*</u>	_____	_____	_____
f. Copy of receipt from Board of Health	_____	_____	_____	_____
g. Sketch plan showing street layout for any contiguous un-subdivided land owned or controlled by owner or applicant	_____	_____	_____	_____
h. Fees, payable to Town of Norwood as specified in fee schedule				
1. Initial fee as specified in fee schedule	_____	_____	_____	_____
2. Additional fee per lot or dwelling unit in subdivision, whichever is greater in fee schedule			<u>*</u>	_____

* Not Required

APPENDIX D

FORMS

Fee Schedule

Form A – Approval Not Required Under Subdivision Control Law

Form B – Approval Required Under Subdivision Control Law

Form C – Request for Abutters List

Form D – Departmental Review of Subdivision Plan

Form E – Certificate of Planning Board Action

Form F – Agreement for Security by Bank Passbook

Form G – Performance Bond – Surety Company

Form H – Covenant – Conditional Approval Contract

Form I – Approval for Release of Bonds, Surety or Conditions

Form J – Deleted

Form K – Notice of Release of Bonds or Surety

Form L – Release of Covenant

Form M – Petition for Insertion of Application for Acceptance in
Warrant for Annual Town Meeting

Form N – Request to Access Utilities

NORWOOD PLANNING BOARD

REGULATIONS GOVERNING FEES AND FEE SCHEDULES

SECTION 1. INTRODUCTION.

1.1 Procedural History. On January 25, 2010 and March 8, 2010, the Norwood Planning Board held a public hearing, pursuant to G.L. c. 41, s. 81Q and G.L. c. 40A, s. 9, to consider proposed regulations governing fees. At the close of the public hearing, the Planning Board voted to adopt regulations governing fees and a new schedule of fees for review conducted by the Planning Board and its consultants on the various types of applications which come before it. This document, subject to revision from time to time in a manner spelled out herein, constitutes the Planning Board's rules governing the imposition of fees and its current fee schedules.

1.2 Purpose. These regulations and fee schedules have been adopted to produce a more equitable schedule of fees which more accurately reflects the costs of technical and legal review of applications to the Planning Board; to take advantage of the procedures offered by G.L. c. 44, s. 53G; to establish a review procedure in the selection of consultants; and to promote more informed decision-making by the Planning Board.

SECTION 2. FEE STRUCTURES AND REGULATIONS.

2.1 General. The Planning Board shall impose reasonable fees for the review of applications which come before it. The Planning Board may impose Administrative Fees and Project Review Fees as may be applicable to the types of applications set forth below.

2.2 Form of Payment. All Administrative and Project Review Fees shall be paid by bank or certified check.

SECTION 3. ADMINISTRATIVE FEES.

3.1 Applicability. An Administrative Fee shall be assessed to offset the expense of review by the Planning Board and its office with regard to all applications set forth in Section 3.3, below.

3.2 Submittal. Administrative Fees shall be submitted at the time of the submittal of the application. Any application filed without this fee shall be deemed incomplete and no review work shall commence until the fee has been paid in full.

3.3 Schedule of Administrative Fees. The following schedule applies to the types of applications to the Planning Board set forth below. This schedule supersedes all previous schedules as they may have appeared in the Zoning By-Laws, the Rules and Regulations for the Subdivision of Land, and any listings which may have been compiled from time to time for the benefit of applicants.

A.) Approval Not Required (ANR) Plans - \$100.00.

B.) Preliminary Plans - \$250.00 and \$100.00 per lot.

C.) Definitive Plans - \$750.00 and \$250.00 per lot; \$1500.00 and \$500 per lot if no preliminary plan was submitted.

D.) Modification of a Definitive Plan - \$375.00 plus \$125.00 for each lot affected and for each new building lot created.

E.) Major Project Special Permit - \$1000.00 and \$5.00 per parking space. Modification or extension of a major project special permit shall require a fee of \$300.00.

G.) Other Special Permits - \$300.00. Modification or extension of other special permits shall require a fee of \$100.00.

H.) Site Plan Review - \$300 except for signs which shall require a fee of \$25.

I.) Repetitive Petition - \$200 (Consideration of a petition for a rehearing from the Zoning Board of Appeals).

J.) Waiver of Frontage Plan - \$200

K.) Subdivision Inspection Fee - \$4 per linear foot of roadway

L.) Postage fee - Two times the current postage rate times the number of abutters

3.4 Fees for Revised Applications. Where an Administrative Fee has been calculated by the number of lots or units proposed, and the application is revised after payment of said fee, the following rules shall apply:

A.) If the number of proposed lots or units increases, the applicant shall pay a fee equivalent to the difference between the fee originally paid and the fee that would have been paid had the original submission included these additional lots or units. No review of these additional lots or units shall take place until this additional fee is paid to the Planning Board office, and failure to make this payment after requesting additional lots shall be grounds for denial of the application.

B.) If the number of proposed lots or units decreases, a refund of that portion of the application fee predicated on those lots or units shall be granted only if, in the judgment of the planning Board, no cost associated with the review of those lots or units has been yet incurred.

3.5. Fee Waivers. The Planning Board may waive or reduce any Administrative Fee, if, in the opinion of the Board, unusual circumstances exist regarding the subject property or the applicant.

3.6 Refund. Once the review process has been commenced, the Planning Board shall not refund Administrative Fees, including the case of withdrawal of the application by the applicant, except as provided in Section 3.4.B, above.

SECTION 4. PROJECT REVIEW FEES.

4.1 Applicability. In addition to an Administrative Fee, the Planning Board may impose a Project Review Fee on those applications which require, in the judgment of the Planning Board, review by outside consultants due to the size, scale or complexity of a proposed project, the project's potential impacts, or because the Town lacks the necessary expertise to perform the review work related to the permit or approval. In hiring outside consultants, the Board may engage engineers, planners, lawyers, designers, or other appropriate professionals able to assist the Board and to ensure compliance with all relevant laws, ordinances, by-laws and regulations. Such assistance may include, but shall not be limited to, analyzing an application, monitoring or inspecting a project or site for compliance with the Board's decisions or regulations, or inspecting a project during construction or implementation.

4.2 Submittal. Project Review Fees shall be submitted at the time of the submittal of the application for deposit in an account established pursuant to G.L. c. 44, s. 53G (53G Account). Any application filed without this fee shall be deemed incomplete and no review work shall commence until the fee has been paid in full.

4.3 Handling of Project Review Fees. The Project Review Fee is to be deposited into a special account as set forth in G.L. c. 44, s. 53G.

A.) Outside consultants retained by the Planning Board to assist in the review of an application shall be paid from this account.

B.) Project Review Fees shall be turned over to the Town Treasurer by the Planning Board for deposit into a 53G Account.

C.) A copy of the latest statement from the banking institution handling the 53G Account shall be forwarded from the office of the Town Treasurer to the Planning Board office as soon as it is received for timely and accurate accounting.

D.) The Town Accountant shall prepare a report on activity in the 53G Account on an annual basis.

1. This report shall be submitted to the Selectmen for their review.

2. This report shall be printed in the Annual Report for the Town.

E.) An accounting of an applicant's funds held in the 53G Account may be requested by the applicant at any time.

1. The Planning Board shall respond to the request in a timely fashion.
2. This accounting shall include the following information:
 - a. The latest statement from the banking institution handling the account, which should include an accurate accumulated interest portion to the closing date of the statement if such statements are subdivided into individual applicants' accounts. Otherwise, a statement of principal and interest, prepared by the Planning Board office, based on the latest statement from the banking institution.
 - b. A report of all checks authorized for issuance since that last banking statement.

F.) An applicant may request an estimate of bills pending from consultants for work completed, or in progress, but not yet invoiced.

G.) Excess fees in the 53G Account, including accumulated interest, shall be returned to the applicant or the applicant's successor in interest, at the conclusion of the review process, as defined below. For the purpose of this section, any person or entity claiming to be an applicant's successor in interest shall provide the Board with documentation establishing such succession in interest.

1. With the approval or disapproval of a Preliminary Subdivision Plan.
2. With the disapproval of a Definitive Subdivision Plan.
3. With the release of the performance bond at the end of construction of an approved Definitive Subdivision Plan.
4. With the final inspection or the approval or disapproval on all other types of applications under the Zoning By-Law, whichever comes later.

4.4. Appeal. The choice of a consultant selected by the Planning Board for the review of an application may be appealed in writing to the Board of Selectman by the applicant, providing such appeal is initiated within two weeks of the initial selection.

A.) The Selectmen shall convene a formal hearing within twenty days of receiving a written appeal by an applicant.

B.) Two circumstances may disqualify the selected consultant. These conditions constitute the only grounds for an appeal.

1. Conflict of interest: A consultant shall not have a financial interest in the project under review, or be in a position to financially benefit in some way from the outcome of the pending review process. Consultants must be in compliance with the Massachusetts Conflict of Interest Law, G.L. c. 268A.

2. Lack of appropriate qualifications: A consultant shall possess the minimum required qualifications. The minimum qualifications shall consist of either an educational degree in, or related to, the field at issue or three or more years of practice in the field at issue or a related field.

C.) The required time limits for action upon an application by the Planning Board shall be extended by duration of the appeal.

D.) If no decision is rendered by the Board of Selectmen within one month following the filing of the appeal, the selection made by the Planning Board shall stand.

E.) This appeal shall not preclude further judicial review, if otherwise permitted by law, on the grounds provided for in this section.

SECTION 5. REVISION OF FEE SCHEDULES AND REGULATIONS GOVERNING FEES.

5.1 Amendment. The Planning Board may review and revise its regulations and fee schedules, from time to time, as it sees fit.

- A.) Amendments shall be preceded by a public hearing.
 - B.) Any new regulations or alterations to the fee schedule shall take affect upon filing a copy of the amendments with the Town Clerk.
 - C.)The Planning Board will review its regulations and fee schedule on an annual basis.
1. The Board may waive this provision in any year with a motion carried by a majority of

NORWOOD SUBDIVISION CONTROL LAW

FORM A APPLICATION

APPROVAL NOT REQUIRED UNDER SUBDIVISION CONTROL LAW

File one completed form with the Planning Board together with a reproducible and two contact prints of the plan, and a non-refundable fee as specified in the fee schedule, payable to the Town of Norwood, and one copy of the completed for with the Town Clerk in accordance with the requirements of Section 3.1.

Norwood, MA _____
Date

TO: Norwood Planning Board
Town of Norwood, MA

The undersigned, believing that the accompanying plan of his property in the Town of Norwood, Massachusetts does not constitute a subdivision within the meaning of the Subdivision Control Law, herewith submits said plan for the determination and endorsement that Planning board approval under the Subdivision Control Law is not required.

1. Name of Applicant: _____

Address _____

Telephone Number _____

2. Name of Engineer or Surveyor _____

Address _____

Telephone Number _____

3. The Deed of the property is dated _____ and is recorded in the Norfolk Registry District, Book _____, Page _____.

4. Location and Description of the Property

Signature of Owner _____

Address _____

Telephone Number _____

Date of Submission _____

Town Clerk _____

Signature

NORWOOD SUBDIVISION CONTROL LAW

FORM B APPLICATION

APPROVAL REQUIRED UNDER SUBDIVISION CONTROL LAW

Preliminary Plan () Definitive Plan () Modification Plan ()

File one completed form together with six contact prints of the plan, a sketch plan and a non-refundable fee as specified in the fee schedule, payable to the Town of Norwood, with the Planning Board and a copy of the completed form with the Town Clerk in accordance with the requirements in Section 4.2. When it is a Preliminary Plan submittal, one contact print of the plan shall be submitted to the Board of Health. For the Definitive Plan submittal, the reproducible original of the plan shall also be submitted to the Planning Board plus two contact prints to the Board of Health. (see Section 4.3.1)

Norwood, MA _____
Date

TO: Norwood Planning Board
 Town of Norwood, MA

The undersigned hereby applies for Preliminary/Definitive/Modification Plan approval and herewith submits six (6) copies of the accompanying plan of property located in the Town of Norwood, Massachusetts for approval as a subdivision as allowed under the Subdivision Control Law and the Rules and Regulations of the Planning Board Governing the Subdivision of Land in the Town of Norwood, Massachusetts. The applicant certifies to the truth of the following facts as part of his application.

1. Name of Applicant _____
 Address _____
2. Name of Registered Land Surveyor _____
 Address _____
3. Name of Registered Professional Engineer _____
 Address _____
4. Deed to Property is dated _____ and is recorded in Norfolk Registry,
 Book _____ Page _____.
5. The general location and description of the property is:
6. Attach hereto a copy of the deed,
7. The complete title of the subdivision plan with date is as follows: _____

8. The exact names in which title to the property is held and the present addresses of persons named are: (Indicate whether persons are married or single. If married, give spouse's name) _____

9. A complete list of persons with their addresses known to have mortgages, attachments, encumbrances, or liens of any kind upon the property is as follows:

10. If the property is in the name of a trust, the complete and correct name of the trust, date of the trust declaration, book, and page where it is recorded and names and addresses of all trustees are as follows: _____

11. If the property is in the name of a corporation, the complete and correct name of the corporation, the names and corporate capacity of all officers authorized to sign deeds and other instruments pertaining to real estate are as follows:

12. The date when the Preliminary/Definitive/Modification Plan referred to herein was submitted to Norwood Board of Health is as follows: _____

13. The date when applicant gave written notice to the Norwood Town Clerk of said plan submission to Board of Health and to Planning Board is as follows: _____

14. A copy of said notice referred to in No. 12 is attached hereto.

15. It is the intent of the owners of the proposed subdivision for which definitive approval is requested to exclude a right to fee in all access roads shown on said plan and in all drainage ways and/or other easements crossing the land in the conveyance of any and all lots in the subdivision.

16. The full names of all abutters on the subdivision are shown on the subdivision plan submitted herewith, as they appear upon the most recent tax assessors list.

Signature of Applicant _____

Address _____

Telephone Number _____

Date of Submission _____

Town Clerk Signature _____

NOTE: With submission of Definitive Plan, complete Form C and attach

FORM C

REQUEST FOR ABUTTERS LIST

I hereby request a certified list of abutters as required by the following Board of Commission. (Please check the appropriate permit request to facilitate the creation of the appropriate certified abutters list)

_____ Special Permit and/or Variance from the Board of Appeals
(for certification – see page 2)

_____ Special Permit from the Planning Board (for certification – see page 2)

_____ Subdivision Plan Approval from the Planning Board
(for certification – see page 2)

_____ Notice of Intent from the Conservation Commission

.....
Applicant Name _____ Owner Name _____

Address _____ Address _____

Telephone #: _____ Telephone #: _____

Fax #: _____ Fax #: _____

.....
Property Address: _____

Property Location: Assessor's Map(s) _____ Sheet(s) _____ Parcel (s) _____

I agree that a fee of \$3.00 per abutter will be required to be paid upon the completion of the certified abutters list and prior to the opening of the public hearing.

Applicant's Signature

Date

ASSESSOR’S CERTIFICATION OF ABUTTERS AND
“PARTIES IN INTEREST”



[] **Assessor’s Certification on Applications to the PLANNING BOARD OR ZONING BOARD OF APPEALS for s Special Permits and Variances**

This is to certify that the time of the last assessment for taxation made by the Town of Norwood, the names and addresses of those listed on the attached sheet are “parties in interest” (as defined by Massachusetts General Law Chapter 40A, Section 11) to the parcel(s) of land listed in the special permit and/or variance application,

Assessor’s Signature: _____ **Date:** _____



[] **Assessor’s Certification on Applications to the PLANNING BOARD for Subdivision Approval.**

This is to certify that at the time of the last assessment for taxation made by the Town of Norwood, the names and addresses of those listed on the attached sheet are owners of land abutting upon the land described in the application for subdivision, or are separated by only a street from said land.

Assessor’s Signature: _____ **Date:** _____

NORWOOD SUBDIVISION CONTROL LAW

FORM D

DEPARTMENTAL REVIEW OF SUBDIVISION PLAN

Norwood, MA _____
Date

TO: Board of Health
Board of Selectmen
Fire Department
Police Department
Treasurer/Collector

Town Engineer
Public Works Department
Conservation Commission
Municipal Light Department

FROM: _____

SUBJECT: _____
(description of plan, date, etc.)

1. The subject named plan herewith attached has been submitted to the Planning Board for approval as a subdivision.

For the guidance of the Planning Board, will you please not any appropriate comment or approval on the blank below and/or on the plan itself and return to the Planning Board as soon as possible.

2. Under the requirements of Section 81-U of Chapter 41 of the General Laws, the Board of Health must notify the Planning Board if the Board of Health is in doubt as to whether any of the land in the subdivision can be used as building sites without injury to the public health. If a municipal sewer system will service the site, the Board of Health must report to the Planning Board within forty-five (45) days after this notice.

TO: Norwood Planning Board
566 Washington Street
Norwood, MA 02062

DATE: _____

SUBJECT: _____
(description of plan, date, etc.)

1. The undersigned approves/disapproves (circle one) of the subject named subdivision plan insofar as its requirements are affected.
2. The following comments are offered for the guidance of the Planning Board:
3. Bond requirement \$_____.

DEPARTMENT _____

SIGNED _____

NORWOOD SUBDIVISION CONTROL LAW
FORM E
CERTIFICATE OF PLANNING BOARD ACTION

Norwood, MA _____
Date

TO: Town Clerk
566 Washington Street
Norwood, MA 02062

The Planning Board on _____, by _____ vote:
Date

Endorsed: "Planning Board approval under Subdivision Control Law not
Required"

Disapproved:

Approved: With bonds or surety with conditions (circle one for action on
Definitive Plan

Modified and Approved: With bonds or surety with conditions (circle one for
action on a Definitive Plan)

with the following qualifications and modifications:

The Applicant or his/its executors, administrators, devisees, heirs, successors and assigns shall fully and satisfactorily observe and perform in the manner and in the time therein specified, all of the covenants, conditions, agreements, terms and provisions contained in the application for approval of Definitive Plan (Form B).

The following Preliminary or Definitive subdivision plan:

Name or Description _____

New Street Names _____

Submitted By _____

Address _____

Date _____

Pending termination of the statutory twenty (20) day appeal period for action on a Definitive Plan.

(Attest) _____ (Signed) _____
(Clerk, Planning Board) (Chairman, Planning Board)

Encl: To Town Clerk and Applicant only, notice of the Planning Board vote on the Preliminary Plan, if disapproved or modified. Certified copy of Planning Board vote on the Definitive Plan if disapproved or modified.

The following reasons justify the Planning Board's actions as noted above:

_____)

_____)

_____)

_____)

_____)

Majority of
the
Planning Board
of the
Town of
Norwood

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and seal this

_____ day of _____.

CC: File Police Department
Applicant Town Engineer
Board of Assessors Conservation Commission
Board of Health Public Works Department
Board of Selectmen Municipal Light Department
Fire Department

FORM F

**AGREEMENT FOR SECURITY
BY BANK PASSBOOK**

AGREEMENT entered into this _____ day of _____, among and between the Town/City of _____ and _____, (hereinafter referred to as “the Developer”) and _____, (hereinafter referred to as “the Bank”) to secure the construction of ways and the installation of municipal services in the subdivision of land entitled “_____”, developed by _____ and recorded in the _____ County registry of Deeds in Plan Book _____, Plan _____.

KNOW ALL MEN by these presents that the Developer hereby binds and obligates itself, its administrators, executors, devisees, heirs, successors and assigns to the City/Town of _____, a Massachusetts municipal corporation, acting through its Planning Board, in the sum of _____ (\$_____) and has secured this obligation by a deposit with the City/Town Treasurer of the above sum of money, plus any and all interest which shall accrue to this account, represented by Bank Passbook Account No. _____, issued in the name of the _____ Planning Board, said sum to be used to insure the Developer’s obligation to complete the construction of the subdivision roadway(s) and the installation of municipal services in accordance with:

1. Applicant for Approval of Definitive Plan dated _____;
2. The Approved Definitive Subdivision Plan entitled “_____”, recorded in the _____ County Registry of Deeds in Plan Book _____, Plan _____, as qualified by the Planning Board’s Certificate of Approval, dated _____;
3. The Certificate of Approval issued by the Planning Board dated _____.
4. The Subdivision Control Law and City/Town Planning Board’s Rules and Regulations governing this subdivision dated, _____; and
5. Other document(s) specifying construction or installation to be completed, namely; _____.

Upon completion by the Developer of all obligations specified herein on or before _____ or such later date as may be specified by vote of the Planning Board with the written concurrence of the Developer and the Bank, the Passbook shall be assigned to the Developer by the Planning Board and this Agreement shall become void. In the event that the Developer should fail to complete said obligations within the time herein specified, the funds on account represented by the Passbook, including accrued interest, may be applied, in whole or in part, by the Planning Board for the benefit of the City/Town of completing the construction of roadways and installation of municipal services specified in this Agreement. Any unused funds and the bank passbook shall be returned to the Developer upon completion of the work by the City/Town.

The City/Town of _____, acting by and through its Planning Board hereby agrees to accept the aforesaid passbook account as security for the performance specified in this Agreement; and

The Bank, hereby agrees not to release any funds whatsoever from the account represented by the aforesaid passbook no. _____ or to otherwise amend or make any change to the aforesaid passbook without written agreement by the Planning Board.

Any amendment to this Agreement and/or to the aforesaid passbook account shall be agreed upon in writing by all parties to this Agreement.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____

(Developer)

(Bank)

By: _____
(Principal)

By: _____
(Authorized representative)

(City/Town Planning Board)

By: _____

Being a Majority of the Planning Board

COMMONWEALTH OF MASSACHUSETTS

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared _____

proved to me through satisfactory evidence of identification, which were _____

_____, to be the person(s) whose name(s) is/are signed on the preceding or attached

document, and acknowledged to me that he/she/they signed it voluntarily for the stated purpose.

_____ (official signature and seal of notary)

NORWOOD SUBDIVISION CONTROL LAW

FORM G

PERFORMANCE BOND – SURETY COMPANY

Norwood, MA _____
Date

KNOW ALL MEN BY THESE PRESENTS

That _____
_____, as Principal, and _____

_____ a corporation duly organized and existing under the laws of the State of Massachusetts and having a usual place of business in _____, as Surety, hereby bind and obligate themselves and their respective heirs, executors, administrators, successors, and assigns, jointly and severally, to the Town of Norwood, a Massachusetts municipal corporation in the sum of _____ Dollars.

The conditions of this obligation is that if the Principal shall fully and satisfactorily observe and perform in the manner and in the time therein specified , all the covenants, agreements, terms and provisions contained in the following:

1. Application for Approval of Definitive Plan (Form B) signed by the Principal and dated _____.
2. The Rules and Regulations Governing the Subdivision of Land in Norwood, adopted by the Planning Board.
3. The Definitive Plan as defined by the above Rules and Regulations and as qualified by the Certificate of Approval issued by the Planning Board, dated _____.

Then this obligation shall be void; otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____.

By: _____
Principal

By: _____
Surety

1 Copy Each : Applicant
Surety Company
Planning Board
Town Treasurer
Town Clerk

NORWOOD SUBDIVISION CONTROL LAW
FORM H

1 of 2

COVENANT
CONDITIONAL APPROVAL CONTRACT

Norwood, MA _____

Date

KNOWN ALL MEN BY THESE PRESENTS

That whereas the under signed has submitted application dated _____, to the Norwood Planning Board for approval of a Definitive Plan of a certain subdivision entitled _____ and dated _____ and has requested the Board to approve such plan, without requiring a Performance Bond.

NOW, THEREFORE, THIS AGREEMENT WITNESSETH that in consideration of the Norwood Planning Board approving said plan without requiring a performance bond, and in consideration of one dollar in hand paid, receipt whereof is hereby acknowledged, the undersigned covenants and agrees with the Town of Norwood as follows:

1. The undersigned will not sell any lot in the subdivision or erect or place any permanent building on any such lot until the work on the ground necessary to serve adequately such lot has been completed in the manner specified in the aforesaid application, and in accordance with the covenants, conditions, agreements, terms and provisions contained in the following:
 - a. Application for Approval of Definitive Plan (Form B) signed by the Principal and dated _____.
 - b. The Rules and Regulations Governing the Subdivision of Land in Norwood adopted by the Planning Board.
 - c. The Definitive Plan as defined by the above Rules and Regulations and as qualified by the Certificate of Approval issued by the Planning Board dated _____.
2. This agreement shall be binding upon the executors, administrators, devisees, heirs, successors, and assigns of the undersigned.

It is the intention of the undersigned and it is hereby understood and agreed that this Contract shall constitute a covenant running with the land included in the aforesaid subdivision and operate as restriction upon said land.

It is understood and agreed that lots within the subdivision shall, respectfully, be released from the foregoing conditions upon the recording of a Certificate of Performance executed by a majority of said Planning Board and enumerating the specific lots to be so released.

3. The undersigned represents and covenants that the undersigned is the owner* in fee simple of all land included in the aforesaid subdivision and that there are not mortgages of record or otherwise on any of said land, except such as described below and subordinated to this Contract, and the present holders of said mortgages have assented to this Contract prior to its execution by the undersigned.

4. In accordance with Section 3.4 of the Rules and Regulations Governing the Subdivision of Land In Norwood, the construction of _____ and the installation of all required municipal services shall be completed by _____. Failure to do so shall automatically rescind approval subject to Section 81-W of the Subdivision Control Law for performance secured by bond or deposit of money or negotiable securities. The Board may, at its discretion, grant a time extension to the applicant.
- if there is more than one owner, all must sign.

IN WITNESS WHEREOF the undersigned, applicant as aforesaid, does hereunto set his hand and seal this _____ day _____.

Applicant

Description of Mortgages: _____

(Give complete names and Registry of Deeds Reference)

Assents of mortgages:

#####

COMMONWEALTH OF MASSACHUSETTS

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared _____

_____ ,

proved to me through satisfactory evidence of identification, which were _____

_____, to be the person(s) whose name(s) is/are signed on the preceding or attached

document, and acknowledged to me that he/she/they signed it voluntarily for the stated purpose

_____ (official signature and seal of notary)

NORWOOD SUBDIVISION CONTROL LAW

FORM I

**APPROVAL FOR RELEASE OF BONDS,
SURETY OR CONDITIONS**

Norwood, MA _____
Date

TO: Board of Health Police Department Conservation Commission
Board of Selectmen Town Engineer Municipal Light Department
Fire Department Public Works Department

FROM: _____
(Applicant)

SUBJECT: _____
(Description and name, if any)

SUBMITTED BY: _____

ADDRESS: _____

The improvements specified in Section 8 of the Planning Board Rules and Regulations are believed to have been completed on the below-described subdivision and all covenants, conditions, agreements, terms and provisions contained in the application for approval of Definitive Plan (Form B) fulfilled. Please indicate your approval or disapproval of release of bonds, surety or conditions insofar as the requirements of your department only are concerned. If released of conditions is indicated, specify for which lot(s) you approve release.

(Chairman, Planning Board)



TO: Planning Board

DATE: _____

SUBJECT: _____
(Description and name, if any)

Insofar as the requirements of this department are concerned, the release of bonds, surety or conditions for the above-described subdivision is:

APPROVED
(circle one)

DISAPPROVED
If disapproved, state reason _____

Department _____
Signed _____

NORWOOD SUBDIVISION CONTROL LAW

FORM K

NOTICE OF RELEASE OF BONDS OR SURETY

Norwood, MA _____
Date

TO: Town Treasurer

FROM: Planning Board

SUBJECT: _____
Description and Name if any

SUBMITTED BY: _____

ADDRESS : _____

The improvements required by Planning Board Rules and Regulations have been completed on the above described subdivision. You are requested to release any bonds or surety filed for said subdivision:

Signed _____
Clerk/Chairman, Planning Board

NORWOOD SUBDIVISION CONTROL LAW

FORM L

RELEASE OF CONVENANT

Norwood, MA _____
Date

The undersigned, being a majority of the Planning Board of the Town of Norwood, Massachusetts, hereby certify that the statutory covenant under Chapter 41, Section 81U of the General Laws, given by

_____, dated _____, recorded in the
Norfolk Registry of Deeds, Book _____, Page _____.

1. has been fully performed to the satisfaction of the Planning Board of the Town of Norwood as to the following enumerated lots shown on Plan referred to in the said Covenant _____

_____ and said lots are hereby released from the said Covenant.

2. has not been fully performed but that in lieu of the said Covenant, a bond, to the satisfaction of the said Planning Board, has been filed under said Chapter 41, Section 81U to secure the construction of ways and installation of municipal services and in consequence thereof, the following enumerated lots shown on the plan referred to in the said Covenant are hereby released from the said Covenant

_____ Majority of
the
Planning Board
of the
Town of Norwood

COMMONWEALTH OF MASSACHUSETTS

On this ____ day of _____, 20____, before me, the undersigned notary public, personally appeared _____

proved to me through satisfactory evidence of identification, which were _____

_____, to be the persons whose names are signed on the preceding or attached

document, and acknowledged to me that they signed it voluntarily for the stated purpose as Members of the

Norwood Planning Board.

_____ (official signature and seal of notary)

NORWOOD SUBDIVISION CONTROL LAW

FORM N

TO: Norwood Planning Board
566 Washington Street
Norwood, MA 02062

Dated: _____

The undersigned herewith grants to the Town of Norwood permission to access utilities for repairs subsequent to the issuance of occupancy permits and prior to acceptance of streets in the hereinafter referred to subdivision. This grant shall not create any legal responsibility on the Town of Norwood to make repairs and the undersigned agrees to reimburse the Town of Norwood for reasonable expenses if the repairs are necessitated through fault of the undersigned.

Name of Applicant _____

Complete Address _____

Plan Entitled _____

Dated _____ by _____.

Civil Engineer

Deed to Property is dated _____ and recorded with Norfolk Registry of

Deeds in Book _____, Page _____.

Applicant

Address _____

Phone Number _____

APPENDIX E

PLATES AND TABLES