

TOWN OF DUXBURY

MASSACHUSETTS

RULES AND REGULATIONS

GOVERNING THE SUBDIVISION OF LAND

DUXBURY PLANNING BOARD

MARCH 2005

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**HISTORY OF REVISIONS TO
SUBDIVISION RULES AND
REGULATIONS**

<u>YEAR</u>	<u>SECTION(S)</u>	<u>BOOK</u>	<u>PAGE</u>
1954	Established Planning Board under Acts of 1947, MGL Chapter 41, Sec. 81A	2330	175
1954	1950 R&Rs amended through 1953	2330	176-202
1959	1959 R&R's	2813	56-88
1959	1959 R&R's	3614	629-672
1970	1970 R&R's	3742	261-296
1974	March 20, 1974 R&R's	3975	462-528
1974	May 15, 1974 Sec. 12	3988	292-295
1974	May 15, 1974 Sec. 4A	4130	778
1974	May 15, 1974 Sec. 12	4141	62
1978	March 1978 Sec. 13 & 14	4278	343
1981	Nov. 23, 1981 Sec. 5B	5086	293
1982	March 10, 1982 Sec. 7A	5131	90
1982	May 26, 1982 Sec. 5B, 4 & 7	5157	26
1982	December 6, 1982 Sec. 4A & 12A	5256	151
1985	February 20, 1985 Sec. 5B Grades	6028	267

<u>YEAR</u>	<u>SECTION(S)</u>	<u>BOOK</u>	<u>PAGE</u>
1985	September 19, 1985 Sec. 4A	6343	293
1986	July 16, 1986 Sec. 5A	7126	140
1986	August 20, 1986 Sec. 5H, 2-6		
1988	March 8, 1988 Cul-de-Sacs	9130	114
1988	November 2, 1988 Sec. 3A	9490	160
1988	November 2, 1988 Sec. 2C	9490	161
1989	March 8, 1989 Sec. 5B	9532	345
1989	November 9, 1989 Sec. 2C & 3A		
1991	August 7, 1991 Sec. 2D, 3A & 4A	10467	264
1991	August 21, 1991 Sec. 6		
1994	March 1994 Sec. 2A & 3C		
1996	December 1996, Comprehensive Revision	14849	30
2002	October 2002, Minor Revisions Throughout	23023	1-96
2005	March 2005, Minor Revisions Throughout	30259	1-101

1.0 AUTHORITY AND PURPOSE

The original Rules and Regulations for the Subdivision of Land and the Construction of Ways therein were adopted by the Duxbury Planning Board (The Board) on August 18, 1950 pursuant to the provisions of Massachusetts General Laws (M.G.L.), Chapter 41, Section 81. For matters not covered by these Subdivision Rules and Regulations, reference is made to the provisions of M.G.L., Chapter 41, Sections 81-K to 81-GG, inclusive.

Applicants submitting plans to subdivide land are directed to review the Duxbury Protective Bylaw (Bylaw), the Regulations of the Duxbury Conservation Commission, Water Department and Board of Health, including other applicable state and federal laws.

These Subdivision Rules and Regulations have been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of the Town by regulating the laying out and construction of ways in subdivisions providing proper 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 Board under these Subdivision Rules and Regulations shall be exercised to:

Provide adequate access to all lots in a subdivision by ways that are safe and convenient for travel;

Lessen congestion in such ways and in adjacent public ways;

Reduce danger to life and limb in the operation of motor vehicles;

Secure safety in case of fire, flood, panic and other emergencies;

Ensure compliance with the Protective Bylaw;

Secure adequate provision for water distribution, underground utility service, sewerage, drainage, protection of natural water sources, erosion control, flood plains, and wetlands;

Protect, promote and enhance the natural beauty, and rural and historical character of the Town; and

Coordinate the ways in a subdivision with each other, with public ways in the Town and with ways in neighboring subdivisions.

2.0 DEFINITIONS

APPLICANT - "Applicant" shall include an owner or his agent, representatives or his assigns.

APPROVAL - Approval of a plan submitted in accordance with Section 4.0 of these Subdivision Rules and Regulations and M.G.L. Chapter 41, Sections 81-S, 81-T, 81-W, 81-U and 81-V.

BEST MANAGEMENT PRACTICES (BMP) - A structural device or practice designed to mitigate the effects of storm water runoff easing flooding, reducing erosion and pollution. BMP's shall conform to the guidelines described in the "Performance Standards & Guidelines for Storm Water Management in Massachusetts" published by the Department of Environmental Protection.

BOARD - Planning Board of the Town of Duxbury

CUL-DE-SAC – A dead end street culminating in a circular turnaround.

DEAD END STREET – A road where egress and ingress are one and the same, including cul-de-sacs.

DEVELOPER - The person, persons, corporation, trust, firm or partnership or other legal entity who will be responsible for the development of land and/or structure(s). The developer will be responsible for submitting qualifications of his development team.

DRAINAGE BASIN -

DETENTION - A man-made basin, diked area, depression and/or related structure for the purpose of slowing the rate at which storm water is discharged from the site, and which may involve temporary backup of water during and immediately following a storm event.

RETENTION - A man-made basin, diked area or depression and/or related structure for the purpose of retaining or impounding storm water on a site which has no free flowing outlet, e.g. a pipe or weir, to allow storm water from small storm events to be discharged to a natural water course or wetland. Leaching pits or similar ground discharge structures shall not constitute an outlet.

DRT - Development Review Team consisting of the Duxbury Planning Director, Conservation Administrator, Inspectional Services Director, DPW Director, Director of Lands and Natural Resources, Representatives of the Board of Health and Fire and Police Departments and others as necessary.

DWELLING UNIT – A building or a portion of a building providing living quarters for a single-family having a single set of kitchen facilities (a stove plus

either or both a refrigerator and sink) not shared with any other unit; or quarters for up to six persons in a lodging house, dormitory, congregate housing, or similar group dwelling.

EASEMENT – A grant by a property owner to the use of land by the public, a corporation, or persons for specific purposes such as the construction of utilities, drainage ways and roadways.

ENDORSEMENT - Certified by or endorsed by a Planning Board, as applied to a plan or other instrument required or authorized by the Subdivision Control Law to be recorded, shall mean bearing a certification or endorsement signed by a majority of the members of the Planning Board, or by its chairman or clerk or any other person authorized by the Board to certify or endorse its approval or other action and named in a written statement to the Register of Deeds and Recorder of the Land Court, signed by a majority of the Board.

FRONTAGE - The boundary of a lot coinciding with a street line providing rights of access across that boundary to a potential building site, measured continuously along one street line between side lot lines or in the case of a corner lot, the midpoint of any radius.

LOOP ROAD – Prohibited. A single point of access/egress off a through street leading to a circular shaped roadway design that turns into and reconnects with its main axis.

LOT - A parcel of land used or set aside and available for use as the site of one or more buildings and buildings accessory thereto or for any other definite purpose, in one ownership and not divided by a street, not including any land within the limits of a public or private way upon which such lot abuts, even if the fee to such way is in the owner of the lot.

MUNICIPAL SERVICES Fire and police services and public utilities furnished by the Town of Duxbury, such as water, sewerage and drainage.

OWNER - The owner of record as shown by the records in the Plymouth County Registry of Deeds or Land Registration Office.

PARCEL – A tract or plot of land of any size that may or may not be subdivided or improved.

PERSON - An individual, or two or more individuals, or a group or association of individuals having common or undivided interests in a tract of land, a partnership or a corporation.

PLAN, DEFINITIVE - A plan of a proposed subdivision submitted in accordance with Section 5.3 of these Subdivision Rules and Regulations.

PLAN, PRELIMINARY - A plan of a proposed subdivision submitted in accordance with Section 5.2 of these Subdivision Rules and Regulations.

PROFILE - A vertical section of a street along its centerline , showing existing and proposed grades, storm drainage and sanitary sewer facilities.

RECORDED - Recorded in the Registry of Deeds of the county or district in which the land in question is situated, except that, as affecting registered land, it shall mean filed with the Recorder of the Land Court.

REGISTERED MAIL - Registered or certified mail as provided by US Postal Service.

REGISTRY OF DEEDS - The Registry of Deeds of Plymouth County, including when appropriate, the Recorder of the Land Court.

RIGHT-OF-WAY (R.O.W.) - The area of land designated for the construction of a way or street.

ROADWAY - The paved portion of the R.O.W. including berms and curbs.

SECURITY - Funds deposited to ensure performance of subdivision approval.

SIDEWALK - A way within the R.O.W. generally parallel to the street designed for use by pedestrians.

STREET, LOCAL - A way that provides access to abutting lots only, serves three (3) or less lots and is not a through street. The R.O.W. layout shall have a width of fifty (50) feet. (See Section 7.3.10)

STREET, MINOR - A way that provides access to abutting lots only, serves ten (10) or less lots and is not a through street. The R.O.W. layout shall have a width of fifty (50) feet. No second means of access required.

STREET, PRINCIPAL - A way that carries or is designed to carry through traffic between parts of Town or between Duxbury and other Towns. Principal streets shall have a R.O.W. layout width of sixty (60) feet.

STREET, SECONDARY - A way that carries or is designed to carry through traffic to abutting lots and provides access to local and minor streets. Secondary streets provide access to eleven (11) or more lots or is a through street. Secondary streets shall have a R.O.W. layout width of fifty (50) feet.

STRUCTURE - Any construction, erection, assemblage or other combination of materials upon or beneath the land, including but not limited to, either by pilings, footings or a foundation for attachment and/or installation within the land, including swimming pools and septic systems.

SUBDIVISION - The division of a lot, tract or parcel of land into two (2) or more lots for the purpose of sale or development, including re-subdivision, and when appropriate, shall relate to the process of subdividing or to the land or territory subdivided; provided, however, that the division of a tract of land into two (2) or more lots shall not be deemed to constitute a subdivision within the meaning of the Subdivision Control Law if, at the time when it is made, every lot within the tract so divided has frontage on (a) a public way, or a way which the town clerk certifies is maintained and used as a public way, or (b) a way shown on a plan approved and endorsed in accordance with the Subdivision Control Law, or (c) a way in existence prior to August 18, 1950 when the Subdivision Control Law became effective in the Town of Duxbury, 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 presently required by the Protective By-Law in the Town of Duxbury.

WAY - Any public way or private way shown on a plan approved under the provisions of the Subdivision Control Law or a way in existence when the provisions of said Subdivision Control Law became effective in the Town, having in the opinion of the Board suitable width, grades and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of 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.

WETLAND - Wetlands as defined in Massachusetts General Law 131, Section 40 (310 CMR 10.0) and Town of Duxbury General Bylaw, Chapter 9.

3.0 APPLICATION OF SUBDIVISION CONTROL LAW

3.1 Approved Definitive Plan Required Prior to Construction

No person shall make a subdivision of any tract, parcel, or lot of land into two (2) or more lots in such a manner as to constitute a "subdivision" within the Town of Duxbury, or proceed with the improvement or sale of lots in a subdivision, or the construction of ways, or the installation of municipal services therein, unless and until a definitive plan of such subdivision has been submitted to and granted final approval and endorsement by the Board as hereinafter provided, and has been recorded at the Registry of Deeds.

3.2 General

The Board will not approve a subdivision unless the plan is in compliance with these Subdivision Rules & Regulations and with all applicable zoning, other local regulations/bylaws, and laws of the Commonwealth of Massachusetts. All proposed subdivisions shall comply with the intent of these Subdivision Rules and Regulations as previously set forth in Section 1.0 AUTHORITY AND PURPOSE and shall adhere to the principles of environmentally sensitive land use planning and accepted engineering practice.

3.3 Waivers of Compliance

In accordance with the provisions of M.G.L. c. 41 s. 81-R, the Board reserves the right to waive strict compliance with these Subdivision Rules and Regulations when, in the judgment of the Board, such action is in the public interest and consistent with the intent and purpose of these Subdivision Rules and Regulations and the Subdivision Control Law. All requests for waivers of compliance shall be in writing and shall specify the section of these Subdivision Rules and Regulations for which a waiver is requested.

Variation from the requirements of these Subdivision Rules & Regulations may be permitted when, in the opinion of the Board, topography, environmental impacts, public safety or other considerations necessitate such variation. The Board shall make a finding that said variation from these Subdivision Rules and Regulations is in the public interest and shall vote to approve each specific request for variation from these Subdivision Rules and Regulations.

In the event any of these Subdivision Rules and Regulations do not fully cover a special or unforeseen or unique circumstance arising from a proposed subdivision, the Board may make a reasonable determination, interpretation or extension of its Subdivision Rules and Regulations, using commonly accepted standards to resolve unusual circumstances.

3.4 Applicant's Responsibility

The action of the Board to approve a subdivision does not affect any rights of others pertaining to the land to be subdivided, nor does it grant any rights to the applicant to perform work on land owned by others. The Board assumes that any

plans submitted for its approval or consideration to be correct, unless valid written evidence is presented to the contrary. The acquisition of necessary rights and presentation of complete and accurate information by engineers and surveyors to the Board are the responsibilities of the applicant; the failure to do so, including failure or inability to obtain all necessary state or local permits, licenses, releases or rights may constitute a reason for the disapproval or the rescission of approval of a subdivision.

3.5 One Dwelling Unit Per Lot

Not more than one building designated or available for use as a dwelling unit shall be erected or placed or converted to such use on any lot in a subdivision pursuant to the Protective Bylaw Section 502 Schedule of Intensity and Dimensional Regulations, or without the proper authorization of the Board of Appeals.

3.6 Severability

In the event that any section, paragraph, sentence, clause or provision of these regulations shall be adjudged not valid, the adjudication shall apply only to the specific section affected, and the remainder of these Subdivision Rules and Regulations shall be deemed valid and enforceable.

3.7 Invalidation by State Law

Any part of these Subdivision Rules and Regulations subsequently invalidated by State law or amendment of an existing State law shall automatically be brought into conformity with the new or amended law, and shall be deemed effective immediately, without recourse of public hearing and the customary procedures for amendment and repeal of such Subdivision Rules and Regulations.

3.8 Effect of Prior Recording of Plan

The recording of a plan of a subdivision at the Registry of Deeds prior to the effective date of the Subdivision Control Law in the town of Duxbury (August 18, 1950) shall not exempt the land within such subdivision from the application and operation of these Subdivision Rules and Regulations except as specifically exempted by M.G.L. c. 41, s. 81.

4.0 GENERAL PROCEDURES FOR PLAN SUBMISSION, ACTION AND AMENDMENTS

4.1 Pre-Submission Meeting

Applicants are encouraged to meet with the Planning Director prior to submitting any type of plan for Board Approval. The applicant should have a conceptual or study plan for discussion and a listing of his development team's qualifications. The Planning Director will explain the special account requirements under M.G.L. c. 44, s. 53-G and be available to answer questions on procedures, Subdivision Rules and Regulations and applicability of other state and local regulations.

4.2 Plan Submission - General

At the time of submission of a Preliminary or Definitive plan, the applicant shall submit an application form, funds to establish the special account for the project and eighteen (18) sets of plans, two full-size, 17 half-size, and supporting documents as shown on the Definitive Plan Checklists in Appendix F, that comply with all requirements specified in Section 5.0 REQUIREMENTS. Incomplete applications will be grounds for denial. (See Section 6.O FEES, PERFORMANCE SECURITIES AND SPECIAL ACCOUNTS for determining fees and special accounts. The exact amount required must be verified by the Planning Director prior to submission).

The Planning Director will distribute plans to the various Town Departments except for the Board of Health, which is the applicant's responsibility, for review and comment and schedule a Development Review Team (DRT) meeting. A public hearing date will be scheduled as soon as possible following the DRT meeting. The applicant shall be responsible for paying the cost of advertising the Public Hearing notice in a newspaper of general circulation. At least three (3) weeks before the Public Hearing, the applicant shall meet with the Planning Director for a pre-hearing meeting. Discussion will focus on comments from the Board's consulting engineer, DRT, and the Planning Director's comments on the plan. The Planning Director will make a report to the Board summarizing the DRT comments.

4.3 Board Action

When all issues raised by the Board, various Town Departments, abutters, the Board's consultants and the Planning Director have been resolved to the satisfaction of the Board, the Board will act on the plan. Following action of the Board to approve, approve with conditions, or disapprove a Preliminary or Definitive subdivision plan, the Planning Director shall notify the Town Clerk and the applicant. The applicant shall be notified by certified mail.

4.4 Modifications or Amendments to Approved Plans

When an applicant proposes changes to an approved definitive plan, the same requirements shall apply as for filing a Definitive Plan. (See Section 5.3 Definitive Plan Requirements). Any modification is subject to the Subdivision Rules and Regulations in effect at the time of application. Only the area of modification need be shown if the proposed modification or amendment is a lot development change or utility change. Should the proposed modification or amendment be directly related to a larger component (i.e.: drainage, street layout etc) then the entire site must be shown on a modification plan.

4.5 Public Hearing Notices

All Public Hearing Notices will be prepared by the Planning Director as outlined in M.G.L. c. 41 s. 81-T. The Planning Director will submit the notice to the Town Clerk with a copy sent to a newspaper with local circulation for advertisement. The cost of advertisement shall be the responsibility of the applicant.

Abutter notification shall be made by the Planning Director using a list of abutters from the latest tax listing and pre-addressed stamped envelopes, all provided by the applicant.

In the event a Public Hearing is continued either three (3) times or for more than three (3) months, the applicant shall be responsible for the costs of re-notifying abutters and re-advertising the legal notice.

5.0 PLAN REQUIREMENTS

5.1 Approval Not Required Plans (ANR)

Any person who intends to record a plan of land at the Plymouth County Registry of Deeds or file a plan at the Land Court and believes that the plan does not require approval under the Subdivision Control Law (M.G.L. c. 41, s. 81-P) shall submit the mylar and nine (9) prints of the plan to the Planning Director during office hours accompanied by the appropriate fee and application form. The applicant shall forward the application to the Town Clerk who shall date-stamp the application form, thus establishing the date of submission. The applicant shall provide a copy of the date-stamped application form to the Planning Director. All ANR plans must contain the information listed in the ANR checklist shown in Appendix F.

5.1.1 Fees for Approval Not Required Plans

The plans and application form must be accompanied by an appropriate filing fee. Checks shall be payable to the Town of Duxbury (See Section 6.0, FEES, PERFORMANCE SECURITIES AND SPECIAL ACCOUNTS).

5.1.2 Board Determination

Plans meeting the requirements set forth above and, in the opinion of a simple majority of the Board do not constitute a subdivision, shall be endorsed without a public hearing. The Board shall act within 21 days of receipt of application by the Town Clerk. Following approval, the mylar copy shall be returned to the applicant for recording at the Registry of Deeds or Land Court. If the Board determines that the plan constitutes a subdivision, no endorsement will occur. The Board shall notify the Town Clerk and the applicant shall be notified by certified mail.

5.2 Preliminary Plans

5.2.1 Preliminary Plan Requirements

A Preliminary Plan may be submitted for residentially zoned land to the Board for action prior to the submission of a Definitive Plan. The submission of a Preliminary Plan will enable the applicant, the Board, other municipal agencies, owners of property abutting the subdivision and any interested parties to discuss and clarify potential problems of the subdivision before a Definitive Plan is prepared. A Preliminary Plan shall be submitted for non-residentially zoned land.

When submitting a Preliminary Plan, the applicant shall submit (18) sets of plans, one full-size, 17 half-size, and supporting documents as shown on the Preliminary Plan Checklists in Appendix F, accompanied by the appropriate fee and escrow amount along with an application form to the Planning Director during office hours. The applicant shall forward the application form to the Town Clerk who shall date-stamp the application form thus establishing the date of submission of the Preliminary Plan. The applicant shall provide a copy of the date-stamped application form to the Planning Director. The applicant is responsible for submitting the plan to the Board of Health and is directed to follow Board of Health application guidelines. At the time of submission of a Preliminary Plan, all plans and information must be complete and accurate and in acceptable form as required by these Subdivision Rules and Regulations and the fee paid before the application package is considered acceptable as set forth in Section 4.0 PROCEDURES FOR PLAN SUBMISSION, ACTION AND AMENDMENTS (See Section 6.0 for FEE, PERFORMANCE SECURITIES AND SPECIAL ACCOUNTS).

5.2.2 Contents of Preliminary Plan

Preliminary Plans shall be submitted as blue or black line prints at a suitable scale. The purpose of the Preliminary Plan is to show sufficient information about the subdivision to enable the Board to form a clear basis for the evaluation of potential problems of the subdivision prior to the preparation of the Definitive Plan. The Preliminary Plan shall contain the information shown on the Preliminary Plan checklist (See Appendix F).

5.2.3 Action on Preliminary Plans

The Preliminary Plan will be reviewed by the Planning Director and DRT Team in order to determine whether it complies with the requirements of these Subdivision Rules and Regulations and is consistent with sound land use and community planning goals.

Following review, the DRT will make suggestions for revisions it deems to be in the public interest. Within forty-five (45) days after receipt of application by the Town Clerk, the Board shall approve, disapprove, or approve with conditions the Plan, noting thereon any changes that should be made, and shall file a notice of its actions with the Town Clerk and mail a copy of the notice to the applicant, certified mail, return receipt requested. The Board shall give its reasons for disapproving any plan.

Neither approval nor disapproval of a Preliminary Plan with or without modifications shall constitute approval of the subdivision. The Preliminary Plan cannot be recorded at the Registry of Deeds.

Approval of a preliminary plan is not binding on the Planning Board.

The Board recommends that the applicant review the Preliminary Plan with the Conservation Commission pursuant to the applicability of M.G.L. c. 131 s. 40 and the Town of Duxbury General By-Law, Chapter 9, prior to submitting a Definitive Plan.

If the submittal of a Preliminary Plan is followed by the submittal of a Definitive Plan within 7 months and the Definitive Plan is subsequently approved, the zoning provisions in effect at the time of submission of the Preliminary Plan shall govern the land shown on the Definitive Plan for eight (8) years from the date of the Board's endorsement of the Definitive Subdivision Plan.

5.3 Definitive Plan Requirements

At the time of submission of a Definitive Subdivision Plan, applicants shall follow the procedures set forth in Section 4.0 PROCEDURES FOR PLAN SUBMISSION, ACTION AND AMENDMENTS.

5.3.1 Submission Requirements

Eighteen (18) sets of plans, two full-size, 17 half-size, of the complete set of plans and supporting documents as shown on the Definitive Plan Checklist in Appendix F, accompanied by the appropriate fee and escrow amount along with a copy of the application form shall be submitted to the Planning Director during regular office hours. The applicant shall forward the application for to the Town Clerk who shall date-stamp the form thus establishing the date of submission. The applicant shall provide a copy of the date-stamped application form to the Planning Director. The applicant is responsible for submitting the plan to the Board of Health and is directed to follow the Board of Health application guidelines. At the time of submission of a Definitive Plan, all plans and information must be complete and accurate and in acceptable form as required by these Subdivision Rules and Regulations and the fee paid before the application package is accepted as set forth in Section 4.0 PROCEDURES FOR PLAN SUBMISSION, ACTION AND AMENDMENTS (see Section 6.0 for FEES, PERFORMANCE SECURITIES AND SPECIAL ACCOUNTS). The definitive plan shall contain the information shown in the Definitive Plan checklist (see Appendix F) and as described in Section 5.3.2 through 5.3.10.

5.3.2 Plan Requirements

5.3.2.1 General Requirements

The Definitive Plan shall be prepared, signed and stamped on each sheet by a Registered Professional Engineer and Land Surveyor. The original shall be drawn on mylar. The plans shall be submitted on 24" x 36" sheets, with the longer dimension on the bottom. The property shall be oriented on the plan, when possible, so that the top is in a northerly direction.

Each sheet shall be consecutively numbered. Plans shall have a title sheet and an index sheet showing the entire subdivision and identifying each street's location on the index of the entire subdivision. A locus plan at a scale of 1" = 1000' shall show the location of the subdivision in relation to the existing street system.

The Planning Board signature block shall be located in the same general spot on each sheet of the submitted set of plans.

5.3.2.2 Title Sheet Requirements

The title sheet shall contain a title block and state the number of lots, and total length of roadways. The owner of the property shall be noted.

A Definitive Subdivision Plan shall include, but not be limited to the following:

5.3.2.2.1 Existing Conditions

- a) Locations and outlines of all existing buildings, septic systems, site features such as stone walls, fences, wooded areas, rock outcroppings, waterways, natural drainage courses, wetlands, water bodies, flood plains, and seasonal wet areas within or adjacent to the proposed subdivision.
- b) Location of abutting structures, buildings, driveways, etc. within three hundred (300) feet of the parcel proposed for subdivision, noting the ownership of adjacent properties.
- c) Lengths and bearings of tract boundary lines and meridian used.
- d) Location and descriptions of all rights-of-ways or other easements existing and proof of secured easements inside and connecting to the land to be subdivided.
- e) Topographical contour elevations at two (2) foot intervals. This may be required to extend beyond the property boundaries for drainage design analysis and evaluation of clear sight distance.
- f) Zoning District boundaries including the Aquifer Protection Overlay District and Wetlands Protection Overlay District, if applicable.
- g) Delineation of the vegetated wetlands line with station numbers noting the Conservation Commission's acceptance of the line, if applicable.
- h) Trees twelve (12) inches in diameter or greater located in the R.O.W. and other areas determined by the Planning Board.

5.3.2.2.2 Proposed R.O.W., Lot Lines, & Lots

- a) Lengths and bearings of all subdivision lot lines, including lot frontage on the streets.
- b) Lengths and bearings of all straight center lines of streets.

- c) Lengths, radii, tangents, and central angles of all curves in lot lines and street center lines.
- d) The location, name, width and grade of each street and public or private way, bounding, approaching, or within sight distance of the subdivision, and the proposed ways within the subdivision.
- e) Existing and proposed granite or cement concrete monuments shall be shown at all points of curvature, points of tangents, and changes in direction of street lines, or where otherwise designated by the Board. Proposed monuments shall be installed to the specifications of the Massachusetts Land Court.
- f) The total area of each lot with area of upland, wetlands, and usable areas as defined in the Protective Bylaw under Article 300, Definition of Lot Area and Section 410.4, Lot Shape.
- g) All proposed building lots shall meet or exceed the minimum area and frontage requirements specified in Section 410.4, Schedule of Intensity and Dimensional Regulations, of the Duxbury Protective Bylaw.

5.3.3 Water Distribution System

The proposed water distribution system shall be shown on the Definitive Plan. The location and size of all existing and proposed water mains and their appurtenances shall be shown on plans and shall be subject to the approval of the Water Superintendent. The location of any operating water wells within the proposed subdivision or within the boundaries of a lot adjacent to the proposed subdivision shall be shown on the Definitive Plan. Re-location of all existing and the location of proposed fire hydrants will be subject to the approval of the Duxbury Fire Chief and DPW Director.

5.3.4 Surface Water Drainage

Pursuant to the requirements of Section 7.3.7 Storm Water - Drainage, the proposed size, type and location of all drainage pipes, structures, detention and retention basins, and other appurtenances shall be shown on the Definitive Plan. Specific areas of concern are the impacts of the discharge of stormwater runoff to existing water bodies, natural waterways, wetlands and resource areas, and abutting land areas.

5.3.5 Utilities

The location of all proposed utilities to serve the proposed dwellings or buildings shall be shown. All utilities shall be underground. The location of streetlights shall be shown at street intersections. All wires shall be placed in conduit.

5.3.6 Notification

The following note shall be placed on each sheet of the plan: "All contractors shall contact the Planning Office at 781-934-1114 two business days prior to initiation of any construction or resumption after a stoppage of five (5) consecutive business days". In addition the DPW Director shall be notified in writing at least two business days in advance of beginning any work in a public way. Street opening permits are required. See DPW Director for permit requirements. This is to ensure that contractors are aware of the requirements and times for inspections.

5.3.7 Parks, Playgrounds, Open Space

Proposed park or open areas shall be suitably located for playground or recreation purposes within the subdivision in accordance with M.G.L. c. 41, s. 81-U.

5.3.8 Plan, Profile, Cross Sections

Plans – On the Plan of each street show:

- a) The extent of the cut or fill limits outside of the road layout required for construction of the way. Side Slopes shall have a maximum of 2:1 slope unless waived by the Planning Board due to a topographical hardship.
- b) Existing center line shall be shown as a solid line.
- c) All existing and proposed intersections, walks, driveways, shown on both sides.
- d) The high water elevation and all test hole locations.
- e) Elevations of at least two (2) bench marks as shown on plan, using NGVD datum.

Profiles – Each sheet shall show:

- a) Vertical profiles of proposed streets with only one (1) street shown per sheet.
- b) A horizontal scale of one inch equals forty (1"=40') feet and a vertical scale of one inch equals four (1"= 4') feet.

- c) Proposed center line grades as solid line, showing grade elevations at every fifty- (50) foot station, except in vertical curves which shall be at every twenty-five (25) foot station. Existing ground elevations of center lines to be shown to the left of station. Depth of peat, ledge or undesirable roadway base material, as determined by test pits or borings, taken at the discretion of the Board or its engineer shall be shown on the center line.
- d) Rates of vertical curve gradients shown by figures and vertical curve design data.

Cross Sections – Typical Sections shall show:

- a) Each street between top and/or bottom of slopes; type, lines and width of all curbing to be used; and type of catch basin-frame and grate to be used (see Appendix B).
- b) Description of roadway construction including materials to be used.

5.3.9 Environmental Impact Assessment and Mitigation Measures

Unless specifically waived by the Board during the Preliminary Plan Submission, an Environmental Impact Assessment (EIA) is required in order to identify any significant impacts of a proposed development, and the best available technology to minimize or prevent negative impacts from occurring. The Final EIA shall be included at the time of submission of a definitive plan.

All subdivisions must minimize impacts to areas with steep slopes, flood plains, wetland resource areas, unique land forms, and rare or endangered plant and wildlife species in accordance with the goals and objectives of the Duxbury Comprehensive Plan, 1999 as amended, and any duly approved successor Comprehensive Plan.

The Board may retain an independent outside consultant, as outlined in Section 6.0 FEES, PERFORMANCE SECURITIES AND SPECIAL ACCOUNTS, to review the EIA and recommend appropriate mitigation measures. If a consultant is retained, a scope of work shall be provided by the Planning Director with input from other Town agencies and approved by the Board.

The EIA shall include an Analysis of Development Impact using nutrient loading standards as noted in the Hydrogeologic Study in Appendix G.

The following concerns must be considered in the EIA:

- a) Impacts to groundwater resources

- b) Impacts to surface water bodies, rivers or Duxbury Bay
- c) Impacts of erosion from roadway, drainage or regrading of land for house site construction
- d) Impact to existing water supplies
- e) Impacts to community services such as police, fire, public works, schools
- f) Impacts to traffic (See Appendix G for requirements)
- g) Whether the possible impacts are limited only to the subdivision or contribute to the cumulative incremental impact of environmental degradation of the surrounding area
- h) Measures to mitigate all identified impacts

5.3.10 Erosion/Sediment Control Plan

In order to reduce erosion occurring from the construction of roadways, utilities, drainage structures and regrading of house lots, and to prevent siltation/sedimentation of water bodies, water courses and wetlands resource areas, the Board shall require the submission of an Erosion/Sediment control plan. This plan shall explain in detail the specific mitigating measures that will be implemented by the developer, and any subsequent lot owners, both for short term and long term construction of the subdivision, including house lots.

In order for an Erosion/Sedimentation control plan to be effective and reduce cost to the developer, the designer shall consider the following in the early stages of designing a subdivision:

- a) Fit development to the terrain
- b) Schedule grading and construction to minimize soil exposure to weather elements
- c) Retain existing vegetation whenever feasible
- d) Vegetate and mulch barren areas
- e) Direct runoff away from barren areas
- f) Minimize length and steepness of slopes
- g) Keep runoff velocities low
- h) Prepare drainage ways and outlets to handle concentrated or increased runoff
- i) Trap sediment on site
- j) Inspect and maintain control measures frequently and during storms to check effectiveness

The plan must include the measures that will be implemented, both short and long term to prevent erosion. (See Appendix B, Section 4.0).

The plan shall explain the mitigating measures that will be taken to prevent stockpiles of soil from eroding or creating problems associated with airborne

particulates. Plastic covers and temporary vegetation may be used to prevent these problems from occurring.

The plan shall also include items such as the location, extent and type of berms, dikes, dams, detention/retention/ settling basins, silt fence, hay bales or any other erosion control measures that will be used to prevent erosion and sedimentation of wetlands and natural water courses.

In order to prevent dirt and mud from being tracked onto the roadway, which then washes into the drainage system, the construction of a crushed stone apron for vehicles entering home construction sites will be required as part of the erosion control plan (See Figure 1 for details).

If dirt is tracked onto an existing Public Way the DPW Director will require that the area be swept at the end of each day in order to prevent sedimentation of the existing town drainage system.

Erosion control plans shall be considered a part of any definitive plan approval.

Compliance with the National Pollution Discharge Elimination System (NPDES) Phase II program is required for all sites in excess on an acre. Such sites shall have a Storm Water Pollution Prevention Plan (SWPPP) available on site at all times.

5.4 As-Built Plan Requirements

Prior to placement of any bituminous concrete, a Utility As-Built Plan shall be supplied by the applicant {three (3) contact prints} to be reviewed and approved by the Planning Board. If after review, should any construction modifications be required by the Planning Board, an additional revised Utility As-Built plan shall also be submitted. The Utility As-Built Plan must meet all applicable and/or revised criteria of Appendix F. All applicants must sufficiently plan ahead to allow adequate time for Planning Board review and approval prior to scheduling with contractors for paving.

An accurate As-Built drawing of the development shall be submitted to the Board for approval within ninety (90) days of completion of all construction of the subdivision. The As-Built drawing shall contain the information listed in the As-Built plan checklist (See Appendix F).

5.5 Roadway Acceptance Plan

For subdivision roadways intended to be public ways accepted by Annual Town Meeting, a separate road acceptance plan in addition to the As-Built plan, shall be prepared and submitted for approval. Definitive As-Built plan approval does not constitute acceptance by the Town.

The applicant shall submit a street layout plan suitable for recording, prepared by a Massachusetts registered land surveyor (See Appendix F). The plan shall be prepared in accordance with the Rules and Regulations of the Registry of Deeds, MGL Chap. 82 Section 17 thru 23 showing the “Boundaries and Monuments of the Way”. If registered land, a land surveyor is also responsible for preparation of an appropriate plan in accordance with the “Commonwealth of Massachusetts Land Court Guidelines on Registered Land”. Upon approval, As-Built and street layout plans shall be submitted in electronic digital format (AutoCAD version 14 or higher) to the Planning Board. The applicant shall be responsible for all recording fees at both the Registry of Deeds and/or Land Court.

The Planning Board shall retain a minimum of \$25,000 surety or one buildable lot from the start of construction until the street is accepted by Town Meeting vote. Upon completion of the roadway, the applicant shall have submitted the As-Built plan and street layout plan for presentation to the Annual Town Meeting. The applicant shall also prepare a written document listing the metes and bounds description of the proposed layout, by reference to assessors map and parcel number of all land or easements acceptable by both the Director of the Department of Public Works and Town Counsel. Such document shall be an easement acquired for a public way purposes that will provide the public with all necessary rights of travel and associated use of the way(s) and relative easements, including installation of utilities but will not convey the fee interest in the land contained within the public way layout. After the date of the Town Meeting vote, the remainder of the \$25,000 surety shall be returned or the lot released, to the person(s) who originally posted the surety.

6.0 FEES, PERFORMANCE SECURITIES AND SPECIAL ACCOUNTS

6.1 Filing Fees

At the time of filing any plan with the Board, a Filing Fee in the form of cash or a check made payable to the “Town of Duxbury” shall be submitted with the application package. The application package will not be complete until all funds are deposited with the Duxbury Town Treasurer. Filing fees are as follows:

PLANNING BOARD FEE SCHEDULE

Approval Not Required Plans (ANR)	\$200 per plan plus \$100 per lot shown
Preliminary Plan	\$50 per lot (plus deposit of escrow account funds, see Sec. 6.2)
Definitive Plan <u>with</u> Preliminary Plan previously filed acted upon	\$200 per lot (plus deposit of escrow account funds, see Sec. 6.2)
Definitive Plan <u>Without</u> Preliminary Plan files and acted upon	\$400 per lot (plus deposit of escrow account funds, see Sec. 6.2)
Definitive Plan Amendments and Frontage Waiver Requests	\$100 per lot (plus deposit of escrow account funds, See Sec. 6.2)

6.2 Special Accounts for Consultant Costs

The Board may retain the services of a professional consultant to advise the Board on technical matters, review plans and inspect approved developments if the Board requires the assistance of a Planning, Traffic, Engineering, Legal, Soils or other professional to provide technical reviews and inspections of Subdivision Plans. The applicant will be responsible for paying all consultant costs incurred by the Town. At the time of filing either a preliminary or definitive plan, the applicant shall deposit with the Town Treasurer the following amount to be held in an individual interest bearing escrow account.

<u>3 Lots or Less:</u>	<u>4 or More Lots:</u>
\$3,000 minimum deposit	\$3,000 minimum deposit, plus \$500 per lot in the proposed subdivision

Checks shall be payable to the “Town of Duxbury.”

Funds in the individual interest bearing account will be spent to pay consultant fees for the specific project for which they were collected. If at any time prior to approval of the Plan or final completion of the project the amount in the account falls below \$1,000 for subdivisions of 3 lots or less or \$3,000 for subdivisions of 4 or more lots, the applicant shall deposit sufficient funds to bring the account back to the amount of the original deposit or an amount determined by the Board. Said funds must be deposited within ten (10) days of written notification of the Board. Failure to replenish the funds in the account within ten (10) days shall be reason for denial of the plan for failure to comply with these regulations. In the case of approved plans, failure to replenish the required amount of money within ten (10) days of notification shall be cause for the Board to schedule a hearing to rescind the lot releases of developments that are incomplete.

Following completion of the development and payment of the final consultant bill for reviewing the As-Built drawings, the remaining money in the account, including interest, if any, shall be returned to the applicant. Upon request, a final report of the account shall be made available to the applicant.

If the legal ownership of the development is transferred to another party, the new owner shall be responsible for meeting all applicable requirements of this section by re-establishing the account for consultant reimbursement. Any person or entity claiming to be the applicant's successor in interest shall provide the Board with sufficient documentation to establish legal ownership. The balance of the original escrow account shall be returned to the party who deposited it.

The consultant retained by the Board shall provide the Board with a line item invoice which indicates the cost incurred for each project. The consultant shall also provide a report to the Board of their findings and recommendations.

An applicant may appeal the selection of the Board's consultant to the Board of Selectmen (BOS), providing that such appeal is made within fourteen (14) days of notification of the Board's appointment of the consultant. The reasons for such an appeal shall be limited to claims that the consultant selected has a conflict of interest or does not possess the minimum required qualifications. The minimum qualifications shall consist of an educational degree and five (5) years of practice in the field at issue and , an appropriate license, registration and/or certification in the field at issue. The required time limit for action by the Board upon an application shall be extended by the duration of the administrative appeal. In the event that no decision is made by the Board of Selectmen within thirty (30) days following the filing of the appeal, the selection made by the Board shall stand.

6.3 Performance Bond

Following the approval of a Definitive Subdivision Plan, the developer has three options for completing the development:

Option 1

The developer completes all infrastructure improvements associated with the development such as: roads, drainage, seeding disturbed areas, utilities and tree plantings. If all work is completed to the satisfaction of the Board, no performance security is required and the Board will authorize release of lots.

Option 2

The developer partially completes improvements associated with the development and posts a Performance Security to ensure completion of the remaining work. The amount of the Performance Security is based on the estimated cost of completion of the development plus contingencies and a factor of 20%. After the developer posts a security acceptable to the Board (see Sec. 6.6 Form of Security) the Board will authorize release of the lots.

Option 3

The developer has an approved Definitive Plan, however, no construction has begun. The developer posts a security acceptable to the Board for the entire amount of the cost associated with completing the development. The amount of the security will be based upon the estimated cost of all improvements associated with the development plus contingencies and factor of 20%. After the developer posts a security acceptable to the Board; (see Sec. 6.6 Form of Security) they will authorize release of the lots with a condition that no lot may be built upon until the base course of asphalt leading to the lot has been inspected and approved.

6.4 As-Built and Roadway Acceptance Plan Security

Prior to the endorsement of a definitive subdivision plan the applicant shall post a security to ensure completion of an As-Built drawing of the development as required in Section 5.4 and a Roadway Acceptance Plan as required in Section 5.5. The amount of the As-Built Bond will be based upon the number of permanent monuments (bounds) and the length of roadway. Bond amounts will be calculated as follows:

\$150 per bound and \$10 per foot of roadway.

6.5 Procedures

6.5.1 Release of lots/covenant

The developer shall request in writing an inspection for the purpose of determining an amount for the cost of completing the development.

Following receipt of the itemized estimate for the cost of completing the development from the Board's consultant, the Board will vote to set the amount of the security.

After the Board has received the security and accepts the bond as being adequate to ensure completion of the development, it will vote to release the lots and sign a lot release form. An original of the lot release form shall be recorded by the developer at the Plymouth County Registry of Deeds. Proof of recording shall be submitted to the Board within thirty (30) days of endorsement of the release.

6.5.2 Partial Release of Security

Following completion of improvements of development under construction, the developer may request, in writing, a partial release of the performance security. The Board will have an inspection made to determine the amount of money necessary to hold in the performance security in order to ensure completion of the development. Following the Board's review of the inspection report the Board may vote to lower the amount of money required in the performance security. The Board will then notify the appropriate authorities to authorize a reduction of the performance security.

6.5.3 Total Release of Performance Security

a) Performance Security

Following completion of the development, the applicant shall request in writing a final inspection. If all work is completed to the satisfaction of the Board, the Board will vote to release all remaining funds held in the performance security. If work remains incomplete or unsatisfactory, the remaining work must be completed within thirty (30) days, at which time another inspection will be conducted. The Planning Director will notify the developer in writing within fourteen (14) days of all incomplete or unacceptable work. When all work is completed to the satisfaction of the Board, the Planning Board will vote to release the balance of the performance security.

b) As-Built Drawing and Roadway Acceptance Plan Security

Upon completion of the As-Built drawings and Roadway Acceptance Plan for public ways, the developer shall submit said drawings for review. Following an engineering review of the As-Built drawings, the Board's Engineer shall submit his/her findings to the Board. When the Board receives a favorable recommendation from its engineer to accept the As-Built and/or Roadway Acceptance Plan drawings, the Board will vote to release the security.

Continued Responsibility of Roadway

The developer is responsible for the continued roadway maintenance of the new street up until the street is accepted by Town Meeting. This includes but is not limited to pavement wearing surface; snowplowing; drainage system; street trees; and sidewalks, if any.

6.6 Form of Security

Two forms of security are available to the developer to select from to act as a "bond". The Board's requirements for these securities are described below. No depository institution acting as owner/developer may submit its own passbook account.

6.6.1 Treasurer's (Bank) Check

Deposit a signed check, made out to the "Town of Duxbury", with the Town Treasurer.

6.6.2 Surety Company

Surety companies acceptable to the Planning Board and registered with Massachusetts Division of Insurance can be utilized for posting a performance bond. The petitioner is responsible for maintaining such performance bond in good standing until such time the Planning Board votes a release.

6.7 Review and Recall of Security

6.7.1 The performance security held to ensure completion of the development will be reviewed annually after approval and endorsement of the Definitive Plan or at more frequent intervals at the discretion of the Board. The Board shall call a meeting with the developer to review progress. If the Board finds that the development has not been carried out in good faith, the Board will vote to recall the bond as described below.

6.7.2 If the Board determines that construction of the roadway, drainage structures or other improvements shown on the approved and endorsed definitive

plan have not been completed, the Board will notify the developer in writing. Said notification will specify the incomplete or unsatisfactory work and how the construction or installation fails to comply with the endorsed Definitive Plan and Rules and Regulations. If after forty five (45) days of the Town Clerk's receipt of said notice all work has not been satisfactorily completed, the Board may vote to recall the performance security. The money held in the performance security will be transferred into a special account of the Town's General Fund for the purpose of expenditure on completion of the development. All obligations under the security by the developer will be void. Any interest or remaining balance of the security not expended on completion of the development will be returned to the developer.

7.0 DESIGN AND CONSTRUCTION STANDARDS

7.1 General

All definitive plans must comply with the design standards contained in this section. Any variation from these standards must be authorized by a formal vote of the Board and must specify the section of these Rules and Regulations for which a waiver is requested. Failure to comply with these standards without benefit of a waiver shall be grounds for denial of the Definitive Plan.

NOTE: Material specifications and design standards not specifically addressed within these Rules and Regulations shall comply with the standards set forth in "Standard Specifications for Highways and Bridges", published by the Massachusetts Highway Department, hereafter referenced as "State Specifications", and "A Policy on Geometric Design of Highways and Streets" published by the American Association of State Highway and Transportation Officials (AASHTO) hereafter referred to as "AASHTO".

7.2 Design Guidelines

The roadway, drainage design and building construction in all subdivisions shall be designed to accomplish the following goals:

REDUCE, TO THE GREATEST EXTENT POSSIBLE:

- a) Volume of cut and fill;
- b) Area over which existing vegetation will be disturbed, especially if within 200 feet of a water body, wetlands resource area, or a slope of more than 15%;
- c) Number of mature trees removed. The petitioner should consult with the Tree Warden as to the removal of any trees that may be subject to the Shade Tree Act (MGL Chap.87) and/or the Scenic Road Act (MGL Chap. 40 section 15c);

- d) Extent of waterways altered or relocated;
- e) Visual impact of man-made elements not necessary for safety;
- f) Erosion or siltation;
- g) Alteration of natural valley flood storage areas;
- h) Disturbance of important wildlife habitats, outstanding ecological or botanical features, scenic views or historic resources;
- i) Detrimental impacts to water quality

INCREASE, TO THE EXTENT REASONABLY POSSIBLE:

- a) Vehicular use of principal streets to avoid traffic on secondary and minor streets providing house frontages;
- b) Visual prominence of natural features of the landscape;
- c) Legal and physical protection of views from public ways;
- d) Design street layouts to facilitate southern orientation of houses;
- e) Use of curvilinear street patterns;
- f) Pedestrian and bicycle access and safety;
- g) Natural green belt & trees, etc. on lots.

7.3 Streets

All streets shall be designed to provide safe vehicular travel. Consideration shall be given to the number of dwellings served and to creating an aesthetically pleasing design of the street layout.

7.3.1 Classification of Streets –

Subdivision streets shall be divided into the following classifications for the purpose of establishing the applicable design and construction standards:

Principal Street - A way that carries or is designed to carry through traffic between parts of Town or between Duxbury and other Towns. Principal streets shall have a R.O.W. layout width of sixty (60) feet.

Secondary Street - A way that carries or is designed to carry through traffic to abutting lots and provide access to minor streets. Secondary streets provide access to eleven (11) or more lots. Secondary streets shall have a R.O.W. layout width of fifty (50) feet. Second means of access/egress required.

Minor Street - Streets that provide access to abutting lots only and serve ten (10) lots or less, including cul-de-sacs. The R.O.W. layout shall have a width of fifty (50) feet. No second means of access required.

Local Street - Streets that provide access to abutting lots only and serve three (3) lots or less. The R.O.W. layout shall have a width of fifty (50) feet. See Section 7.3.10 for a detailed description of local street requirements.

7.3.2 Pavement Widths

# of Lots Served		Minimum Width of Traveled Way	Berm Width*	R.O.W.
Local	1-3	14 ft.	1.5 ft.	50 ft.
Minor	4-10	18 ft.	1.5 ft.	50 ft.
Secondary	11+	22 ft.	1.5 ft.	60 ft.

* Berm width is in addition to the Traveled Way Width
(See Appendix D, Figures 2, 3 and 4)

7.3.3 Cross-Section

The Definitive Plan shall show a cross-section of the R.O.W. and traveled way. Pavement and berm widths shall be as required on 7.3.2 above. The Board may require additional lanes, widths, or other dimension changes where the proposed use requires such for public safety. All cross sections shall conform to Figures 2 or 3 and shall meet the following design criteria:

- a) Except by approval of the Board, all wires for electricity, cable television, telephones or similar utility distribution systems shall be installed in conduit underground with all such distribution systems spaced not less than thirty six (36) inches (horizontally) from any water main, detector tape should be placed above the conduits.
- b) All poles for telephone, electric light or other cables shall be located at least five (5) feet from the back of berm and shall not be placed in sidewalks.
- c) Sidewalks shall be constructed as shown in Figures 2 and 3. Sidewalks are not required for Local Streets.

7.3.4 Location, Alignment, Intersections

a) Property lines at street intersections shall have a radius of not less than thirty (30) feet. In the case of intersections with significant traffic flow or other public safety issues, greater radii may be required. Minimum roadway berm radii at all intersections shall be thirty (30) feet.

b) The minimum roadway center line radius shall be one hundred fifty (150) feet. Greater radii may be required for principal and secondary streets, or where otherwise determined by the Board to pose a safety hazard.

c) Streets shall be laid out so as to intersect as nearly as possible at right angles. No street shall intersect any other street at less than sixty (60) degrees.

d) Streets entering opposite sides of another street shall be laid out either directly opposite each other or with a minimum offset of two hundred (200) feet between their center lines.

e) Connection of Subdivision Ways to Public Ways:

In the case of a Definitive Plan showing the connection of Ways within the subdivision over a private way to a Public Way, approval of the Definitive Plan shall be denied unless the applicant has sufficient rights in the Private Way to enable the applicant to construct improvements to the private way to bring it into conformance with the requirements of these Rules and Regulations, or as waived pursuant to M.G.L. c.41, s. 81R. The Definitive Plan shall show such Private Way, in accordance with the requirements set forth in Section 5.0 PLAN REQUIREMENTS and this section.

f) Reserve strips which prohibit access to streets or adjoining property shall not be allowed unless the Board determines that they are in the public interest.

7.3.5 Clear Sight Distance

a) All roadway design shall take into consideration safe sight distances not only at intersections but also along the traveled way, in accordance with appropriate AASHTO requirements. Clear sight distance shall take into account topography, density of dwelling units, and horizontal and vertical alignment.

b) There must be an unobstructed sight distance along both approaches of both roads at an intersection and across their included corners for a distance sufficient to allow the operators of both vehicles approaching simultaneously to see each other in time to prevent a collision. The clear sight distance shall conform to the AASHTO requirements for sight distance at at-grade intersections for passenger vehicles (Case III-Stop Control on Minor roads and as shown in Figure 4.) The sight triangles shown in Figure 4 shall be free of any obstructions which would

block visual contact. Any object located within the sight triangle, including structures, trees, vegetation, fences, cut slopes and embankments, high enough to constitute a visual obstruction shall be removed or lowered. In plan view, the triangle is formed by measuring twenty (20) feet from the edge of pavement of the through street along the centerline of the proposed approach street. The intersection sight distance values (legs AB and BC) shall be as shown in the table below:

Design Speed-Through Street (Posted speed + 5 mph)	Intersection Sight Distance (AB & BC)
50 m.p.h.	500 ft.
45 m.p.h.	450 ft.
40 m.p.h.	400 ft.
35 m.p.h.	350 ft.
30 m.p.h.	300 ft.

7.3.6 Grades

a) Grades of all streets shall be not less than one percent (1%), nor more than six percent (6%). Where the six percent (6%) requirement would result in adverse impacts to the aesthetic value of the site due to extensive cut and/or fill or tree removal, the Board may waive the six percent (6%) requirement provided such waiver is consistent with safety determinants, including the distance from an intersection, the number of dwellings served, the type of street, the length of the steeper graded portion of the street, the horizontal alignment and street curvature. At all intersections, the minimum grade on the approach street shall not exceed two percent (2%) within a distance of fifty (50) feet of the point at which the edges of the travel lanes intersect. Street grade at cul-de-sac turnarounds shall not exceed three percent (3%). Intersecting streets shall have sag vertical curve on approach street to keep water from encroaching onto pavement of through street.

b) There shall be a vertical curve for any change in street grade. Where proposed pavements meet existing pavements a vertical curve is not required if the difference in tangent grades is less than one-half of one percent (0.5%). Vertical crest curves shall have a minimum K value of thirty-five (35). Sag curves shall have a minimum K value of forty (40). K values of vertical curves shall be adjusted to provide the required stopping sight distance for the design speed as defined by AASHTO.

7.3.7 Storm Water - Drainage

a) General - The proposed storm water drainage shall minimize contribution of pollutants to surface or groundwater on or off the site and shall not adversely impact adjacent property by creating ponding, significant changes in the water table or increases in water discharge as noted herein. The applicant must contact

the Conservation Commission to determine if the M.G.L. c. 131, s. 40 and Town of Duxbury General Bylaw, Chapter 9, apply. The applicant is encouraged to be innovative in creating a system which will fulfill the objectives listed in Section 7.3.7c.

b) Design - Storm water drainage systems shall implement "Best Management Practices" and conform to the guidelines described in the "Performance Standards and Guidelines for Storm Water Management in Massachusetts" published by the Massachusetts Department of Environmental Protection.

Under certain circumstances, the Planning Board may also consider, after demonstration by a registered engineer, other designs and practices common to Low Impact Development (LID) to mitigate the effects of storm water runoff when reviewing storm water drainage systems.

c) Objectives - All available drainage management systems shall be reviewed to determine the appropriate method or combination of methods for the site. Soil types, topography, wetland types and location, vegetative cover, water table, flood conditions and the presence of water bodies on or near the site shall all be considered in the design of the drainage system:

Plans and calculations shall be developed in coordination with the Board, Planning Director, DPW Director, Board of Health, and the Conservation Commission. The following objectives shall guide the design:

1. Protect surface and groundwater quality using creative, multi-stage systems;
2. Minimize disruption to existing natural and topographic features on the site;
3. Ensure no increase in the rate of discharge from pre-development to post-development conditions.
4. Minimize future maintenance of the system;
5. Ensure public safety;
6. Protect existing abutting homes, properties and septic systems;
7. Create aesthetically pleasing designs which enhance views of the natural environment;
8. Prohibit direct discharges into any water body or resource area.

d) Design Requirements - Design of the drainage system shall conform to the following requirements:

1. Calculations - There shall be no increase in the peak rate of storm water runoff leaving the site for pre and post development. Design calculations to determine the size of all pipes, culverts and basins shall be submitted to the Board for review and shall be prepared by a professional engineer registered in the Commonwealth of Massachusetts. Calculations shall be clearly organized, detailed and accompanied by a written narrative. Sizing of the piping system shall be based on the Rational Method. Drainage calculations shall include a map showing the tributary watershed areas, soil types and surficial cover characteristics (e.g., forest, grass, pavement).

2. Drainage System - The drainage system shall be designed based on a twenty-five (25) year storm event. A complete storm drainage system shall be designed for each street and shall be laid out and be of sufficient size to permit unimpeded flow of all natural waterways, to eliminate undesirable accumulation of water on any portion of the subdivision or surrounding property and to intercept storm water runoff from adjacent lots. The storm drainage system shall include catch basins, manholes, pipe, gutters, swales, culverts, head-walls, and other related items as may be required to complete the system to the satisfaction of the Board. Appendix B - Drainage Materials and Installation Specifications contains the specifications for acceptable materials and installation practices for drainage systems.

a) Catch basins shall be located along edges of pavement at all low points in the roadway and at intervals as follows:

Maximum 300 ft. for grades up to 4%

Maximum 250 ft. for grades from 4% to 6%

Maximum 200 ft. for grades greater than 6%

No basins shall be located within driveway curb cuts or at sidewalk handicap access ramps.

b) Storm water drainage piping shall be minimum twelve (12) inch diameter and shall have a minimum depth of cover of two feet six inches (2'-6") as measured from the roadway subgrade. Slope of pipe shall not be less than 1/2 of one percent (0.5%). The drainage system shall be designed for a minimum self-scouring velocity of three (3) ft./sec.

c) Drainage pipes shall have positive outfalls, head-walls with wing walls or pre-formed flared end sections, and rip-rapped stone aprons to provide energy dissipation. In every case, a minimum of thirty (30) feet of vegetated swale

shall be provided above the high water line of any stream, swamp, bank or wetlands. All outfalls into resource areas or their buffer zones shall be subject to the approval of the Conservation Commission.

d) Manholes shall be located at all changes in direction of drainage pipe, either horizontally or vertically, at all pipe connections and at maximum intervals of three hundred (300) ft. along pipe runs.

e) Culverts shall be designed on the basis of a one hundred (100) year storm on the assumption that the entire drainage area is built up to the density allowed by the current zoning bylaws. Hydraulic Calculations necessary to determine the size of waterway opening shall be submitted to the Board for review. Culverts shall have a head-wall at each end. Culverts thirty-six (36) inches or greater in equivalent diameter shall include additional protection for roadway side slopes and grates.

3. Swales - Wherever practical, except alongside roadways, stormwater shall be channeled via open swales to facilitate the removal of contaminants.

a) Scuppers or swales from the roadway onto adjacent lots must be designed to direct flows away from any existing or proposed homes. Whenever possible, scuppers and swales should be grassed to promote aesthetics and the removal of contaminants. Where higher velocities require the use of a heavier lining, rip-rap, trap rock or other similar material shall be used to prevent erosion.

b) Swales shall have minimum side slopes of 3:1 (horizontal to vertical) with maximum slope of swale not to exceed five percent (5%).

c) Dense vegetative cover shall be established as quickly as possible. Organic matter shall be incorporated into the soil to enhance potential for pollutant removal. Grasses shall be planted to provide enhanced vertical resistance to stormwater runoff.

4. Off-Site Systems - The use of existing or proposed off-site drainage systems will require the submission of legal easements or agreements with the applicable land owner as well as an access easement in the Town's favor. Drainage systems within off-site easement areas must comply with the requirements of these Subdivision Rules and Regulations. Calculations must be submitted demonstrating conformance with these Subdivision Rules and Regulations. All easements must be of a form acceptable to Town Counsel. See Section 7.3.13 Easements.

5. Sites within Aquifer Protection Overlay Districts (APOD) and Other Sensitive Areas - Special attention shall be given to sites within the APOD as defined in Section 406 of the Duxbury Protective Bylaw and shown on a map named the same dated December 4, 2002; other communities' Zone II; and areas subject to protection under M.G.L. c. 131, s. 40 or Town of Duxbury General Bylaw, Chapter 9; and other sensitive areas.

For such sites, the Board will require that a nitrogen loading analysis be performed to determine the suitability of the drainage system. These requirements also apply to existing drainage facilities either on or off the site which will be affected by runoff from the proposed subdivision. The analysis shall be based on criteria established in the Duxbury Protective Bylaw Section 406.6, Item 4, subscripts d, i and ii.

6. Drainage Basins - Detailed designs of all detention/retention basins and pre-treatment basins are required. At a minimum they shall include cross sections, soil types, depth to maximum level of groundwater, final slopes and elevations. A planting and stabilization schedule is required for side slopes. Drainage basins shall meet the following criteria:

a) Bottom of basins shall be a minimum of two (2) feet above maximum groundwater level and shall be vegetated to promote filtration of contaminants. Permanent standing water is discouraged unless the basin is located adjacent to or hydrogeologically connected to a wetland or water body.

b) A pre-treatment facility shall be provided to remove contaminants from the water prior to entering a detention/retention basin. Contaminants shall include sediment, grit, oil and general debris. Pre-treatment facilities may include lined siltation basins, oil/water separators, and oil/grit separators. No water shall be permitted to recharge or leach into the ground unless it has been pre-treated to remove oil and sediment.

c) Basins shall be designed to contain a twenty-five (25) year design storm with one (1) foot of freeboard at the maximum water level. All basins shall be designed with an emergency overflow spillway with appropriate erosion control protection.

d) Retention facilities shall be designed to dissipate within seventy-two (72) hours based on the percolation rate of the soil. Percolation tests for the site shall be required if a retention basin with recharge of stormwater into the ground is proposed.

e) Basin length to width ratio shall be at least 3:1 to maximize distance from inlet to outlet. Basin surface area shall be maximized.

f) Side slopes in basins shall not exceed 3:1 (horizontal to vertical) above a permanent pool and 2:1 within a permanent pool.

g) In dry basins, a pervious low flow channel shall be used to prevent erosion of the bottom of basin. Low flow channels shall have a minimum grade of two (2%) percent to prevent ponding. Suitable protection shall be provided to prevent erosion of the channel.

h) All pipes and risers shall be equipped with trash racks and/or guards as appropriate to prevent entry by children and animals.

i) Basins and associated outlet aprons and swales shall be incorporated into separate land parcels exclusively for purposes of stormwater management rather than be shown as easements. These parcels shall include the required buffers and maintenance access.

j) All facilities shall be designed to blend into the landscape to obviate the need for fencing and screening. Wherever possible, they shall follow the natural contours of the land so as not to create large disturbed areas, steep slopes or walls. Basins over four (4) feet in depth are not permitted.

k) Means of access for mechanized maintenance equipment shall be provided to all basins.

l) Plans for pre-treatment marshes shall specify the average and maximum levels of the adjacent water body and the final proposed water level of the marsh. If storage capacity is being created, the plans shall illustrate the methods being employed as well as the type and elevation of inlets and outlets. A specific planting scheme of wetland vegetation is required.

1. Pre-treatment marshes shall be constructed in upland areas. Wetlands shall not be removed or altered for marsh construction without approval of the Conservation Commission.

2. To promote water quality, the marsh shall be designed to retain the "first flush" of stormwater runoff to allow contaminants to settle out prior to entering the adjacent water body. Subsequently, it must be capable

of storing or detaining a ten (10) year storm event.

m) A fifty (50) ft. buffer zone of existing vegetation shall be retained between all basins or pre-treatment facilities and adjacent uses or structures. Buffers shall be adapted for access and shall be fully contained within the drainage lot. A thirty (30) ft. buffer zone of existing vegetation shall be retained between all point source discharges of stormwater and surface waters and wetlands. In tidal areas, the buffer zone shall be measured from the mean high tide level.

n) Basins shall have positive outfalls with rip-rapped stone aprons to provide energy dissipation. In every case, a minimum of thirty (30) ft. of vegetated swale above the high water line of any stream, swamp, bank or wetlands shall be provided.

o) The Board may require that a separate performance guarantee be posted to secure the completion and satisfactory functioning of any drainage basin or pre-treatment facility. This performance guarantee may be required for a specified time period to ensure the proper growth of plant species pursuant to M.G.L. c. 131, s. 40 310 CMR (10.55).

7.3.8. Utility Requirements

a) Water pipes and related equipment such as hydrants and water main shut-off valves shall be designed in accordance with the latest edition of the Rules and Regulations of the Duxbury Water Department and shall be installed under the direction and supervision of the Water Department to serve each lot of the subdivision.

b) Public Water Supply Standards: Wherever feasible, water supply shall be provided from a public water supply system. The water supply system will be considered adequate only if it is capable of providing each proposed fire hydrant with a flow of 750 gpm at 20 psi residual pressure for single and two family residential developments. For multi-family and non-residential developments approval of the Fire Chief/Department is required. Each proposed lot shall have water pressure of 35 psi, average peak day, at street grade without individual booster pumps for domestic water. Where any part of any lot is at elevation 120 feet (msl) or higher, the applicant shall submit calculations documenting supply adequacy.

c) Private Supply Standards: Where connection to the public water supply is not feasible in the opinion of the Planning Board, the Planning Board may approve a subdivision upon the Board's determination, following consultation with the Fire Department, that a sprinkler system or other provisions will adequately provide for fire safety. In addition, upon the Board's determination, following consultation with the Board of Health, wells on each lot shall be able to provide a sustained yield of five (5) gpm of water meeting latest edition DEP "Drinking

Water Regulations of Massachusetts" standards. Test wells may be required of the applicant.

d) Sewage disposal: On-site sewage disposal facilities shall be constructed in conformance with the Rules and Regulations of the Board of Health as promulgated and amended from time to time. No house may be occupied until the sewage disposal facilities have been approved by the Board of Health, and a certificate of occupancy has been issued by the Inspectional Services Department.

The applicant shall submit sufficient information including test pits, perc tests, topographic and hydrologic data to indicate the feasibility of on-site disposal in the event public sewers are not available.

7.3.9 Dead End Streets

a) General - Dead end streets, including cul-de-sacs, shall not be more than 1000 feet in length, nor serve more than ten (10) lots. The length of dead end streets shall be measured beginning from the edge of the traveled way of the nearest through street to the center of the turnaround along the center line of the road.

b) Design Standards - All cul-de-sacs/dead end streets shall be provided with the following:

1. A circular turnaround. The pavement width at all turnarounds shall be a minimum of eighteen (18) feet with a one and a half (1.5) ft. Cape Cod berm.

2. A vegetated island shall be provided in the center of the cul-de-sac. See Figure 5.

3. Road grade shall not exceed three (3%) within a cul-de-sac.

4. Bituminous paving shall be used.

5. Drainage shall be provided in accordance with the requirements of Section 7.3.7

6. Modified turnarounds such as hammerheads may not be used, except as permitted under Section 7.3.10

7.3.10 Local Street

a) General: When the subdivision of a tract of land creates three (3) or less lots, a local street design may be used utilizing the design standards below. All provisions of the Subdivision Control Law and these Subdivision Rules and Regulations shall apply to the application and plan. Only the dimensional requirements for the roadway within the fifty (50) foot R.O.W. shall differ from the standard definitive subdivision requirements.

b) Objectives: The intent of this provision is to reduce tree removal, site disruption and paving widths while providing safe and adequate access to the lots served by the local street.

c) Design Standards:

1. Fifty (50) foot R.O.W. with a one hundred and fifty (150) foot diameter cul-de-sac layout shall be required (See Figure 5).
2. Bituminous concrete paving shall be used.
3. Minimum width of traveled way shall be fourteen (14) ft. with one and a half (1.5) ft. Cape Cod berm.
4. Drainage facilities shall be provided to meet requirements of Section 7.3.7
5. Modified turnarounds built within the one hundred fifty (150) ft. cul-de-sac layout may be used such as hammerheads, etc. Such design shall accommodate a turnaround for a single unit (SU-30) truck (see AASHTO geometric requirements).
6. All lots must accrue legal frontage and access over the R.O.W. lines.

7.3.11 Street Lights

Street lights may be required at intersections of streets, near sharp turns or other areas where the Board deems they are needed for public safety. The developer is responsible for installing the pole, wiring and arranging installation of the light fixture. The developer is responsible for paying for the cost of electricity until such time as the road is accepted by Town Meeting, or in the case of private roads, approval of the As-Built drawing at which time the light bill will be paid by fee owners of the road. Street lights must be installed prior to the issuance of the certificate of occupancy for the first dwelling in the subdivision. Design shall be approved by the DPW Director.

7.3.12 Street Names

Applicants shall submit the proposed street names in writing to the Planning Director who shall forward them to the Town Historian along with the title sheet of the definitive plan that shows the locus and layout of the subdivision. Appropriate street names shall have historical significance or be related to a natural feature of the area. The Town Historian shall comment on the proposed name or give alternative suggestions for the applicant to select. Names of living persons will not be accepted. The Planning Board must grant final approval of all street names.

Any proposal for a public street name change shall be reviewed in accordance with Chapter 85 Section 3, 3A & 3B (Changing of name of ways) of the Massachusetts General Laws after notice of a public hearing in a newspaper of general circulation. Petitioners seeking such a change will be responsible for all costs incurred as to advertising and recording of the appropriate documentation at the Plymouth County Registry and/or Land Court (if applicable).

7.3.13 Easements

Utility or drainage easements shall be provided where necessary and shall, whenever possible, be centered on side or rear lot lines, and shall be a minimum of twenty-five (25) ft. wide. For any utilities or drainage pipes buried greater than ten (10) feet below finished grade, the Planning Board will require Town ownership in lieu of an easement unless a public benefit can be demonstrated. All easements shall be shown on the definitive plan, As-Built drawing and Roadway Acceptance Plan.

All easements shall be accompanied by Easement Documents for recording at the Registry of Deeds. Easements must be clearly defined and described on the definitive plan. The applicant is responsible for recording all easement documents following endorsement of the definitive plan by the Board. Proof of recording shall be submitted to the Board within thirty (30) days of endorsement of the plan. Easements shall be in a form acceptable to Town Counsel.

There shall be no placement of any structure and/or subsurface system either above or below the land subject to an approved easement unless such easement is expressly dedicated to such use.

8.0 FRONTAGE WAIVER REQUESTS

Applicants shall apply under the same procedures as a standard Definitive Subdivision plan, however, the plan showing the lots for which a waiver is requested shall consist of a plan similar to an ANR plan. All other plan requirements shall be the same as in a modification request.

9.0 LOT LETTERING

Lot letters shall be assigned to each lot in a subdivision in the following manner:

Lot letters shall begin with letter “A” being the first lot on the right side of the proposed roadway with each lot alphabetically lettered around the proposed roadway. Should the number lots exceed the letters of the alphabet, double lettering shall be used, i.e. “AA, BB, CC...”. If the land shown on the plan is registered land, a separate plan shall be required showing the registered parcel forming single building lots and labeled alphabetically.

Lot letters shall be clearly displayed during construction. Lot letters shall be removed once a Certificate of Occupancy has been signed for a new house and a house number is assigned.

10.0 STREET SIGNS

During construction, temporary signage shall be posted for street identification. The developer shall erect and set in concrete the permanent street sign pole. The street sign will be made by the Department of Public Works upon written request and payment of the applicable DPW fee. The developer is then responsible for installing the sign on the pole prior to the issuance of the certificate of occupancy for the first house in the development. All streets must have a sign made by the Department of Public Works that conforms to Town specifications. Any other proposal for street identification shall require approval from the Department of Public Works prior to installation.

11.0. SHADE TREES

All subdivisions shall have deciduous shade trees in order to enhance the aesthetic quality of the streetscape.

The location, size, number and species of trees shall be determined jointly by the developer and the Director of Lands and Natural Resources (Tree Warden), and approved by the Board. Following the construction of the base course of the roadway, the developer shall request the tree warden to verify the staked locations for tree plantings. Groups of trees or shrubs may be required within the island of a cul-de-sac.

Trees shall be nursery stock quality, minimum of two (2) inch caliper. All trees must be properly wrapped and guyed. Trees shall be planted at appropriate seasons in order to ensure survival. The developer shall be responsible for maintaining the health of the trees for two (2) full growing seasons or until such time as the As-Built plans of the street are approved by the Board (private ways), or the acceptance of the street by Town Meeting (public ways) whichever is longer.

12.0 PRESERVATION OF NATURAL VEGETATION

Every effort shall be made to preserve the existing trees or other rare or unique flora within the R.O.W. and on the lots being created. Cuts and fill for roadway construction shall be done in a manner that preserves natural vegetation whenever possible. Stock piles of fill shall be located in areas that do not bury existing trees above the natural grade. Machine operators shall exercise due caution during construction and avoid unnecessary damage to root systems or scraping bark from trees to be preserved.

The developer shall erect 8 ft x 8 ft. temporary wooden tree guards around specific trees designated to be saved to protect them from damage during construction.

13.0 CONSTRUCTION STANDARDS

The construction of all subdivision improvements shall only occur during seasonal and weather conditions that allow for high quality infrastructure construction, utilizing accepted industry standards. See Appendix A for Roadway Construction Standards. See Appendix B for Drainage Materials and installation specifications.

14.0 CLEAN UP

Upon completion of all work on the ground, the developer shall remove from the streets and adjoining property, all temporary structures and all surplus material and rubbish which may have accumulated during construction, and shall leave the work in a neat and orderly condition. During construction, the developer shall keep the site free of rubbish which may be carried by wind or rain off the site to abutting properties or onto public ways.

15.0 MAINTENANCE

The developer shall maintain the roads for vehicular travel, including snow plowing, in a manner satisfactory to the Board, until approval of the As-built plan for private roads or acceptance by Town Meeting for proposed public ways. Further, the developer shall maintain the completed roads, drainage structures and shade trees in a subdivision in a condition which meets all the above requirements to the satisfaction of the Board up until approval of the As-Built plan or until acceptance of the roads by vote of Town Meeting.

APPENDIX A

ROADWAY CONSTRUCTION SPECIFICATIONS AND STANDARDS

The following specifications shall govern the construction of all streets within the right-of-way (R.O.W.) lines of a proposed subdivision under the Rules and Regulations governing the Subdivision of Land, adopted by the Duxbury Planning Board.

Whenever the term "State Specifications" is used in this section in reference to materials and methods of construction, it shall mean the Standard Specifications for Highways and Bridges of the Massachusetts Highway Department, dated 1988, including amendments.

The contractor shall notify the D.P.W. Director in writing at least forty-eight (48) hours in advance of beginning any construction within a public way.

1.0 ROADWAYS

1.1 Clearing and Grubbing

All areas to be cleared and grubbed within the roadway R.O.W. lines of a subdivision shall be clearly shown on the definitive plan in conjunction with the proposed landscaping. The intent of the Board is to maintain as much of the original natural vegetation as possible within a subdivision. Clearing and grubbing shall be required as follows:

- a) A minimum of eight (8) feet beyond the back of roadway berm
- b) A minimum of four (4) feet beyond the back of sidewalk
- c) Within areas required for grading purposes
- d) Within ten (10) feet of an underground utility
- e) As required to maintain sight lines

Areas to be cleared and grubbed shall be cleared of all stumps, brush, roots, boulders and trees not designated for preservation. Trees to be preserved shall be physically protected from construction operations in a manner satisfactory to the Duxbury Tree Warden. All resulting debris from clearing and grubbing operations shall be properly disposed of off-site in accordance with all local, state and federal regulations. Stump dumps shall not be permitted within a subdivision.

1.2 Excavation and Subgrade Preparation

All topsoil shall be removed for the full width of the paved roadway, under the six (6) foot wide grass shoulders and under sidewalks, regardless of whether the finished grade is above or below existing grade. All other material shall be removed for the full length and width of roadway to the proposed roadway subgrade. If the soil below the proposed subgrade contains undesirable material which will affect the structural integrity of the pavement such as clay, soft or spongy material, sand pockets, tree stumps, or other material detrimental to the subgrade, such material shall be excavated and removed as required by the Board's Engineer and/or the DPW Director. Excavation below subgrade shall be backfilled with processed gravel per Section M1.03.1 of the "State Specifications" and compacted.

1.3 Grading

All roadways shall be brought to a finished grade as shown on the vertical roadway profiles of a Definitive Plan. Before sub-base material is spread, the subgrade shall be shaped to a true surface conforming to the proposed cross section of the roadway and sidewalk and compacted in accordance with Section 170 in the "State Specifications". Roadway crown shall be a minimum of 1/4 inch per foot.

1.4 Pavement Sub-Base

After the roadway subgrade has been carefully graded and compacted, a pavement sub-base layer consisting of the following shall be spread and compacted:

- a) Eight (8) inches of processed gravel for sub-base meeting the requirements of Section M1.03.1 of the "State Specifications" except that the maximum stone size shall be two (2) inches. Spread and compact the material in accordance with the requirements of Section 405 of the "State Specifications".
- b) Four (4) inches of dense graded crushed stone for sub-base meeting the requirements of Section M2.01.7 of the "State Specifications". Spread and compact the material in accordance with Section 402 of the "State Specifications".

The sub-base material shall continue beyond the back of berm a distance of six (6) feet to provide a stabilized shoulder for occasional parking of vehicles.

1.5 Pavement and Wearing Surface

After the pavement sub-base has been carefully graded and compacted, the pavement shall be constructed. The pavement shall consist of the following:

- a) Two (2) inches of Class I Bituminous Concrete Base Course, Type I-1 meeting the requirements of Section 420 of the "State Specifications".

b) One and 1/2 inches of Class I Bituminous Concrete Pavement, Type I-1 meeting the requirements of Section 460 of the "State Specifications". An RS-1 emulsion shall be applied between the base and top courses.

The final top course shall be applied when a substantial portion of the construction on adjacent lots is completed as determined by the Board and/or DPW Director.

2.0 SIDEWALKS

2.1 Location, section and dimensions of concrete sidewalks shall be as shown in Figures 2 and 3. Sidewalks shall be at least six (6) inches higher than the adjacent roadway and at least 4'-6" wide. Sidewalks shall be installed with the placement of the final top course pavement.

2.2 Sidewalks shall be constructed of four (4) inches of cement concrete on a minimum eight (8) inch gravel borrow sub-base conforming to the requirements of Section 701 of the "State Specifications". Concrete shall have a minimum 28 day compressive strength of 4,000 psi with maximum 3/4 inch aggregate. One layer of No. 4, 4 by 6 welded wire mesh shall be provided at mid depth. The walking surface shall be broom finished. Concrete surfaces shall be coated on the top and sides with an approved sealer. Expansion joints (1/2 inch open) shall be provided at least every twenty (20) feet, with score joints at four (4) foot intervals. All expansion joints shall use a preformed expansion joint filler conforming to Section 9.14.0 of the "State Specifications".

2.3 Sidewalks may meander to avoid destruction of existing major trees.

2.4 All driveway aprons that cross proposed sidewalks shall be concrete to match the concrete sidewalk. Concrete driveway aprons shall be installed with the installation of sidewalks.

3.0 GRASS STRIPS AND CLEARED AREAS

3.1 All areas disturbed by construction and grading operations adjacent to the pavement and sidewalk, within the limits of the Right-of-Way shall be seeded. A minimum of six (6) inches of loam (depth after compaction) shall be applied and the areas shall be seeded with grass seed. Composition of seed mixture must be indicated on the Definitive Plan Landscape Plan. A dense robust vegetated area must be established and maintained until the development is certified as complete by the Board. These areas shall be periodically mowed and watered as required to maintain a neat appearance during construction of houses in the development.

4.0 UNDERGROUND UTILITIES

4.1 All underground utilities shall be marked with continuous plastic detector tape located in the backfill six (6) inches above the utility.

4.2 Water mains, hydrants and house lateral connections shall be constructed in accordance with the requirements of the Duxbury Water Department.

APPENDIX B

DRAINAGE MATERIALS AND INSTALLATION SPECIFICATIONS

1.0 GENERAL

1.1 DESCRIPTION

- a) This section specifies the materials and methods of construction required for the construction of a storm drainage system for a proposed development
- b) An applicant may propose alternate materials and methods of construction which deviate from the requirements of these specifications provided that such proposed alternates are of equal or better quality to the materials and methods of construction specified in this section. The Board will be the sole judge as to the acceptability of any proposed alternate.

1.2 STATE SPECIFICATIONS

Whenever the term "State Specifications" is used in this section in reference to materials and methods of construction, it shall mean the Standard Specifications for Highways and Bridges of the Massachusetts Highway Department, dated 1988, including amendments.

1.3 NOTIFICATION

The contractor shall notify the D.P.W. Director in writing at least forty-eight (48) hours in advance of beginning any construction within a public way.

2.0 MATERIALS

2.1 PIPE

- a) Pipe for storm drainage systems shall be either reinforced concrete pipe (Class III minimum) or corrugated plastic meeting the requirements of Sections M5.02.1 and M5.03.10 of the "State Specifications", respectively. Minimum pipe size shall be twelve (12) inch diameter. Corrugated plastic pipe shall not be used as flared ends or in other applications where the pipe is exposed to vandalism or ultraviolet radiation. Corrugated plastic pipe shall have a smooth interior.
- b) Pipe joint material for reinforced concrete pipe shall be rubber ring or plastic gaskets made of tough, flexible, chemical-resistant material of such size and shape to ensure satisfactory, water-tight pipe joints in conformance with ASTM-C443. Gaskets for joining pipe shall be compatible with the pipe system. Corrugated plastic pipe shall be

firmly joined by an approved coupling. Methods for joining pipe shall be approved by the DPW Director.

2.2 MANHOLES AND CATCH BASINS

a) Manholes and catch basins shall be precast concrete units conforming to the requirements of Section M4.02.14 of the "State Specifications. Concrete for precast units shall have a minimum 28 day compressive strength of 4,000 psi. Precast units shall be designed for HS-20 loading. Joints between sections shall be tongue and groove, sealed with a rubber joint material conforming to ASTM C361. Exterior surfaces of precast units shall be sealed with a cold applied bituminous sealer. Size and dimensions of manholes and catch basins shall be approved by the DPW Director.

b) Castings for frames, grates, covers and hoods shall conform to the requirements of ASTM A48, Grade 30, minimum. All castings shall be coated with an approved black asphaltum.

c) Brick and mortar for field adjusting collars shall conform to the requirements of Sections M4.05.02 and M4.02.15 of the "State Specifications," respectively.

d) The minimum diameter of manholes shall be forty-eight (48) inches. Manholes shall have cast iron or reinforced plastic step rungs at twelve (12) inch spacing for access to the bottom. Steps shall be designed for a minimum load of 300 pounds. Manhole covers shall have the word "DRAIN" embossed on the cover unless otherwise directed by the DPW Director.

e) Catch basins shall have a minimum 3'-0" sump provided. Cast iron hoods shall be provided on all outlet pipes to prevent floating oil and debris from entering the drainage pipe.

2.3 PIPE OUTFALLS

a) Flared end sections of pipe shall be reinforced concrete precast sections (Class III) conforming to the requirements of Sections M5.02.0 of the State Specifications".

b) Headwalls and wingwalls for end sections shall be constructed of reinforced concrete with a minimum 28 day compressive strength of 4,000 psi conforming to the requirements of Sections M4.02.00 (4,000 psi, 3/4 inch, 610 pound cement) of the "State Specifications." Steel bar reinforcement shall be ASTM A615, Grade 60. Headwalls and wingwalls shall be designed in accordance with the requirements of the AASHTO Standard Specifications for Highway Bridges, latest edition.

c) All pipe outfalls shall be protected from erosion with stone for pipe ends conforming to the requirements of Section M2.02.3 of the "State Specifications".

3.0 CONNECTIONS TO EXISTING STRUCTURES

3.1 Cut holes in existing structure walls for new pipe connections to the minimum size required for pipe installation. Completely fill the space around the pipe with stiff cement mortar for the full thickness of the wall. All pipes shall be cut flush with the inside of structure.

3.2 Rim elevations of existing drainage structures shall be adjusted as required to meet new finished grades. Grade adjustments shall be made in the masonry leveling course.

4.0 EROSION CONTROL DURING CONSTRUCTION

4.1 The drainage system shall be made operational as soon as it is complete. At no time shall a completed drainage system be prevented from operating. Until adjacent embankment cut and fill slopes are stabilized to prevent erosion, and during construction on adjacent lots, the contractor shall employ temporary erosion control measures as necessary to prevent sediment from entering the drainage system.

4.2 The type and design of erosion control measures that will be required will vary from site to site and the specific cause of environmental degradation. The protective measures may consist of, but are not limited to:

- a. Temporary sedimentation pools for the protection of rivers, lakes, streams and ponds
- b. Temporary earth berms and slope drains to control and channel heavy runoff, thus preventing washouts
- c. Ditches and swales at bottoms of slopes
- d. Check dams in swales and ditches to slow runoff
- e. Filters at drain inlets
- f. Energy dissipators at culvert outlets such as splash pads and rip rap
- g. Silt fences with or without hay bales
- h. Haybales

4.3 An erosion control plan describing materials and specific methods of erosion control must be submitted as part of the definitive plan submittal and shall be approved by the Board.

4.4 If the final top course of pavement will not be applied immediately, the catch basin grates shall be temporarily set at the base course elevation to allow storm water to enter the drainage system. When the final top course of pavement is applied, the grate elevations shall be adjusted to meet the final grades.

5.0 FINAL ACCEPTANCE

Prior to final acceptance of the drainage system, all pipes, drainage structures, basins and swales shall be flushed and cleaned to remove any accumulated sediment and debris. All temporary erosion control measures shall be removed.

Until a roadway is accepted by the Town, the developer shall be responsible for snow plowing and sanding during inclement weather. In the case of a public safety emergency, should the Town Department of Public Works be required to address any accessibility issue, due to weather relating conditions, the developer shall be responsible for all costs incurred by the Town for failure to maintain safe and adequate access.

APPENDIX C

INSPECTION AND TESTING OF REQUIRED IMPROVEMENTS

1.0 GENERAL

- 1.1 All work shall be reviewed by the Board and shall be approved and accepted or disapproved, rejected, and re-done correctly. The Board will employ a Registered Professional Engineer to act as its agent in the inspection of work to ensure compliance with these Subdivision Rules and Regulations. The Board's engineer shall make a report to the Board to approve or disapprove the work, citing specific reasons. The Board's engineer will make inspections as required in Section 3.0 below and as requested by the Board to check the adequacy of the work at various stages of work. The Board, its engineer, and others the Board may designate shall have the right to inspect the work at any time. The applicant shall provide safe and convenient access to all parts of the work for inspection by the Board or its authorized agents.
- 1.2 Work which has been disapproved or is not acceptable to the Board shall be corrected to comply with the approved plans. Work covered by subsequent work prior to acceptance or otherwise not available for inspection shall be considered not acceptable. Such work shall be removed as directed by the Board to insure availability for inspection as required.
- 1.3 Construction of the required improvements shall be inspected by the Board's Engineer or authorized agent, and unless the work is approved, including approval of materials, no further work shall be commenced. Inspections may include sampling for laboratory analysis or testing. Where samples are removed from the completed work, the applicant shall replace and restore such work, to the satisfaction of the Board's Engineer.

The Board's engineer may require certified copies of delivery receipts or bills of lading or other certification describing materials used. Samples shall be furnished at the expense of the applicant, and the applicant shall be liable for all costs and fees incurred by the Board as a result of transporting and testing materials.

2.0 NOTIFICATION TO THE APPLICANT

- 2.1 The Board will notify the applicant of the name and address of the Engineer designated as its representative. The applicant shall keep the Planning Director fully informed as to the status and progress of the work and shall notify the Planning Director directly in writing at least forty-eight (48) hours in advance, that the work has progressed to a stage that an inspection is required.

2.2 If the Board's Engineer is unable to make required inspections for forty-eight (48) hours after the work is ready for inspection, the applicant shall notify the Planning Director so an alternate may make the inspection.

2.3 The applicant shall be liable for all costs and fees incurred by the Board as a result of requests by the applicant for an inspection of the work.

3.0 INSPECTION OF REQUIRED IMPROVEMENTS

The following inspections to the required improvements must be made by the Board's Engineer or authorized agent. There may be additional inspections required by the Board.

3.1 First inspection: An inspection will be made upon completion of all clearing, grubbing and excavation. No fill shall have been placed at the time of this inspection.

3.2 Second Inspection: An inspection will be made of the completed drainage system (without backfill) as shown on the Definitive Plan. At the same time, an inspection will be made of the completed utility services (without backfill) as shown on the Definitive Plan. The inspection of the required utility services will be made by the agency responsible for the particular service. Each agency so involved will notify the Board's Engineer of the approval of such work.

Backfill of any portion of the drainage system or municipal services shall not be made until after receipt of notification of approval or acceptance by the Board's Engineer or agency responsible.

The inspection of the construction of the ways shall include the inspection of the back-filling and compaction of all utility trenches as may be installed by utility companies, and such work shall be performed in the manner as required by these Subdivision Rules and Regulations. It shall be the applicant's responsibility to insure compliance with these requirements.

3.3 Third Inspection: An inspection will be made of the compacted fill required to bring the roadways to their proposed grades. The applicant shall notify the Board's Engineer of his source of gravel for fill so that samples may be taken and analyzed if necessary. The applicant is advised not to proceed with the filling until the Board's Engineer notifies the applicant that the gravel is acceptable. If the applicant proceeds with the fill prior to such notice he does so at his own risk. The applicant shall not use a gravel source other than the one designated without prior approval from the Board's Engineer.

3.4 Fourth Inspection: An inspection will be made of the compacted roadway foundation. Gravel samples may be taken at the option of the Board's Engineer, in the same manner as detailed for the Third Inspection.

3.5 Fifth Inspection: An inspection will be made of the completed Class I Bituminous Concrete Base Course Type-I-1 for the roadway surface. Samples of the mix may be taken by the Board's Engineer for the purposes of performing an extraction test to compare the sample with the job-mix formula previously submitted.

3.6 Sixth Inspection: An inspection will be made of all work as required on bituminous concrete pavement sidewalks, curbing, grass plots, side slopes, monuments, bounds and street signs.

3.7 Seventh Inspection: A final inspection will be made of all subsequent work as required herein or on the Definitive Plan, including the final clean-up.

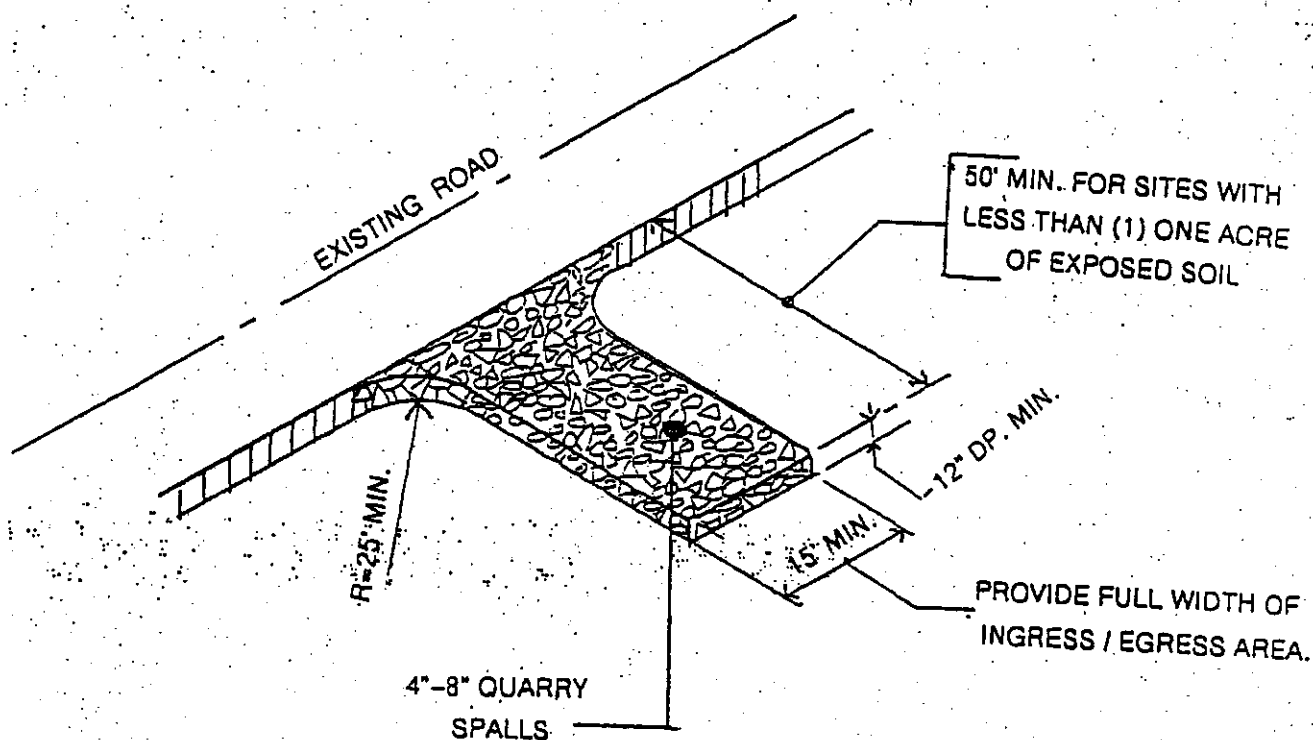
4.0 ENGINEER'S REPORT

4.1 The Board's Engineer will report that the work has been performed in accordance with these Subdivision Rules and Regulations and the Definitive Plan. The Board's Engineer will advise the Board when the work is not acceptable citing the reasons therefore.

4.2 At any time during the progress of the work, the Board's Engineer shall advise the Board immediately of any factors which may adversely affect the progress of the work.

APPENDIX D

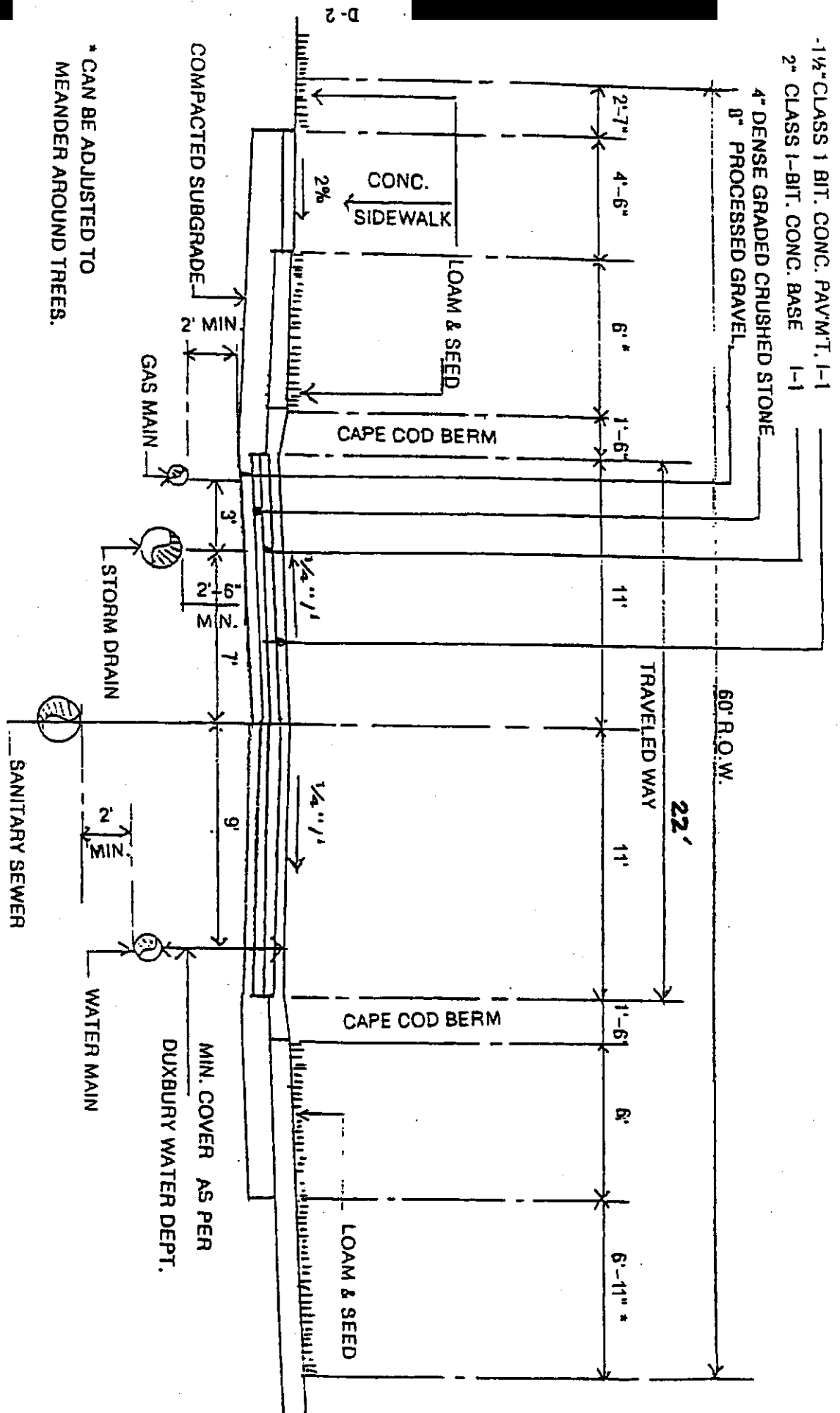
FIGURES



CRUSHED STONE APRON

N.T.S.

FIGURE 1

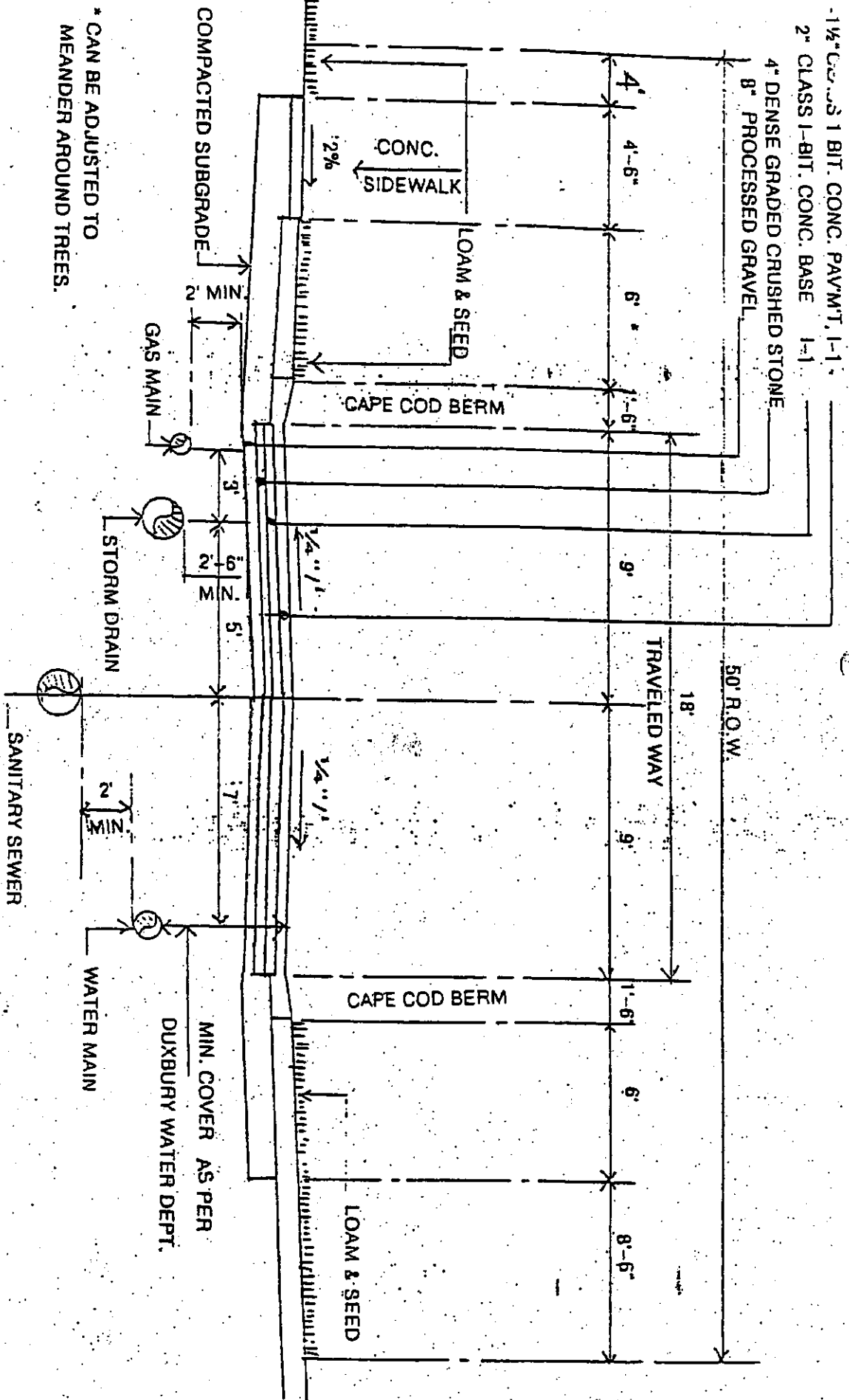


* CAN BE ADJUSTED TO
 MEANDER AROUND TREES.

SECONDARY STREET

N. T. S.

FIGURE 2

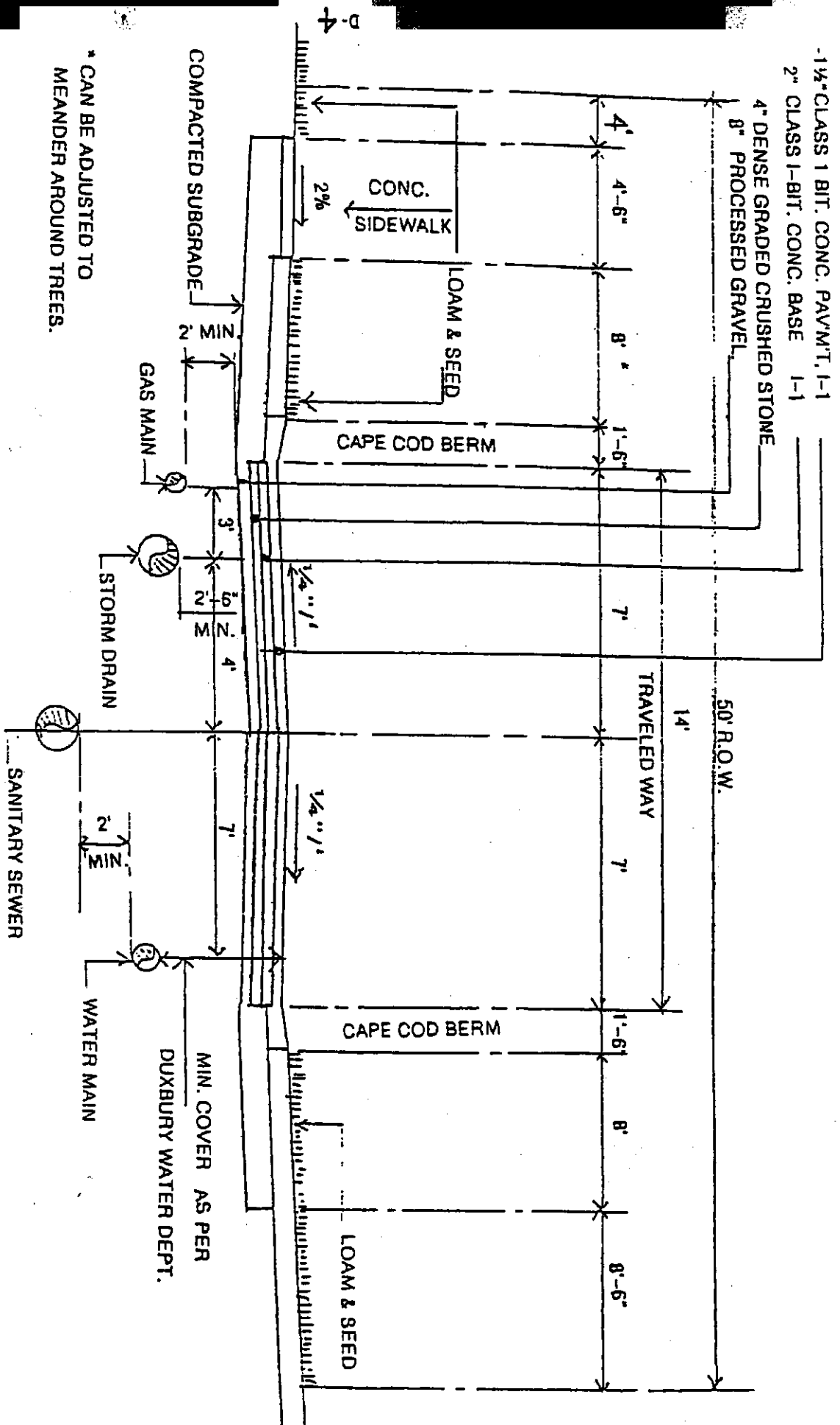


* CAN BE ADJUSTED TO MEANDER AROUND TREES.

MINOR STREET

N. T. S.

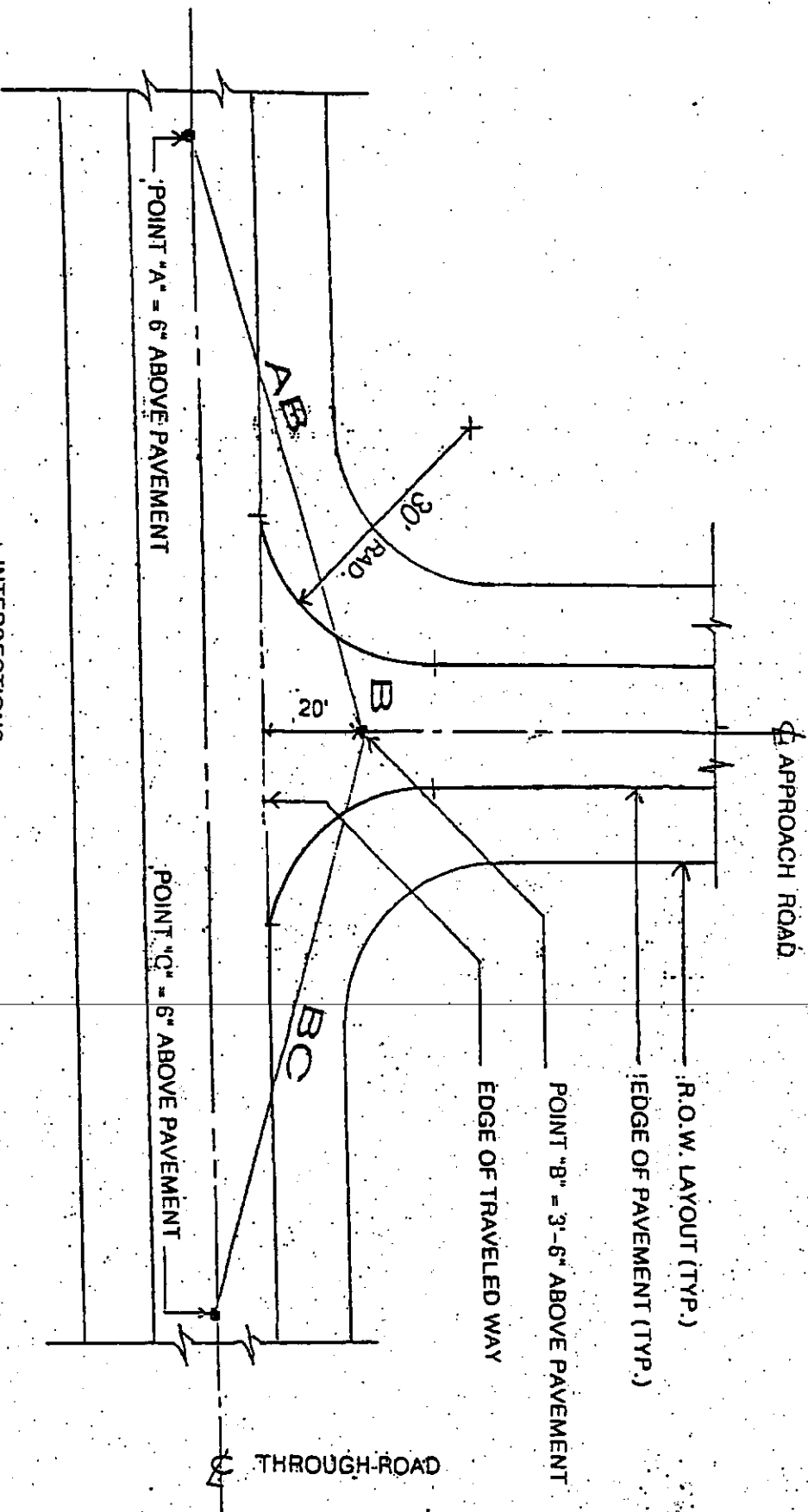
FIGURE 3



LOCAL STREET

N. T. S.

FIGURE 4



DESIGN SPEED LIMIT - THROUGH STREET

(POSTED SPEED + 5 MPH)

INTERSECTIONS
SIGHT DISTANCE
(AB & BC)

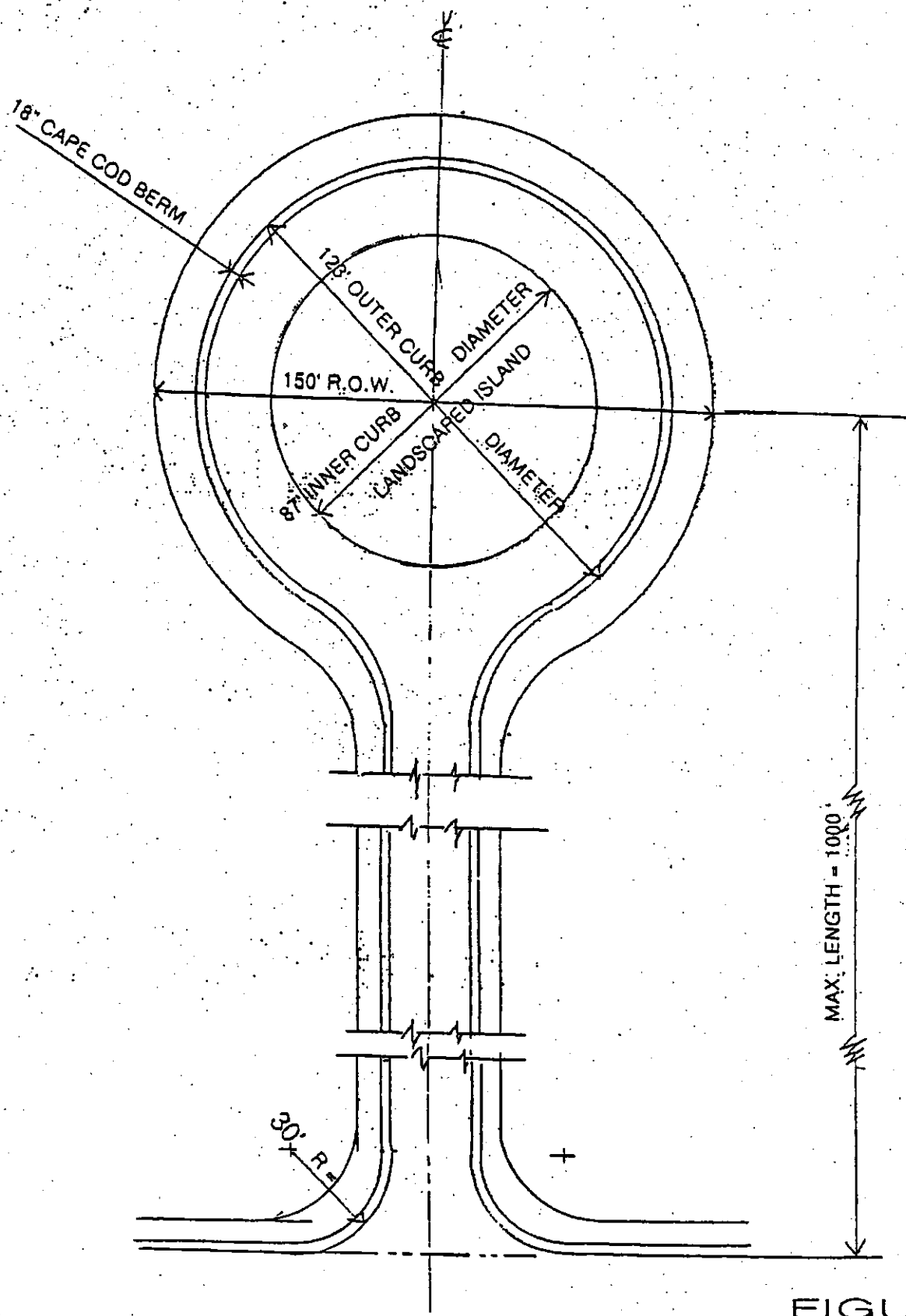
SITE DISTANCE

REQUIREMENTS

50 MPH	500 FT.
45 MPH	450 FT.
40 MPH	400 FT.
35 MPH	350 FT.
30 MPH	300 FT.

N.T.S.

FIGURE 5



TYPICAL CUL-DE-SAC.

APPENDIX E

FORMS

APPLICATION FOR ENDORSEMENT OF PLAN (Rev. 03/23/05)
BELIEVED NOT TO REQUIRE APPROVAL

Date: _____

To The Planning Board of the Town of Duxbury:

The undersigned wishes to record the accompanying plan and requests a determination and endorsement by said Board that approval by it under the Subdivision Control Law is not required. The undersigned believes that such approval is not required for the following reasons: (Circle as appropriate.)

1. The accompanying plan is not a subdivision because the plan does not show a division of land.

2. The division of the tract of land shown on the accompanying plan is not a subdivision because every lot shown on the plan has frontage of at least such distance as is presently required by the DUXBURY PROTECTIVE BYLAW under Section 502 which requires ____200____ feet for erection of a building on such lot; and every lot shown on the plan has such frontage on:

a. a public way or way which the Town Clerk certifies is maintained and used as a public way, namely _____, or

b. a way shown on a plan theretofore approved and endorsed in accordance with the subdivision control law, namely _____ on _____, and subject to the following conditions _____; or

c. a private way in existence August 18, 1950, the date when the subdivision control law became effective in the Town of DUXBURY, MASSACHUSETTS having, in the opinion of the Planning Board, sufficient width, suitable grades, and adequate construction to provide for the needs of vehicular traffic in relation to the proposed use of the land abutting thereon or served thereby, and for the installation of municipal services to serve such land and the buildings erected or to be erected thereon, namely _____.

3. The division of the tract of land shown on the accompanying plan is not a "subdivision" because it shows a proposed conveyance/other instrument, namely _____, which adds to/takes away from/changes the size and shape of, lots in such a manner so that no lot affected is left without frontage as required by the TOWN OF DUXBURY PROTECTIVE BYLAW under Section, 502, which requires 200 feet.

4. The division of the tract of land shown on the accompanying plan is not a subdivision because two or more buildings, specifically _____ buildings were standing on the plan prior to August 18, 1950, the date when the subdivision control law became effective in the Town of DUXBURY, MASSACHUSETTS, and one of such buildings remains standing on each of the lots/said buildings as shown and located on the accompanying plan. Evidence of the existence of such buildings prior to the effective date of the subdivision control law is submitted as follows:

Printed Name and Signature of Applicant: _____

Address and Telephone Number of Applicant: _____

Printed Names and Signatures of All Persons Whose Land is the Subject of this ANR Plan (except applicant):

APPLICATION FOR APPROVAL OF A PRELIMINARY PLAN

Date: _____

To the Planning Board in the Town of Duxbury:

The undersigned, being the applicant as defined under Chapter 41, Section 81-L, for approval of a proposed subdivision shown on a plan entitled:

By _____ dated _____
and described as follows: _____
located _____, number of lots proposed
_____ total acreage of tract _____, said applicant hereby submits said plan as a
Preliminary subdivision plan in accordance with the Rules and Regulations of the Duxbury Planning
Board and makes application to the Board for approval of said plan.

The undersigned's title to said land is derived from

_____ by deed dated
_____ and recorded in the Plymouth County Registry of Deeds Book _____,
Page _____, and/or registered in the Commonwealth of Massachusetts Land Court, Certificate
of Title No. _____.

Received by City/Town Clerk:

Applicant's Signature _____

Applicant's Address _____

Applicant's phone # _____

Owner's signature and address if not the
applicant

Received by Board of Health:

Date _____

Time _____

Signature _____

(Application must be accompanied by a completed Preliminary Plan Application Checklist.)

APPLICATION FOR APPROVAL OF A DEFINITIVE SUBDIVISION PLAN

Date: _____

To the Planning Board in the Town of Duxbury:

The undersigned, being the applicant as defined under Chapter 41, Section 81-L, for approval of a proposed subdivision shown on a plan entitled:

By _____ dated _____
and described as follows: _____
located _____, number of lots proposed _____
total acreage of tract _____, said applicant hereby submits said plan as a DEFINITIVE plan in
accordance with the Rules and Regulations of the Duxbury Planning Board and makes application to the
Board for approval of said plan.

The undersigned's title to said land is derived from

_____ by deed dated _____
and recorded in the Plymouth County Registry of Deeds Book _____, Page _____, and/or registered
in the Commonwealth of Massachusetts Land Court, Certificate of Title No.

_____ ; and said plan is free of encumbrances except for the following:

Said plan has () has not () evolved from a preliminary plan submitted to the Board on
_____(date) and approved (with modifications) () (disapproved) () on
_____(date).

The undersigned hereby applies for the approval of said DEFINITIVE plan by the Board, in belief that the
plan conforms to the Board's Rules and Regulations.

Received by City/Town Clerk:

Applicant's signature _____

Applicant's address _____

Received by Board of Health

Applicant's phone # _____

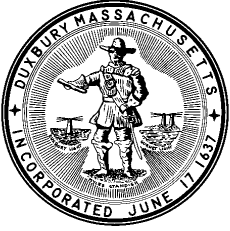
Date _____

Owner's signature and address if not the applicant

Time _____

Signature _____

(Must be accompanied by a completed Definitive Plan Application Checklist)



Town of Duxbury, Massachusetts Planning Board Covenant

Date: _____

KNOW ALL MEN by these presents that the undersigned has submitted an application dated _____ to the Duxbury Planning Board for approval of a definitive plan of a subdivision of land entitled: _____, plan by: _____, dated: _____, and owned by: _____, address: _____, land located: _____, and showing _____ proposed lots. The undersigned has requested the Planning Board to approve such plan without requiring a performance bond.

IN CONSIDERATION of said Planning Board of Duxbury in the county of Plymouth approving said plan without requiring a performance bond, the undersigned hereby covenants and agrees with the inhabitants of the _____ as follows:

1. That the undersigned is the owner in fee simple absolute of all the land included in the subdivision and that there are no mortgages of record or otherwise on any of the land, except for those described below, and that the present holders of said mortgages have assented to this contract prior to its execution by the undersigned.
If there is more than one owner, all must sign. "Applicant" may be an owner or his agent or representative, or his assigns, but the owner of record must sign the covenant.
2. That the undersigned will not sell or convey any lot in the subdivision or erect or place any permanent building on any lot until the construction of ways and installation of municipal services necessary to adequately serve such lot has been completed in accordance with the covenants, conditions, agreements, terms and provisions as specified in the following:
 - a. The Application for Approval of Definitive Plan (Form C).
 - b. The Subdivision Control Law and the Planning Board's Rules and Regulations governing this subdivision.
 - c. The certificate of approval and the conditions of approval specified therein, issued by the Planning Board, dated _____.
 - d. The definitive plan as approved and as qualified by the certificate of approval.
 - e. Other document(s) specifying construction to be completed, namely:

However, a mortgagee who acquires title to the mortgaged premises by foreclosure or otherwise and any succeeding owner of the mortgaged premises or part thereof may sell or convey any lot, subject only to that portion of this covenant which provides that no lot be sold or conveyed or shall be built upon until ways and services have been provided to serve such lot.

3. That this covenant shall be binding upon the executors, administrators, devisees, heirs, successors and assigns of the undersigned and shall constitute a covenant running with the land included in the subdivision and shall operate as restrictions upon the land.
4. That particular lots within the subdivision shall be released from the foregoing conditions upon the recording of a certificate of performance executed by a majority of the Planning Board and enumerating the specific lots to be released; and

5. That nothing herein shall be deemed to prohibit a conveyance by a single deed subject to this covenant, of either the entire parcel of land shown on the subdivision plan or of all lots not previously released by the Planning Board.
6. That the undersigned agrees to record this covenant with the Plymouth County Registry of Deeds, forthwith, or to pay the necessary recording fee to the said Planning Board in the event the Planning Board shall record this agreement forthwith. Reference to this covenant shall be entered upon the definitive subdivision plan as approved.
7. A deed of any part of the subdivision in violation of the covenant shall be voidable by the grantee prior to the release of the covenant; but not later than three (3) years from the date of such deed, as provided in Section 81-U, Chapter 41, M.G.L.
8. That this covenant shall be executed before endorsement of approval of the definitive plan by the Planning Board and shall take effect upon the endorsement of approval.
9. Upon final completion of the construction of ways and installation of municipal services as specified herein, on or before _____ the Planning Board shall release this covenant by an appropriate instrument, duly acknowledged. Failure to complete construction and installation within the time specified herein or such later date as may be specified by vote of the Planning Board with a written concurrence of the applicant, shall result in automatic rescission of the approval of the plan. Upon performance of this covenant with respect to any lot, the Planning Board may release such lot from this covenant by an appropriate instrument duly recorded.
10. Nothing herein shall prohibit the applicant from varying the method of securing the construction of ways and installation of municipal services from time to time or from securing by one, or in part by one and in part by another of the methods described in M.G.L., Chapter 41, Section 81-U, as long as such security is sufficient in the opinion of the Planning Board to secure performance of the construction and installation; and

For title to the property, see deed from _____, dated _____, recorded in _____ Registry of Deeds, Book _____, Page _____, or registered in _____ Land Registry as Document No. _____, and noted on certificate of title no. _____, in Registration Book _____, Page _____.

The present holder of a mortgage upon the property is _____ of _____. The mortgage is dated _____ and recorded in _____ Registry of Deeds, Book _____, Page _____. The mortgagee agrees to hold the mortgage subject to the covenants set forth above and agrees that the covenants shall have the same status, force and effect as though executed and recorded before the taking of the mortgage and further agrees that the mortgage shall be subordinate to the above covenant.

_____, spouse of the undersigned applicant hereby agrees that such interest as I, we, may have in the premises shall be subject to the provisions of this covenant and insofar as is necessary releases all rights of tenancy by the dower or homestead and other interests therein.

(One acknowledgement must be completed for each of the following: Planning Board representative, Owner or owners, Spouse of the owner, Mortgagee. ---see next page)

I. (OWNER OR OWNERS)

IN WITNESS WHEREOF we have hereunto set our hands and seals this on this date: _____.

_____(Owner or owners).

COMMONWEALTH OF MASSACHUSETTS

Plymouth, ss

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared _____ and proved to me through satisfactory evidence of identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

(Signature of Notary Public)

My commission expires _____

II.(SPOUSE OF OWNER)

IN WITNESS WHEREOF we have hereunto set my hand and seal on this date: _____.

_____(Spouse of Owner).

COMMONWEALTH OF MASSACHUSETTS

Plymouth, ss

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared _____ and proved to me through satisfactory evidence of identification, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

(Signature of Notary Public)

My commission expires _____

Applicant Name: _____
Date: _____

III. (MORTGAGEE)

IN WITNESS WHEREOF we have hereunto set our hands and seals this on this date: _____.

_____(Mortgagee).

COMMONWEALTH OF MASSACHUSETTS

Plymouth, ss

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared _____ and proved to me through satisfactory evidence of identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

(Signature of Notary Public)

My commission expires _____

IV. (PLANNING BOARD)

IN WITNESS WHEREOF we have hereunto set our hands and seals this on this date: _____.

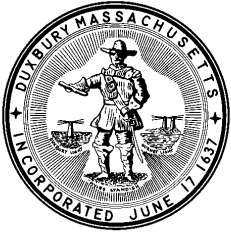
(Acceptance by a Majority of the Planning Board of Duxbury)

COMMONWEALTH OF MASSACHUSETTS

On this _____ day of _____ (month), _____ (year), before me, the undersigned notary public, personally appeared members of the Duxbury Planning Board, proved to me through satisfactory evidence of identification, which was based on my personal knowledge of the identity of the principal, to be the persons whose names are signed on the preceding or attached document, and in my presence acknowledged to me that he/she signed it voluntarily for its stated purpose.

Notary

My commission expires _____



Town of Duxbury, Massachusetts

Planning Board

PERFORMANCE SECURED BY DEPOSIT OF MONEY

Date: _____

AGREEMENT made this date between the Town of Duxbury and _____,
hereinafter referred to as "the applicant" of _____, to secure construction
of ways and installation of municipal services in the subdivision of land shown on a plan entitled:

_____, by:

_____, dated _____,

owned by: _____ address: _____, land

located: _____, and showing _____ proposed lots.

KNOW ALL MEN by these presents that the applicant hereby binds and obligates himself, his or its
executors, administrators, devisees, heirs, successors and assigns to the Town of Duxbury, a Massachusetts
municipal corporation, acting through its Planning Board, in the sum of _____ dollars, and has
secured this obligation by depositing with the Treasurer of the Town of Duxbury a deposit of money in the
above sum to be deposited in a subdivision escrow account in the name of the Town of Duxbury. The
deposit of money is to be used to insure the performance by the applicant of all covenants, conditions,
agreements, terms and provisions contained in the following:

1. Application for Approval Definitive Plan (Form C), dated: _____;
2. The subdivision control law and the Planning Board's Rules and Regulations governing this subdivision
and dated _____;
3. Conditions included in the Certificate of Approval issued by the Planning Board and dated
_____;
4. The definitive plan as qualified by the Certificate of Approval; and
5. Other document(s) specifying construction or installation to be completed, namely: (specify other
documents, if any, and list lots secured if only a part of the subdivision is secured by a deposit of
money) _____

This agreement shall remain in full force and effect until the applicant has fully and satisfactorily performed
all obligations or has elected to provide another method of securing performance as provided in M.G.L.,
Chapter 41, Section 81-U.

Upon completion by the applicant of all obligations as specified herein, on or before

_____, or such later date as may be specified by vote of the Planning
Board with a written concurrence of the applicant, the deposit of money including all interest accrued
thereon shall be returned to the applicant by the Town of Duxbury and this agreement shall become void. In
the event the applicant should fail to complete the construction of ways and installation of municipal
services as specified in this agreement and within the time herein specified, the deposit of money may be
applied in whole, or in part, by the Planning Board for the benefit of the Town of Duxbury to the extent of
the reasonable cost to the Town of Duxbury of completing such construction or installation as specified in
this agreement. Any unused money and the interest accrued on the deposit of money will be returned to the
applicant upon completion of the work by the Town of Duxbury; and

Applicant Name: _____
Date: _____

The Town of Duxbury acting by and through its Planning Board hereby agrees to accept the aforesaid deposit of money in the amount specified in this agreement as security for the performance of the project as aforesaid.

Any amendments to this agreement and/or to the aforesaid security shall be agreed upon in writing by all parties to this agreement.

IN WITNESS WHEREOF we have hereunto set our hands and seals on this date: _____.

Signatures of a Majority of the Planning Board

Signature of Applicant

COMMONWEALTH OF MASSACHUSETTS

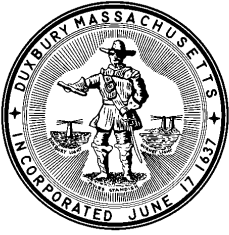
Plymouth County

On this ____ day of _____ (month), ____ (year), before me, the undersigned notary public, personally appeared members of the Duxbury Planning Board, proved to me through satisfactory evidence of identification, which was based on my personal knowledge of the identity of the principal, to be the persons whose names are signed on the preceding or attached document, and in my presence acknowledged to me that he/she signed it voluntarily for its stated purpose.

Notary

My commission expires _____

Duplicate copy to:
Applicant
Planning Board
Town Clerk
Town Treasurer
Board of Selectmen



Town of Duxbury, Massachusetts Planning Board

PERFORMANCE SECURED BY A SURETY COMPANY

Date: _____

AGREEMENT made this date between the Town of Duxbury and _____, hereinafter referred to as "the applicant" of _____; and _____, a corporation duly organized and existing under the laws of the state of _____ and having a usual place of business at _____, hereinafter referred to as "the surety," to secure construction of ways and installation of municipal services in the subdivision of land shown on a plan entitled:

_____, by _____, dated: _____ owned by: _____, address: _____ land located: _____ and showing _____ proposed lots.

KNOW ALL MEN by these presents that the applicant and the surety hereby bind and obligate themselves, their or its executors, administrators, devisees, heirs, successors and assigns, jointly and severally to the Town of Duxbury, a Massachusetts municipal corporation, acting through its Planning Board, in the sum of _____ dollars, and have secured this obligation by depositing with the Treasurer of the Town of Duxbury a surety bond to secure the above sum of money, said surety bond to be used to insure the performance by the applicant of all covenants, conditions, agreements, terms and provisions contained in the following:

6. Application for Approval Definitive Plan (Form C), dated: _____;
7. The subdivision control law and the Planning Board's Rules and Regulations governing this subdivision and dated _____;
8. Conditions included in the Certificate of Approval issued by the Planning Board and dated _____;
9. The definitive plan as qualified by the Certificate of Approval; and
10. Other document(s) specifying construction or installation to be completed, namely: (specify other documents, if any, and list lots secured if only a part of the subdivision is secured by a surety company)

This agreement shall remain in full force and effect until the applicant has fully and satisfactorily performed all obligations, or has elected to provide another method of securing performance as provided in M.G.L., Chapter 41, section 81-U.

Upon completion by the applicant of all obligations as specified herein, on or before _____, or such later date as may be specified by vote of the Planning Board with a written concurrence of the applicant and the surety, the interest of the Town of Duxbury in such surety bond shall be released, the surety bond shall be returned to the surety, and this agreement shall become void. In the event the applicant should fail to complete the construction of ways and installation of municipal services as specified in this agreement and within the time herein specified, the surety bond may be enforced, in whole, or in part, by the Planning Board for the benefit of the Town of Duxbury to the extent of the reasonable cost to the Town of Duxbury of completing such construction or installation as specified in this agreement. Any unused portion of the surety bond will be released and the unused portion of the surety bond will be returned to the surety upon completion of the work by the Town of Duxbury.

Applicant Name: _____
Date: _____

The Town of Duxbury, acting by and through its Planning Board hereby agrees to accept the aforesaid surety bond in the amount specified in this agreement as security for the performance of the project as aforesaid.

Any amendments to this agreement and/or to the aforesaid security shall be agreed upon in writing by all parties to this agreement.

SIGNATURES:

(PLANNING BOARD AND APPLICANT)

IN WITNESS WHEREOF we have hereunto set our hands and seals on this date: _____.

Signatures of a Majority of the Planning Board

Signature of Applicant

COMMONWEALTH OF MASSACHUSETTS

Plymouth County

Date: _____

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared the above named person(s) and proved to me through satisfactory evidence of identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

Notary Public

My commission expires _____

(REPRESENTATIVE OF SURETY COMPANY)

IN WITNESS WHEREOF we have hereunto set our hands and seals on this date: _____.

Signature of Representative of Surety Company

COMMONWEALTH OF MASSACHUSETTS

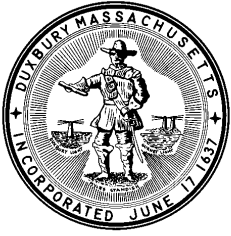
Plymouth, ss

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared _____ and proved to me through satisfactory evidence of identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

(Signature of Notary Public)

My commission expires _____

Duplicate copy to:
Applicant
Planning Board
Town Clerk
Town Treasurer
Board of Selectmen



Town of Duxbury, Massachusetts Planning Board

PERFORMANCE SECURED BY REGISTERED NEGOTIABLE SECURITIES (BONDS, STOCKS, PUBLIC SECURITIES)

Date: _____

AGREEMENT made this date between the Town of Duxbury and _____, herinafter referred to as "the applicant" of _____, to secure construction of ways and installation of municipal services in the subdivision of land shown on a plan entitled: _____, dated: _____, owned by: _____ address: _____, land located: _____, and showing _____ proposed lots.

KNOW ALL MEN by these presents that the applicant hereby binds and obligates himself, his or its executors, administrators, devisees, heirs, successors and assigns to the Town of Duxbury, a Massachusetts municipal corporation, acting through its Planning Board, in the sum of _____ dollars and has secured this obligation by depositing with the Treasurer of the Town of Duxbury, an instrument of transfer to the Planning Board of the Town of Duxbury, duly acknowledged, and prepared in a suitable form pursuant to the provisions of the Massachusetts General Laws for the following type of negotiable security _____, said instrument of transfer shall also specify the above sum of money as a security for performance by the applicant of construction of the ways and installation of municipal services in the aforesaid subdivision and, where apt, a new certificate shall also be deposited with said Treasurer. Said certificate shall be free from encumbrances and shall be issued pursuant to Chapter 156-B, Section 30, M.G.L. in the name of the Planning Board of the Town of Duxbury and shall express on its face that it is held as collateral security to insure the performance by the applicant of all covenants, conditions, agreements, terms and provisions contained in the following:

1. Application of Approval Definitive Plan (Form C), dated: _____;
2. The subdivision control law and the Planning Board's Rules and Regulations governing this subdivision and dated _____;
3. Conditions included in the Certificate of Approval issued by the Planning Board and dated _____;
4. The definitive plan as qualified by the Certificate of Approval; and
5. Other document(s) specifying construction or installation to be completed, namely: (specify other documents, if any, and list lots secured if only a part of the subdivision is secured by a bank passbook)

_____.

This agreement shall remain in full force and effect until the applicant has fully and satisfactorily performed all obligations, or has elected to provide another method of securing performance as provided in M.G.L., Chapter 41, Section 81-U.

Upon completion by the applicant of all obligations as 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 applicant, the interest of the Town of Duxbury in the aforesaid security shall be released and said security shall be returned, by appropriate instrument, to the applicant by the Town of Duxbury and this agreement shall

Applicant Name: _____
Date: _____

become void. In the event the applicant should fail to complete the construction of ways and installation of municipal services as specified in this agreement and within the time specified herein, the security, namely _____ may be negotiated in whole, or in part, by the Planning Board for the benefit of the Town of Duxbury to the extent of the reasonable cost to the Town of Duxbury of completing such construction or installation as specified in this agreement. Any unused funds resulting from the negotiation of aforesaid security by the Town of Duxbury or any securities which are not negotiated by the Town of Duxbury will be returned to the applicant upon completion of the work by the Town of Duxbury; and

The Town of Duxbury acting by and through its Planning Board hereby agrees to accept the aforesaid negotiable security, namely _____ as specified in this agreement as security for the performance of the project as aforesaid.

Any amendments to this agreement and/or to the aforesaid security shall be agreed upon in writing by all parties to this agreement.

IN WITNESS WHEREOF we have hereunto set our hands and seals on this date: _____.

Signatures of a Majority of the Planning Board of the
Town of Duxbury

Signature of Applicant

COMMONWEALTH OF MASSACHUSETTS

Plymouth, ss

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared _____ and proved to me through satisfactory evidence of identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

Notary

My commission expires _____



Town of Duxbury, Massachusetts Planning Board

PERFORMANCE SECURED BY BANK PASSBOOK

Date: _____

AGREEMENT made this date between the Town of Duxbury and _____, herinafter referred to as "the applicant" of _____, to secure construction of ways and installation of municipal services in the subdivision of land shown on a plan entitled: _____

_____, dated: _____, owned by: _____
_____ address: _____, land located:
_____, and showing _____ proposed lots.

KNOW ALL MEN by these presents that the applicant hereby binds and obligates himself, his or its executors, administrators, devisees, heirs, successors and assigns to the Town of Duxbury, a Massachusetts municipal corporation, acting through its Planning Board, in the sum of _____ dollars and has secured this obligation by depositing with the Treasurer of the Town of Duxbury, a deposit of money for the above sum represented by Bank Passbook No. _____ with an order drawn on the _____ Bank of _____, payable to the order of the Planning Board of the Town of Duxbury, said sum to be used to insure the performance by the applicant of all covenants, conditions, agreements, terms and provisions contained in the following:

1. Application of Approval Definitive Plan (Form C), dated: _____;
6. The subdivision control law and the Planning Board's Rules and Regulations governing this subdivision and dated _____;
7. Conditions included in the Certificate of Approval issued by the Planning Board and dated _____;
8. The definitive plan as qualified by the Certificate of Approval; and
9. Other document(s) specifying construction or installation to be completed, namely: (specify other documents, if any, and list lots secured if only a part of the subdivision is secured by a bank passbook)

_____.

This agreement shall remain in full force and effect until the applicant has fully and satisfactorily performed all obligations, or has elected to provide another method of securing performance as provided in M.G.L., Chapter 41, Section 81-U.

Upon completion by the applicant of all obligations as 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 applicant and the bank, the bank passbook shall be returned to the applicant by the Town of Duxbury and this agreement shall become void. In the event the applicant should fail to complete the construction of ways and installation of municipal services as specified in this agreement and within the time herein specified, the funds on deposit in the account represented by the aforesaid bank passbook and order drawn thereon may be applied in whole, or in part, by the Planning Board for the benefit of the Town of Duxbury to the extent of the reasonable cost to the Town of Duxbury of completing such construction or installation as specified in this agreement. Any unused funds and the bank passbook will be returned to the applicant upon completion of the work by the Town of Duxbury.

The Town of Duxbury acting by and through its Planning Board hereby agrees to accept the aforesaid bank passbook and order drawn thereon as security for the performance of this project; and

Applicant Name: _____
Date: _____

The _____ Bank of _____ hereby agrees not to release any funds from the account represented by the aforesaid bank passbook or otherwise amend or make a change to the aforesaid bank passbook or to the order drawn thereon without written agreement by the Planning Board.

SIGNATURES:

(PLANNING BOARD AND APPLICANT)

IN WITNESS WHEREOF we have hereunto set our hands and seals on this date: _____.

Signatures of a Majority of the Planning Board of the
Town of Duxbury

Signature of Applicant

COMMONWEALTH OF MASSACHUSETTS

Plymouth County

Date: _____

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared the above names persons and proved to me through satisfactory evidence of identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

Notary Public

My commission expires _____

(BANK)

IN WITNESS WHEREOF we have hereunto set our hands and seals on this date: _____

COMMONWEALTH OF MASSACHUSETTS

Plymouth County

Date: _____

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public, personally appeared _____ and proved to me through satisfactory evidence of identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

Notary Public

My commission expires _____

Duplicate copy to:
Applicant

_____(name) Bank

Duxbury Town Clerk
Duxbury Town Treasurer
Board of Selectmen



**Town of Duxbury, Massachusetts
Planning Board**

**CONVEYANCE OF EASEMENTS
AND UTILITES**

_____ of _____,
(address and county)

for the consideration of _____ hereby grants, transfers and delivers unto the Town of Duxbury, a municipal corporation in Plymouth County, the following:

- A. The perpetual rights and easements to construct, inspect, repair, remove, replace, operate and forever maintain (1) a sanitary sewer or sewers with any manholes, pipes, conduits and other appurtenances, (2) pipes, conduits and the appurtenances for the conveyance of water, and (3) a covered surface and ground water drain or drains with any manholes, pipes, conduits and their appurtenances, and to do all other acts incidental to the foregoing, including the right to pass along and over the land for the aforesaid purposes, in, through, and under the whole of _____, dated _____, said plan is made and said plan is incorporated herein for a complete and detailed description of said roads.
- B. The perpetual rights and easements to use for _____ (describe use or purpose) of the following parcel of land situated on _____ (street) in the Town of Duxbury and bounded and described as follows:

Description:

The grantor warrants that the aforesaid easements are free and clear of all liens or encumbrances, that s/he (it) has good title to transfer the same, and that s/he will defend the same against claims of all persons.

Conveyance of Utilities and Easements(3/05) (Cont.)

Date:

Grantor:

For grantor's title see deed from _____ dated _____, and
recorded in Plymouth County Registry of Deeds, Book _____, Page _____, or under
Certificate of Title No. _____ registered in
_____ District of the Land Court, Book _____, Page
_____.

This is not a homestead property.

(To be completed if a mortgage exists): _____
(name and address)

the present holder of a mortgage on the above described land, which mortgage is
dated _____, and recorded in said Deeds, Book _____, Page _____, for
consideration paid, hereby releases unto the Town of Duxbury forever from the operation of said mortgages, the
rights and easements hereinabove granted and assents thereto.

Authorized Signature of Mortgagee

Owner

IN WITNESS WHEREOF we have hereunto set our hands and seals on this date: _____.

COMMONWEALTH OF MASSACHUSETTS

Plymouth County

Date: _____

On this _____ day of _____ (month), _____ (year), before me the undersigned Notary Public,
personally appeared _____ and proved to me through satisfactory evidence of
identification, to be the person(s) whose name(s) is (are) signed on the preceding or attached document, and
acknowledged to me that they signed it voluntarily for its stated purpose.

Notary Public

My commission expires _____

APPENDIX F
CHECKLISTS

Duxbury Planning Board
Approval Not Required Plan Checklist

Petitioner: _____

Meeting Date: _____

1. _____ Application filed
2. _____ Fee paid/amount (\$200/plan plus \$100/lot shown)
3. _____ Nine copies of plan filed along with mylar
4. _____ Name and address of owner of record, petitioner & surveyor
5. _____ Deed reference or land court certificate number noted on plan
6. _____ Plan reference noted on plan
7. _____ Date of application noted on plan
8. _____ Location of all existing structures and septic systems
9. _____ Minimum frontage on approved way (200 ft. minimum)
10. _____ Direct abutters noted by name and parcel number
11. _____ Delineation and gross area - square feet and acres
12. _____ Delineation and gross area of wetlands- sq. feet and acres
13. _____ Delineation and gross area of uplands - sq. feet (40,000 sq. ft. minimum)
14. _____ Net area of each lot (sq. feet)
15. _____ Net area of each lot of wetlands and upland - (sq. feet)
16. _____ North arrow, locus sketch, date and scale
17. _____ Notation: "Planning Board endorsement does not certify compliance with Zoning Bylaw."
18. _____ Notation: "No official verification of any wetlands has been made or intended by Planning Board endorsement."
19. _____ Signature block
20. _____ Stone fences and public shade trees (per scenic road act)

PRELIMINARY PLAN APPLICATION CHECKLIST

(To be submitted by applicant with application)

Applicant: _____

Planning Board Meeting Date: _____

- _____ 1. Subdivision name, boundaries, north arrow, scale, legend and title, "Preliminary Plan".
- _____ 2. Name of the record owner, applicant, engineer and surveyor.
- _____ 3. Existing and proposed lines of streets, easements and any public areas within the subdivision.
- _____ 4. Existing and proposed public water supply and utilities in the area.
- _____ 5. Existing and proposed system of surface water, drainage and existing and proposed method of sewage disposal.
- _____ 6. Approximate boundary lines of proposed lots, with approximate areas and dimensions.
- _____ 7. Names, approximate location and widths of streets within 200' of property.
- _____ 8. Topography of the existing land at two (2)-foot contour intervals.
- _____ 9. Location of all permanent monuments, large boulders, stone walls, vegetation and special features showing the outline of all woodlands, significant individual or group tree masses, rock outcroppings, roads and trails, flowing streams or waterways, drainage ways and ponds, noting those being disturbed by proposed ways, drainage easements, or any change in topography.
- _____ 10. An outline of all areas within the Wetland and Watershed Protection District and/or Aquifer Protection Overlay District (APOD).
- _____ 11. A roadway profile drawn to a horizontal scale of 1"=40' and a vertical scale of 1"=4', showing all existing and proposed grades, drainage and sewer systems.
- _____ 12. Zoning of proposed subdivision and contiguous parcels.
- _____ 13. Existing on-site structures including septic systems.
- _____ 14. Names and nine-digit parcel numbers of all direct abutters as they exist on the most recent tax list.
- _____ 15. Physical, geological, environmental and other characteristics unique to the site but not covered in 1-15 above.
- _____ 16. EIGHTEEN COPIES (THREE full-size, FIFTEEN half-size) of the plan are required. The signature block must be in the same space on each page.

FEES: Application Fee: (\$50 per building lot) = _____ (check payable to the Town of Duxbury)

Escrow Account: (Separate check payable to the Town of Duxbury. W-9 form required).

For 3 Lots or Less: \$3,000 minimum deposit.

For 4 or More Lots: \$3,000 minimum deposit, plus \$500 per lot in the proposed subdivision _____

DEFINITIVE PLAN APPLICATION CHECKLIST

(To be submitted by applicant with application)

Applicant: _____

Planning Board Meeting Date: _____

- _____ 1. Subdivision name, boundaries, north arrow, scale, legend and title, "Definitive Plan".
- _____ 2. Name of the record owner, applicant, engineer and surveyor.
- _____ 3. Existing and proposed lines of streets, easements and any public areas within the subdivision.
- _____ 4. Existing and proposed public water supply and utilities in the area.
- _____ 5. Existing and proposed system of surface water, drainage and existing and proposed method of sewage disposal.
- _____ 6. Approximate boundary lines of proposed lots, with approximate areas and dimensions.
- _____ 7. Names, approximate location and widths of streets within 200' of property.
- _____ 8. Topography of the existing land at two (2)-foot contour intervals.
- _____ 9. Location of all permanent monuments, large boulders, stone walls, vegetation and special features showing the outline of all woodlands, significant individual or group tree masses, rock outcroppings, roads and trails, flowing streams or waterways, drainage ways and ponds, noting those being disturbed by proposed ways, drainage easements, or any change in topography.
- _____ 10. An outline of all areas within the Wetland and Watershed Protection District and/or Aquifer Protection Overlay District (APOD).
- _____ 11. A roadway profile drawn to a horizontal scale of 1"=40' and a vertical scale of 1"=4', showing all existing and proposed grades, drainage and sewer systems.
- _____ 12. Zoning of proposed subdivision and contiguous parcels.
- _____ 13. Existing on-site structures including septic systems.
- _____ 14. Names and nine-digit parcel numbers of all direct abutters as they exist on the most recent tax list.
- _____ 15. Physical, geological, environmental and other characteristics unique to the site but not covered in 1-14 above.
- _____ 16. EIGHTEEN COPIES (THREE full-size, FIFTEEN half-size) of the plan are required. The signature block must be in the same space on each page.
- _____ 17. Environmental Impact Plan
- _____ 18. Erosion Control Plan
- _____ 19. Drainage Calculations

FEES: See next page

DEFINITIVE PLAN FEES:

APPLICATION FEE: (Check payable to the Town of Duxbury)

(With Preliminary Plan previously filed and acted upon): \$200 per building lot

Total = _____

(Without Preliminary Plan previously filed and acted upon): \$400 per building lot

Total = _____

(For Definitive Plan Amendments and Frontage Waiver Requests): \$100 per lot

Total = _____

ESCROW ACCOUNT: (Check payable to the Town of Duxbury. Signed W-9 form also required.)

For 3 Lots or Less: \$3,000 minimum deposit.

For 4 or More Lots: \$3,000 minimum deposit, plus \$500 per lot in the proposed subdivision

Total = _____

DUXBURY PLANNING BOARD

**AS-BUILT PLAN AND PROFILE
REQUIREMENTS**

As-built plans showing the location, grades, and other significant information regarding utilities shall be prepared by the applicant's professional land surveyor and turned over to the Planning Board prior to the final approval of the improvements and release of security as hereinafter provided. This will be done by submitting Mylar(s) and computer disk(s) of the subdivision's metes and bounds as prepared in accordance with the Rules and Regulations of the Registers of Deeds, Chapter 82, Section 17 thru 23 and this section. Additionally, a surveyor's certificate signed and sealed by a registered professional land surveyor in the Commonwealth of Massachusetts must be furnished to the Planning Board. The certificate shall state that all bounds have been set in accordance with the subdivision plan filed and recorded at the Registry of Deeds. Also included will be the plan number, year, plan book and page of the recorded plan.

The subdivider shall file with the Planning Board an As-built plan on mylar, two sepia prints, three (3) blue-line prints and on a computer disk compatible with Auto Cad, Version 14 of the completed street or streets, utilities and easements together with proper legal descriptions for initiating an article in the Town Warrant pursuant to the acceptance of the ways by the Town Meeting and shall grant a deed to the Town of the streets, utilities and easements, as contained in the plan said deed to be recorded by the Town upon acceptance of the streets by the Town Meeting.

1. The As-built plan will meet the following criteria:
 - a. Scale one inch (1") equals forty feet (40')
 - b. 24" x 36" sheets
 - c. Index plan at one inch (1") equals one hundred feet (100') or otherwise approved by the Board.
 - d. A signature block for the Planning Board to sign when the road is acceptable to recommend acceptance as a public way.
 - e. Professional Land Surveyor's stamp and signature
 - f. Lot numbers
 - g. Name of subdivision
 - h. Name of street(s)
 - i. Date
 - j. Name of owner
 - k. Name of subdivider
 - l. Name of design engineer
 - m. North point and reference
 - n. Bench marks(NAD88 Datum)
 - o. Locus map(1"=600')
 - p. Intersecting boundary lines of abutting land
 - q. All necessary bearings, lengths of lines and radii, tangents, arc lengths, and central angles of curves of all street lines, boundary

Continued:

AS-BUILT PLAN AND PROFILE REQUIREMENTS

lines, and areas needed to adequately described but not limited to the following:

1. Streets
 2. Ways
 3. Easements
 4. Common or public areas
- r. Sufficient data to determine the locations, elevation, direction and length of:
1. Streets
 2. Ways
 3. Boundary Lines
 4. Pavement and right of way widths
 5. Location of permanent monuments
 - a. A minimum of three of the permanent concrete monuments shall have their North American Datum (NAD83) horizontal datum coordinates and United States Geological Survey (USGS) vertical datum coordinates shown on the final As-built. The Planning Board or their designee shall determine which three monuments are chosen. More monuments may be chosen if deemed necessary by the Board or their designee.
 6. Location and names of streets intersecting the subject area
- s. The following shall be accurately located by survey on the plan (station and offset where appropriate):
1. Storm drains and all appurtances
 2. Water mains and all appurtances
 3. Sewer mains and all appurtances
 4. Other underground and above ground utilities (electric, telephone, gas, etc.) And all appurtances.
 5. Hydrants
 6. Water services, gate valves and sewer services including ties to buildings and other permanent structures
 7. Street signs
 8. Headwalls
 9. Wheelchair ramps
 10. Guardrails

Continued:

AS-BUILT PLAN AND PROFILE REQUIREMENTS

11. Curbing and or berms
12. Edge of pavements
- t. Sizes and material type of the following:
 1. Storm drains
 2. Water mains
 3. Sewer mains
 4. Gas mains
- u. Sidewalks and driveways
- v. NAD88 elevation datum
If the approved subdivision used a different datum then the conversion shall also be supplied.
- w. NAD88 bench marks
- x. Original datum bench mark described
- y. Rates of gradients for drainage and sewer mains.
- z. Roadway centerline stationed
 - aa. Offsite easements shown and completely described.
 - bb. The As-built profiles should meet the following requirements:
 1. Horizontal scale: 1" = 40'
 - Vertical scale: 1" = 4'
 2. Center line grades-heavy line
 3. Grade elevations at 50' stations
 4. Locations of the following (station and offsets as appropriate):
 - a. Storm drains and all appurtances
 - b. sewer mains and all appurtances
 - c. headwalls
 5. Sizes and material type of the following:
 - a. storm drains
 - b. sewer mains

Continued:

AS-BUILT PLAN AND PROFILE REQUIREMENTS

6. Rims and inverts of the following:

a. storm drains

b. sewer mains

7. NAD88 elevation datum

8. Rates of gradients for drainage and sewer mains

9. Off street easements shown with all utilities

cc. 3 1/2" x 3 1/2" registry block

dd. Ownership of abutting lots

ee. Lot lines within 100' of the street right of way &/ or easements.

ff. The As-built plan must be recordable at the Registry of Deeds or Land Court as applicable as a street acceptance plan.

gg. Board of Selectmen acceptance signature block.

hh. A monument certification stating:

"I certify that the monuments are set as shown on this plan".

Professional Land Surveyor

Date

ii. A registry certification block stating:

"I certify that these plans are prepared in accordance with the Rules and Regulations of the Register of Deeds."

Professional Land Surveyor

Date

2. Prior to placement of any bituminous concrete, a Utility As-Built Plan shall be supplied by the applicant {three (3) contact prints} to be reviewed and approved by the Planning Board. If after review, should any construction modifications be required by the Planning Board, an additional revised Utility As-Built plan shall also be submitted. The Utility As-Built Plan must meet all applicable and/or revised criteria of Appendix F. All applicants must sufficiently plan ahead to allow adequate time for Planning Board review and approval prior to scheduling with contractors for paving.

DUXBURY PLANNING BOARD

STREET ACCEPTANCE PLAN CHECKLIST

GENERAL:

- _____ Title Block specifying "Street Acceptance Plan for _____, Duxbury, Massachusetts" indicating scale (1" = 40'), Date, Preparer of Plan.
- _____ North Arrow, graphic scale, locus
- _____ Board of Selectmen approval signature box
- _____ Town Clerk certification of filing date and final acceptance date
- _____ Surveyor certification that plan prepared in conformity with requirements of Registry of Deeds
- _____ Title box for Registry use only
- _____ Roadway location, including all bearings, distances, horizontal curve (radius, turnouts, length of curve)
- _____ Name of street and intersecting streets
- _____ Names of lot owners on street
- _____ Location of all public easements with written description attached on separate instrument detailing size and purpose.

*No need for utility information, house locations or driveway locations.

Street Acceptance Plan shall also have written description of layouts for recording.

APPENDIX G
ASSESSMENT STUDY STANDARDS/MISC.

HYDROGEOLOGIC STUDY GUIDELINES

1.0 BASE MAP – Should include:

- 1.1 Existing surface water bodies and wetlands
- 1.2 Location of existing wells and septic systems for abutting properties
- 1.3 Existing and planned land surface elevations
- 1.4 Groundwater contours at minimum two (2) foot intervals
- 1.5 Detailed description of proposed project, including:
 - a) location of planned septic systems
 - b) water supply wells
 - c) residential dwellings
 - d) lawn areas
 - e) paved areas

2.0 BACKGROUND INFORMATION – Should include:

- 2.1 Existing condition of ground and surface water quality, including physical characteristics and water chemistry. Measurements shall specifically include concentrations of total phosphorus if in the recharge zone of freshwater pond; nitrate-nitrogen if in the recharge zone of saltwater pond or embayment; and nitrate-nitrogen if in a zone of contribution to a private or public water supply well.
- 2.2 Subsurface geology
- 2.3 Surface drainage patterns

3.0 ANALYSIS OF DEVELOPMENT IMPACT

The analysis of the impact of the development will vary depending on its location in relation to sensitive water resources within the Town. One of four categories will apply. They are: 1) Zone II protection areas to public drinking water supplies; 2) contributing areas to fresh water lakes or ponds; 3) contributing areas to coastal estuaries; and 4) those areas designated as not impacting in a significant way the sensitive water resources. Subdivisions with upland in excess of 80,000 square feet per buildable lot would be designated as being in the fourth category. No further analysis of development impact by subdivision in category four need to be performed, unless specifically required by the Planning Board.

3.1 Zone II Protection Areas to Public Drinking Water Supplies

Analysis should include:

The existing condition of the water supply, including well location and construction and the quality of water pumped by the well.

A calculation of the total nitrogen loading from the proposed development (in pounds per year) and the predicted nitrogen concentration in ground water underneath the development (in mg/l) using loading rates provided in Table G-1 below.

A calculation of the predicted nitrogen concentration in ground water pumped by the water supply well from throughout the Zone II area. This analysis must include a calculation of the total loading within the Zone II area from all sources under saturation or build-out conditions. The loading analysis should use the loading rates provided in Table G-1 below.

A comparison of the results of the post-development Zone II loading analysis to the critical nitrogen concentration of 5 mg/l for water pumped by the water supply well. If the predicted concentration is above 5 mg/l, the applicant must indicate nitrogen reduction measures for the proposed development that will reduce the nitrogen loading so the predicted concentration is 5 mg/l or less.

3.2 Contributing Areas to Fresh Water Lakes or Ponds

Analysis should include:

A map showing the boundaries of the contributing area based on ground water flow and/or surface water runoff.

A calculation of the total phosphorus loading from the proposed development (in pounds per year) using loading rates provided in Table G-2 below.

A calculation of the predicted phosphorus concentration in the fresh water system from sources throughout the contributing area. This analysis must include a calculation of the loading within the contributing area from all sources under saturation or build-out conditions. The loading analysis should use the loading rates provided in Table G-2 below.

A comparison of the results of the post-development phosphorus loading analysis to the critical phosphorus concentration of 0.2 mg/l for the fresh water resource. If the predicted concentration is above 0.2 mg/l, the applicant must indicate phosphorus reduction measures for the proposed development that will reduce the phosphorous loading so the predicted concentration is 0.2 mg/l or less.

3.3 Contributing Areas to Coastal Ponds or Estuaries

Analysis should include:

A map showing the boundaries of the contributing area based on ground water flow.

A flushing calculation showing how quickly water and associated nutrients and other contaminants are removed from the coastal system into Massachusetts Bay.

A calculation of the total nitrogen loading from the proposed development (in pounds per year) using loading rates provided in Table G-1 below.

A calculation of the predicted nitrogen loading to ground water (in pounds per year) throughout the contributing areas. This analysis must include a calculation of the total loading within the contributing area from all sources under saturation or build-out conditions. The loading analysis should use the loading rates provided in Table G-1 below.

A comparison of the results of the predicted loading analysis for the post-development condition to the critical nitrogen loading levels provided in Table G-3 below which are based on the flushing characteristics of the coastal system. If the predicted concentration is above the critical loading levels, the applicant must indicate nitrogen reduction measures for the proposed development that will reduce the nitrogen loading so the predicted concentration is reduced to, or below the critical rate.

Table G-1
Nitrogen Loading Analysis Parameters

SOURCE	CONCENTRATION	LOADING RATE	FLOW/RECHARGE
Sewage	40 mg N/liter	(6.72 lbs N/person/yr) (165 gallons/dwelling)	55 gallons/person/day
Fertilizer (Lawns)		(0.9 lbs N/1000 sq. ft./yr.)	18 in./year
Pavement Runoff	2.0 mg N/liter	(.42 lbs N/1000 sq.ft./yr.)	40 in./yr
Roof Runoff	0.75 mg N/liter	(0.15 lbs N/1000 sq.ft./yr.)	40 in./yr
Precipitation	0.05 mg N/liter	(0.005 lbs N/1000 sq.ft./yr.)	18 in./year

Average Loading Rate Per Dwelling (25.3 lbs/yr)

*Agricultural fertilizer loading rates should be determined for dominant local crops, if appropriate.

TABLE G-2
Watershed Phosphorus Loading Model
Build-out Conditions

	QUANTITY	SOURCE LOADING	PERSISTENCE	LOADING LBS/YR.
GROUNDWATER				
Septic Systems	*	9.6 lbs/unit/yr	0.20	**
Lawns	*	0.91 lbs/5000 sq.ft/yr	0.19	**
Agricult.Fields (w/ manure) (acres)	*	10 lbs/acre/yr	0.24	**
Feedlots (acres)	*	227 lbs/acre/yr	0.24	**
Forested (acres)	*	0.2 lbs/acre/yr	0.37	**
Road Drainage (acres)	*	0.92 lbs/acre/yr	0.00	**
TOTAL (Loading to Stream/Pond)				***
STORMWATER FLOW				
Septic Systems	*	9.6 lbs/unit/yr	0.31	**
Lawns	*	0.91 lbs/5000 sq.ft/yr	0.31	**
Agricult.Fields (w/ manure) (acres)	*	10 lbs/acre/yr	0.40	**
Feedlots (acres)	*	227 lbs/acre/yr	0.40	**
Forested (acres)	*	0.2 lbs/acre/yr	0.63	**
Road Drainage (acres)	*	0.92 lbs/acre/yr	1.00	**
TOTAL (Loading to Stream/Pond)				***
		TOTAL LOADING		*****

Runoff/Recharge Calculations:

	Soils	Runoff	Runoff	Recharge	Result
	(acres)	(ft/yr)	(M gal/yr/acre)	(ft/yr)	(M gal/yr/acre)
Glacial Till	*	1	0.3258	0.25	0.0814
Sandy Soils	*	0.25	0.0814	1.50	0.4887
Total	***		0.4072		0.569
Average stormflow (cfs) 1.86			Average baseflow (cfs) 0.69		

* quantity of

** quantity times unit loading times persistence measured in pounds per year

*** Column total

***** Sum of groundwater and stormwater flows

NOTE: Number of acres times 43,560 square feet times runoff/recharge in ft/yr times 7.48 gallons per cubic foot equal gallons per year. Convert to liters and convert pounds per year to milligrams to get MG/L concentration.

TABLE G-3			
Recommended Critical Nitrogen Loading Limits			
Type of Embayment	SB* Waters	SA* Waters	Sensitive Waters
Shallow:			
Flushing in less than or equal to 5 days	350 mg/M3/Vr	200 mg/M3/Vr	100 mg/M3/Vr
Flushing in greater than 5 days	30 g/M2/yr	15 g/M2/yr	5 g/M2/yr
Deep: Use lesser loading rate	500 mg/M3/Vr or 45 g/M2/yr	260 mg/M3/Vr or 20 g/M2/yr	130 mg/M3/Vr or 10 g/M2/yr
Vr = residence time/square root (1+ residence time)			
<p>* SB and SA are classifications for coastal waters relating to existing, desired water quality based on waterbody type, location, size, etc. and adjacent land uses. SB is lower quality based on waterbody type, location, size, etc. and adjacent land uses. SB is a lower quality than SA. The Commonwealth of Massachusetts has classified all coastal waters under the authority of 314 CMR 4, and has currently classified Duxbury coastal waters as SA.</p>			

OUTLINE OF MINIMUM REQUIREMENTS FOR A TRAFFIC STUDY REPORT

1. Introduction

- Project Description
- Locus Map

2. Description of Existing Conditions

- Existing Road Geometrics
 - Lane and shoulder widths
 - Lateral Clearances
 - Horizontal and Vertical Alignment
 - Intersection Geometrics
 - Traffic Signalization
 - Sight Distances
- Abutting Land Uses and Zoning
- Existing Traffic Characteristics Based on Traffic Counts or Observation
 - Vehicle Speeds
 - Average Daily Traffic (ADT)
 - Peak Hour Traffic
 - Directional Distribution
 - Truck Percentage for ADT and Peak Hour
 - Turning Movements at Adjacent Intersections
 - Pedestrian Volumes
- Accident Data Collection and Analysis
 - Summary of Three Year Accident History
 - Accident Diagrams
 - Evaluation of Accidents

3. Projected Traffic Impacts Due to Proposed Development

- Methodology for Making Projections
- Average Daily Traffic (ADT)
- Peak Hour Traffic
- Directional Distribution
- Truck Percentage for ADT and Peak Hour
- Turning Movements at Adjacent Intersections
- Pedestrian Volumes

4. Proposed Methods of Mitigating Traffic Impacts

- Geometric Improvements
- Traffic Signalization

5. Level of Service Chart

<u>Level</u>	<u>Delay in Seconds</u>	<u>Description</u>
A	Less Than 5.0	Very little delay, rare stopping
B	5.1 – 15.0	Majority of vehicles do not stop
C	15.1 – 25.0	Some pass-through, significant # stop
D	25.1 – 40.0	Most stop, sometimes twice in cycle
E	40.1 – 60.0	Almost all stop, cycle failure frequent
F	Greater than 60.0	Gridlock