



RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND

Planning Board, Blackstone, Massachusetts

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[HISTORY -- This version originally adopted 5-17-87. Subsequent amendments are noted as applicable, except the renumbering adopted 9-1-88.]

ARTICLE I

Statutory Authority

§ 191-1. Statutory authority.

Under the authority vested in the Planning Board of the Town of Blackstone by 81-Q of MGL C. 41, said Board hereby adopts these revised rules and regulations governing the subdivision of land in the Town of Blackstone. Such rules and regulations shall be effective on and after May 14, 1987.

ARTICLE II

General Provisions

§ 191-2. Definitions

As used in this chapter, the following terms shall have the meanings indicated:

BOARD - The Planning Board of the Town of Blackstone.

COLLECTOR STREET - A street which handles traffic equivalent to that generated by fifty (50) homes or more, or which serves non-residential abutting property.

DEAD-END STREET - A street, extension of a street, or system of streets connected to other streets only at a single point.

FLOOD HAZARD DISTRICT - The Flood Hazard District as established in the Blackstone Zoning Bylaw.¹

LANE - A street which carries traffic equivalent to that generated by ten (10) or fewer dwelling units, which has no abutting property either used or zoned for commerce or industry, and which is not capable of extension.

MINOR STREET - A street which cannot qualify as a lane but which can be expected to handle less traffic than a collector street.

NONRESIDENTIAL SUBDIVISION - A subdivision any part of which lies within any district other than the Residence Districts established by the Blackstone Zoning Bylaw.

RESIDENTIAL SUBDIVISION - A subdivision which lies entirely within the Residence Districts established by the Blackstone Zoning Bylaw.

§ 191-3. Approval or endorsement required.

- A. Necessity. Only those plans which constitute "subdivisions" as that term is defined in 81-L, MGL C.41, require the approval of the Planning Board. However, all plans, whether subdivisions within the meaning of the law or not, must have either approval as a subdivision, or endorsement that they do not require approval, before they will be accepted for recording at the Registry of Deeds or for registering at the Land Court.
- B. Date of Submittal.

¹ Editor's Note: See Ch. 123, Zoning.

- (1) Plans intended for review at a regular meeting of the Planning Board shall be forwarded to the Town Clerk not later than 4:00 p.m. two (2) working days prior to the Planning Board meeting. The day of the next regular Board meeting following forwarding to the Town Clerk shall be considered to be the date of submission for all plans, except that the date of mailing shall be the date of submission for Definitive Plans sent by registered mail to the Planning Board. *[Revised 11/6/08]*
- (2) No plan for review, whether for approval or for endorsement that approval is not required, shall be accepted as a submittal unless and until all information necessary for such review, as described herein under the applicable provisions of submission requirements, are fully provided, unless waived in writing by the Board. At the time of submission, a determination shall be made by the Planning Board, using a checklist, that the submission materials are either complete or incomplete.
- (3) If the submission has been determined to be incomplete, the applicant shall be so advised forthwith, and requested to withdraw the plan and application, and to resubmit when submittals are complete. A plan shall not be considered submitted and the review period will not begin until submittals are substantially complete.

§ 191-4. Plans believed not to require approval.

- A. Any person who wishes to cause to be recorded in the Registry of Deeds, or to be filed with the Land Court, a plan of land and who believes that his plan does not require approval under the Subdivision Control Law, may submit his plan to the Planning Board accompanied by the necessary evidence to show that the plan does not require approval. Said person shall file with the Planning Board six (6) prints of the plan, an application (Form A)², and the required application fee. Said person shall file by delivery or registered mail a notice with the Town Clerk stating the date of submission for such determination. (Form A). *[Revised 9/3/92, 8/3/95, 9/24/01 and 3/5/2009]*
- B. In order to be considered by the Board, such plans shall show all of the following:
 - (1) Any existing structures on the land shown on the plan and dimensions of yards relating to such structures.
 - (2) Any existing structures on any remaining adjoining land owned by the applicant and dimensions of yards relating to such structures, if such structure is within 50 feet of a property line being created.

² Editor's Note: Form A, Application for Endorsement of Plan Believed Not to Require Approval, is included at the end of this chapter.

- (3) Indication of remaining frontage of any adjoining land in the same ownership.
 - (4) Present owner of the land shown on the plan, and all abutting owners.
 - (5) Location of any easement or way, public or private, across the land, with a designation as to the use of the same.
 - (6) Indication of the zoning district or districts involved.
- C. If the Board determines that the plan does not require approval, it shall forthwith, without a public hearing, endorse on the plan the words "Planning Board approval under Subdivision Control Law not required". Said plan shall be returned to the applicant and the Board shall notify the Town Clerk of its action.
 - D. If the Board determines that the plan does require approval under the Subdivision Control Law, it shall within twenty-one (21) days of submission of said plan so inform the applicant and return the plan. The Board shall also notify the Town Clerk of its determination. *[Revised 11/6/08]*

§ 191-5. Definitive plan of subdivision to be submitted and approved.

No person shall make a subdivision within the meaning of the Subdivision Control Law of any land within the Town, 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 approved by the Planning Board as hereinafter provided.

§ 191-6. Adequate access required.

- A. General. No plan shall be endorsed as not requiring approval under the Subdivision Control Law and no subdivision plan shall be approved unless each building lot to be created by such plan has adequate access as intended under the Subdivision Control Law, MGL C. 41, 81-K through 81-GG.
- B. Standards of Adequacy. *[Revised 8/3/95]*
 - (1) Streets within a subdivision shall be determined to provide adequate access if and only if complying with the standards established in this Regulation.
 - (2) Ways providing access to the streets within a subdivision shall be determined to provide adequate access only if there is assurance that, prior to construction on any lots, the standards for "Suburban" access as provided at § 123-12.J of the Blackstone Zoning Bylaw will be met by those ways.

- (3) Private ways providing frontage for lots said not to be within a subdivision shall be determined to provide adequate access only if there is assurance that, prior to construction on any lots, the standards for "Suburban" access as provided at § 123-12.J of the Blackstone Zoning Bylaw will be met by those ways.
 - (4) Public ways providing frontage for lots said not to be within a subdivision shall be determined to provide adequate access if in fact they provide at least minimal access to those lots and, if the access provided is subject to periodic interruption, there is an alternative means of emergency access available.
- C. Obligations. The Board may require, as a condition of its approval of a subdivision plan, that the developer dedicate or acquire and dedicate a strip of land for the purpose of widening access ways to a width as required above, and that he either make physical improvements within such way or compensate the Town for the cost of such improvements in order to meet the standards specified above.
- D. Waivers. The Board may waive strict compliance with these requirements only upon its determination, following consultation with the Superintendent of Public Works, Police Chief, Fire Chief, and Board of Selectmen, that the way in fact will be sufficient to serve the needs for access and utilities to serve potential needs of land abutting on or served by the way in question.

§191-6.1 Professional Assistance Funding *[Deleted 3/5/2009; see Fee Regulation]*

ARTICLE III

Submission and Approval of Plans

§ 191-7. Preliminary plan.

A. General.

- (1) A preliminary plan of a subdivision must be submitted for any proposed non-residential subdivision, and may be submitted for any proposed Residential subdivision. The submission of such a preliminary plan will enable the subdivider, the Board, other municipal agencies, and owners of property abutting the subdivision to discuss and clarify the problems of such subdivision before a definitive plan is prepared. Therefore, it is strongly recommended that a preliminary plan be filed in every case.
- (2) Prior to investing in extensive professional design efforts for subdivision plans and their formal submittal, it will often prove useful to informally review the proposed development of a parcel of land with the Planning Board, in order that general approaches and potential problems can be freely explored. Simple sketches, which need not be professionally prepared, will assist the discussion and might show some but not all of the information shown on a preliminary plan. In some cases, this pre-submission review may eliminate need for a preliminary plan. *[Added 7-2-87]*

B. Submittals. Any person who seeks approval of a preliminary plan of a subdivision shall:

- (1) Submit two (2) copies of the preliminary plan to the Planning Board and one copy each to the Town Administrator, Board of Health, Conservation Commission, D.P.W. Superintendent, Town Clerk, and Building Inspector (See Form K).³ *[Revised 8/3/95]*
- (2) Submit to the Planning Board:
 - (a) An application (Form B).⁴
 - (b) The required administrative filing fee, plus the required review fee. *[Amended 9/3/92, 9/24/01 and 3/5/2009]*

³ Editor's Note: Form K, Distribution List, is included at the end of this chapter.

⁴ Editor's Note: Form B, Application for Approval of a Preliminary Plan, is included at the end of this chapter.

- (3) Submit to the Board of Health:
 - (a) A copy of the application (Form B).
- (4) Submit to the Town Clerk (by delivery or certified mail):
 - (a) A copy of the application (Form B).
- (5) In addition to those items required to be submitted, it is requested that the following be furnished:
 - (a) A locus plan of the subdivision, showing its street configuration in relation to the surrounding area and to zoning district boundaries, at a scale of one (1) inch = six hundred (600) feet.
 - (b) In the case of a subdivision covering less than all of the land owned by the subdivider in the area of the subdivision, a plan showing in a general manner the proposed overall development of all of said land.
 - (c) Preliminary findings, in a general way, of the environmental analysis required under Section 191-8.D, if expected to be required. *[Revised 11/6/08]*

C. Plan contents. The preliminary plan shall be clearly drawn at a suitable scale preferably one (1) inch equals forty (40) feet. Said preliminary plan shall show sufficient information about the subdivision to form a clear basis for its review and for the preparation of the definitive plan, and shall show:

- (1) The subdivision name, boundaries, North point, date, scale, legend and title "Preliminary Plan".
- (2) The name and address of record owner, applicant, registered engineer and registered surveyor.
- (3) The names of all abutters from the most recent tax list.
- (4) Existing and proposed lines of streets, ways, easements and any public or common areas within the subdivision in a general manner.
- (5) The proposed system of drainage, including adjacent existing natural waterways, in a general manner.
- (6) The approximate boundary lines of proposed lots, with approximate areas and dimensions.

- (7) The location, names and widths of adjacent streets approaching or near the subdivision.
- (8) The topography of the land in a general manner.
- D. Field trip. In order to facilitate field inspection and review of the site of the proposed subdivision, it is desirable that there be temporary staking along the center line of all proposed roads in the subdivision, or if that is impractical, some alternative method of enabling on-site review.
- E. Approval. Within forty-five (45) days after submission of a preliminary plan, the Board shall notify the applicant (by registered mail) and the Town Clerk either that the Plan has been approved, or that the Plan has been approved with modifications suggested by the Board or agreed upon by the person submitting the Plan, or that the Plan has been disapproved, and in the case of disapproval, the Board shall state in detail its reasons therefor. Such approval does not constitute approval of a subdivision but does facilitate the procedure in securing final approval of the Definitive Plan. Prior to taking such action, the Board must be in receipt of Form K, Distribution List.⁵ *[Revised 11/6/08]*

§ 191-8. Definitive plan.

- A. Submittals. Any person who desires approval of a definitive plan of a subdivision shall:
 - (1) Submit two (2) copies of the following to the Planning Board, and one copy each to the Town Administrator, Board of Health, Conservation Commission, D.P.W. Superintendent, Town Clerk and Building Inspector (see Form K): *[Revised 7/2/87 and 8/3/95]*
 - (a) The definitive plan, as described at Subsection B. The original definitive plan drawing will only be needed if and when actual signing of the plan takes place.
 - (b) Street plans and profiles of every proposed street, as described at Subsection B.
 - (c) At the same scale as the definitive plan, a development plan, showing existing and proposed topography at two-foot contour intervals, distinction between upland and wetland, indication of annual high water mark, location of tree cover, outstanding individual trees, existing structures including fences and walls, and proposed streets, drainage facilities, and lot lines. If located within

⁵ Editor's Note: Form K, Distribution List, is included at the end of this chapter.

the Flood Hazard District, the location of the base flood elevation (one-hundred-year flood) shall be indicated. Wetlands delineation shall be based upon field identification and flagging by a botanist or other professional previously approved by the Board as being qualified for wetlands identification under the Wetlands Protection Act, preferably to be done in coordination with the Conservation Commission. *[Added 7-2-87]*

- (d) Drainage plans, calculations, and computer printouts (if any), documenting the adequacy of all proposals, to include water table data to evaluate necessity of underdrains and to determine detention basin bed elevations; soils data to substantiate curve number determinations for SCS Method calculations; inflow/outflow hydrographs for pre- and post-development conditions at all critical locations, including detention basins; pipe size calculations; and description of effects of a 100-year storm. Use of Form L, 'Summary of Drainage Considerations', will facilitate review. *[Revised 9-1-88]*
- (e) Test pit logs for locations approved by the Planning Board with not more than one (1) pit required per four (4) proposed lots, selected to reveal general patterns of subsurface characteristics, after consultation with the Board of Health and the Conservation Commission. Locations shall be indicated on the development plan.
- (f) Where connection to the public water system is not proposed, information indicating why such connection is not feasible, description of provisions to be made for water for fire fighting, and information adequate to allow determination of compliance with requirements regarding potable water quality and quantity.
- (g) An erosion control plan, indicating the erosion control measures to be employed, including description of locations of temporary stockpiles, spoil areas, temporary drainage systems, slope stabilization techniques, and sediment basins, and narrative description of how erosion from individual lots onto streets and into drainage systems is proposed to be controlled.
- (h) A locus plan of the subdivision, showing its street configuration in relation to surrounding streets and to zoning district boundaries, at one (1) inch = six hundred (600) feet.
- (i) A print, eight and one-half by eleven (8 1/2 x 11) inches, showing an outline of the subdivision, all ways and lots, street names, and lot numbers.

- (j) An environmental analysis, if required (Subsection D).
 - (k) Construction details and specifications, and road cross sections for each cross section variant at all critical locations, except that where the proposed cross sections are identical with those shown in this Regulation, annotation to that effect may be placed on the Definitive Plan and the cross section drawing may be omitted.
- (2) Submit the following to the Planning Board:
- (a) If requested, traverse notes, evidence of ownership, language of any easements, covenants or deed restrictions applying or proposed to apply to the area being subdivided, and rights and easements obtained for utilities or drainage outside of the subdivision.
 - (b) Two (2) copies of properly executed application Form C.⁶
 - (c) The required administrative filing fees plus the required review fee. *[Amended 9/24/01 and 3/5/2009]*
 - (d) *[Deleted 3/5/2009]*
 - (e) A list of names and mailing addresses for all abutters as they appear on the most recent local tax list, including property owners on the opposite side of any streets abutting the subdivision.
 - (f) A description of the land and the proposal, suitable for advertising.
 - (g) A copy of Form K indicating having delivered materials to appropriate agencies.⁷
 - (h) A municipal lien certificate, indicating that all taxes, assessments, and charges then assessed against the land shown on the plan have been paid in full. *[Added 5-2-96]*.
- (3) Submit to the Town Clerk by delivery or registered or certified mail:
- (a) A notice stating the date of Definitive Plan submission to the Planning Board;
 - (b) A copy of the completed application Form C.

⁶ Editor's Note: Form C is included at the end of this chapter.

⁷ Editor's Note: Form K is included at the end of this chapter.

- (4) File one copy of each of the following with the Board of Health:
 - (a) Definitive Plan;
 - (b) Street plans and profiles;
 - (c) The Development Plan;
 - (d) Environmental Analysis, if any.

B. Definitive plan contents.

- (1) The definitive plan shall be prepared by an engineer and land surveyor licensed to practice in Massachusetts, and shall be clearly and legibly drawn in black India ink or reproduced upon tracing cloth or mylar. The plan shall be at a scale of one (1) inch equals forty (40) feet, or such other scale as the Board may authorize prior to submittal to show details clearly and adequately. Sheet sizes shall be twenty-four by thirty-six (24 x 36) inches. If multiple sheets are used, they shall show each lot in its entirety on one sheet, and shall be accompanied by an index sheet showing the entire subdivision at a scale of one (1) inch equals two hundred (200) feet.
- (2) The definitive plan shall contain the following information:
 - (a) The subdivision name, boundaries, North point, legend, date, scale and indication of zoning districts.
 - (b) The name and address of record owner, subdivider, registered engineer and registered surveyor, their stamps and the names (and stamps, if appropriate) of any other professionals engaged in the design.
 - (c) The names of all abutters as they appear in the most recent certified tax list.
 - (d) Existing and proposed lines of streets, ways, lots, easements, and public or common areas within the subdivision. (The proposed names of proposed streets shall be shown in pencil until they have been approved by the Selectmen.)
 - (e) Sufficient data to determine the location, direction, and length of every street and way line, lot line, easement and boundary line and to establish those lines on the ground.
 - (f) The location of all permanent monuments, properly identified as to

whether existing or proposed.

- (g) Lot numbers enclosed in a circle, and street numbers enclosed in a square.
 - (h) The location, names, and present widths of streets bounding, approaching or within reasonable proximity to the subdivision.
 - (i) On each sheet of the definitive plan, suitable space to record the action of the Board and the signatures of the members of the Board, and the Town Clerk's certification.
 - (j) Certification by the preparers of the plan that the plan and supporting materials were prepared under their direction, and have been designed in compliance with all applicable zoning and subdivision regulations.
 - (k) Certification by an attorney that submittal of the plan by the applicant has been agreed to by owners of all of the land included in the Plan.
- C. Street plans and profiles. For each street there shall be a separate plan at one (1) equals forty (40) feet, and profile at one (1) inch equals forty (40) feet horizontal, one (1) inch equals four (4) feet vertical, showing the following data:
- (1) Exterior lines of the way, with sufficient data to determine their location, direction, and length.
 - (2) Existing centerline profile to be shown as a fine, continuous line. Existing centerline profile for intersecting streets to be shown for at least one hundred (100) feet each side of the intersection of street centerlines. Existing right sideline shall be shown as a light dashed line, left sideline as dots. Elevations shall be based on United States Geological Survey datum.
 - (3) Proposed centerline profile to be heavy, continuous line, with elevations shown every fifty (50) feet [twenty-five (25) feet on vertical curves].
 - (4) Existing and proposed watercourses, ponds, and wetlands, and one hundred (100) foot buffer zone around wetlands subject to the Wetlands Protection Act.
 - (5) Road centerline stationing.
 - (6) All sewer and drainage facilities to be shown on the profiles indicating proposed pipe sizes, slopes and rim and invert elevations and on the street

plans, showing pipe sizes.

- (7) Plan location and size of existing and proposed water mains, hydrants and main gate valves.
- (8) Location of proposed street lights.
- (9) Location of existing and proposed street paving, sidewalks and curbs.

D. Environmental analysis. A comparative environmental analysis shall be submitted for any subdivision creating frontage potentially allowing more than ten dwelling units, and in other cases where the Board determines it appropriate in light of special circumstances. The scope of such Analysis, including development alternatives to be compared and consequences to be studied, shall be as agreed to by the Planning Board but will normally be required to include at least one major alternative to the plan proposed, with as much of the following information as determined by the Planning Board to be necessary for plan evaluation. The analysis shall be prepared by an interdisciplinary team to include but not be limited to a Civil Engineer and an Architect or Landscape Architect, unless otherwise agreed to by the Planning Board. The analysis shall indicate differences among alternatives regarding:

- (1) Impact upon ground and surface water quality and level including estimated phosphate and nitrate loading on groundwater and surface water from septic tanks, lawn fertilizer, and other activities within the development. For subdivisions located in whole or in part within Water resource districts as may be established in the Zoning Bylaw⁸, this shall include analysis of open and closed drainage system alternatives, examining effects upon the basin water budget and upon the future contaminant levels.
- (2) Material effects upon important wildlife habitats, out standing botanical features, and scenic or historic environs.
- (3) Capability of soils, vegetative cover and proposed erosion control efforts to support proposed development without danger of erosion, silting or other instability.
- (4) Relationship to the requirements of MGL C. 131, 40 and 40A (The Wetlands Protection Act).
- (5) Impact upon the existing water supply system and well capacity of the Town.
- (6) Ability of streets providing access to the subdivision to safely provide such

⁸ Editor's Note: See Ch. 123, Zoning.

access, including measurement of sight distances at each intersection with proposed streets, impact of development traffic on the traffic level of service, gap acceptance analysis and analysis of hazards owing to limited sight distances, alignment or other characteristics of access roads.

E. Performance guaranty.

- (1) Form of guaranty. Before the Planning Board endorses its approval of a definitive plan, the developer shall agree to complete without cost to the Town all improvements required by this regulation, and shall provide security that he will do so, either by covenanting not to sell or build upon any lots until completion of the improvements (which covenant must be referred to on the Plan and registered or recorded with it), or by posting bond or other security which the Town can utilize in the event that the improvements are not completed within two (2) years, or by some combination of these. Such security shall provide, among other things, that no structure shall be occupied until streets or ways serving such structures have been surfaced with at least the binder course and berms, and any street lighting required to serve access to such structures has been installed and placed in operation. *[Revised 8/3/95]*
- (2) Security amount. If completion is secured by bond or deposit, the amount shall be determined by the Board to cover:
 - (a) the cost to the Town should it be obliged to install the required improvements.
 - (b) maintenance for one (1) year.
 - (c) inflation over the time allowed for completion of work.
 - (d) Ten-percent contingency.
- (3) Release of guaranty. The Board may grant partial release from such security for partial completion of improvements, if it determines that the completed portion provides a reasonable system for circulation and utilities pending completion of the rest. The Board may release the developer from the covenant upon receipt of an agreement executed by the applicant and by the holder of a first mortgage on the premises providing for retention of funds and their availability to the Town upon default (See MGL C.41, 81-U, Paragraph 11). Full security shall not be released until the integrity of improvements has been verified or secured (191-15B), and until Record plans (191-14G) have been received.

F. Review by Board of Health. The Board of Health shall report to the Planning Board

in writing its approval or disapproval of the plan, and in the event of disapproval, shall make specific findings as to which, if any, areas shown on such plan cannot be used for building sites without injury to the public health and include specific findings and the reasons therefor in such report and, where possible, shall make recommendations for the adjustment thereof. Such Health Board or officer shall send a copy of such report, if any, to the person who submitted said plan. Any approval of the plan by the Planning Board shall then only be given on condition that no building or structure shall be built or placed upon the areas designated without written consent of the Board of Health and shall endorse on the plan such condition, specifying the lots or land to which said condition applies.

- G. Public hearing. Before approval of the definitive plan is given, a public hearing shall be held by the Planning Board. Notice of such hearing shall be given by the Board by advertisement in a newspaper of general circulation in the Town, once in each of two (2) successive weeks, the first publication being not less than fourteen (14) days before the day of such hearing. A copy of said notice shall be mailed to the applicant, and via certified mail to all owners of land abutting upon the subdivision as appearing in the most recent tax list.
- H. Decision.
- (1) After the public hearing, the Board in due course will approve, modify and approve, or disapprove the definitive subdivision plan submitted. Criteria for action by the Board shall be the following:
 - (a) Completeness and technical adequacy of all submissions.
 - (b) Determination that development at this location does not entail unwarranted hazard to safety, health and convenience of future residents of the development or of others because of possible natural disasters, traffic hazard or other environmental degradation.
 - (c) Conformity with the requirements of Article IV.
 - (d) Determination, based upon the environmental analysis (where submitted), that the subdivision as designed will not cause substantial and irreversible damage to the environment, which damage could be avoided or ameliorated through an alternative development plan.
 - (e) Access adequacy as provided at 191-6.
 - (f) Conformity with all applicable zoning requirements.⁹

⁹ Editor's Note: See Ch. 123, Zoning.

- (g) Consistency with the purposes of the Subdivision Control Law.
- (2) Notice of such action, or of an agreed extension of the time for such action, must be provided by the Planning Board to the Town Clerk within ninety (90) days following the date of submission of the plan if the plan follows action on (or failure to timely act on) a preliminary plan, or one hundred thirty-five (135) days following the date of submission in cases where no preliminary plan was submitted.
- I. Certificate of approval. The action of the Board in respect to such plan shall be by vote, copies of which shall be certified and filed with the applicant. If the Board modifies or disapproves such plan, it shall state in its vote the reasons for its action. Final approval, if granted, shall be endorsed on the original drawing of the Definitive Plan by the signatures of a majority of the Board, but not until the statutory twenty-day appeal period has elapsed following the filing of the certificate of the action of the Board with the Town Clerk, and said Clerk has notified the Board that no appeal has been filed. After the Definitive Plan has been approved and endorsed, the applicant shall furnish the Board with three prints thereof. Final approval of the Definitive Plan does not constitute the laying out or acceptance by the Town of streets within a subdivision. *[Revised 8/3/95]*

§ 191-8.1 Frontage Waiver Plan. *[Added 8/3/95]*

- A. Applicability. A plan which proposes no new roads, but technically constitutes a "subdivision" because one or more of the lots it creates lacks the frontage required by the Zoning Bylaw, shall be termed a "Frontage Waiver Plan" and shall be governed by the following, rather than by 191-8. Definitive Plan.
- B. Planning Board Submittals. Any person who desires approval of a Frontage Waiver Plan shall submit the following to the Planning Board.
 - (1) Two copies of a properly executed Form C.
 - (2) The required administrative filing fees *[Amended 9/24/01 and 3/5/09]*
 - (3) A definitive plan with contents as follows.
 - (a) Information as required under § 191-4.A for plans believed not to require approval.
 - (b) A locus plan of the subdivision, showing it in relation to surrounding streets and to zoning district boundaries, at one (1) inch = six hundred (600) feet.

- (c) The location of all permanent monuments, properly identified as to whether existing or proposed.
 - (d) Any additional information reasonably necessary for the Planning Board to determine whether adequate access is assured for each lot proposed to be created.
 - (e) Suitable space to record the action of the Planning Board, including notation that a waiver of frontage requirements has been granted, if that is sought, and suitable space for the signatures of the members of the Board and the Town Clerk's certification.
 - (f) Certification by the preparers of the plan that the plan and supporting materials were prepared under their direction, and have been designed in compliance with all applicable zoning and subdivision regulations.
 - (g) Certification by an attorney that submittal of the plan by the applicant has been agreed to by owners of all of the land included in the Plan.
- (4) A list of names and mailing addresses for all abutters as they appear on the most recent local tax list, including property owners on the opposite side of any streets abutting the subdivision.
 - (5) A description of the land and the proposal, suitable for advertising.
- C. Submittals to others.
- (1) The applicant shall submit to the Town Clerk a notice stating the date of Definitive Plan submission to the Planning Board, and a copy of the completed application Form C.
 - (2) The applicant shall submit a copy of the Definitive Plan to the Board of Health.
- D. Procedure, Requirements, and Decision. Except as provided above, requirements for Frontage Waiver Plans shall be the same as for Definitive Plans. A public hearing with notice shall be held, requirements of Article IV shall be met so far as applicable, the decision criteria of § 191-8.H Decision shall apply, and if improvements are proposed, security shall be provided as stipulated at § 191-8.E.

ARTICLE IV

Design and Construction Requirements

§ 191-9. General guidelines.

A. Design guidelines. All subdivisions shall be designed and improvements made by the developer consistent with the requirements of Article IV. Design and construction shall do the following:

- (1) Reduce, to the extent reasonably possible:
 - (a) volume of cut and fill.
 - (b) area over which existing vegetation will be disturbed; especially if within two hundred (200) feet of a river, pond, or stream, or having a slope of more than fifteen percent (15%).
 - (c) number of mature trees removed.
 - (d) extent of waterways altered or relocated.
 - (e) visual prominence of man-made elements not necessary for safety or orientation.
 - (f) erosion and siltation.
 - (g) flood damage.
 - (h) number of driveways exiting onto existing streets.
 - (i) disturbance of important wildlife habitats, out standing botanical features, and scenic or historic environs.
- (2) Increase, to the extent reasonably possible:
 - (a) vehicular use of collector streets to avoid traffic on streets providing house frontages.
 - (b) visual prominence of natural features of the landscape.
 - (c) legal and physical protection of views from public ways.
 - (d) street layout facilitating south orientation of houses.

(e) use of curvilinear street patterns.

B. Conformance with Master Plan. The street layout and utilities in all plans shall conform to the proposals of the Blackstone Master Plan where applicable.

C. Standards of construction. Standards of construction not otherwise specified hereunder shall be according to the Standard Specifications for Highways and Bridges of the Massachusetts Department of Public Works (latest edition with amendments in effect at that time).

D. Typical cross sections. Design and construction shall conform to the Typical Cross Sections appended hereto.¹⁰

§ 191-10. Streets.

A. Location.

(1) All streets in the subdivision shall be designed so that they will provide safe vehicular travel. Due consideration shall also be given to the attractiveness of the street layout in order to obtain the maximum livability and amenity of the subdivision.

(2) Streets shall be continuous and in alignment with existing streets as far as is practicable.

(3) If adjoining property is not subdivided, proper provision for extending streets shall be made.

(4) Reserve strips prohibiting access to streets or adjoining property will not be permitted except where, in the opinion of the Planning Board, such strips are in the public interest.

B. Alignment.

(1) Streets shall intersect at ninety (90) degrees where possible, and at not less than sixty (60) degrees in other cases.

(2) The minimum centerline radius of any curve shall be one hundred (100) feet on a lane, one hundred fifty (150) feet on a minor street, and two hundred (200) feet on a collector street or where gradient exceeds five percent (5%). The Planning Board may require a greater radius where deemed necessary for the public safety.

(3) All intersections and approaches to intersections shall be cleared of any

¹⁰ Editor's Note: The Typical Street Cross Section is included at the end of this Regulation.

obstructions to the motorist's view and maintained clear. Street lines at intersections shall be cut back to provide for pavement radii of not less than thirty (30) feet if involving a collector street, or not less than twenty-five (25) feet at other intersections. *[Revised 9-1-88]*

(4) Sight distances of at least two hundred (200) feet in each direction shall be provided at intersections, except that four hundred (400) feet sight distance shall be provided at intersections with state-numbered highways or collector streets or other streets having high-speed traffic. At such intersections, intersection designs shall allow for longer turning radii, and safe acceleration and deceleration, potentially involving increased street width, increased curb radii, and use of traffic islands for channelization. At other locations, minimum sight distance shall be as follows:

(a) Lane: one hundred twenty-five (125) feet.

(b) Minor street: one hundred seventy-five (175) feet.

(c) Collector street: two hundred seventy-five (275) feet.

(5) Center-line offsets for intersecting streets shall not be less than one hundred fifty (150) feet.

C. Dead-end streets.

(1) Dead-end streets shall be no longer than five hundred (500) feet nor shorter than one hundred (100) feet, measured from the center of the turn-around to the sideline of the street providing two (2) means of access, unless, in the opinion of the Board, a different length is necessitated by topography or other local conditions. *[Revised 9-1-88]*

(2) Dead-end streets shall be provided at the closed end with a cul-de-sac having pavement diameter of one hundred feet (100) and property line diameter of one hundred twenty feet (120), or an alternative turnaround designed for a vehicle of thirty (30) foot length, eight (8) foot width, and having an outside turning radius of fifty-seven (57) feet.

D. Width.

(1) Minimum street widths shall be as follows:

Type of Street	Right-of-way (feet)	Pavement (feet)
Collector street	60 feet	30 feet
Minor street	50 feet	26 feet
Lane	40 feet	20 feet

(2) The centerline of the paved surface shall normally coincide with the right-of-way centerline.

(3) The Planning Board may require slope easements where retention cannot be adequately handled within the required right-of-way.

E. Grades.

(1) Grades of all streets shall not be less than one percent (1.0%).

(2) The maximum grades for streets shall be as follows:

Type Street	Maximum Grade (percent)
Collector street	8
Minor street	10
Lane	11

(3) Grades shall not exceed four percent (4%) within fifty (50) feet of an intersecting street.

(4) All changes in grade exceeding one percent (1%) shall be connected by vertical curves of sufficient length to afford a passing sight distance of at least the following, unless drainage considerations for sag vertical curves dictate otherwise:

Type of Street	Length of Curve (feet)
Collector street	275 feet
Minor street	175 feet
Lane	125 feet

(5) The street surface shall have a cross slope of three-eighths (3/8) inch per foot on each side of the center line.

(6) Centerline profiles shall normally be at least three (3) feet above the grade of adjacent wetlands.

(7) Street grades shall be so designed that the volume of cuts and fills made within the right-of-way approximately balance, except to offset peat, boulders, or other unusable materials to be removed.

(8) Proposed centerline grade shall not be more than seven (7) feet above or below the existing centerline grade unless specifically authorized by the Board in unusual circumstances.

F. Construction.

(1) Surface preparation. Clearing and grubbing shall be performed to remove stumps, brush, roots, boulders and like material from the area of the traveled way, shoulders, sidewalks and utility trenches, but elsewhere, wherever feasible, existing vegetation shall be preserved.

(2) Forming the subgrade.

(a) All topsoil, subsoil, rocks, ledge and other unsuitable material shall be excavated to a depth of at least fifteen inches (15) within the traveled way, twelve (12) inches for shoulders, and ten (10) inches for sidewalks. Unless a permit is granted by the Town for the removal of loam and top soil, said material shall be stockpiled on the premises for final landscaping of roadway shoulders and adjacent house lots. The depth of excavation may be reduced by written authorization of the Subdivision Inspection Agent if the existing base is clean gravel suitable for roadway foundation. *[Revised by vote 9/5/02].*

(b) A greater depth of excavation may be required in any area where the sub-grade material (clay, peat, etc.) will not support the roadway, or drainage conditions require more gravel to establish a firm foundation. Prior to placement of the gravel base course, the entire sub-grade surface shall be thoroughly compacted by means of a three-wheel roller weighing not less than ten (10) tons or equivalent pneumatic tired or vibratory compactors. After compacting, the surface shall show no deviation in excess of two (2) inches from the grades indicated on the drawings. No gravel base course shall be placed in any sub-grade area until said area has been inspected and approved by the Subdivision Inspection Agent. *[Revised by vote 9/5/02].*

(3) Placing and compacting base course materials. Base course gravel shall be placed in maximum lifts of eight (8) inches compacted depth. Each lift is to be thoroughly compacted with a three-wheel roller weighing not less than ten tons, or equivalent pneumatic tired or vibrator compactors. The final lift is to be a finer gradation with no stones larger than three inches in diameter. The base course gravel shall be placed not less than two months prior to surfacing. All drainage and utilities are to be installed prior to placing base course gravel. The base course gravel, once approved, is not to be disturbed by digging without written authorization of the Subdivision Inspection Agent. *[Revised by vote 9/5/02].*

(4) Conditioning of base course prior to surfacing.

(a) The surface of the base course will be inspected and tested for tolerances by the Subdivision Inspection Agent. Any deviations in excess of the required tolerances shall be corrected by the subdivider as directed. Any ruts or soft yielding areas in the base course shall be corrected by removing unsuitable material, adding suitable material, reshaping and re-compacting as directed. The base course, immediately before surfacing, shall be fine-graded to three (3) inches below final grade as shown on the profiles of the Definitive Plan, with the grades of the street surface properly marked on grade stakes set no further apart than fifty (50) feet. Grading shall be by means of a self-propelled road grader and such hand labor as may be required. Compaction will be by an approved type roller weighing not less than eight (8) tons. The surface shall show no deviation in excess of one-fourth (1/4) inch from the grades indicated on the definitive plan. *[Revised by vote 9/5/02].*

(b) The fine-graded base course shall be treated with a prime coat of cut-back type asphalt (MC-70) applied at the rate of four-tenths (4/10) gallon per square yard.

(c) The primed surface shall then be allowed to remain undisturbed by traffic for a period of forty-eight (48) hours, after which time it shall be inspected by the Subdivision Inspection Agent who shall determine whether or not a cover of screened sand will be required to blot up the excess bitumen. Following said inspection and application of cover, if required, the surface shall be rolled with a tandem type roller weighing not less than eight (8) tons. Immediately prior to application of the permanent surface, the base course shall be swept clean of all loose sand and all foreign matter. *[Revised by vote 9/5/02].*

(d) Where it will result in an equally durable pavement, the

Board may waive the asphalt prime coat if the base course of bituminous concrete is increased to two and one-half (2 1/2) inches and the overall compacted thickness of bituminous concrete is increased to three and one-half (3 1/2) inches.

(5) Application of permanent surface. A pavement of Class I Bituminous Concrete, Type I-1, shall be placed in strict accordance with the Massachusetts DPW Standard Specifications (Section 460.0 through 460.62, or later revisions). Said pavement shall be laid in two (2) courses, consisting of two (2) inches compacted thickness of base mixture and one (1) inch compacted thickness of top mixture. The completed pavement shall have a uniform compacted thickness of three (3) inches. No permanent surface shall be applied after November 1 unless authorized in writing by the Subdivision Inspection Agent. *[Revised by vote 9/5/02]*.

G. Curbs. Vertical curbing type VA4 (Massachusetts Department of Public Works Specification M9.04.1) shall be installed on both sides of all roads in accordance with the specifications of the Massachusetts Department of Public Works (Section 501), with a seven-inch reveal. Curb inlets shall be provided at all catchbasins, and corner radii at all curb cuts. Curbing set on a radius of one hundred sixty (160) feet or less shall be cut to the curve required. At street intersections, curbing shall be constructed to provide wheelchair access to each sidewalk from the roadway.

H. Driveways. All driveways extending from the completed road surface to the lot line must have a topping of at least three (3) inches of bituminous concrete. All driveway slopes must end at the street right-of-way, then continue forward to the completed road surface in the same grade as the sidewalk strip and/or shoulder in order to allow proper drainage of surface water.

§ 191-11. Stormwater management.

A. General approach.

(1) Storm drains, culverts, swales, detention basins and related facilities shall be designed to permit the unimpeded flow of all natural water courses, to ensure adequate drainage at all low points along the streets, to control erosion, and to intercept storm water run-off along streets at intervals reasonably related to the extent and grade of the areas being drained. Where determined to be appropriate by the Planning Board, stormwater shall be carried on the ground surface and recharged (open system) rather than piped to surface water (closed system).

(2) Peak storm flows and run-off at the boundaries of the development in a one-hundred-year frequency storm shall be no higher following development than prior to development, unless an increase is authorized by

the Planning Board, following consultation with the Conservation Commission and consideration of the ability of receiving wetlands or waterbodies to absorb the increase and the consequences of providing detention capacity. In the Flood Hazard District, adequate drainage systems shall be provided to reduce exposure to flood hazards. Drainage systems shall be designed based on a twenty-five-year frequency storm, except that detention facilities shall be based on a one- hundred-year storm, and in a one-hundred-year storm streets shall remain passable and drainage shall not enter buildings. *[Revised 9-1-88]*

(3) Design calculations shall use the soil conservation service method (modified soil cover complex).

B. Storm drains.

(1) Except where drainage swales are used, catch basins will generally be required on both sides of the roadway on continuous grades at intervals of not more than three hundred (300) feet. Storm drains and culverts shall be no less than twelve (12) inches inside diameter and shall be of greater size if required by design considerations. All drains shall have a minimum of three (3) foot cover, except where reinforced concrete pipe is used and there the minimum cover shall be two (2) feet. A catchbasin to manhole configuration shall be used.

(2) Proper connections shall be made with any existing drains in adjacent streets or easements where they may exist and prove adequate to accommodate the drainage flow from the subdivision. No piped, channeled, or otherwise altered discharge onto property of others shall be allowed unless documentation is provided demonstrating authorization from the property owners involved.

(3) Subdrains or interceptor drains are required where necessary to preclude flowage of groundwater threatening to the integrity of the road surface. Street underdrains shall be installed where necessary to assure a five-foot depth to groundwater below the street pavement. Such drain shall be located approximately twenty-four (24) inches behind the curb line.

(4) Drainage calculations shall normally assume all tributary area to be developed as zoned. Water velocities shall be between two (2) and twelve (12) feet per second in pipes, and not over five (5) feet per second in swales.

C. Catch basins. Catch basins shall be provided with grates installed and approved as to design by the Board. Manholes shall be provided at changes in direction, and whenever there is a change in size of pipe. Not more than two (2) catch basins may be connected in series rather than to manholes. Catch basins and manholes shall be constructed with

standard concrete blocks, with brick and mortar or, if required by depth, of reinforced concrete. Catch basins shall have a three (3) foot deep sump. Catch basin rim elevations shall be temporarily set at the binder course grade, then readjusted to finish grade, unless less than two (2) months are to elapse between binder and final paving. Leaching catch basins will not normally be allowed.

D. Detention basins. All storm drains and swales shall discharge into a detention basin or equivalent device prior to discharge into any natural body of water or wetland. Detention basin design shall comply with the following.

(1) Basin depth shall not exceed five (5) feet above bed elevation. The slope of detention basin walls shall not exceed one (1) on three (3).

(2) The base of the detention basin shall be a minimum of two (2) feet above the maximum water table as defined by the Town of Blackstone Board of Health regulations (Deep tests shall be made between February 15 and May 15). Ground water level shall be certified by a Registered Engineer. The detention basin must be constructed below the existing grade, and may not be constructed on fill material.

(3) The top of the basin shall be not less than one (1.0) feet above the highest water surface projected for the design storm.

(4) Inflow pipe invert shall be high enough that there will not be substantial backwater in the pipe with the detention basin at maximum depth. The downstream end of the inflow pipe shall be suitably protected against scour and shall protect the bed and sides of the basin.

(5) An outflow drain with trash interceptor shall be provided, with a design assuring that outflow will not exceed existing flows for any event up to the design storm, and that the basin will empty in not more than four (4) days in the design storm. Outflow invert shall be not less than fifty-hundredths (0.50) feet above bed elevation. An overflow weir protected against erosion shall be provided for accumulations exceeding those of the design storm.

(6) The basin side slopes and bottom shall be provided with four (4) inches of loam, seeded at the rate of two (2) pounds Red Top, fifteen (15) pounds Creeping Red Fescue and twenty (20) pounds Tall Fescue per acre. At no time shall a seed mix consist of more than ten percent (10%) annual ryes.

(7) A four (4) foot chain-link fence shall be constructed around the basin with an eight-foot wide gate for access (may be double four foot leaf), with lock, and a key shall be provided to the Town of Blackstone. However, if

the detention facility has slopes not exceeding one (1) on five (5) and a maximum water depth of not more than two and five-tenths (2.5) feet, an alternative barrier, such as a hedge, may be allowed.

(8) Detention facility maintenance shall be assured through ownership by a homeowner's association or other means entailing no expense to the Town.

E. Water Resource Districts. Within water resource districts as may be established in the Zoning Bylaw¹¹, provisions for contaminant removal shall be made employing detention basins with subsurface drains or perforated risers, oil and grit separator catch basins, or other devices where appropriate.

§ 191-12. Utilities.

A. Installation. All sewers, water pipes, telephone, electricity and CATV cable shall be installed underground before roadway base course installation.

B. Water.

(1) Whenever feasible, the water supply shall be from a public water supply system. In such cases, the water supply system will be considered adequate only if it is capable of providing gravity service to each proposed fire hydrant with a flow of five hundred (500) gallons per minute at twenty (20) pounds per square inch residual pressure for single-family detached residential developments, or meeting Insurance Safety Office (ISO) requirements for other developments, and only if capable of providing gravity service to each proposed lot with static pressure of forty (40) pounds per square inch at street grade. Where any part of any lot is at elevation three hundred (300) feet mean sea level or higher, the applicant shall submit engineering analysis documenting adequacy.

(2) If connection to a public water system is proposed but it is determined by the Board that the above standards will not be met in part or all of the subdivision for reasons beyond the reasonable responsibility of the developer, the Board may never-the-less approve the plan subject to a condition that any lot not adequately served shall not be built upon until service has been made adequate or, if sooner, twenty-four (24) months have elapsed from the date of plan approval in order to allow time to remedy system deficiencies.

(3) Water system design, equipment, materials and construction shall meet the specifications of the Water and Sewer Commission. *[Revised*

¹¹ Editor's Note: See Ch. 123, Zoning.

11/6/08]

(4) Permanent dead-end water mains shall not normally be allowed. Easements shall be provided where necessary to allow for extension or looping of mains through subsequent development.

(5) Where connection to an adequate public water system is infeasible, the Planning Board shall approve a subdivision only upon its determination, following consultation with the Fire Department, that reserved access to a fire pond or other provisions will adequately provide for fire safety, and upon its determination, following consultation with the Board of Health, that wells on each lot are likely to be able to provide a sustained yield of five (5) gallons per minute with water quality meeting DEP's Drinking Water Regulations of Massachusetts, as amended from time to time. One (1) test well may be required of the Applicant per ten (10) potential lots, or the Planning Board's determination may be based upon the written statement of a hydrogeologist following his analysis of well records on nearby premises, subsurface conditions, and the effects of this subdivision and other potential sources of contamination. *[Revised 11/6/08]*

C. Sewerage.

(1) Provisions shall be made for Town sewerage to serve all lots which potentially can be so served by gravity connections. Extension of existing sewerage will be required at the developer's expense to meet this requirement unless that would require greater expenditures for facilities outside the subdivision and not abutting it than for those within or abutting the subdivision, including house connection or would require acquisition of easements across property of others.

(2) Public sewers shall be at least eight (8) inches diameter, and designed for a minimum flow of two (2) feet per second.

(3) Manholes shall be located at every change in grade, pipe size, or horizontal alignment, but not more than three hundred (300) feet apart.

(4) Construction materials and methods shall be as required by the Department of Public Works. (See Water and Sewer Commission Lift Station Specifications attached hereto).¹² *[Revised 11/6/08]*

D. Cable utilities.

¹² Editor's Note: The Department of Public Works Lift Station Specifications are included at the end of this Regulation.

(1) Wiring. Underground distribution systems shall be provided for any and all utility services, including electrical, telephone, and cable television services. Poles and any associated overhead structures, of a design approved by the Planning Board, shall be provided for use for police and fire alarm boxes and any similar municipal equipment and for use for street lighting.

(2) Street lighting. Street lighting shall be installed at each intersection, cul-de-sac, or other road hazard, with light spacing not exceeding three hundred fifty (350) feet. The quantity, type, and location of lights within a proposed subdivision shall be subject to Planning Board approval and shown on the Street Plan. Normally fixtures shall be eight thousand (8,000) lumen mercury vapor, with nine thousand six hundred (9,600) lumen sodium vapor at inter sections involving collector streets.

E. Flood Hazard District. In the Flood Hazard District, as established in the Zoning Bylaw¹³, all public utilities and facilities such as gas, electrical, and water systems shall be located and constructed to minimize or eliminate flood damage.

§ 191-13. Other improvements.

A. Sidewalks.

(1) Sidewalks five (5) wide shall be provided on both sides of all streets.

(2) All materials shall be removed for the full width of the sidewalk to a subgrade ten (10) inches below the finished grade as shown on the cross section; and all soft spots and other undesirable material below such subgrade shall be replaced with a good binding material and rolled. This excavated area then shall be filled with eight (8) inches of good quality gravel and rolled with a pitch toward the curb of three-eighths (3/8) inches to the foot. Two (2) inches of compacted bituminous concrete shall be placed; provided, however, that if a granolithic surface is desired and/or specified by the Board, specifications of the Massachusetts Department of Public Works shall be complied with.

(3) Wheelchair ramps shall be provided at all intersections of sidewalks and streets, and elsewhere as appropriate.

B. Shoulders. Shoulders shall be at least three (3) feet wide, pitched towards the curb or swale at between three-eighths (3/8) inches and two (2) inches per foot. The shoulder shall have an eight (8) inch gravel foundation, and four (4) inches of topsoil (after rolling).

C. Plantings.

¹³ Editor's Note: See Ch. 123, Zoning.

(1) Unpaved areas within the right-of-way which have been stripped by the construction shall be graded to meet the adjoining property with a slope of not more than one (1) foot vertical to two (2) feet horizontal in cut or one (1) foot vertical to three (3) feet horizontal in fill. Those areas shall be covered with at least four (4) inches of good quality topsoil (after rolling) and thickly seeded with perennial grasses or other planting materials approved by the Board.

(2) Suitable existing trees within the right-of-way, if larger than four (4) inches caliper and located outside the shoulders, shall be preserved. Trees to be retained shall not have grade changed over their root areas more than twelve (12) inches. Where suitable trees do not exist at intervals of less than forty (40) feet on each side of the street, they shall be provided by the developer.

(3) Trees to be planted shall be well branched, nursery grown stock at least two and five-tenths (2.5) inches trunk diameter at four (4) feet above ground, and shall be free of injury, harmful insects, and diseases. They shall be long-lived species adapted to the local environment and approved by the Planning Board.

D. Street signs. As soon as a street is paved, street signs conforming to those placed by the Town shall be erected at each end of the street. The word "Private" shall be lettered on a separate sign placed under the street sign. This separate sign shall be removed when the street is accepted by the Town.

E. Monuments.

(1) Monuments shall be installed at all street intersections; at all points of change in direction of curvature of the streets; at each lot corner along the street; and as necessary to locate any easements to be deeded to the Town.

(2) Monuments must be granite or reinforced concrete and set to a bottom depth of not less than four (4) feet below finished grade and with top flush with finished grade. Reference points are to be drilled in the top of each monument.

§ 191-14. Additional requirements.

A. Open Space.

(1) The Planning Board may require the plan to show a potential park or parks suitably located for recreational purposes or for providing light and air. The park or parks shall not be unreasonable in area in relation to the land

being subdivided and to the prospective uses of the land, normally not exceeding five percent (5%) of plan area.

(2) The Board may by appropriate endorsement on the plan require that no building be erected upon such park or parks for a period of not more than three (3) years without its approval. This land shall be made available for purchase by the Town. Failure to purchase within three (3) years shall free the owners from restrictions.

B. Earth removal. Any area within the subdivision used for the extraction of gravel or borrow shall be regraded, loamed, and in sod before final release is granted by the Planning Board.

C. Maintenance. The entire area within the right-of-way shall be properly maintained by the developer until accepted by the Town. Immediately prior to such acceptance, all catch basins shall be cleaned, streets swept, and the remainder of the right-of-way and any other areas to be deeded to the Town shall be cleared, mowed, or otherwise put in first-class order. Snow removal and sanding of the streets shall be the responsibility of the developer until such acceptance.

D. Cleaning up. Before sale of a lot, the subdivider shall clean up any debris thereon caused by construction of public improvements.

E. Easements.

(1) Easements for utilities across lots or centered on rear of side lot lines shall be provided where necessary and shall be at least twenty (20) feet wide.

(2) Where a subdivision is traversed by a water course, drainage way, detention area, channel or stream, there shall be provided a storm water easement or drainage right-of-way of adequate width to conform substantially to the lines of such water course, drainage way, detention area, channel or stream and to provide for construction or other necessary purposes (such as maintenance).

F. Protection of natural features. Due regard shall be shown for all natural features such as large trees, water courses, scenic points, historic spots and similar community assets, which if preserved, will add attractiveness and value to the subdivision.

G. Record plans. Upon completion of construction, and before release of the performance guarantee, the subdivider shall have prepared and submitted Record Plans at one (1) equals forty (40) feet, which shall indicate the actual location of all of the following:

(1) Street lines.

- (2) Traveled way edges.
- (3) Sidewalk locations.
- (4) Permanent monuments.
- (5) Locations, slopes and inverts of the required utilities and drainage.
- (6) Locations of any other underground utilities, such as electricity, telephone lines and street lighting.

H. Certification. A professional civil engineer retained by the developer shall certify that all construction was executed in conformance with the subdivision regulations and with all requirements agreed upon as a condition to plan approval.

I. *[Added 8/3/95] [Redesignated 11/6/08]* Village Overlay District. Within the Village Overlay District as shown on the Zoning Map of the Blackstone Zoning Bylaw the following shall be observed.

- (1) Contrary to § 191-9(2)(e), curvilinear streets are not to be encouraged.
- (2) Pavement radii at corners may be five (5) feet shorter than specified at § 191-10.B(3).
- (3) Notwithstanding § 191-10.D(1), street right-of-way and pavement widths need be no wider than that of the street from which they are accessed.

§ 191-15. Release of performance guaranty.

A. Request for release. Upon completion of the foregoing requirements, security for the performance of which was given by bond, deposit, or covenant, or upon the performance of any covenant with respect to any lot, the applicant may request and agree on terms of release with said Planning Board.

B. Completion requirements. To assist in determining whether satisfactory completion has been made, the Planning Board shall receive a properly completed Inspection Form (Form I) from the subdivider.¹⁴ The required improvements will not be considered complete until:

- (1) The subdivider has filed with the Planning Board a record plan as required at 191-14G.

¹⁴ Editor's Note: Form I, Subdivision Inspection Checklist, is included at the end of this Regulation.

(2) Grassed areas have been mown at least twice; all landscaping and plantings have been through a winter; all other above-ground improvements such as paving and side walks have been installed for at least twelve (12) months subsequent to their final inspection; and all underground utilities and appurtenances such as water and sewer lines have been installed for at least twenty- four (24) months subsequent to their final inspection. Street acceptance by Town Meeting prior to these periods having elapsed shall not be reason for release of the portion of security being held to assure integrity of improvements.

ARTICLE V

Administration

§ 191-16. Inspections. *[Revised by vote 9/5/02].*

- A. Subdivision Inspection Agent. The developer shall provide the Town Administrator with written notice at least one week prior to beginning street construction. The Town Administrator shall, upon receipt of such notification, appoint a Subdivision Inspection Agent for the project and instruct said Agent to make continuing inspections of the work to insure that all requirements are adhered to.
- B. Inspection fee. Prior to commencement of street construction, the developer shall provide to the Town Administrator an inspection fee deposit to be placed into the Review Escrow Account per § 191-6.1. The deposit shall equal 1% of the estimated construction cost of the development calculated per Form J, or such alternative initial estimate of likely inspection cost as may be agreed upon by the developer, the Subdivision Inspection Agent, and the Town Administrator. All Town costs for the Inspection Agent shall be paid from the Review Escrow Account. *[Revised 11/6/08]*
- C. Process. The Subdivision Inspection Agent shall furnish the subdivider with a checklist (Form I) of steps to be completed. The subdivider shall not proceed with any steps until satisfactory completion of all prior ones have been endorsed by the Agent on the Form I checklist. The completed checklist is to be returned to the Planning Board. Failure to submit a completed checklist may be deemed sufficient cause for the Board to withhold final approval of the required improvements or release of security.

§ 191-17. Variances.

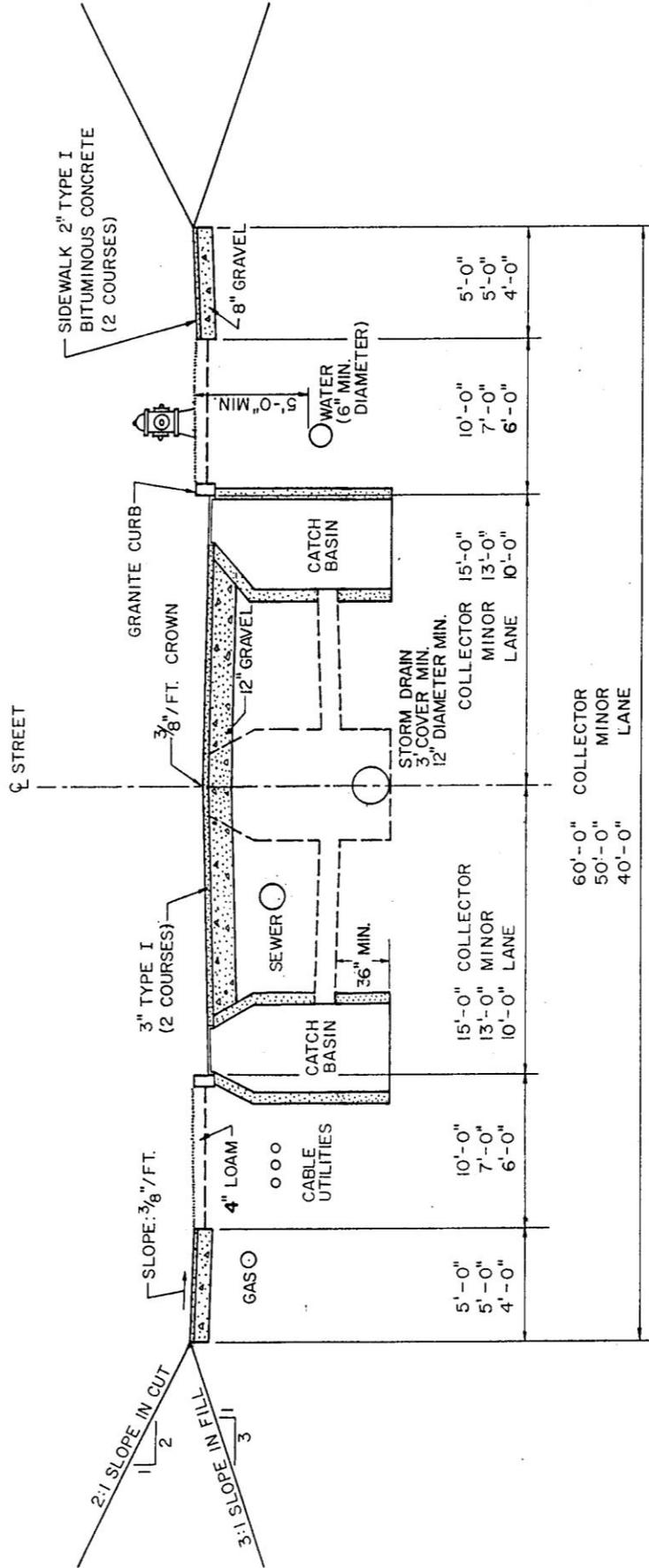
Strict compliance with the requirements of these rules and regulations may be waived when, in the judgment of the Planning Board, such action is in the public interest and not inconsistent with the Subdivision Control Law.

§ 191-18. Consent required for more than one building per lot.

Not more than one (1) building designed or available for dwelling purposes shall be erected or placed or converted to use as such on any lot in a subdivision or elsewhere within the Town without the consent of the Planning Board. Consent shall be granted only for structures in compliance with zoning restrictions, and only upon the Board finding that adequate ways servicing such site for each building have been provided in the same manner as otherwise required for lots within a subdivision.

§ 191-19. Reference to statutes.

For matters not covered by these rules and regulations, reference is made to MGL C. 41, 81-K to GG, inclusive.



TYPICAL STREET CROSS SECTION
BLACKSTONE

PHILIP B. HERR & ASSOCIATES
 SEPT. 6, 1973
 REVISED OCT. 30, 1973, DEC. 3, 1973, DEC. 6, 1973, MAY 4, 1987; SEPT. 1, 1988

FORM A

**APPLICATION FOR ENDORSEMENT OF
PLAN BELIEVED NOT TO REQUIRE APPROVAL**

File this form, six prints of the plan, and the required application fee, with the Planning Board, and one copy of Form A with the Town Clerk.

Plan provided to the Planning Board on: _____ , 20____

Form A provided to the Town Clerk on: _____ , 20____

To the Planning Board:

The undersigned, believing that the division of property as shown on the accompanying plan does not constitute a subdivision within the meaning of the Subdivision Control Law, hereby requests an endorsement thereon that Planning Board approval under the Subdivision Control Law is not required.

1. Name of Applicant: _____

Address: _____

2. Name of Surveyor: _____

Address: _____

3. Deed of property recorded in Worcester County Registry, Book _____ , Page _____

4. Location and Description of Property: _____

5. Proposed use of land if other than single-family residence: _____

6. Number of lots shown on plan: _____

Signature of Owner: _____

Address: _____

FORM A (Cont.)

If it is not obvious, please indicate the grounds on which you believe your plan not to be a subdivision (either A, B, or C, not a combination).

Lot Numbers

- A. Each lot on the plan or altered by it meets one of these criteria:
1. Has all the frontage required under zoning on:
 - a) a public way, or _____
 - b) a way which the Town Clerk certifies is maintained and used as a public way, or _____
 - c) a way shown on a plan approved and endorsed earlier by the Planning Board under this law, or _____
 - d) a way in existence prior to June 28, 1963 and which the Board finds adequate for the way's proposed use, or _____
 - e) a way shown on a plan of a subdivision registered in the Land Court prior to June 28, 1963. _____
 2. Has been clearly marked on the plan to be either:
 - a) joined to and made a part of an adjacent lot, or _____
 - b) "Not a building lot". _____
- B. Each lot on the plan contains a building that existed prior to June 28, 1963. _____
- C. The plan simply describes already existing parcels with no new lot divisions. _____

[Revised 8-3-95]

FORM B

APPLICATION FOR APPROVAL OF A PRELIMINARY PLAN

File one completed form with the Planning Board, one copy with the Board of Health and a notice of submission with the Town Clerk.

Date transmitted: _____, 20__

Date of next Planning Board meeting (presumed "Submittal" date) _____, 20__

To the Planning Board of Blackstone:

The undersigned herewith submits the accompanying Preliminary Plan of a subdivision entitled _____ for approval under the provisions of the Subdivision Control Law and your Rules and Regulations Governing the Subdivision of Land.

1. Name of Applicant: _____

Address: _____ Phone: _____

2. Name of Owner (if not applicant): _____

Address: _____

3. Name of designer: _____

Address: _____

4. Deed of property recorded in Worcester Registry, Book _____, Page _____

Title of property registered in the Worcester Registry of the Land Court, Certificate of Title No.

5. Location and Description of Property: _____

6. Number of lots on the plan: _____

Signature of Applicant: _____

Signature of Owner (if not Applicant): _____

FORM C

APPLICATION FOR APPROVAL OF DEFINITIVE PLAN

File one completed form with the Planning Board and one copy with the Town Clerk.

Plan provided to the Planning Board _____, 20__

Form C provided to the Town Clerk _____, 20__

To the Planning Board of Blackstone:

The undersigned herewith submits the accompanying Definitive Plan of land for approval as a subdivision under the requirements of the Subdivision Control Law and the Blackstone Planning Board's Rules and Regulations Governing the Subdivision of Land.

1. Name(s) of Applicant(s): _____

Address(es): _____

2. Name of Subdivision: _____

3. Name(s) of Surveyor and other designers: _____

4. Deed of property dated _____ recorded in Worcester Registry of Deeds,

Book _____, Page_____. Title of property registered in the Worcester Registry of

the Land Court, Certificate of Title No._____ (attach additional pages if

necessary for description of additional deeds or titles).

5. Location and Description of Property:

Street reference: _____

Assessor's map reference: _____

Total land area: _____

FORM C (continued)

6. Number of lots on the plan: _____

7. Type of Subdivision (Residential or Non-residential): _____

I (we) hereby certify that the applicant(s) itemized above have been authorized by me (us) to file a subdivision plan with the Planning Board on property that I (we) own, and that such property is free of encumbrances except for any itemized below.

Signature of Owner: _____

Address: _____

Signature of Owner: _____

Address: _____

Mortgages or other encumbrances: _____

Name and address for all notices to be provided the "Applicant" in cases where there are more than a single applicant or the applicant and owner are not the same:

Name: _____

Address: _____

FORM D-1

CERTIFICATE OF APPROVAL OF A DEFINITIVE SUBDIVISION PLAN

Town Clerk

Dear _____:

The Blackstone Planning Board hereby certifies that at a meeting of said Board on _____
20____, at which a quorum was present, following a public hearing by the Board on _____
20____, pursuant to notice published in _____ on _____, 20____, and
on _____ 20____, it was (unanimously) VOTED: That a Definitive Plan of a
subdivision called _____, most recently dated _____
20____, and designed by _____, registered as an
engineer or land surveyor in Massachusetts, submitted for the Board's approval by _____
_____, applicant, be and hereby is approved on condition that prior to the Board's
endorsement of its approval thereon the subdivider shall furnish guarantees to the Planning Board
as provided in the Subdivision Regulations that except as otherwise expressly provided in MGL C.
41, § 81-U, no lot included in such plan shall be built upon or conveyed until the work on the
ground necessary to serve such lot has been completed in the manner specified by the Subdivision
Regulations of the Town of Blackstone with the following specific qualifications:

1. All such installation and construction shall be completed within 24 months of this date;
2. All streets or ways shall be surfaced with at least a 2" binder course, and berms and street lighting shall be installed and lighting placed in operation prior to application for occupancy permits for any structures served by such streets or ways;
3. (further qualifications and schedule stipulations)
- 4.

or a performance bond or other security in lieu of completion has been accepted by the
Planning Board.

Respectfully submitted,

By _____

Blackstone Planning Board

[Revised 8-3-95]

CERTIFICATE OF APPROVAL: DEFINITIVE SUBDIVISION PLAN

(Frontage Waiver)

_____, 20____

Ms. Marianne E. Staples-Arnold
Town Clerk
Blackstone Municipal Center, St. Paul Street
Blackstone, Massachusetts 01504

Dear Ms. Staples:

The Blackstone Planning Board hereby certifies that at a meeting of said Board on _____, _____, at which a quorum was present, following a public hearing by the Board on _____, _____, pursuant to notice published in *The Call* on _____, _____ and on _____, _____, it was VOTED:

That a Definitive Plan of a frontage waiver subdivision called _____, most recently dated _____, _____ and designed by _____, _____, registered as a land surveyor in Massachusetts, submitted for the Board's approval by _____, applicant, be and hereby is approved, subject to the following qualifications and conditions:

FORM D-1F (Cont.)

Further, the Board has determined that no construction of ways or installation of public services is necessary to service the lots being created, so that security for such construction or installation by bond, covenant or otherwise is not required.

Respectfully submitted,

Blackstone Planning Board

FORM D-2

CERTIFICATE OF DISAPPROVAL OF A DEFINITIVE SUBDIVISION PLAN

Town Clerk

Dear _____:

The Blackstone Planning Board hereby certifies that at a meeting of said Board on _____
20____, at which a quorum was present, following a public hearing by the Board on _____
20____, pursuant to notice published in _____ on _____, 20____
and on _____, 20____, it was (unanimously) VOTED: That a Subdivision Plan of
a subdivision called _____, most recently dated _____, 20____
and designed by _____, registered as an engineer or land surveyor in
Massachusetts, submitted for the Board's approval by _____, applicant, be
and hereby is disapproved for the following reasons:

Respectfully submitted,

By _____

Planning Board

FORM E-1

PERFORMANCE BOND SECURED BY DEPOSIT

The undersigned _____ of _____ (name of municipality),
_____(name of state), hereby binds and obligates himself and any executors,
administrators, devisees, heirs, assigns, and successors to the Town of Blackstone, a
Massachusetts municipal corporation, in the sum of _____ dollars, and has secured this
obligation by depositing with the Treasurer of the Town of Blackstone the following:

(statement of deposit)

If the undersigned or his executors, administrators, devisees, heirs, successors and assigns fully and
satisfactorily observe and perform in accordance with the qualifications and time schedule herein
specified, all of the covenants, conditions, agreements, terms and provisions contained in the
application signed by the Owner and dated _____, 20____, under which approval of
Definitive Plan of a subdivision, entitled _____ and dated
_____, 20____, has been or is hereafter granted by the Blackstone Planning Board, then
this obligation shall be void; otherwise it shall remain in full force and effect and the aforesaid
security for said sum shall become and be the sole property of the Town of Blackstone as
liquidated damage. The following qualifications and schedule are specified:

FORM E-1 (Cont.)

1. All improvements obligated under this bond shall be completed within 24 months of this date;
2. All streets or ways shall be surfaced with at least a 2" binder course, and berms and street lighting shall be installed and lighting placed in operation prior to application for occupancy permits for any structures served by such streets or ways;
3.
(further qualifications and schedule stipulations)
- 4.

IN WITNESS WHEREOF the undersigned has hereunto set his hand and seal this _____ day of _____, 20__.

Witness

Signature of Applicant

Date

Date

Approved as to form:

Town Counsel

Date

Approved as to Sureties:

Town Treasurer

Date

[Revised 8-3-95]

FORM E-2

PERFORMANCE BOND SURETY COMPANY

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

If the Principal shall fully and satisfactorily observe and perform in accordance with the qualifications and time schedule herein specified all of the covenants, conditions, agreements, terms and provisions contained in the application signed by the Principal and dated _____, 20____, under which approval of a definitive plan of a certain subdivision, _____ and dated _____, 20____, has been or is hereafter granted by the Blackstone Planning Board, then this obligation shall be void: otherwise, it shall remain in full force and effect and the foresaid sum shall be paid to the Town of Blackstone as liquidated damage.

The Surety hereby assents to any and all changes and modifications that may be made of the aforesaid covenants, conditions, agreements, terms and provisions to be observed and performed by the Principal, and waives notice thereof.

FORM E-2 (Cont.)

The following qualifications and schedule are specified:

1. All improvements obligated under this bond shall be completed within 24 months of this date;
2. All streets or ways shall be surfaced with at least a 2" binder course, and berms and street lighting shall be installed and lighting placed in operation prior to application for occupancy permits for any structures served by such streets or ways;
3. (further qualifications and schedule stipulations)
- 4.

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

day of _____, 20_____.

Principal

By: _____

Title

Surety

By: _____

Attorney-in-Fact

[Revised 8-3-95]

FORM F
COVENANT

The undersigned _____ of _____ (name of municipality), _____ (name of state), hereinafter called "Covenantor", having submitted to the Blackstone Planning Board application for approval of a Definitive Plan of a subdivision entitled _____, dated _____, 20____ designed by _____, does hereby covenant and agree with said Planning Board and the successors in office of said Board, pursuant to MGL C. 41, Section 81-U, as amended, that:

1. Except as otherwise expressly provided in MGL C. 41, Section 81-U, no lot included on such plan shall be built upon or conveyed until the work required in relation to such lot has been completed in the manner specified by the Subdivision Regulations of the Town of Blackstone or a performance bond or other security in lieu of completion has been accepted by the Planning Board, and in accordance with the covenants, conditions, agreements, terms and provisions contained in the following:
 - a) Application for Approval of Definitive Plan (Form C) signed by the Applicant and dated _____, 20____.
 - b) The Definitive Plan as qualified by the Certificate of Approval (Form D-1) issued by the Planning Board dated _____, 20____.
2. It is the intention of the covenantor and it is hereby understood and agreed that this contract shall constitute a covenant running with the land included in the aforesaid Subdivision and shall operate as restrictions upon said land, and shall be binding upon the executors, administrators, devisees, heirs, assigns, and successors in title to the premises.

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

FORM F (Cont.)

3. The undersigned covenantor represents and covenants that the undersigned is the owner* in fee simple of all the land included in the aforesaid subdivision and that there are no mortgages of record or otherwise on any of said land, except such as are described below and subordinated to this contract, and the present holders of said mortgages have assented to this contract prior to its execution by the covenantor.

*If more than one owner, all must sign.

IN WITNESS WHEREOF the undersigned, covenantor as aforesaid, does here unto set his hand and seal this _____ day of _____, 20__.

Covenantor

Address

Description of Mortgages: _____

(Give complete names and Registry of Deeds reference)

Assent of mortgagees:

_____, ss. _____, 20__ Then personally appeared and acknowledged the foregoing instrument to be a free act and deed, before me _____,

NOTARY PUBLIC

My commission expires: _____, 20__

FORM G

CERTIFICATE OF RELEASE

The undersigned, being a majority of the Planning Board of the Town of Blackstone, Massachusetts, hereby certify that the requirements for work called for by the Covenant dated _____, 20____, and recorded in Worcester Registry of Deeds, Book _____, Page_____ (or registered in) Worcester Land Registry District as Document No. _____ and noted on Certificate of Title No. _____ in Registry Book _____, Page _____ have been completed to the satisfaction of the Planning Board as to the following enumerated lots shown on Plan entitled _____ recorded with said Deeds, Plan Book _____ Page _____, (or registered in said Land Registry District, Plan Book _____, Plan No _____.) and said lots are hereby released from the restrictions as to sale and building specified thereon. Lots designated on said Plan which are hereby released are as follows: _____

Majority of the Planning Board of the Town of Blackstone

Then personally appeared _____, one of the above named members of the Planning Board of the Town of Blackstone, Massachusetts, and acknowledged the foregoing instrument to be the free act and deed of said Planning Board, before me _____, 20____

 Notary Public My commission expires: _____, 20____

FORM H

ENGINEER'S CERTIFICATE OF COMPLETION

(to be executed by developer's engineer)

Subdivision known as _____

I hereby certify that all improvements required for the below listed ways, a part of the above named subdivision, have been completed in all respects in accordance with the Rules and Regulations of the Blackstone Planning Board and the approved plans entitled _____

by _____ and dated _____, 20__ and as approved by said Planning Board on _____.

Signed this _____ day of _____, 20__ by _____ Reg.
C.E.

Then personally appeared the above named _____ and affirmed that of his belief and knowledge, the foregoing statements are true.

NOTARY PUBLIC

My commission expires: _____, 20__.

FORM I

SUBDIVISION INSPECTION CHECKLIST

(to be executed by Planning Board agent)

Inspection Number	Subject	Initials of Planning Board's Agent	Date of Inspection
1.	Sub-grade plane-preliminary	_____	_____
2.	Installation of drains and catch basins	_____	_____
3.	Installation of services		
	a.Water	_____	_____
	b.Gas	_____	_____
	c.Sewerage	_____	_____
	d.Cable utilities	_____	_____
4.	Sub-grade plane-final	_____	_____
5.	Gravel base	_____	_____
5a.	Base course paving	_____	_____
6.	Grade of catch basin inlets	_____	_____
7.	Installation of curbing	_____	_____
8.	Final surfacing	_____	_____
9.	Sidewalks and shoulders	_____	_____
10.	Street signs	_____	_____
11.	Final clean-up	_____	_____
12.	Tree planting	_____	_____
13.	Monuments	_____	_____

FORM J

GUARANTY PRICE ESTIMATE

Date of estimate _____

Estimator _____

Subdivision name _____

Street name _____

Stations _____ to _____

Centerline length _____ feet

CONSTRUCTION ITEM	REMAINING QUANTITY	UNIT	UNIT PRICE	ESTIMATED COST
1. Clear & grub		Linear foot	\$ /lf	\$
2. Construct to subgrade		Linear foot	\$ /lf	\$
3. Gravel foundation		Linear foot	\$ /lf	\$
4. Bit. conc. Base course		Linear foot	\$ /lf	\$
Bit. conc. Finish course		Linear foot	\$ /lf	\$
5. Granite curbing		Linear foot	\$ /lf	\$
Granite curb inlets		Each	\$ /ea	\$
6. Sidewalks		Linear foot	\$ /lf	\$
7. Water mains		Linear foot	\$ /lf	\$
Hydrants		Each	\$ /ea	\$
Gate valves		Each	\$ /ea	\$
Service connections		Each	\$ /ea	\$
8. Catch basins		Each	\$ /ea	\$

Form J (Cont.)				
Drain manholes		Each	\$ /ea	\$
Drain pipe		Linear foot	\$ /lf	\$
Headwalls		Each	\$ /ea	\$
Stream shaping		Linear foot	\$ /lf	\$
Rip rap		Square yard	\$ /sy	\$
Detention basins		Each	\$ /ea	\$
9. Sewer manholes		Each	\$ /ea	\$
Street sewer pipes		Linear foot	\$ /lf	\$
House laterals		Each	\$ /ea	\$
10. Cable utility trench		Linear foot	\$ /lf	\$
Street lights		Each	\$ /ea	\$
11. Street monuments		Each	\$ /ea	\$
Lot bounds		Each	\$ /ea	\$
12. Street signs		Each	\$ /ea	\$
13. Shade trees		Each	\$ /ea	\$
14. Topsoil & seed		Each	\$ /ea	\$
15. Record plans				
16. Incidental items				
Guardrail		Linear foot	\$ /lf	\$
Retaining wall		Linear foot	\$ /lf	\$
			\$	\$

Form J (Cont.)	
Subtotal (a)	\$
Construction management @ 10% of (a)	\$
Maintenance @ 2% of (a)	\$
Contingency @ 10% of (a)	\$
Subtotal (b)	\$
Inflation @ 6% of (b) per year compounded	\$
Total guaranty required	\$

FORM K

DISTRIBUTION LIST

The Subdivision Regulations, Sections 191-7.A and 191-8.A, require that when either Preliminary or Definitive Subdivision Plan is submitted to the Planning Board the applicant shall simultaneously deliver an additional copy of such plan to:

	# Copies:	Received By:	Date:
Board of Health	(1)	_____	_____
Conservation Commission	(1)	_____	_____
DPW Superintendent	(1)	_____	_____
Town Clerk	(1)	_____	_____
Town Administrator	(1)	_____	_____
Building Inspector	(1)	_____	_____
_____	()	_____	_____
Planning Board	(2)	_____	_____

A copy of this form, fully endorsed, must be presented to the Planning Board prior to it taking action on a Preliminary Plan and prior to it holding a public hearing on a Definitive Plan.

[Revised 8-3-95]

FORM L

SUMMARY OF DRAINAGE CONSIDERATIONS

A. BASIS AND ASSUMPTIONS OF HYDROLOGICAL STUDY

1. The proposed drainage detention basin design should be capable of storing the increased volume of the 100-year storm due to the proposed development.
2. Soil Conservation Method (Modified Soil Cover Complex) is to be used.
3. Site grading provisions for controlling 100-year runoff on site towards detention basins is recommended and should be shown on the plans.
4. 25-year storm frequency to be used for storm drainage system design.
5. Existing outflow conditions to be maintained and its design capacity not to be exceeded. Increased drainage from the proposed development should not increase the peak flow either in quantity and/or time duration.
6. Road base design to include protection against groundwater to at least 5.0 feet depth.
7. Underdrains preferably should be located under grass strips if needed for lowering the water table. The pie trench center for the proposed underdrains for lowering the water table also should preferably be located +24 inches behind the curb line.
8. The detention basin and channels or pipes shall not contain excess standing water after the end of the design storm above the invert of low level outlet at proposed detention basin.
9. A concrete or storm apron will be provided under the end of each inlet pipe.
10. Status of Notice of Intent (MGL 131, Chapter 40) should be filed with the Conservation Commission. (Attach copy)
11. Inflow/outflow hydrograph: peak flows both for existing and proposed conditions. (attach computations and data)
12. Statement whether existing outlet control from the existing wetland, if applicable, needs to be altered or not.
13. Statement and description of mitigating measures taken to minimize the flood impacts both in water quantity and water quality.
 - a. Mitigating measures taken to minimize the water quality impacts are.
 - 1.
 - 2.
 - 3.

b. Mitigating measures to minimize the water quantity impacts are:

- 1.
- 2.
- 3.

14. Existing wetlands to be avoided for use as detention basins. Direct inflow from street drainage into any natural bodies of water including rivers, brooks, streams, and/or wetlands to be through proposed detention basins only.
15. In determining curve numbers for post-development conditions, the change in soil conditions in yards of a house lot due to compaction by construction machinery and also due to additional cover of loam is to be taken into account. It is suggested that curve number differential in pre-development and post-development conditions to be on the order of 20.
16. For any determination of flood plains, any method like HEC-2 or similar method applicable to irregular channels should be used.

Note: The above suggested basis and assumptions are in no way intended to be all inclusive but are in addition to other Town Rules and Regulations and provided as guidelines and assistance.

FORM L SUMMARY OF DRAINAGE CONSIDERATIONS (continued)

B. PERTINENT DATA FOR HYDROLOGICAL REVIEW

1. Name of developer:_____
2. Project name:_____
3. Total drainage area of proposed subdivision = _____ acres.
4. Datum - NGVD _____ feet.
5. Proposed subdivision - see attached drawings plan and profiles.
6. Existing outflow outlets from the proposed subdivision with respective D.A. in acres.

[Name all outflow channels and/or pipes, from the pre-development and post-development conditions including off-site D.A. entering the proposed subdivision along with their locations. Attach a 8.5" x 11" sketch depicting D.A., inflow and outflow, channels and/or pipes, with their sizes and locations, for pre- and post-development.]
7. Present status of land and its description:

8. Proposed status of land (single family or otherwise; total number of lots, etc.):

9. Attach a sketch, 8.5" x 11", showing the following as a line diagram:
 - a. Drainage area.
 - b. Main pipes and sizes.
 - c. Proposed detention basins and their locations.
 - d. Inflow and outflow pipes at detention basins.
 - e. Destination of outflow discharge with name and path of river.

FORM L SUMMARY OF DRAINAGE CONSIDERATIONS (continued)

C. HYDROLOGICAL ANALYSIS DATA

1. Land use (existing conditions) - Pre-development CN = _____.
2. Land use (future conditions) - Post-development CN = _____.
3. Road and other paved areas CN = 98 (total area = _____ acres \pm)
4. Composite CN after post-development conditions CN = _____.

5a. Runoff volume determination:

Use frequency 1 in 100 years.

Total rainfall in 24 hours = _____ inches.

Direct runoff in 24 hours for pre-development. CN = _____ is _____ inches.

Direct runoff in 24 hours for post-development. CN = _____ is _____ inches

Increased runoff from acres (+) as maximum =

Without outflow (assuming outflow is clogged)

= _____ AC/ft

= _____ AC/ft

5b. But with outflow functioning increased runoff has a value of _____ AC/ft.
(Present runoff peak flow is CFS and proposed runoff peak flow is CFS.)

6. Characteristics of detention basins.

Elevation	Storage in AC/ft	Remarks
	0.00	

A free board of _____ feet is left over.

D. RATING DATA FOR LOW LEVEL OUTLET

Bottom of detention basin (elevation) = _____ft.

Invert of low level outlet = _____ft.

Size and shape of low level outlet = _____ft.

Any additional physical details of low level outlet from detention basin = _____.

FORM L SUMMARY OF DRAINAGE CONSIDERATIONS (continued)

E. RATING DATA FOR OVERFLOW WEIR

- 1. Bottom of detention basin (elevation) = _____ft.
- Invert of overflow weir = _____ft.
- Bottom of overflow weir = _____ft.
- Top of overflow weir = _____ft.
- Shape of overflow weir = _____ft.

Any additional physical details of outflow weir.

2.

Elevation	Outflow discharge in CFS	Remarks
	0 CFS	
	CFS	
	CFS	
	CFS	
	CFS	Peak proposed outflow
Mix water surface elev.	FT	

- 3. Volume of retention required for post-development conditions = AC/ft
- 4. Depth of water in swamp (or discharge area) for AC/ft at an elevation of feet.

F. DESIGN CRITERIA SUMMARY

- 1. Provide (and use) the detention area in lot # _____.
- 2. Bottom elevation of detention area = _____ft.
- 3. Top bank elevation = _____ft.
- 4. Maximum water surface elevation for 100-year storm = _____ft.
- 5. Overflow weir as proposed is as follows: (draw a sketch)

6. All storm drainage pipe systems are designed for 25-year storm frequency except the pipes leading to retention area should have a capacity for 100-year storm.

FORM L SUMMARY OF DRAINAGE CONSIDERATIONS (continued)

- 7. Pipe analysis - see paragraph G for summary and computer printout for analysis.

(All catchbasins are connected by 12" pipes.) Twenty-five year frequency storm for 24-hour duration has a total rainfall = _____ inches and 25-year frequency storm for 24 hour duration has an effective rainfall for CN = _____ is _____ inches.

G. PIPE ANALYSIS SUMMARY (for pipes 24" diameter or larger)

Name of roadway	Average slope	Contributing drainage area in acres	Peak discharge for 25-year frequency storm	Size of pipe required in inches	Size of pipe provided in inches
		Acres	CFS		
		Acres	CFS		
		Acres	CFS		
Pipe to retention area		Acres	CFS		

H. INFLOW/OUTFLOW SUMMARY RESULTS (DETENTION BASIN)

(a) Existing conditions (pre-development)

D.A. = _____ acres±
 CN = _____
 TC = _____ minutes
 Peak flow = _____ CFS
 Frequency = 1 in 100 year
 Rainfall = _____ inches in _____ hours
 Volume = _____ AC/ft
 Peak flow = _____ CFS (without routing through pipes)

(b) Proposed Conditions (post-development)

Peak flow = _____ CFS
 Maximum outflow = _____ CFS
 Max water surface elevation (100 yr storm) = _____
 Bank elevation = _____
 Total volume pre-development = _____ AC/ft
 “ “ post-development = _____ AC/ft
 Detention at elevation _____ = _____ AC/ft.
 Provided = _____ AC/ft. Therefore O.K.

[Added 9/1/88]

FORM M

REQUEST FOR RELEASE OF SECURITY

The undersigned, owner of land being subdivided pursuant to a Definitive Plan of a subdivision entitled _____, dated _____, 20____, believing that the conditions set forth by the Certificate of Approval (Form D-1) issued by the Planning Board dated _____, 20____, have been satisfied with respect to _____, and having secured approval from the Superintendent of the DPW for such release, hereby requests release of \$ _____ from the security deposit of \$ _____ being held by the Town to secure those conditions, leaving \$ _____ to secure future performance.

 Owner
 _____, 20____

Approved for release:

 Superintendent, Blackstone DPW
 _____, 20____

 Blackstone Planning Board
 _____, 20____

[Added 8/3/95]

SUBDIVISION OF LAND

Department of Public Works Lift Station Specifications

It is suggested that the following design criteria be given consideration for future lift stations:

1. The service manhole shall be at least twenty-four (24) inches inside diameter at the surface and shall be securely lockable.
2. Tanks shall be constructed of reinforced concrete. Minimum diameter of dry pits shall be ten (10) feet zero (0) inches. The types of foundations and bedding shall be submitted.
3. Computations should be submitted for approval, indicating the size and volume of wet well.
4. Only centrifugal torque-flow and pneumatic pumps will be given consideration.
5. Pumps shall be subjected to a positive head.
6. Alarms indicating loss of power, high water, low water and station flood shall be telemetered to locations determined by the Superintendent of Public Works.
7. A hose station with a back flow preventer for cleaning and flushing of pumps shall be provided.
8. Sump pumps in dry wells shall be provided.
9. Pump stations shall be fenced in.
10. Generators should automatically start on loss of power and automatically cut out on restoration power. One-hundred-percent standby power shall be required.
11. Positive continuous ventilation shall be required: a minimum of twelve (12) air changes per minute, including running lights.
12. All pump stations should have pumps in duplicate with one (1) lead and one (1) backup pump.
13. Pump stations should be designed and properly sized for low flows in the beginning and higher flows in the future (total drainage basin and acceptance of larger pumps in the future).
14. Provide communitor or bar screen, if approved by the Superintendent, to prevent pumps from clogging.
15. Flow and buoyancy calculations shall be submitted.
16. Facilities shall be designed to allow easy removal and replacement of equipment. Hoisting equipment shall be supplied.
17. Provide all spare parts as recommended by manufacturer.

18. Provide mechanical seals where possible.
19. Pump motors may be constant or variable speed, provided that explanation is submitted for selection.
20. A forcemain shall be cemented-lined ductile iron with a minimum diameter of four (4) inches.
21. Forcemain velocities shall be a minimum of three (3) feet per second.
22. Electrical equipment shall be in compliance with National Electric Code, State, Municipal Regulations.
Electrical equipment shall be designed for adequate and reliable operation, as well as safeguarding Sewer Department personnel under all conditions of operation and maintenance.
23. Landscaping of the lift station site shall be compatible with surrounding areas.
Lift station enclosures shall be designed to be compatible with existing and proposed surrounding land use.
24. Provide heat.
25. Provide properly sized flow meter.
26. Provide all necessary O & M manuals.
27. Must provide any and all specialized maintenance equipment necessary to maintain lift station and/or forcemain.
28. For the pump station that is proposed to be used, the details and specifications shall be submitted for approval.
The specifications shall include, but not be limited to, motor-type voltage and phase, overload protection, capacitors, controls and protection against lightning.
29. Gate valves shall be installed on all suction and discharge lines.
30. Check valves shall be installed on all discharge lines.