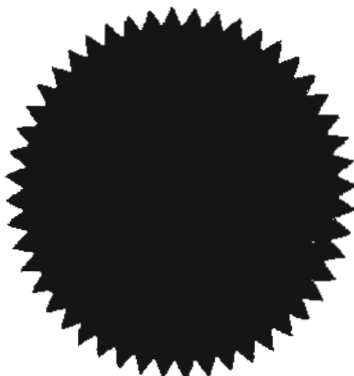


CERTIFIED TOWN OF LUNENBURG BY-LAW NO. 62

MOBILE HOME PARK (LAND LEASE COMMUNITY) BY-LAW

April 20/04.
DATE


BEA RENTON,
TOWN MANAGER/CLERK



I, BEA RENTON, TOWN MANAGER/CLERK FOR THE TOWN OF LUNENBURG, DO CERTIFY THAT THE ATTACHED IS A TRUE AND CURRENT COPY OF THE TOWN OF LUNENBURG'S MOBILE HOME PARK (LAND LEASE COMMUNITY) BY-LAW NO. 62, DULY APPROVED BY THE TOWN OF LUNENBURG COUNCIL ON FEBRUARY 22, 2001, WITH FIRST READING HAVING BEEN GIVEN ON JANUARY 25, 2001, SECOND AND THIRD READINGS ON FEBRUARY 22, 2001, AND EFFECTIVE ON MAY 16, 2001, THE DATE OF ADVERTISEMENT IN THE LOCAL NEWSPAPER.

TOWN OF LUNENBURG

**MOBILE HOME PARK
(LAND LEASE COMMUNITY)
BY-LAW**

As adopted by Lunenburg Town Council on 22 February 2001

TOWN OF LUNENBURG

MOBILE HOME PARK (LAND LEASE COMMUNITY) BY-LAW

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1. DEFINITIONS

In this By-law, unless the context otherwise requires:

- (1) "Building Inspector" means the officer of the Town of Lunenburg from time to time appointed by resolution of Council to administer the provisions of the Building Code By-law;
- (2) "Council" means the Town Council of the Town of Lunenburg;
- (3) "Clerk of Licences" means the Clerk of Licences for the Town appointed by resolution of Council;
- (4) "Development Officer" means the officer of the Town of Lunenburg from time to time appointed by resolution of Council to administer the provisions of the Land Use By-law;
- (5) "Homesite" means a site within a mobile home park intended for the placement of a mobile home, mini home or multi-section manufactured home;
- (6) "Licence" means the Licence issued under Section 3 of this By-law;
- (7) "Mini Home" (also known as a single section manufactured home) means a prefabricated detached dwelling with long, narrow proportions of 3:1 or greater, designed for transportation on a flatbed or other trailer to a site where it is to be occupied as a dwelling complete and ready for occupancy (except for minor and incidental unpacking or assembling operations).
- (8) "Mobile Home" (also known as a single section manufactured home) means a prefabricated detached dwelling with long, narrow proportions of 3:1 or greater, designed for transportation on its own chassis and wheels to a site where it is to be occupied as a dwelling complete and ready for occupancy (except for minor and incidental unpacking or assembling operations). A mobile home shall be considered to be a mobile home whether or not the chassis or wheels are removed;
- (9) "Mobile Home Park" (also sometimes known as a land lease community) means an establishment comprising land or premises under single ownership designed and intended for residential use where residence is in mobile homes and mini homes and which may include multi-section manufactured homes. A mobile home park may be intersected by public streets;
- (10) MULTI-SECTION MANUFACTURED HOME means a modular type of prefabricated dwelling where separate sections are joined together side by side to form a complete dwelling unit.
- (11) "Owner" includes any one or a combination of the following:

- (a) a person who is entitled to possession as tenant in fee simple, for life, or for a term of not less than twenty years;
 - (b) a mortgagee in possession;
 - (c) where the mortgagee of land is not in possession, the person entitled to the equity of redemption;
 - (d) the person managing or receiving the rent of the land or premises, whether on his own account or as agent or trustee of any other person;
 - (e) a person who is assessed for the building on the Assessment Roll of the Town as of the date of the alleged violation;
 - (f) the person who is entitled to possession by reason of an agreement of sale between that person and the owner of property;
- (12) "Public Street or Road" means the whole and entire right-of-way of every highway, road, or road allowance vested in the Province of Nova Scotia or the Town of Lunenburg;
- (13) "Porch" means an enclosure used as a weather break and includes open or roofed landings and decks;
- (14) "Park Street or Road" means the whole and entire road allowance of any road situated within a mobile home park available to the public which is not vested in and maintained by the Province of Nova Scotia or the Town of Lunenburg;
- (15) "Recreation Director" means the Director of Parks and Recreation appointed by the Town of Lunenburg;
- (16) "Structure" means anything that is erected, built, or constructed or parts joined together or any such erection fixed to or supported by the soil or by any other structure. A structure shall include buildings, walls, and signs and also fences exceeding two (2) metres (6 feet) in height;
- (17) "Town" means the Town of Lunenburg;
- (18) "Town Engineer" means the Engineer appointed by the Town of Lunenburg;
- (19) "Trunk" means, when used in relation to water lines, sanitary and storm sewers, all of those portions of a system which are not lateral connections to a structure.
- (20) "Usable Land" means a lot which:
- (a) has a minimum size of 650 square metres (7,000 sq.ft.), unless otherwise approved by the Recreation Director;
 - (b) has slopes of zero per cent (0%) to six per cent (6%) over at least fifty per cent (50%) of the lot and no more than twenty five per cent (25%) of the lot has slopes between six and twelve per cent (6%-12%) and no more than twenty five per cent (25%) of the lot has slopes greater than twenty five per cent (25%);

- (c) is not comprised of lands subject to flooding or classified as wetlands or lands with substantial amounts of the soil classed as organic;

2. **MOBILE HOME PARK CONSTRUCTION PERMITS**

2.1 No person shall construct a mobile home park without first having obtained a Mobile Home Park Construction Permit from the Town Engineer, issued in accordance with the provisions of this By-law.

2.2 Any application made under Subsection 2.1 shall be accompanied by:

- (a) written proof of ownership or lease of the land upon which the applicant proposes to construct, expand or alter the mobile home park, or written permission from the owner of the land to use it as a *mobile home park*;
- (b) two complete sets of plans drawn to scale, with boundaries determined by a land surveyor who is a registered member of the Association of Nova Scotia Land Surveyors, showing the location of the proposed mobile home park, and they shall include the following information:
 - (i) the area and dimensions of land to be used;
 - (ii) the number, location and size of all homesites;
 - (iii) the location of service buildings and any other proposed structures;
 - (iv) the location of the proposed open space and access thereto;
 - (v) the proposed location of each mobile home, mini home or multi-section manufactured home on each homesite;
 - (vi) plans and information sufficient to ensure that Section 4 (Location, Space and General Layout), Section 5 (Streets), Section 6 (Street Lights), Section 7 (Water), Section 8 (Sanitary Sewer), Section 9 (Storm Drainage), Section 10 (Electricity) and Section 11 (Open Space) have been met; and
 - (vii) any other information necessary to determine whether the proposed mobile home park will comply with the provisions of this By-law.

2.3 A Mobile Home Park Construction Permit issued under this Section shall be effective from the date of issue for a three year period.

3. OPERATING LICENCES

- 3.1 No person shall maintain or operate a mobile home park in the Town without first having obtained an operating licence for the park from the Clerk of Licences.
- 3.2 The Clerk of Licences shall issue a licence to maintain or operate a mobile home park when the applicant or a prior owner has obtained a development permit for the mobile home park from the Development Officer and a Mobile Home Park Construction Permit from the Town Engineer, and the Town Engineer reports that construction has been completed in compliance with this By-law.
- 3.3 The owner shall pay an annual licensing fee of \$1.00 per Mobile Home Space Homesite with a minimum fee of \$25.00, which fee shall be due and payable on issuance of the licence.
- 3.4 (a) The Clerk of Licences shall revoke a licence upon a report of the Town Engineer that the mobile home park does not comply with the provisions of this By-law;
- (b) Before revoking a licence, the Clerk of Licences shall give thirty (30) days notice to the owner setting out the violations and providing an opportunity to remedy the violations. The period of notice may be extended to sixty (60) days in cases where circumstances beyond the control of the owner prevent remedy of the violation within the thirty (30) day period.
- (c) A licence revoked under this Section shall be reinstated upon application if the violations leading to the revocation have been remedied.
- 3.5 A licence issued under the provisions of this Section shall be effective from the date of issue until the next thirty first (31 st) day of March, or until earlier revoked under the provisions of this Section.

4. LOCATION, SPACE, AND GENERAL LAYOUT

- 4.1 This Section shall apply to all new mobile home parks and additions or alterations to existing mobile home parks, *subject also to the provisions of Section 12.*
- 4.2 In every mobile home park, ninety (90) per cent of the homesites shall have a minimum width of twelve (12) metres (39 feet) and a minimum depth of thirty-six (36) metres (118 feet) and ten (10) per cent of the homesites may have a minimum width of 12.2 metres (40 feet) and a minimum depth of thirty (30) metres (98 feet).
- 4.3 The limits of the mobile home park and the limits of each homesite shall be permanently identified with stakes, markers or other means of identification in order to *facilitate ongoing site inspections.*
- 4.4 Every homesite in a mobile home park shall abut a park street or public street.
- 4.5 Every mobile home, mini home or multi-section manufactured home shall be situated in a homesite so that there will be a minimum of five (5) metres (16 feet) (excluding porches) between structures and so that no mobile home, mini home or multi-section manufactured home will be less than five (5) metres (16 feet) from the exterior boundary of the mobile home park and a minimum of 5 metres (16 feet) from any public or park road. Porches shall be a minimum of four (4) metres (13 feet) from any other mobile home, mini home or multi-section manufactured home or permanent structure.
- 4.6 No person shall locate or relocate a mobile home, mini home or multi-section manufactured home within a mobile home park without first having obtained a building permit from the Building Inspector issued in accordance with any relevant provisions of the Town of Lunenburg Building Code By-law and this Bylaw.
- 4.7 Any application made under Subsection 4.6 shall be accompanied by a plot plan showing the proposed location of the mobile home, mini home or multi-section manufactured home on the homesite and the distances to adjacent mobile homes, mini homes or multi-section manufactured homes.
- 4.8 No person shall permit a mobile home or mini home to remain in a mobile home park for more than one (1) week unless it is located in a homesite.

5. STREETS

- 5.1 This Section shall apply to all new mobile home parks and additions or alterations to existing mobile home parks, subject also to the provisions of Section 12.
- 5.2 All proposed public and park streets shall be designed to the specifications contained in "Geometric Design Standards for Canadian Streets and Roads" amended to 1980 as prepared by the Roads and Transport Association of Canada and the Standard Specifications For Municipal Services as published by the Nova Scotia Road Builders Association and the Nova Scotia Consulting Engineers Association Joint Committee on Contract Documents.
- 5.3 The specific standards contained in Schedule A "Street Design Standards" shall apply to all proposed public and park streets.
- 5.4 The design of all proposed public and park streets shall be executed over the stamp of a professional engineer.
- 5.5 The owner shall maintain and operate any private sewer, storm drainage or water distribution system in good condition, and where said system is connected, or may in the future be connected, directly or indirectly to Town water or sewerage services, the owner shall maintain and operate said system in order that the Town systems have continuous, uninterrupted operations.
- 5.6 Prior to construction of any proposed public or park street, the entire width of the right-of-way shall be cleared and grubbed, and the cross-section levelled, and all roots, stumps, and other organic matter shall be removed from the site.
- 5.7 Provision shall be made for surface drainage through the use of culverts, ditches, and natural water courses or storm sewers of appropriate capacity calculated using the criteria contained in Part I of Schedule D, "Storm Drainage Design Standards".
- 5.8 Names for proposed park streets shall be unique and distinctive so as not to be confused with the names of existing public streets. Names of park streets shall be approved by Council, after being first referred to the Heritage Advisory Committee for recommendation.
- 5.9 The mobile park owner shall maintain all park streets in good condition and shall plow all park streets within four (4) hours of the cessation of a snowfall.
- 5.10 The minimum road gravels shall be 150 mm (6 inches) of Type 1 and 225mm (9 inches) of Type 2 gravel including 75mm (3 inches) of Type B asphaltic concrete unless otherwise approved by the Town Engineer.
- 5.11. Curbs shall be constructed in accordance with details in the Standard Specifications for Municipal Services.

6. **STREET LIGHTS**

- 6.1 This Section shall apply to all new mobile home parks and additions or alterations to existing mobile home parks, subject also to the provisions of Section 12.
- 6.2 Each street shall be provided with a minimum of one (1) street light for every sixty (60) metres (200 feet) of street, and each such street light shall comply with the Town of Lunenburg specifications for street lights on residential streets or appropriate specifications determined by the Town Electric Light Superintendent.

7. **WATER**

- 7.1 This Section shall apply to all new mobile home parks and additions or alterations to existing mobile home parks, subject also to the provisions of Section 12.
- 7.2 The owner shall design, layout and construct a water supply system to service each proposed lot.
- 7.3 The owner shall connect the water supply system required by Section 7.2 with the existing public water supply system.
- 7.4 The specific standards contained in Schedule B "Water Supply Design Standards" shall apply to all proposed water supply systems.
- 7.5 The design of any proposed water supply system shall be executed over the stamp of a professional engineer.
- 7.6 A copy of the Nova Scotia Department of Environment's "Permit to Construct" shall be submitted to the Town Engineer prior to approval.

8. **SANITARY SEWER**

- 8.1 This Section shall apply to all new mobile home parks and additions or alterations to existing mobile home parks, subject also to the provisions of Section 12.
- 8.2 The owner shall design, lay out and construct all sanitary sewers to service each proposed lot.
- 8.3 The owner shall connect the sanitary sewers required by Section 8.2 with the existing central sewer system.
- 8.4 The specific standards contained in Schedule C "Sanitary Sewer Design Standards" shall apply to all proposed sanitary sewer systems.
- 8.5 The design of any proposed sanitary sewer shall be executed over the stamp of a professional engineer.
- 8.6 A copy of the Nova Scotia Department of Environment's "Permit to Construct" shall be submitted to the Town Engineer prior to approval.

9. **STORM SEWER**

- 9.1 This Section shall apply to all new mobile home parks and additions or alterations to existing mobile home parks, subject also to the provisions of Section 12.
- 9.2 The owner shall provide for the collection and disposal of surface drainage and storm water by catch basins, storm sewers, natural or man-made watercourses or any combination of these.
- 9.3 Every homesite in a mobile home park shall be site graded to be positively drained to the storm drainage system.
- 9.4 The specific standards contained in Schedule D "Storm Drainage Design Standards" shall apply to all proposed storm water drainage systems.
- 9.5 The design of any proposed storm water drainage system shall be executed over the stamp of a professional Engineer.
- 9.6 Construction of any storm water drainage system shall follow sound construction practice.
- 9.7 A copy of the Nova Scotia Department of the Environment's "Permit to Construct" shall be submitted to the Town Engineer prior to approval.

10. ELECTRICITY

Every person who maintains or operates a mobile home park shall ensure that electrical service is available to each homesite.

11. OPEN SPACE

11.1 This Section shall apply to all new mobile home parks and additions to mobile home parks.

11.2 A minimum of five per cent (5%) of the total land area of the new park or the area of expansion, exclusive of streets shall be set aside for open space purposes within the area of the mobile home park, and the location of such area shall be approved by the Recreation Director.

11.3 Any green areas and playgrounds set aside for common use in a mobile home park shall be kept in good condition by the owner or operator of the mobile home park, in accordance with recommendations by the Recreation Director.

11.4 Open space required under Subsection 11.2 may be deeded to the Town provided:

- (a) public access to the lands so deeded is provided in accordance with recommendations by the Town Engineer;
- (b) the lands are considered usable lands and are recommended by the Recreation Director;

11.5 In lieu of the requirements of section 11.2, Council may accept a sum of money equal to 5% of the assessed value of the total land area of the new park or the area of expansion, exclusive of streets, said money to be used by the Town for the acquisition of land for park, playground or public purposes.

12. ALTERATIONS AND ADDITIONS

12.1 No alterations shall be made to:

- (a) the area and dimensions of the mobile home park;
- (b) the number, location, dimensions and sizes of homesites;
- (c) the location of service buildings and any other structures;
- (d) the location of the open space and access thereto;
- (e) the location or structural components of streets, trunk water lines, trunk sanitary sewers or trunk storm drainage facilities

unless approval is obtained from the Town Engineer in the form of a Mobile Home Park Construction Permit. No change in the location of the open space shall be made without the recommendation of the Recreation Director.

13.1 Every person who fails to comply with any provision of this By-law shall be liable on summary conviction to a penalty not exceeding One Thousand Dollars (\$1,000.00), and in default of payment of such fine, to a term of imprisonment not exceeding one (1) month.

13.2 Where there is a contravention of this By-law, the Town may, after ninety (90) days of the date of contravention, undertake any repair, maintenance or upgrading of a mobile home park, its services, streets or equipment, or structures on a homesite and charge the cost of said repair, maintenance or upgrading to the owner.

14. CONFLICT WITH OTHER BY-LAWS

14.1 Where there is a conflict between any provision of this By-law and a provision of the Building Code By-law of the Town, or any other By-law of the Town, the more restrictive provision shall prevail.

14.2 This By-law shall not be deemed to affect the obligation to obtain any permit under the provisions of the Building Code By-law or the Land Use By-law of the Town.

15. APPEAL

15.1 An appeal shall lie to the Council by a person aggrieved by:

- (a) the failure to issue a licence under the provisions of Section 3.2;
- (b) the revocation of a licence under the provisions of Section 3.4; or
- (c) the failure to issue a Mobile Home Park Construction Permit under the provisions of Section 2.1.

15.2 Written notice of an appeal under the provisions of Subsection 15.1 shall be filed with the Clerk of Licences within thirty (30) days of the owner's receipt of notice of revocation or the written statement of the Clerk of Licences that a licence is refused.

15.3 Council shall make its decision in accordance with the provisions of this By-law.

15.4 The appellant shall be entitled to a full public hearing of the matter before Council.

16. METRIC STANDARDS

The Metric System of Measurement is used throughout this By-law and in all cases is the required standard. Imperial equivalents are given only for approximate reference purposes.

17. SPECIFICATIONS

All construction shall be in accordance with the Standard Specifications For Municipal Services as published by the Nova Scotia Road Builders Association - Nova Scotia Consulting Engineers Association Joint Committee on Contract Documents.

SCHEDULE A
STREET DESIGN STANDARDS

Design Speed	50 kph (30mph)
Minimum Right-of-Way	15m (50')
Minimum Crown	150mm (6")
Minimum Width of Gravel Surface	10m (33')
Maximum Backslope	2:1
Maximum Grade	10%
Minimum Grade	0.5%
Radius for Centreline Curvature	Not less than 15m (50') or greater than 70m (230')
Minimum Sight Distance	60m (200')
Minimum Cul-de-sac radius	16.5m (54')
Maximum dead-end street length from beginning to the Designated Turning Area	107m (350')
Maximum Distance Between Intersections	365m (1200')
Minimum Distance Between Intersections (At Centrelines)	60m (200')

Note:

1. The Metric System of Measurement is used throughout this By-law and in all cases is the required standard. Imperial equivalents are given only for approximate reference purposes.
2. These standards may be varied by the Town Engineer in exceptional circumstances and in accordance with accepted engineering practice.

SCHEDULE B

WATER SUPPLY DESIGN STANDARDS

- Part I** Domestic Water Demands
- average daily demand 400 litres per capita per day (90 Imperial gallons per capita per day)
- maximum daily demand 600 litres per capita per day (130 Imperial gallons per capita per day)
- maximum hourly demand expressed as daily rate 1,100 litres per capita per day (250 Imperial gallons per capita per day)
- Part II** Fire Demand
To be calculated in accordance with the latest published requirements of the Canadian Insurance Advisory Organization. Minimum pressure at the hydrant to be 140 KPA (20 psi) at the required flow.
- Part III** Design Demand
The demand used for main size selection shall be fire demand plus maximum daily demand. Minimum main size to be 200 mm (8 inches).
- Part IV** The Hazen - Williams formula or its appropriate nomograph shall be used for design.
- Part V** Hydrants shall be provided at a maximum interval of 150 metres (500 feet). Hydrant laterals to be a minimum diameter of 150 mm (6 inches). A gate valve shall be provided on every hydrant lateral.
- Part VI** The following control valves shall be provided on every main:
- (a) Three (3) valves per cross-section
 - (b) Two (2) valves per Tee Intersection
 - (c) One (1) valve per 425 metres (1,400 feet) where there are no intersections. All valves shall be accessible through valve boxes.
- Part VII** All water mains shall be constructed of cement lined ductile iron pipe, class 50, or polyvinylchloride (PVC) pressure pipe, DR of 18, supplied, installed, tested, and disinfected in accordance with the specifications of the American Water Works Association (A.W.W.A.), the Standard Specifications for Municipal Services, and the Town.
- Part VIII** All water service connections between the main stop and the curb stop shall be a minimum of 20 mm (3/4 inch) diameter, type K copper pipe or 160 psi plastic pipe.
- Part IX** The subdivider shall pay for tests required by the Town Engineer to determine whether the system is properly installed. Test pressures referred to in the A.W.W.A. standard shall be one hundred and fifty per cent (150%) of the normal working pressure. All water pipes shall be tested in the presence of the Town Engineer or a person appointed by the Town Engineer.
- Part X** These standards may be varied by the Town Engineer in exceptional circumstances and in accordance with accepted engineering practice, the applicable Building Code By-law, and the Canadian Plumbing Code.

SCHEDULE C

SANITARY SEWER DESIGN STANDARDS

- Part I Design Factors**
- (a) Sanitary sewers shall be designed for peak flow plus infiltration. Peak flows shall be estimated using either the Babbitt or Harmon formulas which are based on average daily water consumption, and the minimum infiltration allowance shall be 0.011 Litres/Sec/Hectare (0.001 cfs per acre).
 - (b) The capacity of sanitary sewers shall be calculated using the Manning formula or its appropriate nomograph.
 - (c) Sanitary sewers using gravity flow shall not be designed as pressure systems.
 - (d) Sanitary sewer flow velocities shall not be less than 0.6 m/sec (2 ft/sec) nor greater than 4.6 m/sec (15 feet/sec).
 - (e) The size of the sanitary sewer shall be based on the hydraulic design.
 - (f) Manholes or cleanouts are to be provided at every change of grade or change of direction and at all pipe intersections. Maximum distance between manholes shall be 120 m (400 feet). Minimum diameter of manholes shall be 1,050 mm (42 inches). The size and type of manhole, cleanout or frame and cover shall be approved by the Town Engineer.
 - (g) All lateral connections shall be a minimum of 100 mm (4 inches) in diameter.
 - (h) The sanitary sewer system shall be designed and constructed to accommodate potential flow from upstream development.
- Part II Pipe Testing**
- (a) The applicant shall pay for tests to demonstrate that the system is properly installed.
 - (b) All sewer pipes shall be tested in the presence of the Town Engineer or a person appointed by the Town Engineer.
 - (c) The sanitary sewer shall be tested from manhole to manhole or cleanout to cleanout by placing a plug in the lower end of the pipe and filling the upper manhole to a depth of not less than 1,500 mm (5 feet) above the top of the pipe. The test period shall be for at least one half hour and maximum permissible leakage shall be 1.4 litres per mm of pipe diameter per kilometre of pipe length per hour (300 Imperial Gallons per inch of pipe diameter, per mile of pipe, for a 24 hour period).
 - (d) An air test, approved by the Town Engineer, may be permitted in lieu of a water test for sanitary sewer.
- Part III Sanitary Sewer Pipe Material**
- (a) Sanitary Sewer pipe shall be constructed of concrete meeting ASTM specifications C-14 for extra strength pipe or DR35 polyvinylchloride (PVC) having a wall thickness capable of withstanding normal highway loading and soil pressures and sewer laterals shall be DR 28 polyvinylchloride (PVC) or other materials approved by the Town Engineer.
 - (b) All sanitary sewers shall have gasketed joints to prevent ex-filtration as well as infiltration.
- Part IV Variance**
- These standards may be varied by the Town Engineer in exceptional circumstances and in accordance with accepted engineering practice, the applicable Building Code By-law and the Canadian Plumbing Code.

Part I

Storm Water Flow Calculation

- (a) The following rainfall intensity values, based on a twenty five (25) year return cycle, or other intensity-duration values as approved by the Town Engineer, may be used to calculate storm water runoff:

TABLE I

RAINFALL INTENSITY - LUNENBURGNOTE: TABLE NOT UPDATED

Time (minutes)	intensity mm/hr (in./hr)
10	99 mm (3.9 in.)
100	25 mm (1.0 in.)
1000	8 mm (0.30 in.)

Intermediate values may be obtained by plotting a logarithmic graph of intensity in millimetres per hour (inches per hour) against time in minutes.

- (b) The Rational Method shall be used for computing storm water runoff quantities for residential drainage systems.
- (c) Average runoff coefficients for all classes of land use shall be computed on the basis of the ratios of areas of the various types of surfaces in accordance with Table 2.

TABLE 2

RUN-OFF COEFFICIENTS FOR CALCULATING STORM WATER FLOW

Surface Type	Recommended Run-off Coefficient
Asphalt, Concrete, Roof areas and Impervious Areas	0.95
Sodded Open Areas with Sandy soil:	
- 0.2% ground slope (flat)	0.15
- 2.7% ground slope (rolling)	0.20
- over 7% ground slope (steep)	0.25
Sodded Open Areas with Clay Soil:	
- 0.2% ground slope (flat)	0.20
- 2.7% ground slope (rolling)	0.25
- over 7% ground slope (steep)	0.30

Part II

Storm Drainage Design Practices

- (a) Storm sewers or open channels on residential streets shall be designed to accommodate a rainfall with a return period of twenty-five (25) years.
- (b) Where practical, considering both topography and economics, roadway grades and lot drainage shall be designed with continuous fall to a storm drainage outlet.
- (c) The capacity of storm sewers or open channels shall be calculated using Manning's formula or its appropriate nomograph.
- (d) Manholes or cleanouts are to be provided at every change of grade or change of direction and at all pipe intersections. Maximum distance between manholes shall be 120 m (400 feet). Minimum diameter of manholes shall be 1,050 mm (42 inches). The size and type of manhole, cleanout or frame and cover shall be approved by the Town Engineer.
- (e) Storm Water Retention Ponds:
Where applicable, consideration shall be given to the creation of storage reservoirs in association with parkland or open space for the purpose of reducing peak storm flows.
- (f) All laterals shall be a minimum of 100 mm (4 inches) in diameter.
- (g) The storm drainage system shall be designed and constructed to accommodate potential flow from upstream development.

Part III Storm Drainage Design Standards

- (a) Design flow velocities in storm sewers shall not be less than 0.75 m/sec (2.5 fps) nor greater than 6 m/sec (20 fps). Flow at pipe outlets and open channels shall be constructed to prevent erosion in the open channels.
- (b) Minimum Pipe Size:
The minimum allowable pipe size for storm sewers is 250 mm (10 inches) in diameter.
- (c) Depth of Cover:
The minimum depth of cover to top of a storm sewer shall be 1,200 mm (4 feet).

Part IV Catch Basins

Catch basin laterals shall be installed at low points in the road and at low grade points at intersections. Laterals shall also be provided for additional catch basins along the streets as set out in the following table. Catch basins shall have "bicycle proof" catch basin covers or as required by the Town Engineer.

Road Grade (%)	Maximum Spacing
0.5 - 3.0	110m (350 feet)
3.0 - 4.5	100m (330 feet)
Greater than 4.5	75m (250 feet)

The maximum distances are based on the capacity of a 600 mm (24 inch) square grid on pavement widths up to 10 metres (33 feet).

Part V

Storm Sewer Material

Storm sewer pipe under existing or proposed public streets shall be concrete meeting ASTM Specifications C14 or C76 and sewer laterals shall be DR 28 polyvinylchloride (PVC).

