

ARTICLE IV SITE PLAN REVIEW REGULATIONS

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Section 4.1 AUTHORITY

In pursuance of the authority vested in the Kensington Planning Board by the voters of the Town of Kensington and in accordance with the provisions of Chapter 674:43 of the Revised Statutes Annotated of New Hampshire, the Kensington Planning Board adopts the following regulations governing the power to review site plans in the Town of Kensington, New Hampshire. **(Adopted 09/06/1984)**

Section 4.2 SCOPE AND PURPOSE

Site plan review regulations are for non-residential development and multi-family development in excess of two (2) units, whether or not such development includes a subdivision or re-subdivision of the site.

A. Purpose

The purpose of the Site Review Procedure is to protect the public health, safety and welfare; to promote balanced growth; to promote the timing of development to prevent premature and uncoordinated development of land without the adequate provision of public services and facilities; to ensure sound site utilization; to avoid development which may result in negative environmental impacts; and to guide the character of development.

The Site Review Procedure in no way relieves the developer, his/her agent, or individual from compliance with the Zoning Ordinance, Subdivision Regulations, or any other ordinance which pertains to the proposed development. No site plan will be approved until it complies in all respects to any and all pertinent ordinances and regulations.

Section 4.3 PROCEDURES

A. Procedures. Site Plan Review shall be conducted in accordance with the procedural requirements contained in Subdivision Regulations for Kensington (Chapter III) including the notice to abutters and a public hearing. The list of all abutters shall be submitted to the Planning Board. The cost of notifying abutters will be borne by the developer.

B. Establishment of Escrow Account for Technical Review

At the time of application, the town establishes the escrow account with funds provided by the applicant to cover the estimated costs of the 30 day completeness review (per the Federal Communications Commission and Telecommunications Act, as amended) for any application involving establishment of new or expansion of existing wireless communication facilities and professional engineering review or other type of technical review deemed

necessary for preliminary consultation submissions and formal application submissions under the Site Development Plan Regulations. Any funds not expended for the purposes of the 30-day completeness review and subsequent professional and/or technical review of such applications as part of the Site Plan Review process shall be returned to the applicant following final decision on the application by the Planning Board.

- C. Application for Building Permit.** If the site plan meets the evaluation criteria and is approved by the Planning Board, then the applicant may apply for a building permit. **No building permit will be issued until approval of the site plan by the Planning Board is granted.** The applicant will be notified of approval or disapproval of site plan.

Section 4.4 SUBMISSION REQUIREMENTS

- A. Application.** Application for Site Plan Review properly filled out. A separate application is provided for all Wireless Telecommunication projects.

B. Site Plan Requirements

1. Sheet size 22" x 34" maximum;
2. Scale: not less than 1" = 60';
3. Match lines when needed;
4. Original on mylar in pertinent ink, to be retained by the Planning Board at its option;
5. Three (3) prints of each plan sheet (blue or black line);
6. Date, title, scale, north arrow, location map;
7. Name and address of developer, designer/engineer, and owner of record;
8. Topographical plan with contour lines at two foot vertical intervals. Benchmark from USGS datum; and
9. Show all easements.

- B. Abutters.** List of current names and address of abutters including those across the street.

- C. Abutter Notification.** Abutter notification and public hearing of \$25.00 payable to Town of Kensington.

Section 4.5 REQUIRED EXHIBITS AND DATA

A. The following items are required on the site plan(s):

1. Sketch of site showing existing natural features including water courses and water bodies, trees and other vegetation, topographical features, any other soils information, features which should be considered in the site design process;
2. Plan of all buildings with their type, size, location, (setbacks) and elevation of first floor slab indicated: (assume permanent onsite elevation);
2. An elevation view of all buildings indicating their height, bulk and surface treatment;
3. Location of off-street parking and loading spaces with a layout of the parking indicated;
4. Location, width, curbing, and type of access ways and egress ways, plus streets within and around proposed site;
- 6a. An approved sewage disposal plan by NHWSPCC with provision for future expansion of sewage and water facilities, and all distances from existing water and sewage facilities on the site and on abutting properties to a distance of 200 feet;
- 6b. Plans for the provision of water for process use, drinking, fire suppression, etc.;
7. The plan for solid waste disposal;
8. The location, elevation, and layout of catch basins and other surface drainage features;
10. Existing and proposed contours and finished grade elevations -- all contours shall be a minimum of 2-foot intervals;
11. The type, extent and location of existing and proposed landscaping and open space areas indicating what existing landscaping and open space will be retained;
12. The location, size and design of proposed signs and other advertising or instructional devices;

13. The size and location of all public service connecting: gas, power, telephone, fire alarm, overhead or underground;
14. The location and type of lighting for all outdoor facilities;
15. Lines of all existing adjoining streets;
16. Surveyed property lines showing their deflection angles, distances, radius, lengths of arcs, control angles, along property lines and monument locations, and names of all abutters; (**Amended 11/06/2003**)
17. If a subdivision, then lines and names of all proposed streets, lanes, ways or easements intended to be dedicated for public use. All Subdivision Regulations shall apply;
18. Any other exhibits or data that the Planning Board may require in order to adequately evaluate the proposed development for Site Review;
19. An erosion and sedimentation plan (see Article 7.0:E); and
20. The location and type of Fire Walls used to separate each unit.

Section 4.6 GENERAL STANDARDS

A. Design. Design of development should fit the existing natural and man-made environments with the least stress.

1. Site preparation is to be conducted with minimal disturbance to existing vegetation. Stripped topsoil is to be piled and re-used on the site where needed. A minimum of four inches of topsoil is to be placed on the disturbed area. The site shall be adequately landscaped. Landscape treatment shall consist of natural undisturbed vegetation or features, or ground cover, shrubs, or trees as appropriate. Grading and filling must be conducted to minimize the alteration of surface and subsurface drainage to, toward or across abutting properties, unless the written consent of the abutting owner is obtained.

B. Buffers. Appropriate **buffers** are to be maintained between use and residential zone and must contain vegetation which will screen non-residential site.

1. Buffer strips must be maintained between use and residential zone must contain vegetation which will screen non-residential uses from sight from residential area during winter months.
2. A **landscaping plan** must be submitted showing locations and types of vegetation to be retained or established.

C. Screening. Screening must be provided to reduce visual pollution:

1. Storage areas must be fenced or screened from on-site or adjoining parking and neighboring properties.
2. Litter (garbage) collection areas must be screened.
3. The use of either fencing or hedges is permitted.

D. Parking and loading and pedestrian safety.

1. Sufficient off-street parking and emergency access lanes satisfactory to the Planning Board must be provided for the anticipated use to accommodate both employees and customers so that no parking is forced on to public streets.
2. Sufficient off-street loading and/or unloading space satisfactory to the Planning Board must be provided, including off-street areas for maneuvering of anticipated trucks or other vehicles. Maneuvers for parking and/or loading or unloading must not take place from a public street.
3. Access, parking, and loading areas are to be constructed so as to minimize dust, erosion and run-off conditions that would have a detrimental effect on abutting or neighboring properties.
 - a. Crushed rock may be used which might reduce the need for installation of drainage facilities to accommodate run-off; however,
 - b. The Board may require that access, parking, and loading areas be conventionally paved if appropriate or necessary.
4. Sidewalks shall be provided for pedestrian traffic to provide connection between the main entrances of business, housing or industrial establishments and parking areas. In the event that pedestrian shoppers or employees are reasonably anticipated, provision shall be made therefore by sidewalks running from the street line to the establishments. All such sidewalks shall be at least six inches above grade and protected by curbing.

E. Erosion and Sedimentation Control Standards (Adopted 1/19/16)

The purpose of these standards is to safeguard persons, protect property, prevent damage to the environment and promote the public welfare by controlling the design, construction, use, and maintenance of land during construction. These standards apply to projects approved by the Planning Board under Site Plan Review Regulations including any development or other activity which disturbs or breaks the topsoil or results in the disturbance of earth, excluding agriculture and forestry. An Erosion and Sediment Control Report and plans shall be submitted with the Site Plan Review Application, if applicable, and shall be prepared and certified by a licensed NH Professional Engineer. All erosion and sediment control plans shall comply with the following standards.

1. Apply best management practices that accommodate the increased runoff caused by changed soil and surface conditions during construction, including strong perimeter controls and soil stabilization methods. Sediment in stormwater runoff shall be contained by the use of sediment basins or other acceptable methods until the disturbed area is stabilized. Techniques that divert upland runoff away from disturbed slopes shall be used.
2. Identify, locate, and show elevation, grades and/or contours at intervals of not more than two (2) feet for the existing and proposed drainage ways, drainage easements, drainage structures, and any surface water bodies.
3. Identify and relatively locate and include drawings and specifications for each erosion and sediment control measure and structure proposed during construction, and noting those measures that will become permanent structures retained after construction. Erosion and sediment control measures and structures shall be designed in accordance with the New Hampshire Stormwater Manual Volume 3: Erosion and Sediment Controls During Construction (NH Department of Environmental Services, December 2008, as amended) or new standards and guidance as released or adopted by the NH Department of Environmental Services.
4. Include drawings, details and specifications for proposed flood hazard prevention measures and structures and for proposed temporary stormwater management facilities.
5. Ensure that disturbance to or removal of vegetation, grading or other construction will be done in such a way that will minimize soil erosion. Whenever practical, natural vegetation shall be retained, protected and supplemented to function as buffers.
6. Construction sites must be stabilized within *five days* of clearing or inactivity in construction. Temporary application of seed and/or mulch may

be required by the Planning Board to protect exposed critical areas during development. Techniques shall be employed to prevent the blowing of dust or sediment from the site. In areas where final grading has not occurred, temporary stabilization measures should be in place within 7 days for exposed soil areas within 100 feet of a surface water body or wetland and no more than fourteen (14) days for all other areas. Permanent stabilization should be in place no more than 3 days following the completion of final grading of exposed soil areas. At the close of the construction season, the entire site must be stabilized, using a heavy mulch layer, or another method that does not require germination to control erosion.

7. The agent designated by the Planning Board shall make inspections as described below and shall either approve that portion of the work completed or shall notify the applicant/property owner and the Planning Board when and how the construction activity(s) fails to comply with the approved erosion and sediment control plan. All plans bearing the stamp of approval of the designated agent shall be maintained at the site during construction. In order to obtain inspections, the applicant/property owner shall notify the designated agent at least one week before the following required site inspections:
 - a. Proposed erosion and sediment control measures are located and staked on the site before the start of construction.
 - b. Erosion and sediment control measures are in place and stabilized.
 - c. Site clearing and preparation has been completed.
 - d. Rough grading has been completed.
 - e. Final grading has been completed.
 - f. Close of the construction season.
 - g. Final landscaping has been completed.

F. Post Construction Stormwater Management Standards (Adopted 1/19/16)

1. Purpose and Goals. The purpose of post construction stormwater management standards is to provide reasonable guidance for the regulation of stormwater runoff to protect local natural resources from degradation and prevent adverse impacts to adjacent and downstream land, property, facilities and infrastructure. These standards regulate discharges from stormwater and runoff from land development projects and other construction activities in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff.

The goal of these standards is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public in the Town of

Kensington. This ordinance seeks to meet that goal through the following objectives:

- a. Minimize increases in stormwater runoff from any development in order to reduce flooding, siltation and streambank erosion and maintain the integrity of stream channels.
- b. Minimize increases in nonpoint source pollution caused by stormwater runoff from development which would otherwise degrade local water quality.
- c. Minimize the total volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic condition to the maximum extent practicable.
- d. Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety or cause excessive municipal expenditures.
- e. Protect the quality of the Town's groundwater resources, surface water bodies and wetlands.

2. Applicability.

- a. A Stormwater Management Report and plans shall be submitted with the Site Plan Review Application, if applicable, and shall be prepared and certified by a licensed NH Professional Engineer.
- b. The post-construction stormwater management standards apply to any development or redevelopment project which disturbs more than 5,000 square feet or disturbs more than 2,500 square feet within 100 feet of a surface water body.
- c. For sites that disturb less than 5,000 square feet, the Planning Board may grant an exemption if the amount of the total site impervious cover created does not exceed 1,000 square feet. When an exemption is granted by the Planning Board, the following standards will be applied to these projects as conditions of approval.
 - i. All runoff from new impervious surfaces and structures shall be directed to a subsurface infiltration device or properly discharged to a naturally occurring or fully replanted and vegetated area with slopes of 15 percent or less and with adequate controls to prevent soil erosion and concentrated flow.
 - ii. Impervious surfaces for parking areas and roads shall be minimized to the extent possible (including minimum parking requirements for proposed uses).

- iii. All runoff generated from new impervious surfaces shall be retained on the development site and property.
 - iv. Determination of compliance with standards i.-iii. above will be made by the Planning Board on a case by case basis as site conditions and constraints will differ greatly between various development proposals.
 - d. The following activities are considered exempt from preparing and submitting a stormwater management plan:
 - i. Agricultural and forestry practices located outside wetlands and surface water setbacks and/or buffers.
 - ii. Resurfacing and routine maintenance of roads and parking lots.
 - iii. Exterior and interior alterations and maintenance to existing buildings and structures.
- 3. Stormwater Management for New Development: All proposed stormwater management practices and treatment systems shall meet the following performance standards.
 - a. Stormwater and erosion and sediment control practices shall be located outside any specified buffer zones unless otherwise approved by the Planning Board. Alternatives to stream and wetland crossings that eliminate or minimize environmental impacts shall be considered whenever possible. Stream and wetland crossings shall comply with state recommended design standards to minimize impacts to flow and enhance animal passage (see the University of New Hampshire Stream Crossing Guidelines (May 2009, as amended) available from the UNH Environmental Research Group website at http://www.unh.edu/erg/stream_restoration/nh_stream_crossing_guidelines_unh_web_rev_2.pdf)
 - b. Low Impact Development (LID) site planning and design strategies must be used to the maximum extent practicable (MEP) in order to reduce stormwater runoff volume, protect water quality, and maintaining predevelopment site hydrology. An applicant must document in writing why LID strategies are not appropriate when not used to manage stormwater.
 - c. All stormwater treatment areas shall be planted with native plantings appropriate for the site conditions: trees, grasses, shrubs and/or other native plants in sufficient numbers and density to prevent soil erosion and to achieve the water quality treatment requirements of this section.
 - d. All stormwater installations and areas that receive rainfall runoff must be designed to drain within a maximum of 72 hours for vector control.
 - e. Snow storage and salt storage areas shall be covered and

loading/offloading areas shall be designed and maintained in accordance with NH DES published guidance such that no untreated discharge to receiving waters results. Runoff from snow and salt storage areas shall enter treatment areas as specified above before being discharged to receiving waters or allowed to infiltrate into the groundwater. See NHDES published guidance fact sheets on road salt and water quality, and snow disposal at <http://des.nh.gov/organization/commissioner/pip/factsheets/wmb/index.htm>.

- f. Surface runoff shall be directed into recessed vegetated and landscaped areas designed for treatment and/or filtration to the maximum extent practicable to reduce the need for irrigation systems.
- g. All newly generated stormwater, whether from new development or expansion of existing development (redevelopment), shall be treated on the development site. Runoff shall not be discharged from the development site to municipal drainage systems or privately owned drainage systems (whether enclosed or open drainage). Runoff shall not be discharged to surface water bodies or wetlands in excess of volumes discharged under existing conditions (developed condition or undeveloped condition). A development plan shall include provisions to retain stormwater on the site by using the natural flow patterns of the site.
- h. Runoff from impervious surfaces shall be treated to achieve 80% removal of Total Suspended Solids and at least 50% removal of both total nitrogen and total phosphorus using appropriate treatment measures, as specified in the NH Stormwater Manual. Volumes 1 and 2, December 2008, as amended (refer to Volume 2, page 6, Table 2.1 Summary of Design Criteria, Water Quality Volume for treatment criteria) or other equivalent means. Where practical, the use of natural, vegetated filtration and/or infiltration practices or subsurface gravel wetlands for water quality treatment is preferred given its relatively high nitrogen removal efficiency. Note: The Anti-Degradation provisions of the State Water Quality Standards require that runoff from new development shall not lower water quality or contribute to existing water body impairments.
- i. Measures shall be taken to control the post-development peak rate runoff so that it does not exceed pre-development runoff for the 2-year, 10-year, 25-year, and 50-year 24-hour storm events. Similar measures shall be taken to control the post-development runoff volume to infiltrate the groundwater recharge volume GR_v according to the following ratios of Hydrologic Soil Group (HSG) type versus infiltration rate multiplier: HSG-A: 1.0; HSG-B: 0.75; HSG-C: 0.4; HSG-D: 0.15. For sites where infiltration is limited or not practicable, the applicant must demonstrate that the project will

not create or contribute to water quality impairment. Infiltration structures shall be in locations with the highest permeability on the site.

- j. The design of the stormwater drainage systems shall provide for the disposal of stormwater without flooding or functional impairment to streets, adjacent properties, downstream properties, soils, or vegetation.
- k. The design of the stormwater management systems shall take into account upstream and upgradient runoff that flows onto, over, or through the site to be developed or re-developed, and provide for this contribution of runoff.
- l. All temporary control measures shall be removed after final site stabilization. Trapped sediment and other disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized prior to removal of temporary control measures.
- n. Whenever practicable, native site vegetation shall be retained, protected, or supplemented. Any stripping of vegetation shall be done in a manner that minimizes soil erosion.

4. Redevelopment Criteria:

- a. In order to determine the stormwater requirements for redevelopment projects, the percentage of the site covered by existing impervious areas must be calculated. Stormwater requirements for redevelopment will vary based upon the amount of site surface area that is covered by existing impervious surfaces.
- b. For sites meeting the definition of a redevelopment project and having less than 40% existing impervious surface coverage, the stormwater management requirements will be the same as other new development projects with the important distinction that the applicant can meet those requirements either on-site or at an approved off-site location. The applicant must satisfactorily demonstrate that impervious area reduction, LID strategies and practices have been implemented on-site to the maximum extent practicable.
- c. For sites meeting the definition of a redevelopment project and having more than 40% existing impervious surface coverage, stormwater shall be managed for water quality in accordance with one or more of the following techniques, listed in order of preference:
 - i. Implement measures onsite that result in disconnection or treatment of at least 30% of the existing impervious cover as well as 50% of the additional proposed impervious surfaces and pavement areas through the application of filtration media; or

- ii. Implement other LID techniques onsite to the maximum extent practicable to provide treatment for at least 50% of the entire site area
 - d. Low Impact Development (LID) site planning and design strategies must be used to the maximum extent practicable (MEP) in order to reduce stormwater runoff volume, protect water quality, and maintaining predevelopment site hydrology. An applicant must document in writing why LID strategies are not appropriate when not used to manage stormwater.
- 5. Submission Requirements for Stormwater Management Report and Plans.
 - a. Stormwater management plans shall include an Existing Conditions Site Plan showing all pre-development impervious surfaces, buildings and structures; surface water bodies and wetlands; drainage patterns, sub-catchment and watershed boundaries; building setbacks and buffers, and topographic contours with minimum 2-foot intervals.
 - b. Stormwater management plans shall include a Proposed Conditions Site Plan showing all post-development proposed impervious surfaces, buildings and structures; temporary and permanent stormwater management elements and best management practices; important hydrologic features created or preserved the site; drainage patterns, sub-catchment and watershed boundaries; building setbacks and buffers; and topographic contours with minimum 2-foot intervals. The plans shall provide calculations and identification of the total area of disturbance proposed on the site (and off site if applicable) and total area of new impervious surface created. A summary of the drainage analysis showing a comparison of the estimated peak flow and volumes for various design storms (see below Stormwater System Design Performance Standards, section 4(d)) at each of the outlet locations shall be included with the report or plans.
 - c. The report or plans shall include a brief narrative description of the general approach and strategies implemented, and the facts relied upon, to meet the goals in Section B.
- 6. General Performance Criteria for Stormwater Management Plans.
 - a. All applications shall apply site design practices to reduce the generation of stormwater in the post-developed condition, reduce overall impervious surface coverage, and disconnect stormwater from the stormwater management system.
 - b. Water Quality Protection.
 - i. All stormwater runoff generated from new development or redevelopment shall not be discharged directly into a

- jurisdictional wetland or surface water body without adequate treatment.
- ii. All developments shall provide adequate management of stormwater runoff and prevent discharge of stormwater runoff from creating or contributing to water quality impairment. Where applicable, a stormwater management plan must comply with the EPA Phase II Stormwater Rules (as amended).
 - c. Onsite groundwater recharge rates shall be maintained, by promoting infiltration through the use of structural and non-structural methods. The annual recharge from the post development site shall maintain or exceed the annual recharge from pre-development site conditions. All stormwater management practices shall be designed to convey stormwater to allow for maximum groundwater recharge. This shall include, but not be limited to:
 - i. Maximizing flowpaths from collection points to outflow points.
 - ii. Use of multiple best management practices.
 - iii. Retention of and discharge to fully vegetated areas.
 - iv. Maximizing use of infiltration practices.
 - d. Stormwater System Design Performance Standards.
 - i. Stormwater system design, performance standards and protection criteria shall be provided as prescribed in Table 1 below. Calculations shall include sizing of all structures and best management practices, including sizing of emergency overflow structures based on assessment of the 100-year 24-hour frequency storm discharge rate.
 - ii. The sizing and design of stormwater management practices shall utilize new precipitation data from the Northeast Region Climate Center (NRCC) [or the most recent precipitation atlas published by the National Oceanic and Atmospheric Administration \(NOAA\)](http://precip.eas.cornell.edu/) for the sizing and design of all stormwater management practices. See the NRCC website at <http://precip.eas.cornell.edu/>.
 - iii. All stormwater management practices involving bioretention and vegetative cover as a key functional component must have a landscaping plan detailing both the vegetation to be in the practice and how and who will manage and maintain this vegetation. The use of native plantings appropriate for site conditions is strongly encouraged for these types of stormwater treatment areas. The landscaping plan must be prepared by a registered landscape architect, soil conservation district office, or other qualified professional.

Table 1. Summary of Stormwater Infrastructure Design Criteria

Design Criteria	Description										
Water Quality Volume (WQV)	$WQV = (P)(R_v)(A)$ $P = 1$ inch of rainfall R_v = unitless runoff coefficient, $R_v = 0.05 + 0.9(I)$ I = percent impervious cover draining to the structure converted to decimal form A = total site area draining to the structure										
Water Quality Flow (WQF)	$WQF = (q_u)(WQV)$ WQV = water quality volume calculated as noted above q_u = unit peak discharge from TR-55 exhibits 4-II and 4-III Variables needed for exhibits 4-II and 4-III: I_a = the initial abstraction = $0.2S$ S = potential maximum retention in inches = $(1000/CN) - 10$ CN = water quality depth curve number $= 1000 / (10 + 5P + 10Q - 10[Q^2 + 1.25(Q)(P)]^{0.5})$ P = 1 inch of rainfall Q = the water quality depth in inches = WQV/A A = total area draining to the design structure										
Groundwater Recharge Volume (GRV)	$GRV = (A_i)(R_d)$ A_i = the total area of effective impervious surfaces that will exist on the site after development R_d = the groundwater recharge depth based on the USDA/NRCS hydrologic soil group, as follows: <table> <tr> <th>Hydrologic Group</th><th>R_d (inches)</th></tr> <tr> <td>A</td><td>0.40</td></tr> <tr> <td>B</td><td>0.25</td></tr> <tr> <td>C</td><td>0.10</td></tr> <tr> <td>D</td><td>0.00</td></tr> </table>	Hydrologic Group	R_d (inches)	A	0.40	B	0.25	C	0.10	D	0.00
Hydrologic Group	R_d (inches)										
A	0.40										
B	0.25										
C	0.10										
D	0.00										
Channel Protection Volume (CPV)	If the 2-year, 24-hour post-development storm volume <u>does not increase</u> due to development then: control the 2-year, 24-hour post-development peak flow rate to the 2-year, 24-hour predevelopment level. If the 2-year, 24-hour post-development storm volume <u>does increase</u> due to development then: control the 2-year, 24-hour post-development peak flow rate to $\frac{1}{2}$ of the 2-year, 24-hour pre-development level or to the 1-year, 24-hour pre-development level.										
Peak Control	Post-development peak discharge rates shall not exceed pre-development peak discharge rates for the 10-year and 50-year, 24-hour storms										
Volume Control	Post-development total discharge volume from a site shall not exceed pre-development total discharge volume from a site for the 2-year, 10-year, 25-year and 50-year, 24-hour storms										
EIC and UDC	$\%EIC$ = area of effective impervious cover/total drainage areas within a project area x 100 $\%UDC$ = area of undisturbed cover/total drainage area within a project area x 100										

[After: NH DES Stormwater Manual: Volume2 Post-Construction Best Management Practices Selection & Design (December 2008)]

7. Spill Prevention, Control and Countermeasure (SPCC) Plan.
Any existing or otherwise permitted use or activity having regulated substances in amounts greater than five gallons, shall submit to the local official such as Fire Chief, Emergency Response Official a SPCC plan for review and approval. The Plan will include the following elements:
 - a. Disclosure statements describing the types, quantities, and storage locations of all regulated substances that will be part of the proposed use or activity.
 - b. Owner and spill response manager's contact information.
 - c. Location of all surface waters and drainage patterns.
 - d. A narrative describing the spill prevention practices to be employed when normally using regulated substances.
 - e. Containment controls, both structural and non-structural.
 - f. Spill reporting procedures, including a list of municipal personnel or agencies that will be contacted to assist in containing the spill, and the amount of a spill requiring outside assistance and response.
 - g. Name of a contractor available to assist in spill response, contaminant, and cleanup.
 - h. The list of available clean-up equipment with instructions available for use on-site and the names of employees with adequate training to implement containment and clean up response.
8. The applicant shall provide that all stormwater management and treatment practices have an enforceable operations and maintenance plan and agreement to ensure the system functions as designed. This agreement will include any and all maintenance easements required to access and inspect the stormwater treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the stormwater system. The operations and maintenance plan shall specify the parties responsible for the proper maintenance of all stormwater treatment practices. The operations and maintenance shall be provided to the Planning Board as part of the application prior to issuance of any local permits for land disturbance and construction activities.
9. The applicant shall provide legally binding documents for filing with the registry of deeds which demonstrate that the obligation for maintenance of stormwater best management practices and infrastructure runs with the land and that the Town has legal access to inspect the property to ensure their proper function or maintain onsite stormwater infrastructure when necessary to address emergency situations or conditions.
10. The property owner shall bear responsibility for the installation, construction, inspection, and maintenance of all stormwater management

and erosion control measures required by the provisions of these regulations and as approved by the Planning Board.

G. Illumination

1. Outdoor lighting shall not glare on abutting properties or on public highways or streets.
2. Indirect lighting should be used on signs advertising goods or services offered on the premises. Moving, fluttering, blinking or flashing lights or signs are not permitted.
3. Outdoor lighting is restricted to that which is necessary for advertising and security of the development.

H. Access to Public Streets

Access to public streets will meet the requirements of the New Hampshire Department of Public Works and Highways and/or the Town, as adopted and amended.

- I. Water supply and sewage disposal systems must be sized to adequately meet the needs of the proposed use under the regulations of the New Hampshire Water Supply and Pollution Control Commission and/or the Town of Kensington Subdivision Regulations. In areas not currently served by public sewers, it shall be the responsibility of the developer or his agent to provide adequate information to prove that the area of the lot is adequate to permit the installation and operation of an individual sewage disposal system (septic tank and tile field). The developer shall be required to provide the necessary percolation tests and submit such tests together with the proposed plan to the State of New Hampshire Water Pollution and Control Commission for its consideration and approval. Such approval must be obtained before site plan approval can be given.

J. Flood Hazard Areas

1. Site plans for both non-residential development and multi-family units other than one and two family dwellings will be reviewed to determine whether such proposals will be reasonably safe from flooding. If such a proposal is determined to be in a flood prone area, such proposals will be reviewed to assure that:
 - a. All such proposals are consistent with the need to minimize flood damage within the flood prone area;
 - b. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage;

- c. Septic systems, if required shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters; and
- d. The lowest floor (including the basement) is elevated or flood proofed to or above the base flood level.

K. Site Inspection. The **Town Engineer** or in absence of a town engineer, a registered engineer hired by the town shall inspect all site improvements. The developer shall pay the cost of the Board's employment of said engineer and the cost of any inspection(s) test(s) deemed necessary by the Board or the engineer. A letter certifying to the developer's concurrence to the employment of said engineer shall be filed with the Board as part of the site plan review.

L. Fire Walls. In multi-family dwellings, Fire Walls shall separate each unit. A Fire Wall shall be defined as a masonry constructed wall of sufficient structural stability, under fire conditions, to allow collapse of construction on either side without collapse of the wall.

The Fire Wall shall provide a three (3) hour fire resistance rating, and shall be continuous from foundation to two (2) feet eight (8) inches above the roof surface. Fire Walls shall be smoke tight at their junction with exterior walls.

M. Fire Protection
1) Applicability

These fire protection standards shall apply to all new or redeveloped commercial developments and major residential subdivisions (4 or more lots). If located more than 2,000 feet from a credible water supply, a year-round fire protection system or water supply shall be provided and approved by the Fire Chief or designee. For minor residential subdivisions (3 or fewer lots), the Fire Chief will review these applications to determine availability of a credible water supply, and if such water supply is not available, the application shall provide a fire protection system or water source capable of servicing all lots. that are not served by municipal water and/or not having a credible water supply within the required distances to provide year-round fire protection as determined by the Fire Chief or his designee. A credible water supply is such that there is a minimum of 30,000 gallons of useable water available at all time throughout the year and the pumping connection is accessible at all times. Calculation of a credible water supply shall be consistent with requirements in the NFPA 1 Uniform Fire Code, NFPA 1142 and the Insurance Services Organization fire protection rating handbook (refer to www.nfpa.org/codes-and-standards for these reference materials). In the case of a change in commercial use (as defined in NH State Fire Code NFPA 101 Life Safety Code, current editions as adopted by the NH State Fire Code available at www.nh.gov/safety/divisions/firesafety/legal/index.html), and redevelopment and expansion of an existing commercial use, the Fire

Chief may require a new or larger cistern be installed that complies with these standards.

2) Permits

A permit shall be obtained for installation of each cistern or fire pond/hydrant. Permits shall be obtained through Kensington Fire Rescue (KFR) before installation begins. A fee of \$75.00 for each permit (site) shall be paid at the time of the application.

3) Plans

A completed hydrant/cistern permit application, four (4) sets of engineered site plans, including manufacturer literature/specifications, warranties and one (1) original copy of an access easement shall be submitted for each cistern to be installed for review and approval by the Kensington Fire Rescue and the Town Engineer. The site plans shall include the following:

- a. Must be signed and stamped by a NH Licensed Professional Engineer.
- b. Design shall be in accordance with Kensington Fire Rescue requirements, NFPA 1142 *Standard for Water Supplies for Suburban and Rural Firefighting* U.S. Department of Transportation, Underwriters Laboratory, and American Society for testing and Materials standards available on the National Fire Protection Association website at <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1142> and the most recent edition as adopted by NH State Fire Code SAF-C-6000 available on the NH Department of Safety, Division of Fire Safety website at <https://www.nh.gov/safety/divisions/firesafety/legal/index.html>.
- c. Site plans must show the location of the cistern(s) and easement for cistern, it's maintenance and possible future removal. Easement shall be a minimum of 10 feet measured from outside edge of tank on all sides and shall include access to the tank or pond as needed. All easements shall also be on file with the Planning Board and Selectmen of Kensington, NH.
- d. For any structures other than 1 and 2-family residential dwellings, provide location and horizontal and vertical dimensions, including gross floor area, of existing and proposed structures and buildings to be served by the hydrant/cistern system.

4) Cistern Locations

All cisterns shall be in place and fully operational and approved prior to any combustible materials being stored on site or framing building permits issued. For developments that are being done in phases, fire cisterns shall be in place and fully operational for the phase currently under development, prior to combustible construction beginning.

The location of all cisterns shall be reviewed and approved by KFR prior to approval of a Site Plan Review or Subdivision application and installation

of any cistern or hydrant. Any cistern that is installed prior to the issuance of a permit from KFR or installed in the wrong location shall be excavated, removed and installed in the proper location unless approved by the Fire Chief and Planning Board as necessary. The work shall be done by NH licensed engineer and the complete cost of this work shall be borne by the contractor, developer and/or owner.

Cisterns shall be located no more than 1,500 feet from the farthest buildable lot line of the furthestmost lot and spaced every 1,500 feet along the roadway or private internal access or service road throughout the development. The spacing of cisterns and hydrants may be increased or eliminated if the contractor, developer, and/or owner installs NFPA 13, 13R or 13D compliant sprinkler systems (as applicable) in the facility and all individual houses within the development. Adjustments to the cistern spacing requirements may be made by the Fire Chief on a case-by case basis.

The contractor, developer and/or owner shall be responsible for annual maintenance of all cisterns including but not limited to: filling, repairing, testing and snow removal, and until the roadway is officially accepted by the Town of Kensington (if applicable). If it is not maintained, the town reserves the right to bill the contractor developer and/or owner for maintenance, testing repair or snow removal.

5) Vehicle Pad

The vehicle pad and approach shall be constructed of a hard, all-weather surface such as bituminous pavement or concrete meeting DOT standards and Town of Kensington road requirements. The pad and approach shall be designed so water will shed away from the pad and approach.

The vehicle pad shall be of sufficient length to permit easy access to suction and fill piping when the apparatus is set to forty-five and ninety degrees to the road, and with no more than 15 feet of suction hose from the engine to the suction connection (typical is 40 feet in length with a 12-foot tapered depth).

The pitch of the shoulder and vehicle pad from the edge of the pavement/roadway to the pumper suction connection shall be one percent to six percent downgrade.

A permanent "NO PARKING" sign shall be installed at the vehicle pad with arrows as approved by KFR.

6) Cistern Specifications

All cisterns and supporting components shall meet the following specifications:

- a. Shall be composed of single wall fiberglass or concrete.

- b. Minimum size capacity for a cistern shall be 30,000 gallons of useable water (defined as water that can be pumped from the tank without losing prime).
- c. The specifications shall carry a minimum lifetime warranty of 25 years.
- d. Have a float gauge approved by KFR installed visibly from the end of the suction pipe.
- e. Capable of flowing 1000 gpm for 75% of their water capacity.
- f. Be protected from vehicular traffic. Bollards shall be placed along the entire length of the vehicle pad. Bollard construction shall be steel, concrete reinforced 8 inches in diameter and five feet high. Bollards shall be painted with a rust inhibitor and then painted red.
- g. Suction and fill piping shall be supported by either the top of the tank or below the frost line.
- h. Horizontal piping shall be pitched toward the tank to allow for drainage.
- i. Exterior piping (from the tank) shall be painted with a rust inhibitor and then painted red.
- j. A metal (rebar) or fiberglass (with stainless steel spring) marker a minimum of six feet high from grade, outfitted with two four-inch blue reflective tape shall be installed on the suction pipe no more than two feet from the threaded end of the pipe. (removeable units at suction threads are allowed and recommended).
- k. Designed or installed so the cistern will not float when empty. These design specifications shall be shown on the plans when submitted.
- l. Bottom of the suction piping to the center of the pumper connection shall not exceed 14 feet in height.
- m. Vent pipe shall be a minimum of 4-inch diameter schedule 80 PVC or schedule 40 steel. Vent pipe shall have a bug-resistant screened opening and will be positioned to reduce condensation (pointing down). The vent pipe height is to be determined by approved drawings.
- n. Fill pipe shall be minimum four-inch schedule 80 PVC or schedule 40 steel and supported to withstand the weight of a filled four-inch supply line. The fill pipe connection shall be no more than 36 inches above grade and shall have a four-inch Storz connection with 30-degree elbow pointing down with a cap and chain.
- o. Suction pipe shall be six-inch minimum schedule 80 PVC or schedule 40 steel. Above the tank, the pipe will remain vertical until a 90-degree long sweep establishes a horizontal direction. Height of the suction pipe shall be 24 inches from finished grade to the center of the suction connection. The suction pipe will then be reduced to a four and one-half inch (4 ½") NST male thread. A cap shall be provided and will have "ears" for removing same.
- p. All elevations of all piping are based from finished grade of the pad to the center of the pipe.
- q. Provide a manway inspection hatch that has welded tabs so it can be locked with a padlock (Knox-Box lock) or an approved security bolt system. Locks shall be approved by KFR or two sets of access

equipment/wrenches shall be provided to the Department upon completion.

- r. Waterproofed and installed in accordance with the manufacturer's specifications, and a certification letter showing same shall be provided to the Fire Department before inspections.
- s. Rated for highway loading and withstand surface loads of H-20 axle loads.

7) Water Supply

A separate well, pump, float device and meter (as applicable) shall be connected to the cistern to maintain a full level of water at all times. Minimum water flow of this device shall be 2 gpm for 8 hours and shall have an accessible disconnect and a fail-safe shutdown with a visible (from the road) red light at/near the controls showing pump failure. Piping shall be installed below the frost line or protected from freezing. If well water is unavailable in the area, documentation shall be submitted to the Planning Board and Fire Department for review and possible variance on a case-by-case basis.

8) Backfill Specifications

All construction, backfill and grading material shall be in accordance with proper construction techniques/practices and acceptable to the Fire Chief and Town Engineer.

Bedding for the cistern shall consist of 12 inches of $\frac{3}{4}$ inch to 1 $\frac{1}{2}$ inch compacted, crushed, washed stone. No fill may be used under the stone.

Cistern tanks will be backfilled with one foot of clean sand around all sides and the top of the cistern.

All other backfill material shall be screened gravel with stones no larger than 1 $\frac{1}{2}$ inches diameter and must be compacted to 95% in accordance with ASTM D 1557 *Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort*.

Backfill over the tanks shall have one of the following characteristics:

- a. Minimum of four feet of fill.
- b. Top and the highest two feet of the sides of the cistern shall be insulated with vermin resistant foam insulation and two feet of fill.
- c. Extend ten feet beyond the edge of the cistern, and have a maximum 3:1 slope, loamed and seeded.

9) Inspections

All inspections shall be performed by both the Kensington Fire Rescue and the Town Engineer, who shall file certification letters and a full report to the Kensington Fire Chief and Planning Board showing compliance with all requirements as outlined. Inspections shall include the following construction and installation activities:

- a. Rough excavation
- b. Tie-down/strapping

- c. Backfilling
- d. Random compaction test (3rd party certificate)
- e. Leakage test (48 hours after soak-in)
- f. Well flow and stress test
- g. Pump and conditional acceptance test

After all backfilling and piping is installed, the cistern shall be leakage tested. The tank must be filled with clean water to within 1 inch of the top cover of the manway. The installer can have two days for settling and soak-in, then the test shall commence. The leakage test shall be 48 hours, and the measurements shall be taken by Kensington Fire Rescue or the Town Engineer. This is a zero-leakage test. If, after 48 hours leakage is verified, the tank and/or components shall be repaired in accordance to manufacturers specifications and re-inspected by the Fire Department and Engineer.

A final acceptance test shall consist of fire apparatus pulling and maintaining a draft from the cistern for two cycles of five minutes each, followed by a flow test of approximately 1000 gpm for a minute.

Refilling the tank after testing shall be the responsibility of the contractor, developer, and/or owner. The tank shall remain filled once tested and accepted.

The well flow stress test shall consist of flowing water for a documented period to show compliance with the minimum flow requirements. All safety devices shall be tested as well.

10. Final Approval and Continued Maintenance

Once all inspections and tests have been completed and approved, the Department will conditionally accept the cistern. The conditional acceptance remains in place until the roadway is accepted by the Town.

The contractor, developer, and/or owner shall be responsible for annual maintenance of the cisterns including but not limited to snow removal until such time the roadway is accepted by the Town. If the road remains privately owned, the develop/owner shall be responsible for all annual maintenance and any required testing to ensure the system functions properly and as designed. The Town reserves the right to bill for maintenance, testing, snow removal or repairs until accepted by the Town

Section 4.7 Waivers (Adopted 12/15/15)

- A. When a subdivision applicant can demonstrate to the Board's satisfaction that strict adherence to these regulations is not practicable, in the Board's opinion a departure from these regulations may be made consistent with their intent, the Planning Board may authorize a waiver to these regulations. Because of peculiar conditions or circumstances relating to a particular subdivision application, the Board may require additional improvements or impose conditions on such a

waiver. The basis for any waiver granted by the planning board shall be recorded in the minutes of the board.

The planning board may only grant a waiver if the board finds, by majority vote, that:

1. Strict conformity would pose an unnecessary hardship to the applicant and waiver would not be contrary to the spirit and intent of the regulations; or
2. Specific circumstances relative to the subdivision, or conditions of the land in such subdivision, indicate that the waiver will properly carry out the spirit and intent of the regulations.

Section 4.8 PERFORMANCE BOND

- A. The Planning Board may require that a performance bond, the amount to be determined by the Planning Board, in the form of a passbook savings deposit or a bond, be posted by the developer and held by the town until the town is satisfied that all conditions of the site plan approval and any other pertinent zoning ordinance(s), subdivision regulation(s), and building regulation(s) have been met. The bond may be released in part when the project is substantially completed.

Section 4.9 RECORDING OF SITE PLAN

- A. The Site Plan Map, which shows, at a minimum, lot lines and proposed construction, roads, and other improvements, and Planning Board approval, should be recorded with the Registry of Deeds. Should the approval be subject to conditions not apparent on the face of the map, such conditions shall be recorded as well with reference made to such recording on the face of the map.

Adopted by Kensington Planning Board 02/07/1991