

Appendix K

Final Draft Model Local Law

Gap 1

Gap 1 – Infill

(Format: Code)

Post-Development Stormwater Management for Development and Redevelopment Sites Proposing Less Than One Acre in Disturbance

Infill is a proven strategy, one that allows communities to make better use of existing infrastructure by reducing sprawl development, raising property values, and adding to the tax base. However, requiring infill projects to manage stormwater through implementation of green infrastructure (GI) can present financial challenges to the developer. In addressing this consideration, some municipalities seeking to encourage or require the use of GI have successfully created financial or other incentives (such as certain waivers, i.e., height or density) to entice such development. Examples include: New York City, Chicago, and Portland. A local law that requires use of GI is likely to be received more favorably if it includes incentives making it more appealing to prospective developers. Therefore, if GI is to be mandated (as opposed to recommended) as a condition of infill project approval, it would be advisable to consider whether any incentives could be developed to make such a requirement more palatable and easily attainable.

1.0 Definitions

Disturbance – Tree removal, vegetation removal, clearing and grading. Disturbance related solely to the removal of shrubs and trees shall be calculated as the surface area equivalent of the shrub and tree canopy.

Green Infrastructure - Green infrastructure is an approach to stormwater management that protects, restores, or mimics the natural hydrologic cycle via use of natural and aesthetically pleasing green practices that promote infiltration, reuse, and uptake of stormwater that would otherwise leave the site as runoff. These practices include: porous, uncompacted surfaces such as grass, porous pavement, porous concrete, and porous pavers; bioretention areas, tree pits, tree plantings, and rain gardens; grey water cisterns, rain barrels and rooftop disconnections; green roofs, infiltration planters, vegetated swales, and other measures aimed at infiltration, reuse, and uptake of stormwater at the site of collection. These measures are further detailed, including design standards, in Chapter 5.3 of the New York State Stormwater Management Design Manual.

Infill - Infill refers to new development on vacant, bypassed, and underutilized land within built-up areas of existing communities, where utilities and infrastructure is already in place. Infill also includes redevelopment of lots meeting the same conditions.

Combined Sewer - means a sewer that is designed to collect and convey both “sanitary sewage” and “stormwater runoff”.

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Impervious Area - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

One Hundred Year Storm - The peak discharge rate associated with a 24 hour storm event that has a 100% chance of being equaled or exceeded in a given 100-year period.

Runoff Reduction Volume – Reduction of the total WQv by application of green infrastructure techniques noted in Chapter 5.3 of the New York State Stormwater Management Design Manual dated January 2015.

Sizing Criteria –Criteria included in this local law that are used to size post-construction stormwater management control practices (green infrastructure). The criteria include; Water Quality Volume (WQv) and Runoff Reduction Volume (RRv).

Ten Year Storm - The peak discharge rate associated with a 24 hour storm event that has a 100% chance of being equaled or exceeded in a given ten-year period.

Water Quality Volume (WQv) -

$WQv(\text{acre-feet}) = [(P)(Rv)(A)] / 12$

- $Rv = 0.05 + 0.009(I)$
- $I = \text{Proposed Impervious Cover (Percent)}$
- $P(\text{inch}) = 90\% \text{ Rainfall Event Number (obtain from NYSDEC stormwater interactive map online)}$
- $A = \text{total area in acres}$

2.0 Green Infrastructure Benefits

Green infrastructure practices (GIPs) can be a component of flood protection and may contribute to reducing the magnitude and frequency of flood events;

Green infrastructure provides for the filtering and passive treatment of stormwater collected in the urban environment;

Green infrastructure can reduce the volume of stormwater entering combined sewer systems, thereby reducing discharge of untreated sanitary sewer overflows into waters of the U.S.;

Green infrastructure promotes environmental sustainability, improves air quality, reduces heat-island effect, and increases carbon sequestration in a built, urban environment;

Green infrastructure provides an aesthetically pleasing measure of cost-saving over traditional grey infrastructure (pipes, vaults, etc);

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Green infrastructure, when designed and maintained properly, provides aesthetic amenities to the surrounding community;

Green infrastructure prevents urban desert effect, where lands become devoid of moisture and parched rendering them prone to erosion and slippage and unusable for gardening, building, and most recreational uses;

Visual access to green infrastructure where minimal green space previously existed has been shown to reduce crime and increase of local pride in neighborhoods employing these practices;

Green infrastructure will aid in the recharge of stream base flows and prolong the duration of flow during dry periods benefitting aquatic species and other wildlife that depend on them;

Green infrastructure will provide food, protective cover, and urban habitat for wildlife that provide benefits to respective neighborhoods;

Sites disturbing less than one acre significantly contribute to urban development, and are not regulated under the current NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity despite their contribution of both stormwater volume and pollutants to the stormwater system; and

3.0 Treatment Requirements and Methodology

Green infrastructure is required for all single family infill and commercial development/redevelopment projects as follows:

- *Runoff Reduction Volume (RRv) must be incorporated*
- In the event that RRv is infeasible, the balance of RRv that cannot be reduced may be managed at a ratio of 1:1.2 in Water Quality Volume using NYSDEC-accepted practices that reduce nitrogen, phosphorus, and total suspended solids. This is only allowed if the Applicant is able to prove that achieving the full RRv is not possible due to site limitations on the given site by providing detailed written rationale to, which must be approved in writing by, [insert municipality name]. Approval by [insert municipality name] is required in order to obtain permission for the variance to apply the Water Quality Volume standard.
- Locate practices on private property to maximum extent feasible
- Provide means of overflow to existing stormwater infrastructure that avoids undue impacts (increased flow rate) to adjacent lands for the 10-year and 100-year storm events. Proof of this shall be provided via basis TR-20 or TR-55 methods.

Runoff reduction and water quality volume requirements shall be provided using industry accepted green infrastructure methods and design, such as those methods and design calculations

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provided in Chapter 5.3 of the New York State Stormwater Management Design Manual dated January 2015.

All calculations, NYSDEC green infrastructure and runoff reduction volume worksheets, and proposed green infrastructure methods, including rationale for how those proposed methods will meet the RRv and/or WQv requirements, shall be provided to [*insert municipality name*] during site plan review for review and approval along with proposed maintenance measures.

4.0 Applicability

Projects that must incorporate runoff reduction volume:

- New or infill single family home construction, as well as lots where an existing home is partially or wholly razed for new construction
- Additions and accessories (sheds, surface parking or structures, accessory dwelling units, etc) contributing 500 sf or more of added OR replaced (or a combination thereof) of impervious surfaces in areas NOT discharging to the combined sewer system
- Additions and accessories (sheds, pavilions/gazebos, surface parking or structures, accessory dwelling units, etc) contributing 300 sf or more of added OR replaced (or a combination thereof) of impervious surfaces in areas that ARE discharging to the combined sewer system
- All commercial additions and accessories contributing between 500 sf and 12,000 sf added or replaced impervious surface (additions, parking surfaces, etc)

*Projects that disturb one acre or more are required to comply with the New York State Stormwater Management Design Manual per local stormwater regulations.

5.0 Maintenance Agreement

A signed maintenance agreement, signed by the owner of the green infrastructure measures, must be provided to [*insert municipality name*] upon construction completion and prior to issuance of a certificate of occupancy.

6.0 Additional Objectives

A holistic approach to stormwater management should serve more than one objective, such as:

- Managing peak flow and total volume, and reducing impacts, frequency, and quantity, of stormwater discharges to the combined sewer systems
- Improving water quality in receiving water bodies
- Maintaining or improving the predevelopment hydrologic patterns
- Reducing the temperature of stormwater leaving the site

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- Providing opportunities to disconnect private property inflow sources such as rooftop drains from combined sewer system

A responsible approach to green infrastructure design and siting of planned development will strive to conserve natural features and resources such as floodplains, beneficial soils, surface waters, etc. This includes:

- Building upon the least porous soils (Hydrologic Soil Groups C and D, as listed in the NRCS online Web Soil Survey) and limiting construction activities to previously disturbed and compacted soils to the extent practicable
- Limiting the clearing and grading of land to the minimum amount needed to construct the development and associated infrastructure, and achieve the development objective
- Avoiding disturbance of vegetation and soil on slopes and near surface waters
- Leaving undisturbed, or improving stream buffers along both sides of natural streams
- Preserving sensitive environmental areas, historically undisturbed vegetation, and native trees
- Conforming to watershed, conservation, and open space plans
- Designing development to fit the site terrain, minimizing cut and fill quantities of earth grading, and building roadways parallel to contour lines wherever possible
- Clustering development to preserve porous soils, natural streams and watercourses, and natural slopes
- Minimize soil compaction - Soil compaction disturbs native soil structure, reduces infiltration rates, and limits root growth and plant survivability. When protected, local soils can have a significant infiltration capacity, and can help meet design requirements. While soil compaction is necessary to provide structurally sound foundations, areas away from foundations are often excessively compacted by vehicle and foot traffic during construction. Minimizing soil compaction can be achieved by:
 - Reducing disturbance through design and construction practices, including construction sequencing and phasing
 - Limiting areas of access for heavy equipment
 - Decompacting soils per NYDSEC soil restoration requirements in Chapter 5 of the New York State Stormwater Management Design Manual
 - Avoiding extensive and unnecessary clearing and stockpiling of topsoil
 - Maintaining existing topsoil and/or using quality topsoil during construction
- Manage stormwater close to the source - Redirecting runoff back into the ground, close to the point of origin, provides both environmental and economic benefits. Traditional stormwater

management systems, which collect and convey stormwater, generally increase flows and are subject to deterioration over time. Techniques include:

- Use GIPs to infiltrate stormwater into the ground instead of concentrating the flow and routing it offsite
- Disconnect impervious surfaces wherever feasible
- Reduce and disconnect impervious surfaces - Reducing and disconnecting impervious surfaces increases the amount of rainfall that infiltrates into the ground. Impervious areas should be reduced by maximizing landscaping and using pervious paving systems. In addition, the amount of impervious areas hydraulically connected to impervious conveyances (e.g., driveways, walkways, culverts, streets, or storm drains) should be reduced as much as possible. Examples include:
 - Installing green roof
 - Directing roof downspouts to vegetated areas, bioretention, cisterns, or planter boxes, and routing runoff into vegetated swales instead of gutters
 - Using pervious paving systems where permitted and feasible
 - Installing shared driveways that connect two or more homes or installing residential driveways with center vegetated strips
 - Allowing for shared parking in commercial areas
 - Encouraging building developers to increase their number of floors instead of their building's footprint to achieve their development goals and objectives

SAMPLE GREEN INFRASTRUCTURE MAINTENANCE AGREEMENT LANGUAGE:

Whereas, the Municipality of the [*insert municipality name*] ("Municipality") and the _____ ("facility owner") want to enter into an agreement to provide for the long term maintenance and continuation of stormwater control measures approved by the Municipality for the below named project, and Whereas, the Municipality and the facility owner desire that the stormwater control measures be built in accordance with the approved project plans and thereafter be maintained, cleaned, repaired, replaced and continued in perpetuity in order to ensure optimum performance of the components. Therefore, the Municipality and the facility owner agree as follows:

1. This agreement binds the Municipality and the facility owner, its successors and assigns, to the maintenance provisions depicted in the approved project plans which are attached as Schedule A of this agreement.
2. The facility owner shall maintain, clean, repair, replace and continue the stormwater control measures depicted in Schedule A as necessary to ensure optimum performance of the measures to design specifications. The stormwater control measures shall include, but shall not be limited to, the following: drainage ditches, swales, dry wells, infiltrators, green roofs, bioretention areas, rain barrels, tree pits, porous pavement, green walls, infiltration planters, and all other stormwater and green infrastructure measures.
3. The facility owner shall be responsible for all expenses related to the maintenance of the stormwater control measures and shall establish a means for the collection and distribution of expenses among parties for any commonly owned facilities.
4. The facility owner shall provide for the periodic inspection of the stormwater control measures, not less than once in every one-year period, to determine the condition and integrity of the measures. Such inspection shall be performed by a New York State Licensed Landscape Architect, New York State Licensed Professional Engineer, or Certified Professional in Stormwater Quality (CPSWQ). The inspector shall prepare and submit to the Municipality, within 30 days of the inspection, a written report of the findings including recommendations for those actions necessary for the continuation of the stormwater control measures.
5. The facility owner shall not authorize, undertake or permit alteration, abandonment, modification or discontinuation of the stormwater control measures except in accordance with written approval of the Municipality.
6. The facility owner shall undertake necessary repairs and replacement of the stormwater control measures at the direction of the Municipality or in accordance with the recommendations of the inspecting engineer within three months of initial notice of repair/improvement necessity or within such time required by the Municipality due to seasonal weather or other limitations.

7. The facility owner shall provide to the Municipality within 30 days of the date of this agreement, a security for the maintenance and continuation of the stormwater control measures in the form of [*a Bond, letter of credit or escrow account*] in an amount approved by the Municipality.

8. This agreement shall be recorded in the Office of the County Clerk, County of _____ together with the deed for the common property and shall be included in the offering plan and/or prospectus approved pursuant to _____.

9. If ever the Municipality determines that the facility owner has failed to construct or maintain the stormwater control measures in accordance with the project plan or has failed to undertake corrective action specified by the Municipality or by the inspecting engineer, the Municipality is authorized to undertake such steps as reasonably necessary for the preservation, continuation or maintenance of the stormwater control measures and to affix the expenses thereof as a lien against the property.

10. This agreement is effective _____ .

References:

1. Maryland:
 - a. “Models and Guidelines for Infill Development”:
http://planning.maryland.gov/pdf/ourproducts/publications/modelsguidelines/infill_final_1.pdf
2. EPA:
 - a. SMART GROWTH AND ECONOMIC SUCCESS: INVESTING IN INFILL DEVELOPMENT <https://www.epa.gov/sites/production/files/2014-06/documents/developer-infill-paper-508b.pdf>
 - b. ATTRACTING INFILL DEVELOPMENT IN DISTRESSED COMMUNITIES: 30 STRATEGIES
 - i. https://www.epa.gov/sites/production/files/2015-05/documents/fresno_final_report_042215_508_final.pdf
3. Georgia (Department of Community Affairs):
 - a. http://www.dca.state.ga.us/intra_nonpub/Toolkit/Guides/InfilDevtProg.pdf
4. <https://www.nashville.gov/water-services/developers/low-impact-development.aspx> for *GI design sheets for Task 2.*
5. *Nashville Infill GI and Stormwater requirements:*
http://www.nashville.gov/Portals/0/SiteContent/WaterServices/Stormwater/docs/SWMM/2016/Volume01Regulations/Chapter08_2016.pdf

Gap 2

Gap 2 – Locating Sites in Less Sensitive Areas/Clearing and Grading

(Format: Code)

1.0 PURPOSE AND OBJECTIVES. *This language can be inserted in various codes (i.e. zoning, subdivision, design standards) where the codes contain a general provision noting the goals and objectives of the law.*

The standards and requirements of this law are intended to reduce the impact on the environment and protect water quality by locating development away from ecologically sensitive areas, permeable soils and limiting the amount of clearing and grading to reduce the potential for erosion and protect sensitive habitats. This law is intended to comply with the New York State Department of Environmental Conservation’s SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems, (Permit No. GP-0-15-003). Applicants are encouraged to incorporate the principles of Low Impact Development, Better Site Design and other Green Infrastructure measures to meet these goals and meet the requirements of the most recent New York State Stormwater Management Design Manual or green infrastructure standards adopted by the Municipality for sites disturbing less than one acre. The redevelopment of properties that are part of a government approved plan for the clean-up of contaminated properties may be permitted to have larger areas of impervious surfaces where impermeable cover is a requirement of an approved remediation and redevelopment plan.

2.0 Avoiding Sensitive Areas. *This language can be applied to subdivision and zoning laws. While the language below is drafted for site plan review, it can also be applied to the review of subdivision plats.*

Minimum Action Level

2.1 Site Plans Contents

a. An application for site plan approval shall include a soil protection plan which identifies the areas of the various soil types on the property, hydrologic soil groups and soil erosion factors. The plan shall identify construction staging areas and soil disturbance areas. To the extent practicable, stabilized construction staging areas should be limited to previously disturbed areas, future planned impervious areas, or areas with compacted or poorly infiltrating soils.

b. Site plans and planning process must include:

- i. all watercourses and water bodies, including classification information.
- ii. unique geological features
- iii. State and federally designated wetlands and the 100’ adjacent area for NYS regulated wetlands.
- iv. locations of significant natural communities (including endangered, threatened or rare plant species; high quality forested areas)
- v. Slopes equal to or greater than 15%.

- vi. 100-year floodplains.
- vii. A grading plan.
- viii. An erosion and sediment control plan.
- ix. tree conservation plan identifying the location and species of all existing trees 12” diameter at breast height (dbh) or greater and identifying the extent of tree clearing and preservation measures. For fully wooded sites, identification of clusters of all existing trees 12” dbh is required.
- x. A pre-application meeting with municipal planning and engineering staff, the Applicant and their professional representatives to discuss planned development and means of compliance with laws, codes, regulations, and ordinances.

c. Site Plan Review Standards

In its review of a site plan application, the Planning Board shall consider whether the applicant has avoided or minimized impacts to sensitive areas (including wetlands, floodplains, sensitive soils and tree preservation) to the maximum extent practicable consistent with the project goals and allowable density per code. Minor variances in minimum setbacks or other zoning dimensions shall be considered where impacts to sensitive areas have been incorporated.

Best Management Action Level

In addition to the standards in Sec. 2.1, the local government may include some or all of the following requirements to achieve a higher level of best management practices.

2.2 Site Plan Review Standards

- a. Grading on slopes equal to or greater than **15%** should be avoided to the maximum extent practicable.
- b. Redevelopment of previously developed sites containing grades equal to or greater than 15% should be limited to the areas of the site currently covered by impervious surfaces. Grading on the remaining portion of the site where slopes equal or exceed 15% should be avoided to the maximum extent practicable.
- c. Locating stormwater management control practices within the 100-year floodplain is prohibited unless there are no other practicable alternatives. Coordinate with regulatory agencies early in project to ensure approvability.
- d. New development should not be located on highly erodible soils or clay soils prone to slippage, unless supported by a stamped report from a geotechnical engineer licensed in the State of New York attesting to the suitability of the soils for construction, slope stability, and the limitation of potential erosion. For locations where a geotechnical engineer has attested to the suitability of the soils, such report shall include the specific measures that must be taken to protect the site from erosion and offsite soil migration.

i. Erodible soils are those soils with an erosion factor (K or Kw) of 0.43 or greater as determined by the most recent Natural Resources Conservation Service survey data, or those identified by geotechnical investigations.

e. Construction activities, including staging areas, shall be shown on the site plan, be delineated in the field prior to commencing construction and be limited to the following areas to the maximum extent feasible:

i. Within **40** feet of the building perimeter.

ii. Within **10** feet of surface walkways, patios, surface parking and utilities with a diameter of **12** inches or less.

iii. Within **15** feet of edge of pavement or curbs and main trenches for utilities with a diameter of greater than **12** inches.

iv. Within **25** feet of areas constructed with pervious surfaces (including pervious paving materials, stormwater management facilities and playing fields.

f. Unless specifically approved by the Planning Board, and within proposed grading limits, vegetation beyond the disturbance areas set forth in Sec. 2.2(f) shall not be cleared or disturbed. Vegetation removed outside the approved disturbance areas shall be replaced upon completion of construction.

g. Construction staging areas shall not be located underneath tree canopies. Vehicular travel areas shall not be located underneath tree canopies, unless required in areas adjacent to “Tree Plantings/Tree Pits” as outlined in Section 5.3 of the New York State Stormwater Management Design Manual, January 2015 or green infrastructure standards adopted by the Municipality for sites disturbing less than one acre. In this case, soils shall be appropriately decompacted per section 5.16 of the same. Trees identified on the site plan for preservation shall be marked in the field and their tree canopy area delineated.

h. All vegetation, with the exception of invasive species, shall be maintained on all slopes equal to or greater than 15% and for all areas within 50 feet of watercourses and drainage swales.

i. Constructed or graded slopes may not have a slope greater than 3:1 unless an engineering report and soil stability analysis is provided by a NYS licensed geotechnical engineer.

j. No clearing, excavation, stockpiling of materials or placement of fill shall occur on the slide block (displaced soils) of unstable slopes or other unstable soil areas unless approved by the Planning Board upon a demonstration that the proposed activity will not increase the load, drainage, or erosion on the slope or increase the risk of damage to people, adjacent properties or natural resources. An evaluation by a NYS licensed geotechnical engineer shall be provided to the Planning Board for review.

Model Community Action Level

In addition to the standards in Secs. 2.1 and 2.2, Municipalities may include some or all of the following requirements to achieve a higher level of best management practices.

2.3 Site Plan Review Standards

- a. Proposed impervious surfaces on previously undeveloped soils within Hydrologic Soil Group A shall be constructed so at least **90%** of the surface is comprised of pervious materials (including porous concrete, porous asphalt, structural pavers and structural grass or equivalent materials), unless the applicant can demonstrate with an engineering report prepared by a Professional Engineer licensed in the State of New York that the pervious materials present a threat to public health or safety, or that physical limitations exist (such as shallow groundwater or bedrock). Pervious materials in contaminated soil areas will be evaluated on a case-by-case basis.
- b. Proposed impervious surfaces on previously undeveloped soils within Hydrologic Soil Group B shall be constructed so at least **80%** of the surface is comprised of pervious materials (including porous concrete, porous asphalt, structural pavers and structural grass or equivalent materials), unless the applicant can demonstrate with an engineering report prepared by a Professional Engineer licensed in the State of New York that the pervious materials present a threat to public health or safety or physical limitations exist (such as shallow groundwater or bedrock). Pervious materials in contaminated soil areas will be evaluated on a case-by-case basis.
- c. New buildings proposed on Hydrologic Soil Groups A and/or B shall have a maximum footprint of **4,500** square feet of continuous impervious surface, excepting covered pedestrian walkways with a maximum covered width of **10** feet. Building footprint area consisting of an approved Green Roof or decompacted courtyards or walkways shall be considered pervious surfaces and shall not be calculated as included in the **4,500** square feet maximum area.
- d. Proposed impervious surfaces on previously undeveloped soils within Hydrologic Soil Group C shall be constructed so at least **30%** of the surface is comprised of pervious materials (including porous concrete, porous asphalt, structural pavers and structural grass or equivalent materials), unless the applicant can demonstrate with an engineering report prepared by a Professional Engineer licensed in the State of New York that the pervious materials present a threat to public health or safety or physical limitations exist (such as shallow groundwater or bedrock). Pervious materials in contaminated soil areas will be evaluated on a case-by-case basis.
- d. Proposed impervious surfaces on previously undeveloped soils within HSG D are not required to utilize pervious materials.

2.4 Natural Resource Buffers

a. Except as otherwise provided herein, natural area buffers shall be maintained in their natural state adjacent to watercourses, wetlands and areas shown on the site plan as containing sensitive plant species or protected wildlife habitat.

b. Minimum buffer areas shall be as follows and may be extended by the Planning Board in appropriate instances where topography requires a greater buffer to provide a level of protection equivalent to the distances set forth herein:

i. 100 feet from the boundary of any state or federally designated wetland.

ii. 100 feet from the top of bank of any perennial watercourse.

iii. 50 feet from the top of bank of an intermittent watercourse.

iv. 50 feet from the boundary of areas containing sensitive plant or wildlife species, as identified on the NYSDEC Environmental Resource Mapper.

v. in no case less than the required minimum of local, state, or federal environmental regulatory requirements.

c. Buffer Averaging. The Planning Board may alter the buffer upon a demonstration by the Applicant that a uniform buffer will result in extraordinary hardship to the applicant due to the unique characteristics of the subject property, or if the character of the buffer area varies in slope, soil types or vegetation and the resource being protected would benefit from a wider buffer in certain areas and would not be adversely impacted by a narrower buffer in other areas. To be approved an averaged buffer area shall meet the following conditions:

i. Provide detailed written rationale of extraordinary hardship necessitating consideration of buffer averaging.

ii. The applicant shall demonstrate that averaging shall not adversely impact the functions and values of the protected watercourses, wetlands and sensitive habitat areas.

iii. The total area contained within the buffer after averaging shall not be less than the area that would be contained in the buffer without averaging.

iv. To the extent practicable, lower intensity land uses which are less likely to introduce pollutants or activity in the protected areas shall be located near the narrower buffer widths, and higher intensity uses (such as parking lots) shall be located adjacent to the widest buffer areas.

d. Except as otherwise provided herein and as approved by the Planning Board, buffer areas shall be left undisturbed. Buffer areas shall be shown on the site plan or a survey filed with the County Clerk and the restrictions on the use of the buffer set forth herein shall be included in a deed restriction filed with the County Clerk. The delineation of the buffer areas shall be demarcated on the site both during and after construction, and contained within a conservation easement. Proof of filing of the deed restriction and conservation easement shall be submitted to the Planning Board as a condition of final site plan approval.

e. Allowable Buffer Area Uses.

- i. The 25 feet of the buffer area closest to the protected resource shall be left undisturbed unless a clearing plan is approved by the Planning Board to create a view corridor.
- ii. Within the 25 foot undisturbed area the Planning Board may approve construction of boardwalks to a watercourse or waterbody, footpaths parallel to the watercourse, stormwater management measures and road and utility crossings.
- iii. Within the balance of the buffer area the Planning Board may approve the placement of constructed wetlands, hiking trails and bicycle paths constructed of pervious materials.

f. Prohibited Buffer Area Uses and Activities. Unless specifically approved by the Planning Board pursuant to subparagraph (g), buffer areas shall remain undisturbed without any clearing, grading, construction or use for storage or stockpiling of any materials including sand, gravel or snow accumulated from snowplowing. There shall be no application of herbicides,, pesticides or fertilizers in the buffer area. Where any government regulation, except for this zoning code, establishes separation distances for the regulated activity, such distance shall be measured from the outer edge of the buffer area.

2.5 Tree Protection. Minimizing the removal of trees and preservation of mature trees protects the environment by reducing stormwater runoff, maintaining habitat, promoting clean air and reducing heat island effects. As part of its site plan review, the Planning Board shall review and approve a tree preservation plan that minimizes, to the maximum extent practicable, the removal of trees.

a. Projects clearing 0.5 acres or greater of undisturbed land. The site plan application shall identify the species and location of all major vegetation including all trees larger than 6 inches dbh. For fully wooded sites, identification of clusters of all existing trees 6” dbh is required. In approving a site plan that meets the objectives of the applicant, the Planning Board shall minimize the loss of trees by identifying the following for preservation:

- i. Trees that are important to the site or neighborhood due to their size, age or rarity.
- ii. Trees located in environmentally sensitive areas, such as wetlands.
- iii. Trees that offer significant visual screening or noise buffers to adjoining properties.
- iv. Trees that shelter other trees from strong winds or are part of a continuous and mutually dependent canopy.

b. Protection of identified trees. Where an approved site plan identifies trees for preservation, the applicant shall undertake the following:

- i. If development of the project will require the disturbance of tree root zones, a certified arborist or registered landscape architect shall prepare a detailed tree protection plan which protects root zones to the maximum extent practicable, prior to the commencement of site activities. A copy of the plan shall be provided to the Building Inspector.

- ii. The applicant shall prevent damage to the trunks of trees identified for preservation. In extremely confined work zones, one in which site improvements and/or disturbance are to take place within 50 feet of the dripline of onsite trees to remain, there shall be a protective barrier placed around the tree. At a minimum, orange construction barrier shall be placed at the drip edge of trees as a visual deterrent to entry from construction vehicles and equipment.
 - iii. Where disturbance of roots is necessary, excavation within the root zone shall be performed under the direction of a certified arborist and with extreme care using hand tools to prevent unnecessary damage to adjacent fibrous root structures. Roots should be pruned using clean vertical cuts that do not fray or strip the roots. Consult with a certified arborist prior to undertaking excavation within the root zone.
 - iv. Trees that have had their roots pruned shall also have their canopy pruned in direct proportion to the amount of root trimming as provided in the tree protection plan.
 - v. Any trees which are removed during development of the site plan which were not previously approved for removal by the Planning Board shall be replaced with equivalent trees unless otherwise waived by the Planning Board or other authorized municipal department.
- c. Nothing contained herein shall preclude a property owner from removing trees identified for preservation, which are diseased, severely damaged or otherwise present a threat to public health or safety.

Gap 3

Gap 3 Parking Lot Design

(Format: Guideline)

1.0 PURPOSE AND OBJECTIVES. *This language can be inserted in various codes (i.e. zoning, subdivision, design standards) where the codes contain a general provision noting the goals and objectives of the law.*

The standards and objectives of this law are intended to reduce the impact on the environment and protect water quality by limiting the amount of impervious areas, protecting natural resources and maintaining natural hydrological conditions. This law is intended to comply with the New York State Department of Environmental Conservation's SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems, (Permit No. GP-0-15-003). Applicants are encouraged to incorporate the principles of Low Impact Development, Better Site Design and other Green Infrastructure measures to meet these goals. The redevelopment of properties that are part of a government-approved plan (approved Phase I ESA, etc) for the clean-up of contaminated properties may be permitted to have larger areas of impervious surfaces where impermeable cover is a requirement of approved remediation and redevelopment plan.

2.0 PARKING LOT DESIGN

Minimum Action Level

- (a) Parking spaces in excess of the minimum number of spaces required should be constructed of pervious materials (permeable pavers, porous asphalt, porous concrete, grass-crete or gravel-crete, structural grass or similar materials) unless site or soil conditions (demonstrated infiltration rates lower than 0.5 in/hr) or future use of the area as a stormwater hot spot, as defined in the latest version of the New York State Stormwater Management Design Manual, preclude the use of pervious materials.
- (b) Off-street parking spaces designated for customers waiting for services from drive-thru facilities should be constructed of porous materials unless precluded pursuant to subparagraph (a) above or where infiltration would adversely impact adjacent structure in accordance with industry design standards.
- (c) In order to maximize the absorption capabilities of landscaped areas, utilities should not be located within landscaped areas unless the applicant can demonstrate avoidance of landscaped areas will result in an unnecessary hardship, or unless utilities would otherwise be subject to damage by snow plowing or other scheduled maintenance activities.
- (d) All parking lots should include a snow storage and disposal area that provides for snow melt over a vegetated area or into a green infrastructure area. Melting stockpiled snow shall not discharge directly to an infiltration practice without first receiving treatment for the removal of sediment and other debris. (e)
Landscaped areas in a project site plan, including in parking lots, should be lowered and incorporate curb cuts or other diversion devices to divert

stormwater to the landscaped areas for infiltration as part of a stormwater management plan.

- (f) Parking lots should include one tree for every 1,200 feet of impervious parking area. Sufficient permeable or infiltration areas should be provided around the expected radius of the mature tree to provide infiltration for the tree drip area. Existing mature trees should not be included in the calculation for minimum trees except for areas where the existing mature tree canopy extends over impervious surfaces. Tree plantings may be designed as tree pits for stormwater treatment as provided in the latest version of the New York State Stormwater Management Design Manual, or green infrastructure standards adopted by the Municipality for sites disturbing less than one acre, as well as the following:
- Trees should have dense canopy for rainfall interception, being round, oval, or v-shaped in form.
 - Trees used should be native and have proven observed salt tolerance if applicable. Minimum size should be 2” caliper at DBH.
 - The area of the parking lot subject to vehicular traffic, that also corresponds to the mature tree’s canopy area, should incorporate structural measures to prevent soil compaction and root damage. This may be accomplished by use of a soil structure specifically designed by a NYS licensed engineer or procured by a structural soil manufacturer to withstand anticipated traffic loading.
 - Water must be allowed to infiltrate to the tree roots in an amount to ensure tree survival with minimal watering after the first year.
 - Soil volume must be the amount required for the specific tree and intended function, which is typically 1,000 cf per tree if planted alone
 - Trees should be selected based on several factors, including observed local healthy tree stands in similar applications, existing and anticipated soil compaction, existing pH, planned water availability, adjacent road maintenance (salt, sand, etc), presence of overhead utilities, availability of sunlight, percolation rate, soil’s ability to circulate air, and soil type.
 - Because paved parking lots and the cars associated with them can raise local temperatures by up to 20 degrees, trees selected near heat islands should be tolerant of these conditions.
 - Trees should be selected based on best landscape practices, using the guidance document “Recommended Urban Trees: Site Assessment and Tree Selection for Stress Tolerance”, as published by the Urban Horticultural Institute, Department of Horticulture, Cornell University, Ithaca, NY, Appendix H of the NYSDEC Stormwater Management Design Manual, or other industry-accepted standard at the discretion of [jurisdiction].

Best Management Action Level

- (g) Parking lots constructed on existing impervious surfaces should not cause or contribute to an increased rate or volume of stormwater leaving the site, for a 10-year storm event, if constructed on soils within Hydrologic Soil Groups A or B, or if soil infiltration rates are 0.5 in/hr or greater. If constructed on Hydrologic Soil Groups C or D, there should be no increase in rate of stormwater leaving the site for a 10-year storm event and infiltration tests should be performed to determine whether rates are 0.5 in/hr or greater. If so, there should be no increase in stormwater volume leaving the site for a 10-year storm event. The site should include landscaping, bioretention areas, porous pavement, or other infiltration and storage practices to achieve this measure. Exceptions may be made for contaminated sites, where infiltration would serve to exacerbate transport of the contaminant (i.e. petroleum).
- (h) Parking lots constructed on existing pervious surfaces that are impacted by subsurface contaminants AND discharge either directly or eventually to a combined sewer system should implement landscaped areas and tree canopy to eliminate, via plant uptake and infiltration (where feasible), a minimum of **25%** of the *additional* volume of stormwater that the project will contribute to the pre-developed site conditions.
- (i) For every additional impervious parking space, the site plan should include at least 20 square feet of vegetated area within the parking lot. “Within the parking lot” means that at least 75% of the perimeter of the landscaped area is located within the parking lot. Vegetated areas must include hardy, native non-invasive species and may be used for green infrastructure stormwater practices.

Model Community Action Level

- (j) Where an applicant proposes a multi-story parking structure, the applicant should propose alternative means of meeting the aforementioned stormwater runoff volume and/or rate reductions, or infiltration and uptake goals depending on site contamination status, including the utilization of up to 50% of the structure’s roof as a green roof. Stormwater runoff from disconnection of roof drains, which is an encouraged stormwater runoff reduction technique, should be directed to infiltration practices such that stormwater runoff will not negatively impact adjacent properties.
- (k) Surface parking lots with more than two rows of parking should include a minimum of a 4’ wide landscaping island between rows. These islands should include curb cuts/wheel stops to allow entry of stormwater for treatment/infiltration. Landscaped areas should utilize some or all of the following: tree plantings, native vegetation, dry swales, infiltration practices, stormwater planters, tree pits, or bioretention in center islands between parking rows. Stormwater management features must be designed in accordance with the

latest version of the New York State Stormwater Management Design Manual or green infrastructure standards adopted by the Municipality for sites disturbing less than one acre.

- (l) All parking lot runoff is required to flow through a planted area to cool runoff temperatures before entering the storm drain system to the maximum extent feasible.

- (m) Parking lots larger than 1,200 sf, located on soils of hydrologic soil groups A, B, or C, excluding the area reserved for vegetation and stormwater management, are required to be constructed of pervious material over a minimum of 20% of the parking lot area. Parking lots larger than 1,200 sf, located on soils of hydrologic soil group D, excluding the area reserved for vegetation and stormwater management, are required to be constructed of pervious paving material over a minimum of 10% of the parking lot area.

Gap 4

Gap 4 Density

(Format: Guideline)

1. Purpose

Accessory dwelling units (ADUs) and detached accessory dwelling units (DADUs) are encouraged in certain situations to:

- Create new housing units while respecting the look and scale of existing development context;
- Increase the housing stock of existing neighborhoods by utilizing infill sites;
- Attract new sources of future residents and encourage in-migration;
- Encourage growth of locally-owned small business;
- Allow more efficient use of existing housing stock, land area, and infrastructure;
- Provide a broader range of accessible and more affordable housing; and
- Promote efficiency of development in urban areas and utilize supporting impervious areas such as driveways, roads, and sidewalks to capitalize on existing infrastructure.

2. Where These Regulations Apply

An ADU may be added to a house, attached house, or manufactured home [*insert municipal zones here*]. A DADU may be located on the same lot as the existing home or a vacant lot adjacent to the existing residence, owned by the same owner as the existing residence.

3. General Requirements

A. Number of residents.

1. For ADUs and DADUs sharing a plot with an existing home: The total number of individuals that reside in both units should not exceed the number that is allowed for a household per [*insert governing code here*]

2. For DADUs constructed on vacant lots: The total number of individuals that reside in the unit should not exceed the number that is allowed for a household per [*insert governing code here*].

B. Other uses.

1. Homes with wheels are considered RVs or campers, and will be required to comply with regulations for the same. They are not included in the definition of ADU/DADU.

C. Ownership

1. ADUs should be under the same ownership as the main residence.

2. DADUs on the same or a separate parcel may be owned by an owner different than that of the main home or business, however the lot on which the DADU resides should be owned by the same owner of the original dwelling or business for which the DADU was constructed. In this case, the owner of the DADU and the owner of the plot of land may enter into a lease agreement for rights to use the land, utilities, and any common areas.

3. The owner is encouraged to live in either the pre-existing home, or own the pre-existing business, or in the additional unit. A signed owner occupancy covenant agreeing to this condition should be submitted to *[insert municipality name]*.

4. Development Guidelines

A. Purpose. Guidelines for creating ADUs and DADUs address the following purposes:

1. Ensure that ADUs and DADUs are compatible with the desired character and livability of the *[insert municipality here]* residential zones;
2. Respect the general building scale and placement of structures to allow sharing of common space on the lot, such as driveways, sidewalks and yards;
3. Do not require additional municipal infrastructure, such as water, sewer, gas, and electrical;
4. Ensure that ADUs and DADUs are smaller in size than houses, attached houses, manufactured home, or adjacent homes or businesses.
5. Provide adequate flexibility to site buildings so that they fit the topography and infrastructure requirements of sites.
6. ADUs and DADUs should not contribute stormwater to the existing storm or combined sewers, therefore rooftop runoff shall be disconnected. It may be directed to a green infrastructure practice such as a tree pit, rain garden, grass filter strip, etc or simply dissipated at the point of discharge and allowed to flow overland via sheet flow away from the storm or combined sewer.
7. ADUs and DADUs should be connected to existing municipal infrastructure, such as sewer, utilities, etc.

B. General. The development guidelines for ADUs and DADUs are stated in this section. If not addressed in this section, the development guidelines for the existing zone within which the proposed development apply.

C. All ADUs and DADUs should meet the following:

1. There should not be more than **two (2)** accessory structures, other than a permitted sign, of which no more than one should be a private garage, on any lot used for residential or commercial purposes. A building permit for accessory buildings should only be issued if the residence is occupied, or business is active, and has a valid certificate of occupancy or certificate of compliance.

2. Location of entrances. Only one entrance may be located on the facade of the house, attached house, or manufactured home facing the street, unless the house, attached house, or manufactured home contained additional entrances before the accessory dwelling unit was created. An exception to this regulation is entrances that do not have access from the ground such as entrances from balconies or decks. Detached accessory dwelling units are exempt from this standard.

3. Parking. Additional parking is not required for the accessory dwelling unit, however, if constructed, additional parking for ADUs or DADUs should not cause or contribute to an increase in stormwater runoff volume from the site. Green infrastructure (bioretention, porous parking, etc) should be encouraged as a means to prevent additional stormwater runoff volume. Existing required parking for the house, attached house, or manufactured home should be maintained or replaced on-site.

4. Maximum size.

- The size of the ADU should be no more than **50** percent of the living area of the primary dwelling unit or **800** square feet of living area, or comply with setback requirements listed below, whichever is less. In cases where the ADU will be an addition to a commercial structure, the size of the ADU should be no more than **50** percent the size of the businesses' first floor net internal area (usable floor area), or **800** square feet of living area, or comply with setback requirements listed below, whichever is less. Living area refers to the square footage of livable space and does not include stairwells, hallways, closets, and porches. Net internal area refers to the gross square footage minus floor areas taken up by lobbies, stairs and escalators, mechanical and electrical services, lifts, columns, toilet areas, ducts, and risers. Accessory structures in accordance with the criteria herein, the footprint of which exceed maximum size allowances, must receive a special use permit from the [*insert governing board name here*].
- The size of the DADU should be no more than **35** percent of the living area of the primary dwelling unit or **400** square feet of living area, or setback requirements listed below, whichever is less. In cases where the DADU will be an addition to a commercial structure, the size of the DADU should be no more than **35** percent the size of the businesses' first floor net internal area (usable floor area), or **400** square feet of living area, or comply with setback requirements listed below, whichever is less. Living area refers to the square footage of livable space and does not include stairwells, hallways, closets, and porches. Net internal area refers to the gross square footage minus floor areas taken up by lobbies, stairs and escalators, mechanical and electrical services, lifts, columns, toilet areas, ducts, and risers. Accessory structures in accordance with the criteria herein, the footprint of which exceed maximum allowable size, are eligible to receive a special use permit from the [*insert governing board name here*].

5. Setbacks for DADUs:

- A DADU should occupy not more than **thirty (30) percent** of a required rear yard.
- No DADU should be located within **five (5)** feet of side and rear lot lines in residential districts.
- No DADU should be located closer to the street than the front yard setback required for principal structure in the district in which such accessory structure may be located, with exceptions noted herein for DADUs on vacant lots.
- For corner lots the setback from the side street should be the same for DADU as for principal buildings, with exceptions noted herein for DADUs on vacant lots.

6. ADUs in residential districts attached to the principal structure should comply in all respects with yard setback requirements applicable to the principal structure.

7. ADUs in nonresidential districts should comply fully with the front and side yard setback requirements for the principal structure to which they are accessory.

8. All ADUs and DADUs on lots with pre-existing residences or business should use the same street access which serves the main dwelling or business (No new driveway or other street access points allowed)

9. In cases where a DADU is proposed on a vacant lot as infill, and the DADU cannot meet required setbacks, the DADU setback may meet the setback requirements of the residence or business that existed there previously, even when those setbacks are less than current zoning regulations require. This may be derived from historical aerial photos or Sanborn Mapping. If this cannot be derived from factual historical sources, the setback will should not be less than those that exist on the sites immediately adjoining, and across the street (if applicable) from the vacant lot, whichever is greatest. DADUs proposed for vacant lots where residences or businesses were not once located should meet the development standards for detached covered accessory structures in the base zone.

Optional Additional Language:

(Modified from: <http://webcms.pima.gov/cms/One.aspx?portalId=169&pageId=61866>)

1.0 Applicability

When the Front yard setback is not reduced to less than twenty feet, side and rear yard setbacks, distances between structures or buildings, or lot coverage limits by *accessory* structures or *accessory* buildings required by this code may be modified by the [insert governing board name here]in accordance with the provisions below. The approval of a modification under this section does not waive or modify building code or fire code regulations.

2.0 Application

Requests for modification of setback requirements or lot coverage limits for *accessory* structures or *accessory* buildings shall be made on application forms provided by the Municipality.

1. The application shall include:
 - a. Legal description,
 - b. Signatures of the property owners of record or the authorized agent of the owner,
 - c. A letter of authorization if the property owner is represented by an agent,
 - d. A sketch plan showing existing and proposed buildings and structures, access, parking, exterior lighting, provisions for drainage, and distances from buildings and structures to property lines and to other buildings and structures,
 - e. An elevation drawing, if determined necessary by the [*insert title of exercising authority i.e. code enforcement officer*], showing the existing and proposed building or structure,
 - f. A statement describing the ability and intent of the property owner to apply for necessary permits within nine months of receiving approval of the modification of the setback requirements or lot coverage limits for *accessory* structures or *accessory* buildings, and
 - g. A statement describing how the proposal complies with the standards in subsection D of this section,
 - h. Any other information reasonably necessary to evaluate the application which is required by the [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*],
 - i. A fee as per subsection G of this section.

3.0 Notice to owners of affected properties

1. Mailed notice including a sketch plan shall be sent to:

- a. Property owners adjacent to the applicant's property,
- b. Property owners within [*insert municipal zoning distance requirement*] of the applicant's property line but separated by a public or private road or private common area, and
- c. Property owners determined by the [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*] to be affected by the request.

2. The [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*] may waive the giving of notice if the applicant submits written consents to the modification signed by all owners of affected property as defined in paragraph 1 above.

4.0 Standards

The [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*] of the setback requirements or lot coverage limits for *accessory* structures or *accessory* buildings only after a finding is made that the following standards have been met:

1. The reduced setback or increased lot coverage by *accessory* structures or *accessory* buildings will not substantially reduce the amount of privacy that would be enjoyed by nearby residences;
2. Significant views of prominent land forms, unusual stands of vegetation, or parks from nearby properties will not be obstructed any more than would occur if the setback was not modified or if the lot coverage limits for *accessory* structures or *accessory* buildings were maintained;
3. Traffic visibility on adjoining streets will not be adversely affected;
4. Drainage from proposed buildings and structures will not adversely affect adjoining properties and public rights-of-way;
5. Proposed buildings and structures will not interfere with the solar radiation orientation of buildings on adjoining properties;
6. The location or lot coverage of proposed buildings and structures, and the activities to be conducted therein, will not impose objectionable noise levels or odors on adjoining properties.

5.0 Action by the [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*]

1. The [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*] shall review all the submitted information and provide a [*insert mechanism of notice, i.e. written response*] to the applicant.

2. The response shall state the reasons for the decision if the request is denied.
3. If granted, building permits may be issued for the building or structure and shall be in accordance with existing Municipal Code.

6.0 Appeals

1. The applicant may elect to file directly to the [insert governing board] for a variance.
2. The applicant may appeal the decision of the [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*] to the [insert governing board] and be heard in accordance with existing City Code .
3. If a protest to a setback modification or a modification to lot coverage limits for *accessory* structures or *accessory* buildings is submitted in writing within fifteen days of the date of the mailing of notice by an owner of affected property as defined in this section, the zoning inspector shall refer the application to the [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*] to be heard in accordance with existing Municipal Code. Protests may be based only upon characteristics of the development that would not be allowed by the zoning code without the modification.
4. The zoning inspector may refer an application to the [*insert municipality zoning authority name here, i.e. Zoning Board of Appeals*].

7.0 Fee

The fee shall be in accordance with the standard fee for variances as specified in the [insert governing board] decision and/or presiding fee schedule.

References:

City of Portland: <https://www.portlandoregon.gov/bds/36676>

MRSC: <http://mrsc.org/Home/Explore-Topics/Planning/General-Planning-and-Growth-Management/Accessory-Dwelling-Units-in-Plain-English.aspx>

Seattle: <http://www.seattle.gov/dpd/permits/commonprojects/motherinlawunits/default.htm>

Pima County: <http://webcms.pima.gov/cms/One.aspx?portalId=169&pageId=61866>

Walensburg, Colorado: <http://tinyhousebuild.com/tiny-houses-walsenburg-co/> and <http://www.chieftain.com/mobile/msearch/2958692-123/homes-tiny-stambaugh-walsenburg>

Olympia, Washington: http://archives.evergreen.edu/mastertheses/Accession86-10MES/Skinner_TMESthesis2011.pdf

Draft code comprised mainly of elements from Portland, Rensselaer, and Pima County, and revised to include elements from the other sources as well as general knowledge.

Gap 5

Gap 5 Shared Parking

(Format: Guideline)

1.0 PURPOSE AND OBJECTIVES. *This language can be inserted in various codes (i.e. zoning, subdivision, design standards) where the codes contain a general provision noting the goals and objectives of the law.*

The standards and requirements of this guideline are intended to reduce the impact on the environment and protect water quality by limiting the amount of impervious areas, protecting natural resources and encouraging natural hydrological conditions to the maximum extent feasible. This guideline is intended to comply with the New York State Department of Environmental Conservation's SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems, (Permit No. GP-0-15-003). Applicants are encouraged to incorporate the principles of Low Impact Development, Better Site Design and other Green Infrastructure measures to meet these goals. The redevelopment of properties that are part of a government approved plan for the clean-up of contaminated properties may be permitted to have larger areas of impervious surfaces where impermeable cover is a requirement of approved remediation and redevelopment plan.

2.0 Shared Parking.

Applicants may and are encouraged to propose shared parking arrangements with other land uses in sufficient proximity if it can be demonstrated that the peak use periods for the respective land uses are complementary and will maximize the use of the parking lots while reducing excessively large parking lots. The Planning Board may accept a shared parking arrangement and determine the size of the parking lot based upon consideration of the following:

- (a) A demonstration of complementary timing of the use of the parking lot so that adequate space is available for each designated use at peak hours and the proximity of the parking lots to each respective use.
- (b) Written binding agreements and crosslot access easements between the landowners for the use of the parking lots and the maintenance thereof. Such agreements should be recorded as deed restrictions for each lot, which should provide that they may not be cancelled without the prior approval of the Planning Board. Legal counsel will be required to produce appropriate legal documentation.
- (c) A determination of the appropriate number of parking spaces for the new development, if the shared parking arrangement will be insufficient to provide adequate parking during peak hours.

3.0 Model - Shared Use Agreement for Parking Facilities

This Shared Use Agreement for Parking Facilities, entered into this ____ day of _____, _____, between _____, hereinafter called lessor and _____, hereinafter called lessee. In consideration of the covenants herein, lessor agrees to share with lessee certain parking facilities, as is situated in the City of _____, County of _____ and State of _____, hereinafter called the facilities, described as: [Include legal description of location and spaces to be shared here, and as shown on attachment 1.]

The facilities should be shared commencing with the ____ day of _____, _____, [and ending on the day of [insert end-date as appropriate]] for [insert negotiated compensation figures, as appropriate]. [The lessee agrees to pay at [insert payment address] to lessor by the ____ day of each month [or other payment arrangements].] Lessor hereby represents that it holds legal title to the facilities

The parties agree:

1. USE OF FACILITIES

This section should describe the nature of the shared use (exclusive, joint sections, time(s) and day(s) of week of usage.

-SAMPLE CLAUSE-[Lessee should have exclusive use of the facilities. The use should only be between the hours of 5:30 PM Friday through 5:30 AM Monday and between the hours of 5:30 PM and 5:30 AM Monday through Thursday.]

2. MAINTENANCE

This section should describe responsibility for aspects of maintenance of the facilities.

This could include cleaning, striping, seal coating, asphalt repair, stormwater management, and more.

-SAMPLE CLAUSE-[Lessor should provide, as reasonably necessary asphalt repair work. Lessee and Lessor agree to share striping, seal coating and lot sweeping at a 50%/50% split based upon mutually accepted maintenance contracts with outside vendors. Lessor should maintain lot and landscaping at or above the current condition, at no additional cost to the lessee.]

3. UTILITIES and TAXES

This section should describe responsibility for utilities and taxes. This could include electrical, water, sewage, and more.

-SAMPLE CLAUSE-[Lessor should pay all taxes and utilities associated with the facilities, including maintenance of existing facility lighting as directed by standard safety practices.]

4. SIGNAGE

This section should describe signage allowances and restrictions.

-SAMPLE CLAUSE-

[Lessee may provide signage, meeting with the written approval of lessor, designating usage allowances.]

5. ENFORCEMENT

This section should describe any facility usage enforcement methods.

-SAMPLE CLAUSE-*[Lessee may provide a surveillance officer(s) for parking safety and usage only for the period of its exclusive use. Lessee and lessor reserve the right to tow, at owners expense, vehicles improperly parked or abandoned. All towing should be with the approval of the lessor.]*

6. COOPERATION

This section should describe communication/relationship.

-SAMPLE CLAUSE-*[Lessor and lessee agree to cooperate to the best of their abilities to mutually use the facilities without disrupting the other party. The parties agree to meet on occasion to work out any problems that may arise to the shared use.]*

7. INSURANCE

This section should describe insurance requirements for the facilities.

-SAMPLE CLAUSE-*[At their own expense, lessor and lessee agree to maintain liability insurance for the facilities as is standard for their own business usage.]*

8. INDEMNIFICATION

This section should describe indemnification as applicable and negotiated. This is a very technical section and legal counsel should be consulted for appropriate language to each and every agreement.

-NO SAMPLE CLAUSE PROVIDED-

9. TERMINATION

This section should describe how to or if this agreement can be terminated and post termination responsibilities.

-SAMPLE CLAUSE-*[If lessor transfers ownership, or if part of all of the facilities are condemned, or access to the facilities is changed or limited, lessee may, in its sole discretion terminate this agreement without further liability by giving Lessor not less than 60 days prior written notice. Upon termination of this agreement, Lessee agrees to remove all signage and repair damage due to excessive use or abuse beyond reasonably expected degradation due to service terms and age. Lessor agrees to give lessee the right of first refusal on subsequent renewal of this agreement.]*

10. SUPPLEMENTAL COVENANTS

This section should contain any additional covenants, rights, responsibilities and/or agreements.

-NO SAMPLE CLAUSE PROVIDED

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date Set forth at the outset hereof.

[Signature and notarization as appropriate to a legal document and as appropriate to recording process negotiated between parties.]

Sample shared Parking Facility Agreement modified from:

<https://www.alexandriava.gov/uploadedFiles/tes/info/2012-04-10%20Del%20Ray%20Appendix.pdf>

Gap 6

Gap 6 – Open Channels and Rooftop Runoff

(Format: Guideline)

1.0 PURPOSE AND OBJECTIVES. *This language can be inserted in various codes (i.e. zoning, subdivision, design standards) where the codes contain a general provision noting the goals and objectives of the law.*

The standards and guidelines of this document are intended to reduce the impact on the environment and protect water quality by directing rooftop runoff into landscaped areas and other infiltration devices and avoiding direct discharge into watercourses or areas that can cause erosion. This law is intended to comply with the New York State Department of Environmental Conservation’s SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems, (Permit No. GP-0-15-003). Applicants are encouraged to incorporate the principles of Low Impact Development, Better Site Design and other Green Infrastructure measures to meet these goals and meet the requirements of the most recent New York State Stormwater Management Design Manual.

2.0 Control of Rooftop Runoff *These provisions can best be inserted in subdivision laws and zoning law sections governing site plan review. In most municipalities, single and two-family homes on existing lots do not require site plan approval so these provisions would be difficult to impose upon new construction of those residences absent a stand-alone law or an expansion of the scope of the zoning law.*

Minimum Action Level

- a. Site Plan Review: All buildings included in any site plan approval, located on sites with Hydrologic Soil Groups A or B as designated by the NRCS online Web Soil Survey, or with locations indicating infiltration capacity of 0.5 inches/hour or greater, should be designed with rooftop stormwater conveyance systems that direct stormwater away from roads, parking lots, and other impervious surfaces, and to vegetated areas with hydrologic soil groups A and B and soils with an infiltration capacity of more than 0.5 inches/hour. In areas of all soil types, temporary ponding of stormwater is permitted in back and side yards so long as such infiltration and ponding will not negatively impact adjacent basements, will not encroach on property lines, and will be of a depth of 6” or less for not longer than 24 hours after the conclusion of a precipitation event or snow melt.
- b. Subdivision Review: All buildings to be constructed in an approved subdivision located on sites with Hydrologic Soil Groups A or B as designated by the NRCS online Web Soil Survey, or with locations indicating infiltration capacity of 0.5 inches/hour or greater, should be designed with rooftop stormwater conveyance systems that direct stormwater away from roads, parking lots, and other impervious surfaces and to vegetated areas with hydrologic soil groups A and B and soils with an infiltration capacity of more than 0.5 inches/hour. In areas of all soil types, temporary ponding of stormwater is permitted in back and side yards so long as infiltration and ponding will not negatively impact adjacent basements, will not encroach on property lines, and will be of a depth of 6” or less for not longer than 24 hours after the conclusion of a precipitation event or snow melt.

Best Management Action Level

In addition to the guidelines above, Municipalities may include some or all of the following considerations to achieve a higher level of best management practices.

- a. Rooftop runoff should be diverted to: a series of rain barrels (or similar rainwater harvesting container); a grassed or vegetated area; a rain garden; a vegetated open channel; an infiltration trench or basin, a pervious surface or a combination of the above or similar measures where adjacent basements will not be negatively impacted by the volume and/or direction of infiltrated stormwater. All measures should be designed in accordance with the most recent New York State Stormwater Management Design Manual and/or green infrastructure standards adopted by the Municipality for projects disturbing less than one acre.
- b. New development or redevelopment of a site that incorporates a blue (water retaining) roof, or a green (vegetated) roof, or other building or site features that are designed so that off-site flow of the first one inch of rainfall during the first 24 hours after rainfall ends is reduced by at least 50 percent should receive the following benefits:

The project may increase the maximum impervious lot coverage on the site by **20** percent; and

The project may increase the maximum height of any primary building (or part of a primary building) located more than 100 feet from a Residential zoning district by one story or 13 feet, whichever is less.

Model Community Action Level

In addition to the guidelines for the Minimum Action Level and the Best Management Action Level, Municipalities may include some or all of the following considerations to achieve the highest level of best management practices.

- a. For all applications for site plan approval, the [municipality] encourages applicants to consider installing Green roofs on all new commercial and multi-family residential structures and on non-enclosed covered areas of **100** square feet or larger. Non-enclosed covered areas include parking structures, covered picnic areas and covered courtyards.
- b. When an applicant provides a green roof on a new or renovated building and the green roof encompasses at least **80%** of the available rooftop area, (excluding the area occupied by mechanical equipment, skylights, vents and other required appurtenances) the applicant should be entitled to a density bonus up to **20%** of the applicable Floor Area Ratio (FAR), lot coverage limits or height restriction without requiring a variance and provided the building complies with all setback requirements.
- c. In order to remain eligible for the incentives described above, buildings with green roofs must have a maintenance plan that is recorded with the municipality and filed with the deed. Green roofs must be inspected annually by a qualified inspector and the inspection reports must be filed with the municipality within two weeks of the date of the inspection.

Gap 7

Gap 7 Parking Lot Design - Ratios

(Format: Code)

1.0 PURPOSE AND OBJECTIVES. *This language can be inserted in various codes (i.e. zoning, subdivision, design standards) where the codes contain a general provision noting the goals and objectives of the law.*

The standards and requirements of this law are intended to reduce impacts on the environment and protect water quality by limiting the amount of impervious areas, encouraging conversion of existing impervious surfaces to various forms of permeable surfaces, protecting natural resources and maintaining natural hydrological conditions. This law is intended to comply with the New York State Department of Environmental Conservation's SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems, (Permit No. GP-0-15-003). Applicants are encouraged to incorporate the principles of Low Impact Development, Better Site Design and other Green Infrastructure measures to meet these goals. The redevelopment of properties that are part of a government approved plan for the clean-up of contaminated properties may be permitted to have larger areas of impervious surfaces where impermeable cover is a requirement of approved remediation and redevelopment plan.

2.0 PARKING RATIOS. *This language is an example of off-street parking ratios. The ratios themselves may be adapted for local conditions and experience. The identified land uses should be used only as a guide and should be conformed with the language used in the schedule of uses included in the municipality's own zoning law for consistency.*

Minimum Action Level

2.1 Determination of Required Off-Street Parking Spaces.

In computing the number of parking spaces required by this law, the following rules shall apply:

- (a) Where floor area is designated as the standard for determining parking space requirements, floor area shall be the sum of the gross horizontal area of all the floors measured from the exterior faces of the building.
- (b) Where seating capacity is the standard for determining parking space requirements, the capacity shall mean the number of seating units installed or indicated, or when fixed seats are not indicated, a value shall be applied using the Fire Marshall's limitation on occupancy. This value shall be used to determine the number of seats against which to determine required parking spaces.
- (c) Where employees are the standard for determining parking space requirements, employees shall mean the maximum number of employees on any two (2) successive shifts.
- (d) Fractional numbers shall be increased to the next whole number.

- (e) The parking spaces required for mixed uses shall be the sum of the parking required for each use considered separately.
- (f) Parking spaces within parking lots or structures may be installed with electric automobile charging stations, including models that charge by solar energy. Such charging station spaces may count toward parking requirements.

Number of Parking Spaces Required

The minimum required number of off-street parking spaces for each facility or use shall be determined by application of the standards noted in Schedule A. For a use not specified in Schedule A, the Planning Board shall apply the standard for a specified use which the Board determines to be most similar to the proposed use.

Schedule A Required Off-Street Parking Spaces			
		Single-family dwellings ^a	2 spaces, of which any new enclosed spaces shall be equipped with a green roof.
		Two-family dwellings ^a	2 spaces for each dwelling unit, of which any new enclosed spaces shall be equipped with a green roof.
		Townhouses ^a	2 spaces for each dwelling unit, of which any new enclosed spaces shall be equipped with a green roof.
		Apartments ^a	2 spaces for each dwelling unit, of which not less than 1 space per unit shall be enclosed. Covered structures with 5 or more parking spaces shall be equipped with a green roof.
		Senior citizen apartments ^a	1 space for each unit, plus 1 space for each space for every 5 units for guest parking.
		Lodging house, boarding houses	1 space for each bed.
		Dormitories, sororities and fraternities	1 space for each 3 persons based on the maximum capacity as established in the Housing Code.
		Nursing homes	1 space per 3 beds
Office, Professional Service Uses^b:			
		Business, professional and administrative offices and services (excluding medical and dental)	1 space for each 300 sq. ft. of floor area.
		Medical, dental offices and clinics, including urgent care clinics	1 space for each 200 sq. ft. of floor area

Schedule A			
Required Off-Street Parking Spaces			
		Financial establishments	1 space for each 300 sq. ft. of floor area.
		Animal clinic, veterinary office	1 space for each 300 sq. ft. of floor area.
		Funeral homes, mortuaries	1 space for each 50 sq. ft. of floor area in parlors or service rooms.
		Hospitals	2 spaces per room
Retail/Service Uses^b:			
		Retail or business uses permitted in any C District, unless specific standards given below	1 space for each 300 sq. ft. of floor area
		Furniture and appliance; retail nursery garden supply, establishments	1 space for each 500 sq. ft. of floor area
		Restaurants; bars; taverns; night clubs	1 space for each 300 sq. ft. floor area (outdoor dining area excluded)
		Hotels and motels	5 spaces plus 1 space for each sleeping room or suite
Automotive Uses^b:			
		Auto sales; new and used, auto, truck, boat sales, rental facilities	1 space for each 500 sq. ft. of floor area (indoor area only)
		Gasoline stations	0.5 spaces per pump +1 per 500 sq. ft. of accessory retail area
		Car wash facilities	1 space per bay plus sufficient area for stacking spaces
		Automobile service stations - major repair	4 spaces per bay
		Automobile service station - minor repair	4 spaces per bay
Commercial Entertainment/Recreation Uses^b:			
		Bowling alleys	4 spaces per each lane.
		Game rooms	1 space for each billiard table or amusement device
		Skating rinks	1 space per 200 sq. ft. of floor area
		Indoor movie theaters, auditorium and other public assembly places	1 space for every 4 seats for first 400 seats then 1 space per 10 seats
		Golf course	4 spaces per hole

Schedule A Required Off-Street Parking Spaces			
		Tennis or racquet ball court	2 spaces per court
		Indoor or outdoor swimming pools, public or private	1 space per 200 sq. ft. of water area.
		Health, fitness, recreation club	1 space for every 200 sq. ft. of exercise area, including locker room, and equipment room.
General Commercial Uses^b:			
		Printing, publishing, storage and warehousing of goods	1 space for each 800 sq. ft. of floor area.
		Research and testing laboratories	1 space for each 400 sq. ft. of floor area.
Educational Facilities:			
		junior high schools, elementary schools and kindergartens	2 spaces per classroom +1 space per 15 seats in largest assembly hall
		Neighborhood high schools	1 for each faculty member, plus 1 for each 3 staff members, plus 1 for each 10 students
		Regional high schools	3 spaces per every 10 students.
		Colleges, universities	10 spaces for every classroom
		Child Day Care Centers, nursery schools and similar uses	1 space for each staff person or employee plus a minimum of 2 pick-up/drop-off spaces
Community Facilities:			
		Places of worship	1 space for every 4 seats
		Community center, library, museum or similar public or private semi- public building	1 space for every 4 seats or for each 300 sq. ft. of floor area, whichever is greater.
		Shopping Center^c	1 space per 250 sq. ft. of leasable floor area.

Notes to Schedule A:

- (a) All existing lots of record of a single-family and two-family dwelling that does not meet the minimum lot area or lot width requirements of the district are permitted to provide fewer parking spaces if the Zoning Administrator verifies that construction of a code-conforming parking ratios cannot be accommodated on the site. The site must meet one (1) or more of the following standards:
- (i) The maximum rear yard coverage limitation would be exceeded with the construction of required parking.
 - (ii) The maximum lot coverage or impervious surface limitation would be exceeded with the construction of required parking. This standard applies only if the proposed new-construction principal building will exceed the minimum floor area of a dwelling unit by no more than ten percent (10%).

The applicant may alternatively provide a green roof on the two-car detached garage, the surface area of which shall be, at a minimum, equal to the square footage by which the structure exceeds the impervious surface limitation.

- (iii) The previously existing residential development provided less parking than what is required by this code.
 - (iv) Special conditions peculiar to the land or structure which are not applicable generally to other lands or structures in the same Zoning District render code-conforming parking impractical or unnecessary.
- (b) A minimum of five (5) spaces is required unless provisions are made for shared parking or the Planning Board approves a lower figure based upon a proper demonstration of parking needs by the applicant.
 - (c) For the purposes of this section, a neighborhood shopping center shall include one (1) or more multi-tenant building and/or a group of buildings when the required parking spaces are provided in a shared parking lot, parking deck or parking garage.

2.2 Maximum Off-Street Parking.

The following vehicle parking space maximums are applicable to all surface parking lots for multi-family, non-residential, and mixed-use development uses:

- (a) Surface parking areas may not exceed one hundred and twenty percent (120%) of the required minimum number of vehicle parking spaces, unless such parking area is constructed of permeable material (see condition b). A request to exceed the minimum number of vehicle parking spaces must be supported with adequate documentation to justify an increase over the minimum number of spaces.
- (b) For every three (3) parking spaces constructed of pervious pavement,, one (1) additional pervious pavement parking space may be added without documenting the need for exceeding the minimum parking space requirements of Schedule A. The total number of parking spaces, both pervious and impervious, may not exceed 120% of the minimum requirement without providing the documentation to support the need for more parking spaces.
- (c) For surface parking areas that require a minimum of thirty (30) or more spaces, when the minimum number of vehicle spaces required by Schedule A is exceeded, the area used for additional spaces must be paved with pervious material, such as permeable pavers, porous asphalt, porous concrete, grass-crete or gravel-crete. The area designated for pervious parking shall be located at the perimeter of the parking lot, and if possible, remote or furthest removed from the principal building.
- (d) Existing surface parking areas that exceed the parking maximums must come into conformance with the maximum number of parking spaces when the following occurs:
 - (1) A new principal building is constructed on the site.

- (2) Over fifty percent (50%) of the total area of an existing parking lot is rebuilt or repaved.
- (e) When surface parking areas exceed the number of spaces permitted by this section and are required to come into conformance, the excess spaces must be converted into any combination of the following:
 - (1) The spaces are landscaped, as required by this Zoning Ordinance.
 - (2) Subject to review by the Planning Board during site plan approval, existing excess spaces may be converted to bicycle, motorcycle, and/or scooter parking spaces. If no longer used as bicycle, motorcycle, and/or scooter spaces, those spaces must be converted into landscape, as required by this Zoning Ordinance.
 - (3) The spaces are utilized for green infrastructure stormwater management measures.

Best Management Action Level

2.3 Proximity to Mass Transit.

- (a) Where a project is located within three (3) miles of a CDTA bus stop, the applicant is strongly encouraged to provide bike racks or lockers. If bike racks are proposed, the racks should be covered if practicable. This does not apply to single-family residences.
- (b) Where a project is located within a quarter of a mile (0.25 miles) from a CDTA bus stop, and covered bike racks are provided on-site, the applicant may propose to reduce the minimum number of parking spaces provided in Schedule A by up to 25%.
- (c) Where a project is located within a quarter of a mile (0.25) from a Park & Ride parking lot, the applicant may propose to reduce the minimum number of parking spaces provided in Schedule A by up to 25%.

2.4 Credit for On-Street Parking.

Upon a demonstration from an applicant, and approval by the Municipality, that there will be adjacent, on-street publicly available parking and that such spaces are underutilized, that applicant may include said spaces in its count for minimum required off-street parking.

Model Community Action Level

2.5 Reduction of Minimum Off-Street Parking for Certain Residential Uses.

Upon the request of an applicant, the minimum number of parking spaces in Schedule A may be reduced by up to 25% for housing units dedicated for affordable housing and senior housing upon a demonstration that the minimum number in Schedule A is unnecessary and will not cause congestion in the parking lot or adjacent on-street parking. In approving any reduction in parking, the Planning Board shall consider whether the applicant is providing the off-street parking in garages and, if so, shall determine if sufficient storage space is included for each unit

to avoid occupants from using the garage for storage of personal items such that this use precludes full utilization of the parking space as intended.

2.6 Land Banked Parking.

Land banking allows for designating a portion of land on a site that would be required for parking to be held and preserved as landscape, rather than constructed as parking. The Planning Board may permit land banking of up to thirty percent (30%) of the maximum allowed parking spaces, subject to the following:

- (a) Evidence is provided by the applicant that supports the reduced parking needs.
- (b) The area proposed for land banking of parking spaces must be an area suitable for parking at a future time.
- (c) Landscaping of the land banked area must be in full compliance with this law and, at a minimum, be decompacted and landscaped with native vegetation and may not be used as a stormwater management area.
- (d) The land banked area cannot be used for any other use and must be a contiguous part of the same zoning lot and all under the same ownership.
- (e) As part of the site plan review process, the applicant must show the area to be banked on the site plan and marked as "Land Banked Future Parking."
- (f) The Code Enforcement Officer, upon a determination of parking demand for the use, may require the conversion of all or part of the land banked area to off-street parking spaces. Where a property owner disagrees with a determination by the Code Enforcement Officer, that determination may be reviewed by the Zoning Board of Appeals pursuant to Sec. _____

3.0 Compact Parking Spaces

Minimum Action Level

- (a) Parking stalls shall have a maximum width of 9' and a maximum length of 18' with the exception of a limited number of stalls designated for buses, delivery trucks not using loading docks or designated shopping cart carrels.

Best Management Action Level

- (b) A minimum of 10% and a maximum of **30%** of the parking spaces shall be designed and designated for compact cars and motorcycles. Compact car spaces shall be 8.5' wide and 16' feet deep. Motorcycle spaces shall be 4.5' wide and 10' deep. The location of these spaces shall be determined in a manner that facilitates their use by the intended vehicles and discourages their use by larger vehicles and signage included designating their appropriate use.

Model Community Action Level

The following requirements for bicycle parking spaces are applicable to any use where a new non-residential or multi-family building is constructed on the premises or when a new addition of **20,000 sf** or more is made to an existing non-residential or multi-family building.

- (a) Required Number of Bicycle Parking Spaces.
 - (1) Where off-street parking facilities are provided, the number of bicycle parking spaces must be provided as required by Schedule B: Required Bicycle Parking Spaces. All uses listed within Schedule B are required to provide short-term bicycle parking spaces, which are areas where bicycles will be left for short stops, requiring a high degree of convenience. Structures must be provided that permit bicycle users to secure the bicycles against theft. Certain uses listed within Schedule B require a percentage of the required bicycle parking spaces to provide long-term bicycle parking spaces, where bicycles will be left for longer periods of time, and require a safe and weather-protected storage area.
 - (2) In all cases where bicycle parking is required, a minimum of two (2) bicycle spaces are required.
 - (3) After the first thirty (30) required bicycle parking spaces are provided, additional bicycle parking spaces are required at one-half (1/2) space per unit listed in Schedule B.
 - (4) When a use is exempt from vehicle parking requirements by this Zoning Ordinance, the use is also exempt from the requirements for bicycle parking spaces.
 - (5) Shower and locker facilities for bicyclists are required for offices, universities/colleges and hospitals over twenty-five thousand (25,000)

square feet in gross floor area (GFA) of structure. Lockers for clothing and other personal effects must be located in close proximity to showers and dressing areas to permit access to the locker areas by either gender. A minimum of one (1) clothes locker is required for each long-term bicycle parking space provided.

Schedule B Required Bicycle Parking Spaces		
Use	Required Bicycle Spaces	Required Percentage of Long-Term Spaces
Multi-Family Dwelling	1 per 4 dwelling units	80% required long-term
Dormitory; Fraternity/Sorority	1 per 4 beds	80% required long-term
Retail/Service Establishments Over 10,000sf in GFA	1 per 2,500sf GFA	
Offices Over 10,000sf in GFA	1 per 5,000sf GFA	50% required long-term
Entertainment/Recreation Facilities Over 10,000sf in GFA	1 per 5,000sf GFA	
Junior high schools, elementary schools and kindergartens	2 per classroom	
High Schools	3 per classroom	
Colleges and Universities	1 per 5,000sf GFA	50% required long-term
Places of Worship Over 10,000sf in GFA	1 per 5,000sf GFA	
Hospitals	1 per 25 beds	50% required long-term
Community Facilities	1 per 2,500sf GFA	

(b) Location of Bicycle Parking Spaces.

- (1) The bicycle parking area must be convenient to building entrances and street access, but may not interfere with normal pedestrian and vehicle traffic. For passive security purposes, the bike parking shall be well-lit and clearly visible to building occupants or clearly visible from the street.
- (2) Bicyclists must not be required to travel over stairs or other obstacles to access bicycle parking.
- (3) All required bicycle spaces must be located on the same lot as the use or within fifty (50) feet of the lot when on private property. The property

owner may also make suitable arrangement with the municipality to place bike parking spaces in the public right-of-way. Parking in the public right-of-way must be within fifty (50) feet of the subject lot.

- (4) Short-term bicycle parking spaces must be located no more than fifty (50) feet from the principal building entrance and at the same grade as the sidewalk or an accessible route.
- (5) Long-term bicycle parking spaces must be located in a covered area that is easily accessible from the public-right-of-way and building entrances. The area must comply with one (1) of the following secure locations:
 - (i) Enclosed in a locked room.
 - (ii) Enclosed by a fence with a locked gate.
 - (iii) Located within view or within one-hundred (100) feet of an attendant or security guard.
 - (iv) Located in an area that is monitored by a security camera.
 - (v) Located in an area that is visible from employee work areas.
- (6) Required bicycle parking for residential uses may be provided in garages, storage rooms and other resident-accessible, secure areas. Space within dwelling units or on balconies, decks, or patios are not counted toward satisfying bicycle parking requirements.

(c) Design of Bicycle Parking Spaces.

- (1) Required bicycle spaces must have a minimum dimension of two (2) feet in width by six (6) feet in length, with a minimum overhead vertical clearance of seven (7) feet. Each required bicycle parking space must be accessible without moving another bicycle. There must be an aisle at least (five) 5 feet wide between each row of bicycle parking to allow room for bicycle maneuvering.
- (2) The area devoted to bicycle parking must be surfaced as required for vehicle parking areas, which includes the use of pervious materials.
- (3) All long-term bicycle parking spaces must be covered, which can be achieved through use of an existing overhang or covered walkway, weatherproof outdoor bicycle lockers or an indoor storage area. Where bicycle parking is not located within a building or locker, the cover design must be of permanent construction, designed to protect bicycles from rainfall and with a minimum overhead vertical clearance of seven (7) feet.
- (4) Bicycle parking facilities must provide lockable enclosed lockers or racks, or similar structures, where the bicycle may be locked by the user. Racks must support the bicycle in a stable position. Structures that require a user-supplied locking device must be designed to easily allow a high-security U-shaped lock to secure the bike frame and one wheel while both wheels are still on the frame's brackets. All lockers and racks must be securely anchored to the ground or a structure to prevent the racks and lockers from being removed from the location.

- (5) If required bicycle parking facilities are not visible from the street or principal building entrance, signs must be posted indicating their location.

Gap 8

Gap 8 – Density

(Format: Code)

1.0 Definitions

Infill: Infill refers to new development on vacant, bypassed, and underutilized land within built-up areas of existing communities, where utilities and infrastructure is generally already in place. Infill also includes redevelopment of lots meeting the same conditions.

Lot Coverage: Coverage of the lot by structures and accessories, both pervious and impervious in nature, such as buildings, sheds, roofs, greenhouses, pools, constructed ponds, sidewalks, driveways, surface parking, playgrounds, public parks and community gardens, cottages, alleys, accessory dwelling units, green infrastructure (rain gardens, vegetated swales, infiltration planters, tree pits, etc).

2.0 Purpose

To encourage increased density in areas where municipal infrastructure and community context generally already exist, and where development will not cause or contribute to urban sprawl or creation of additional municipal infrastructure systems that may spur urban sprawl or cause undue burden on the municipality.

3.0 Language

Minimum lot coverage on infill sites shall be 50% of the maximum lot coverage requirements as prescribed in [insert municipal name] Zoning Code. Lot coverage for infill sites shall adhere to the definition provided herein, which includes green structures and amenities designed for public use as well as green infrastructure measures designed for stormwater management. Where other [insert municipality name here] code(s) provides density bonuses for implementation of green infrastructure and smart growth principles, those bonuses shall be honored.

4.0 Exceptions

Where none exist, minimum lot coverage requirements for detached dwelling units located on infill sites shall be 40% the maximum lot coverage requirements in the base zone.