BEFORE THE BOARD OF COMMISSIONERS OF LANE COUNTY, OREGON

ORDINANCE NO: 23-08	In the Matter of Amending Lane Code 10.600-15 to Co-Adopt Amendments to the Springfield Development Code to Implement the Parking Component of the Climate Friendly and Equitable Communities Rules, to Comply with Oregon's Department of Environmental Quality (DEQ) Requirements for the City to Regulate Post-Construction Site Runoff and Minimize Barriers to Low Impact Development and Green Infrastructure Under the City's MS4 Permit, and to Make Minor Changes to Correct Errors and Provide Clarification on Code Language that was Adopted as Part of the 2022 Development Code Update Project (File No. 509-PA23-05416 / City File No. 811-23-000125-TYPE 4; File No. 509-PA23-05415 / City File No. 811-23-000124-TYPE 4; and File No. 509-PA23-05422 / City File No. 811-23-000126-TYPE 4).

WHEREAS, on November 24, 1986, the Lane County Board of Commissioners enacted Ordinance No. 16-86 to adopt the City of Springfield land use regulations for urbanizable lands within the Springfield Urban Growth Boundary in accordance with an urban transition agreement with the City of Springfield; and

WHEREAS, that urban transition agreement provides for joint development and adoption of land use regulations applicable to the urbanizing area within the Springfield Urban Growth Boundary; and

WHEREAS, amendments to Lane Code Chapter 10.600-15 are necessary for the City of Springfield implement concurrent amendments to the Floodplain Overlay District of the Springfield Development Code within the urbanizing area within the Springfield Urban Growth Boundary; and

WHEREAS, the Lane County Planning Commission and City of Springfield Planning Commission reviewed the proposal in a joint public hearing held on August 1, 2023, held a continued hearing and deliberations on September 5, 2023, and provided an Order and recommendation of approval of the proposed code amendments to the Springfield City Council and the Board of County Commissioners; and

WHEREAS, the Springfield City Council and the Board of County Commissioners have conducted a joint public hearing on November 6, 2023; and

WHEREAS, the Board of County Commissioners deliberated on December 12, 2023, and is now ready to take action.

NOW, THEREFORE, the Board of County Commissioners of Lane County **ORDAINS** as follows:

1. The provision of the Springfield Development Code, as adopted by Lane County Ordinance No. 16-86 and amended by Lane County Ordinance Nos. 5-89, 18-90, 9-91, 13-91, 14-92, 5-93, 13-94, 3-97, 7-99, 10-00, 13-04, 2-05, 2-06, 16-07, 4-09, 7-11, 3-12, 13-05, 13-07, 14-13, 14-15, 16-05, 18-06, 19-05, 21-08 and 22-03 are hereby further amended to include amendments as depicted in **Exhibit A** (City Ordinance No.'s 6464, 6465 and 6466) incorporated by this reference. These amendments are adopted and incorporated herein by this reference for application to the urbanizable lands within the Springfield Urban Growth Boundary and are not codified into Lane Code.

2. Chapter 10 of Lane Code is hereby amended by removing and inserting the following sections:

REMOVE THESE SECTIONS	**INSTERT THESE SECTIONS**
10.600-15 As located on page 10-816 (a total of 1 page)	10.600-15 As located on page 10-816 (a total of 1 page)

Said section is attached hereto as **Exhibit B** and incorporated herein by this reference. The purpose of this substitution and addition is to amend Lane Code Chapter 10 to include reference to this Board of County Commissioner's action adopting amendments to the City of Springfield land use regulations to be applied by the City of Springfield on urbanizable lands within the Springfield Urban Growth Boundary.

3. The Findings of Fact attached as **Exhibit C** and incorporated by this reference are adopted in support of the above amendments.

If any section, subsection, sentence, clause, phrase, or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion constitutes a separate, distinct and independent provision, and such holding does not affect the validity of the remaining portions hereof.

Nothing herein is intended to, nor acts to amend, replace, or otherwise conflict with any other ordinances of Lane County or any other Code or statutory provisions unless expressly so stated.

Ordinances, Lane Code sections, and regulations amended by this Ordinance remain in force to authorize a punishment, penalty or forfeiture incurred, or a suit, prosecution, or proceeding pending when the amendment takes effect, for an offense or violation committed under the amended Ordinance, code section, or regulation prior to the effective date of this Ordinance.

ENACTED this 12th day of December, 2023

Pat Farr, Chair
Lane County Board of Commissioners

Recording Secretary for this Meeting of the Board

CITY OF SPRINGFIELD, OREGON
ORDINANCE NO. 6464 (GENERAL)

AN ORDINANCE AMENDING THE SPRINGFIELD DEVELOPMENT CODE RELATED TO POST-CONSTRUCTION SITE RUNOFF AND STORMWATER MANAGEMENT FOR NEW DEVELOPMENT AND REDEVELOPMENT, ADOPTING A SAVINGS CLAUSE AND A SEVERABILITY CLAUSE, AND PROVIDING AN EFFECTIVE DATE

WHEREAS, the City of Springfield is subject to the National Pollutant Discharge System (NPDES) Phase II permit regulations for Municipal Separate Storm Sewer Systems (MS4), administered by the Oregon Department of Environmental Quality (DEQ) via the MS4 Modified General Permit (MS4 Permit), effective March 1, 2019, as modified March 21, 2021;

WHEREAS, DEQ issued the City of Springfield MS4 Permit on June 1, 2021, and the permit expires February 28, 2024;

WHEREAS, the MS4 Permit requires the City of Springfield to address six minimum control measures, including Post-Construction Site Runoff for New Development and Redevelopment;

WHEREAS, the City of Springfield has existing land use regulations for post-construction site runoff implemented through the Springfield Development Code (SDC), which was originally adopted on May 5, 1986, and has subsequently adopted amendments thereto by ordinance;

WHEREAS, the City Council finds it in the public interest to amend the Springfield Development Code consistent with the MS4 Permit and ensure that the City can regulate post-construction site runoff for new development and redevelopment as needed to comply with the MS4 Permit,

WHEREAS, the Springfield and Lane County Planning Commissions conducted a joint public hearing on the Springfield Development Code amendments on August 1, 2023, which was continued to September 5, 2023, and forwarded recommendations to the Springfield City Council and Lane County Board of Commissioners to approve the proposed amendments;

WHEREAS, the Springfield City Council held a joint public hearing with the Lane County Board of Commissioners on these amendments on November 6, 2023, and is now ready to act based upon the above recommendations and evidence and testimony already in the record and the evidence and testimony presented at the joint elected officials' public hearing; and

WHEREAS, timely and sufficient notice of the public hearings have been provided according to SDC 5.1.615, ORS 227.186 ("Ballot Measure 56" notice), and OAR 660-018-0020;

WHEREAS, substantial evidence exists within the record to demonstrate that the Springfield Development Code amendments meet the requirements of the Springfield Comprehensive Plan, Metro Plan, Springfield Development Code, Lane Code, and applicable state and local law as described in the findings attached as Exhibit B,

NOW, THEREFORE, THE COMMON COUNCIL OF THE CITY OF SPRINGFIELD ORDAINS AS FOLLOWS:

Section 1. The Springfield Development Code is amended as provided in Exhibit A, which is

attached hereto and incorporated herein by reference.

Section 2. The findings set forth in Exhibit B are adopted in support of this ordinance.

Section 3. Construction of Ordinance. In amending the Springfield Development Code, it is not the intent of the City of Springfield to create new land use regulations that give rise to Ballot Measure 49 claims or similar claims. In the event that a land use regulation amended as described herein is capable of two interpretations, one which may give rise to a claim for compensation pursuant to ORS 195.300 to 195.336 or similar claims, and one which does not, the land use regulation must be interpreted in a way that does not give rise to said claim.

Section 4. Savings Clause. Except as specifically amended herein, the Springfield Development Code will continue in full force and effect. The prior code and land use regulations repealed or amended by this Ordinance remain in full force and effect to authorize prosecution of persons in violation thereof prior to the effective date of this ordinance.

Section 5. Severability Clause. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is, for any reason, held invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portion hereof.

Section 6. Effective Date. The effective date of this Ordinance is as provided in the Chapter IX of the Springfield Charter and Section 2.110 of the Springfield Municipal Code, 30 days from the date of passage by the Council and approval by the Mayor; or upon the date that an ordinance is enacted by the Lane County Board of Commissioners approving the same amendments as described in Section 1 of this Ordinance; or upon acknowledgment of this ordinance under ORS 197.625; whichever occurs last.

ADOPTED by the Common Council of the City of Springfield this **20** day of **November**, **2023**, by a vote of **5** for and **0** against. **(1 Absent - Blackwell)**

APPROVED by the Mayor of the City of Springfield this **20th** day of **November**, **2023**.

Mayor

ATTEST:

City Recorder

REVIEWED & APPROVED
AS TO FORM
Kristina Kraaz
DATE: 11/20/2023
SPRINGFIELD CITY ATTORNEY'S OFFICE

Amendments to the Springfield Development Code to Incorporate Stormwater Permit Requirements

AMENDMENTS
Various Sections of the Springfield Development Code (SDC) are amended to remove barriers to Low-Impact Development and define stormwater terms. SDC 4.3.110 has been re-organized to more closely match the structure and requirements of the MS4 Permit. The proposed amendments are shown in legislative format (deleted text with strike-thru red font and new text with double underline red font). For ease of review, this legislative format does not show where code language was moved from one place to another. Commentary is shown *in purple italics font*, preceding the text to which it is referring.

3.2.450 CI District—Design Standards

Commentary: *The recommendation to amend this section comes from the City of Springfield Stormwater Facilities Master Plan (2008) which proposed that the code be amended to allow vegetated stormwater quality features in the landscaping. Consistent with the MS4 Permit, vegetation may be permitted within structural stormwater controls.*

In the CI District, new buildings; expansions of, or additions to existing buildings; or improvements to existing façades that require a building permit shall provide architectural designs that encourage flexibility and innovation in site planning by complying with the following on-site design standards:

(B) **Landscaping.** The following landscaping standards are in addition to standards specified in SDC 4.4.105:

(1) A minimum of 35 percent of each development area shall be landscaped open space.

(2) Plants shall be sized to attain 90 percent coverage of required landscape areas (excluding tree canopies), within 3 years of installation. Plantings of native species and plant communities shall achieve 90 percent coverage within 5 years of installation.

(3) At least 10 percent of the interior of a parking lot having 20 or more parking spaces shall be landscaped. This standard is in addition to any landscaping setbacks required in SDC 3.2.420.

(4) Natural assets identified in the Gateway Refinement Plan, any other applicable refinement plan or elsewhere in this Code shall be included in the site design and protected. Where protection of these natural assets prevents the development of the site consistent with this Code, the functional equivalent of the natural assts may be substituted as may be allowed by the City.

(5) Vegetation within a structural stormwater control that complies with SDC 4.3.110 may be counted toward the minimum landscaping requirements of this section.

3.2.625 Mixed-Use District Development Standards—General.

Commentary: *The recommendation to amend this section comes from the City of Springfield Stormwater Facilities Master Plan (2008) which proposed that the code be amended to allow vegetated stormwater quality features in the landscaping. Consistent with the MS4 Permit, the City must encourage the use of Low Impact Development stormwater facilities. The word "shall" was replaced with "must" to clarify that the requirements are mandatory.*

Mixed-use zoning districts require special attention to building design because of the intermixing of land uses and higher intensity of development that can occur in these areas. The standards below implement commonly accepted design principles with the goal to achieve more attractive, functional and pedestrian oriented design. Not every case and circumstance is anticipated by these standards, nor is it the goal of this section to prescribe every design detail of development. It is expected that the Springfield development community will apply their own design creativity to build on these principles and create attractive, livable, and viable projects. The standards below provide an objective framework for achieving the desired goal of attractive, pedestrian oriented development. Developers may choose to meet these standards as prescribed, or they may propose other design ideas which are equal or superior to a particular standard in meeting the design objectives in subsections (A) through (G), below. Where developers request an exemption from a stated standard, it is their responsibility to propose an alternative design and to demonstrate to the Director that it is equal or superior to the stated standard. The Director has the authority to authorize an exception to these standards and determine the acceptability of an alternative design the developer proposes. When developers propose alternative designs that are not acceptable to the Director, they may appeal the decision as specified in SDC 5.3.115.

(D) Landscaping and Screening.

(1) **Intent.** Landscaping is intended to compliment built forms within a development area, softening and providing visual relief and contrast to buildings, sidewalks, parking lots, and provide opportunities for stormwater controls including Low Impact Development. Trees, as part of a landscaping plan, ~~shall~~ must provide shade for pedestrian comfort as well. The installation of landscaping ~~shall~~ must be accomplished in a manner that assures that planted stock receives adequate irrigation. Screening is intended to compliment a development area by shielding trash receptacles, storage areas and other unsightly facilities from public view within the development area.

(a) Mixed-use developments ~~shall~~ must provide landscaping and screening in accordance with SDC ~~4.4.100~~ 4.4.105 and 4.4.110 and the following standards:

(b) Street trees ~~shall~~ must be required consistent with SDC 4.2.140. Species ~~shall~~ must be compatible with the design features specified in subsection (G), below and ~~shall~~ must provide continuity with nearby landscaping. The Director may grant a 1-for-1 reduction in the number of street trees required when a development preserves healthy, mature trees located

within 10 feet of the sidewalk. Required street trees ~~shall~~ must be placed in planter strips between sidewalks and curbs as specified in SDC 4.2.135 and 4.2.140, or in individual tree pits. If individual tree pits are utilized, each pit ~~shall~~ must be a minimum of 64 square feet per tree, with a minimum width of 4.5 feet.

(2) Screening of parking areas, drives, mechanical equipment and trash receptacles ~~shall~~ must meet ~~be as specified in~~ SDC 4.4.110. In addition:

(a) No trash receptacles ~~shall be~~ are allowed within the front setback areas abutting residential districts.

(b) All ground-mounted utility equipment not installed underground ~~shall~~ must be placed to reduce visual impact or screened with walls or landscaping.

(c) Notwithstanding the timelines specified in SDC 4.4.105, plants ~~shall~~ must be sized to attain 50 percent coverage in 2 years and 100 percent coverage in 4 years.

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Drinking Water Protection Overlay District

Commentary: *The Drinking Water Protection Overlay District was amended with the input of Springfield Utility Board's Drinking Water Source Protection Coordinator and the City of Springfield Stormwater Facilities Master Plan (2008). Amendments allow an exception to the prohibition of dry wells for roof drainage, to prohibit permeable pavements in the 0-1 year time of travel zone, to clarify an exemption for the use of materials including liquid fuel for generators, clarified terms throughout 3.3.200, and to prohibit stormwater infiltration in a 100' buffer around wellheads per guidance from Oregon Health Authority. The applicability of the DWP Overlay standards in SDC 3.3.235 was revised to clarify that – even when no DWP Overlay permit application is required – development must comply with any applicable requirements of the overlay district. For instance, infiltration facilities within 100 feet of a wellhead would be prohibited even if a development did not otherwise trigger the need for a DWP Overlay permit.*

Note: The exception to 3.3.230(B)(3) was revised so that it would not nullify (B)(9)'s regulatory exemption for emergency generators. The EXCEPTION language was moved to apply under (B)(3) only. Language was also added to the start of 3.3.235 to clarify that development must comply with the Drinking Water Protection requirements even if an application isn't required (e.g., the prohibited uses are still prohibited even if the City is not requiring an application submittal). Furthermore, the City may seek enforcement if a permitted use starts to use hazardous materials in a new way that would conflict with the Drinking Water Protection Overlay.

3.3.220 Time of Travel Zones.

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(B) The areas within specified wellhead TOTZ are those drinking water protection areas certified by the Oregon Health ~~Division~~ Authority, under the Oregon Administrative Rules that apply to Oregon's EPA-approved Drinking Water Protection Program, in Oregon Health Authority Delineation Certification #0002R, Version 2~~March 18, 1999~~.

(C) In determining the location of a property within a TOTZ, the following criteria apply:

(1) The Lane County Department of Assessment and Taxation maps shall be used as a base map with the addition of TOTZ boundaries.

(2) That portion of a tax lot that lies within a TOTZ is governed by the restrictions applicable to that TOTZ.

(3) Tax lots having parts lying within more than one TOTZ are governed by the standards of the more restrictive TOTZ.

EXCEPTION: The Director may waive the requirement that the more restrictive standards apply when all of the following apply:

(a) Storage, use, handling, treatment, and/or production of hazardous or other materials that pose a risk to groundwater will not take place within the portion of the tax lot having the more restrictive TOTZ standards; and

(b) Storage, use, handling, treatment, and/or production of hazardous or other materials that pose a risk to groundwater will not take place within 50 feet of the portion of the tax lot having more restrictive TOTZ standards; and

(c) The tax lot is 20,000 square feet or larger.

(4) A property owner may request the TOTZ be modified by submitting a Zone Change application to the City. Any request for modification of the TOTZ shall be accompanied by certification of the TOTZ as proposed to be modified by the Oregon Health Authority ~~Division~~, under the Administrative Rules that apply to Oregon's EPA-approved Drinking Water Protection Program. (6238)

3.3.225 Review.

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(D) Prior to undertaking an activity covered by SDC 3.3.225(A), the owner or tenant shall submit a DWP Overlay District Application to the City for review and approval. Applications shall include the following information:

(1) A Hazardous Material Inventory Statement and a ~~Material~~ Safety Data Sheet for any or all materials entered in the Statement unless exempted under SDC 3.3.230. Hazardous material weights shall be converted to volume measurement for purposes of determining amounts; 10 pounds shall be considered equal to 1 gallon as specified in Springfield Fire Code 5003.1.2;

(2) A list of the chemicals to be monitored through the analysis of groundwater

samples and a monitoring schedule if ground-water monitoring is anticipated to be required;

(3) A detailed description of the activities conducted at the facility that involve the storage, handling, treatment, use or production of hazardous or other materials that pose a risk to groundwater ~~materials~~ in quantities greater than the maximum allowable amounts as stated in SDC 3.3.235(A);

(4) A description of the primary and any secondary containment devices proposed, and, if applicable, clearly identified as to whether the devices will drain to the storm or sanitary sewer;

(5) A proposed Hazardous Material Management Plan for the facility that indicates procedures to be followed to prevent, control, collect and dispose of any unauthorized release of a hazardous material;

(6) A description of the procedures for inspection and maintenance of containment devices and emergency equipment;

(7) A description of the plan for disposition of unused hazardous materials or hazardous material waste products ~~over the maximum allowable amounts~~ including the type of transportation, and proposed routes.

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3.3.230 Exemptions.

This section does not exempt any material or use from Fire Code regulations adopted by the City.

(A) Exemptions are as specified in this section unless the Director, in consultation with SUB and Fire/Life Safety, determines that a hazardous material, activity, and/or facility that is exempt pursuant to this section has a significant or substantial potential to degrade groundwater quality. Then the Director may require compliance with the requirements of this section related to that hazardous material, activity, or facility. This determination will be based upon site and/or chemical-specific data and is ~~are~~ eligible for appeal to the Hearings Officer as specified in SDC 3.3.245.

(B) Unless otherwise provided herein, the following materials are exempt from regulation hereunder:

(1) Use, storage and handling of specific hazardous materials that do not present a risk to the aquifer, as determined and listed by the Director in consultation with SUB, are exempt from all regulation under this section with the exception of the potential requirement to list these hazardous materials on the Hazardous Material Inventory Statement as found in the most recent Fire Code regulations adopted by the City. A Drinking Water Protection ~~Hazardous Materials~~ Exemption Request may be submitted to the Director for Hazardous Materials that can be demonstrated to pose no threat to the aquifer. These materials may be exempted from regulation ~~and added to the list~~. The demonstration of no

threat is the responsibility of the applicant seeking the exemption and will be subject to review by technical experts.

(2) Hazardous materials offered for sale in their original sealed containers of 5 gallons or less are exempt from the 500-gallon storage limit specified in SDC 3.3.235(A)(1).

(3) Hazardous materials in fuel tanks and fluid reservoirs including, but not limited to fuel, engine oil, and coolant, which are attached to a private or commercial motor vehicle and used directly in the motoring operation of that vehicle, or machinery~~, including, but not limited to: fuel, engine oil and coolant~~

EXCEPTION: Portable generators are not exempt.

(4) Fuel oil used in existing heating systems.

(5) Emergency use, storage, and handling of hazardous materials by governmental organizations in the public interest.

(6) Hazardous materials used and stored specifically for water treatment processes of public water systems and private systems for the same purposes when approved by the Director.

(7) Hazardous materials contained in properly operating sealed units (including, but not limited to: transformers, refrigeration units) that are not opened as part of routine use.

(8) Local natural gas distribution lines.

(9) Fuel for emergency generators located at facilities that provide essential community services (including, but not limited to: hospitals, fire/life safety, police, public shelters, wireless telecommunications system (WTS) facilities, and telephone systems).

(10) Any commonly used office supply—including, but not limited to: correcting fluid for typewriters, toner for computer printers or cleaners for windows and bathrooms—where the supplies are purchased off-site for use on-site.

(11) Aggregate quantities equal to or less than 20 gallons of hazardous materials that do not contain DNAPLs.

~~EXCEPTION: Liquid fuel for generators are not exempt from the regulations in SDC 3.3.230(B).~~

3.3.235 Standards for Hazardous Materials within Time of Travel Zones.

Applications required under SDC 3.3.225(A) must ~~shall~~ comply with the following standards. Notwithstanding SDC 3.3225(A), development that conflicts with the standards of this section is prohibited. Where the following standards are more restrictive than the standards of the Springfield Fire Code, the following standards ~~apply:~~ will prevail.

(A) Zero to One Year TOTZ Standards.

(1) Within the zero to one year TOTZ, hazardous or other materials that pose a risk to groundwater may be stored in aggregate quantities of no more than 500 gallons if in original containers not exceeding 5 gallons* in size. Within that aggregated 500-gallon inventory, no more than 150 gallons of hazardous or other materials that pose a risk to groundwater may be on the premises in opened containers for handling, treatment, use production, or dispensing on site. Hazardous or other materials that pose a risk to groundwater are allowed only upon compliance with containment and safety standards specified by the most recent Fire Code adopted by the City.

* A waiver of the 5-gallon maximum size may be given by the Director if the applicant can demonstrate that a larger size container would pose less risk to the aquifer.

(2) Unless exempted, all hazardous or other materials that pose a risk to groundwater shall be stored in areas with approved secondary containment in place (Springfield Fire Code 5002.1 and 5004.2.2).

(3) All new uses of Dense Non-Aqueous Phase Liquids (DNAPLs) are prohibited.

(4) Any change in type of use or an increase in maximum daily inventory quantity of any DNAPL shall be considered a new use and prohibited.

(5) The following certain types of new facilities or changes in use and/or storage of hazardous or other materials that pose a risk to groundwater are prohibited:

(a) Underground hazardous material storage facilities;

(b) Hazardous material product pipelines used to transport the hazardous material off of the tax lot where it is produced or used;

(c) Injection wells;

EXCEPTION: Dry wells for residential roof drainage;

(d) Solid waste landfills and transfer stations;

(e) Fill materials containing hazardous materials;

(f) Land uses and new facilities that will use, store, treat, handle, and/or produce DNAPLs; and

(g) Permeable pavements.

(6) Requirements found in Springfield Fire Code 5004.2.2.5 for a monitoring program and monitoring methods to detect hazardous materials in the secondary containment system shall be met for all amounts of hazardous or other materials that pose a risk to groundwater unless exempted.

(7) The following requirements for inspection and record-keeping procedures for monthly in-house inspection and maintenance of containment and emergency equipment for all amounts of hazardous or other materials that pose a risk to groundwater shall be met unless exempted: Schedules and procedures for inspecting safety and monitoring and emergency equipment. The applicant shall develop and follow a written inspection procedure acceptable to the Director for inspecting the facility for events or practices which could lead to unauthorized discharges ~~or~~ of hazardous materials. An inspection check sheet shall be developed to be used in conjunction with routine inspections. The check sheet shall provide for the date, time, and location of inspection; note problems and dates and times of corrective actions taken; and include the name of the inspector and the countersignature of the designated safety manager for the facility.

(8) Application of fertilizers containing nitrates are restricted to no more than the amount recommended by the Lane County, Oregon State University Extension Service for turf grass and are prohibited within 100 feet of a wellhead. In no event shall a single application exceed one half pound per 1,000 square feet of area per single application or a total yearly application of 5 pounds nitrogen fertilizer per 1,000 square feet.

(9) Stormwater infiltration facilities are prohibited within 100 feet of a wellhead.

(B) One to Five Year TOTZ Standards.

(1) The storage, handling, treatment, use, application, or production or otherwise keeping on premises of more than 20 gallons of hazardous or other materials that pose a risk to groundwater in aggregate quantities not containing DNAPLs ~~are~~ is allowed only upon compliance with containment and safety standards specified by the most recent Fire Code adopted by the City.

(2) Unless exempted, all hazardous or other materials that pose a risk to groundwater shall be stored in areas with approved secondary containment in place (Springfield Fire Code 5002.1 and 5004.2.2).

(3) All new ~~use~~ uses of DNAPLs are prohibited.

(4) Any change in the type of use or an increase in maximum daily inventory quantity of any DNAPL is considered a new use and is prohibited.

(5) The following certain types of facilities or changes in chemical use and/or storage of hazardous or other materials that pose a risk to groundwater are prohibited:

(a) Hazardous material product pipelines used to transport the hazardous material off of the tax lot where it is produced or used;

(b) Injection wells;

EXCEPTION: Dry wells for residential roof drainage;

(6) Requirements found in Springfield Fire Code 5004.2.2.5 for a monitoring program and monitoring methods to detect hazardous ~~or other~~ materials in the secondary containment system shall be met for all amounts of hazardous or other materials that pose a risk to groundwater unless exempted.

(7) The following requirements for inspection and record keeping procedures for monthly in-house inspection and maintenance of containment and emergency equipment for all amounts of hazardous or other materials that pose a risk to groundwater shall be met unless exempted: Schedules and procedures for inspecting safety and monitoring and emergency equipment. The applicant shall develop and follow a written inspection procedure acceptable to the Director for inspecting the facility for events or practices which could lead to unauthorized discharges of~~r~~ hazardous materials. An inspection check sheet shall be developed to be used in conjunction with routine inspections. The check sheet shall provide for the date, time, and location of inspection; note problems and dates and times of corrective actions taken; and include the name of the inspector and the countersignature of the designated safety manager for the facility.

(C) Five to Ten Year TOTZ Standards.

(1) The storage, handling, treatment, use, production or otherwise keeping on premises of more than 20 gallons of hazardous or other materials that pose a risk to groundwater in aggregate quantities not containing DNAPLs is allowed only upon compliance with containment and safety standards specified by the most recent Fire Code adopted by the City.

(2) All hazardous or other materials that pose a risk to groundwater shall be stored in areas with approved secondary containment in place (Springfield Fire Code 5002.1 and 5004.2.2).

(3) All new uses of DNAPLs are prohibited.

(4) Any change in type of use or an increase in the maximum daily inventory quantity of any DNAPL is considered a new use and is prohibited.

(5) The following requirements for inspection and record-keeping procedures for monthly in-house inspection and maintenance of containment and emergency equipment for all amounts of hazardous or other materials that pose a risk to groundwater shall be met unless exempted: Schedules and procedures for inspecting safety and monitoring and emergency equipment. The applicant shall develop and follow a written inspection procedure acceptable to the Director for inspecting the facility for events or practices which could lead to unauthorized discharges of~~r~~ hazardous materials. An inspection check sheet shall be developed to be used in conjunction with routine inspections. The check sheet shall provide for the date, time, and location of inspection; note problems and dates and times of corrective actions taken; and include the name of the inspector and the countersignature of the designated safety manager for the facility.

(D) **Ten to Twenty Year TOTZ Standards.** The storage, handling, treatment, use, production or keeping on premises of more than 20 gallons of hazardous or other materials that pose a risk to groundwater in aggregate quantities is allowed only upon compliance with containment and safety standards specified by the most recent Fire Code adopted by the City. (6443; 6238)

3.3.240 Conditions.

The Director may attach conditions of approval that will minimize negative impacts of regulated substances on groundwater and ensure that the facility or the proposed development can fully meet the standards specified in SDC 3.3.235. These conditions may include, but are not limited to: on-site monitoring wells, Wellhead Protection Area signs, special storm-water facilities, or other conditions to address specific risks associated with the proposed development.

Commentary: *The recommendation to amend this section comes from the City of Springfield Stormwater Facilities Master Plan (2008) which proposed that the code be amended to encourage green street design (with the use of swales, planters, rain gardens and other features to reduce runoff and pollutants) and to comply with the MS4 Permit to encourage the use of Low Impact Development.*

4.2.100 Infrastructure Standards – Transportation

4.2.105 Public Streets.

(C) Minimum street curb-to-curb widths and minimum street right-of-way widths are as specified in Table 4.2.1, unless otherwise indicated in the Springfield Transportation System Plan, an applicable Refinement Plan, Plan District, Master Plan, Conceptual Development Plan, or the adopted bicycle and pedestrian plan; where necessary to achieve right-of-way and street alignment; or as needed to meet site-specific engineering standards, including, but not limited to, requirements for multi-way boulevard and/or modern roundabout designs. Streets may include Low Impact Development approaches, such as stormwater planters, swales, rain gardens and tree planting to reduce stormwater runoff from impervious surfaces. Example street layouts meeting minimum street standards are provided in Figures 4.2.B through 4.2.V for illustrative purposes only. These Figures are intended to demonstrate potential street configurations that meet the requirements.

Commentary: *The recommendation to amend this section comes from the City of Springfield Stormwater Facilities Master Plan (2008) which proposed that the code be amended to allow stormwater quality facilities in sidewalks. Low Impact Development approaches may be placed in sidewalk planter strips provided they meet the provisions in the Engineering Manual (EDSPM) and SDC 4.3.110.*

4.2.135 Sidewalks.

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(D) Planter strips are required as part of sidewalk construction. Planter strips must be at least 4½ feet wide (as measured from the back of curb to the edge of the sidewalk) and at least 4½ feet long. Planter strips must have approved landscaping consisting of street trees, and ground cover, and also may include Low Impact Development approaches allowed per in accordance with the

applicable provision in the *Engineering Design Standards and Procedures Manual* and SDC 4.3.110. Tree wells set in concrete or sidewalk areas must be a minimum of 4 feet by 4 feet. Concrete, asphalt, or other impermeable pavement are not allowed to substitute for landscaping within planter strips. Planter strips less than 4½ feet wide may be permitted when necessary for connectivity, safety, or to comply with street design requirements, subject to approval by the Director.

(E) Maintenance of sidewalks is the continuing obligation of the abutting property owner.

4.3.110 Stormwater Management.

Commentary: Amendments to 4.3.110(A) adds a definitions section, defines terms as required or recommended by the permit, and clarifies that definitions in this Section apply to the Stormwater Management section.

(A) **Definitions.** For the purposes of this section only, the following definitions apply. Additional definitions are provided in SDC 6.1.105 or SDC 6.1.110. Unless specifically defined below or in SDC 6.1.110, words or phrases used in this section shall be interpreted so as to give them the meaning they have in common usage.

(1) Maximum Extent Practicable (MEP) is the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in stormwater discharges that was established by Section 402(p)(3)(B)(iii) of the Clean Water Act [33 U.S.C §1342(p)(3)(B)(iii)].

(2) Minimize means to reduce and/or eliminate to the extent achievable using control measures (including BMPs) that are technologically available, economically practicable, and achievable in light of best industry or municipal practices.

Commentary: *Amendments to 4.3.110(B) adds an Applicability section, complies with the language from the permit and existing code by requiring structural stormwater controls for 5,000 square feet or more of impervious surface, and requires a Stormwater Study for development that generates runoff from more than 1 acre of land or peak flows in excess of 0.5 cubic feet per second. Since the August 1, 2023 hearing, Lane County provided feedback to remove the underlined clause in SDC 4.3.110(B)(1): "Development that creates or replaces 5,000 square feet or more of impervious surface area and discharges to the storm system...". The phrase "discharges to the storm system" is intended to include sites that drain to the City's MS4 permit area. However, the City's MS4 permit area includes the entire Springfield UGB and so this phrase is unnecessary. It also creates confusion related to sites that choose to meet the site performance standard by infiltrating the first 1.4" of rainfall in 24 hours; these sites will still discharge to the storm system during very large storm events and are still subject to SDC 4.3.110. Therefore, to avoid confusion and remove unnecessary language, City and County staff recommend removing this clause.*

(B) Applicability. The following development activities require the use of a site-specific stormwater management approach that incorporates one or more structural stormwater controls:

(1) Development that creates or replaces 5,000 square feet or more of impervious surface area ~~and discharges to the storm system~~;

(2) Development that disturbs one or more acres of land within the development area; and

(3) Development that generates peak flows in excess of 0.5 cubic feet per second within the development area.

Commentary: *Amendments to 4.3.110(C):*

- *Define the two types of performance standards for structural stormwater control facilities and comply with the MS4 Permit requirements.*
- *Stipulate that the stormwater system is separate from the sanitary sewer and that discharge of stormwater to the sanitary sewer system is prohibited.*
- *Require that all structural stormwater controls must be designed, operated, and maintained to comply with the Appendices in the Springfield Development Code or Engineering Manual.*
- *Move SDC 4.3.110(6) Identification of Water Quality Limited Watercourses and SDC 4.3.110(7) Protection of Riparian Area Functions to SDC 4.3.115 Water Quality Protection.*
- *Address permeable pavements, injection wells, on site source controls for high risk land uses (which previously resided in Chapter 3 of the EDSPM and is now in Appendix H of the SDC), and roof mounted equipment.*
- *SDC 4.3.110(C)(1) was amended to reference the correction SDC section for the Stormwater Study reference (SDC 4.3.110(E) instead of SDC 4.3.110(D)).*

(~~A~~ C) Stormwater ~~Management Improvements~~ Structural Controls – General Standards.

(1) Engineered Design Requirement. The Stormwater Study required under section 4.3.110(~~D~~)(E) and ~~All stormwater management system design including~~ supporting documentation for the design of the proposed stormwater structural controls must be prepared and stamped by an Oregon licensed engineer.

~~(2)~~ ~~A stormwater management system must be installed to serve each new development within the city limits.~~

(2) Technical Standards. The Stormwater Study required under section 4.3.110(D) must demonstrate compliance with one of the following performance standards:

(a) Site Performance Standard: The first one and four tenths inches (1.4") of rainfall from each storm event must be routed to one or more structural stormwater controls with sufficient capacity to fully infiltrate, evapotranspirate, and/or be reused on site without stormwater runoff discharging from the site; or

(b) Treatment Standard: All rainfall not retained onsite, up to the first one and four tenths inches (1.4") of rainfall from each storm event, must be treated in compliance with the standards and design criteria in SDC 4.3.110(D).

~~(3) The stormwater management system must be designed and constructed in conformance with 4.3.110(C) - Stormwater Study Standards below.~~

(3 4) Discharge to Sanitary Sewer Prohibited. The stormwater management system must be separated from, and not discharge to, any public or private sanitary sewer system.

(4) Facility Design Standards. The structural stormwater controls must be designed, operated, and maintained consistent with the requirements in the facility-specific design requirements provided in Appendix D Typical Stormwater Facility Details. Unless an alternative is approved under the Treatment Standard, stormwater controls that include vegetative treatment must incorporate only those plant species listed in Appendix F.

(5) Construction Standards. ~~Any development that creates or replaces 5,000 square feet or more of impervious surface area and discharges to the storm system must install storm water controls that minimize the amount and rate of surface water runoff into the city stormwater system. The storm system~~ All stormwater structural controls must be constructed consistent with the *Engineering Design Standards and Procedures Manual* ~~sections 4.03.1, 4.03.2, and 4.03.4~~Chapter 4.

~~**(6) Identification of Water Quality Limited Watercourses.** The Director must maintain a Water Quality Limited Watercourses (WQLW) Map on file in the Development Services Department, which designates certain watercourses and their direct tributaries within the City and its urbanizing area. Any revision to the WQLW Map must be approved by the City Council as an amendment to this code. Those watercourses and their direct tributaries included on the WQLW Map have been found to warrant protective measures in support of the City's response to State and Federal regulations regarding surface and subsurface discharging stormwater management systems by satisfying the following standard:~~

~~**(a)** Water Quality Limited Watercourses (WQLW): Waters of the State that meet 1 or more of the following standards:~~

~~**(i)** Watercourse reaches, lying within the City and its urbanizing area, that are included by the State of Oregon Department of Environmental Quality (ODEQ) on its most recently adopted "303(d)" List of Impaired and Threatened Waterbodies.~~

~~**(ii)** Watercourse reaches, lying within the City and its urbanizing area, with significant water quality impairment identified by water quality monitoring and sampling done in accordance with approved quality assurance/quality control (QA/QC) protocols.~~

~~**(b)** A direct tributary to a WQLW that satisfies the following standards:~~

~~**(i)** Any watercourse that flows directly into a WQLW. However, watercourses that flow into the WQLW as a piped connection, where the pipe system extends more than 200 feet upstream of the connection point are not considered as flowing into a WQLW under this standard.~~

~~**(ii)** Any watercourse that is a diversion from a WQLW and that discharges into either a WQLW or other direct tributary to a WQLW and where the water quality of the diverted flow at the discharge point has been degraded when compared with the water quality at the diversion point.~~

(6) **Permeable Pavements.** Permeable pavements may be used to reduce the area of impervious surfaces and shall be constructed consistent with the *Engineering Design Standards and Procedures Manual.* Permeable pavements cannot be used for treatment of stormwater from other impervious areas.

~~**(7)** **Protection of Riparian Area Functions.** A developer is required to employ site design, landscaping, and drainage management practices to protect, preserve, and restore the riparian area functions of the reaches of those watercourses shown on the WQLW Map that are contained within or abut the lot/parcel upon which the proposed development is located. For the purposes of this code, riparian area functions include, but are not limited to:~~

~~**(a)** Maintaining temperature;~~

~~**(b)** Maintaining channel stability;~~

~~**(c)** Providing flood storage;~~

~~**(d)** Providing groundwater recharge;~~

~~**(e)** Removing sediments;~~

~~**(f)** Reducing contaminants, for example: excess nutrients; oils and grease; metals; and fecal coliform;~~

~~**(g)** Moderating stormwater flows; and~~

~~**(h)** Providing fish and wildlife habitat.~~

(7) **Injection Wells.** Except where prohibited by this code, underground injection wells are allowed only with approval from the Department of Environmental Quality.

(8) On Site Source Controls for High Risk Land Uses. Where an application proposes one of the following high-risk uses, the application must comply with additional standards as provided in Appendix H On Site Source Controls:

(B) Site Uses and Characteristics That Trigger Source Controls
(C) Fuel Dispensing Facilities.
(D) Aboveground Storage of Liquid Materials.
(E) Solid Waste Storage Areas, Containers, and Trash Compactors.
(F) Outdoor Storage of Bulk Materials.
(G) Material Transfer Areas.
(H) Equipment and/or Vehicle Washing Facilities.
(I) Covered Vehicle Parking Structures.

(9) Roof-mounted Equipment. All rooftop mounted equipment shall be provided with secondary containment or a weather resistant enclosure to ensure that, in the event of a leak or spill, any fluids cannot migrate into a public or private stormwater system or to any underground injection control facilities.

Commentary: *Amendments to 4.3.110(D):*

- *Stipulate that a Type 2 application process is required when the Alternative Treatment Standard is proposed.*
- *Define the terms of technical infeasibility or site constraints for the Alternative Treatment Standard.*
- *Stipulate that all development must retain rainfall onsite to the maximum extent practicable and any rainfall not retained onsite, must treat up to the first one and four tenths inches (1.4") to achieve no less than 80% removal of total suspended solids. All stormwater not retained onsite must be discharged to the public stormwater system.*
- *Structural stormwater controls used to meet the Treatment Standard must incorporate Low Impact Development.*

(D) Treatment Standard – Criteria. The following provisions apply to review of an application that proposes to meet the Treatment Standard under SDC 4.3.110(C)(2)(a) above.

(1) Type 2 Review. An application that proposes to comply with the Alternative Treatment Standard must be reviewed through a Type 2 application process in accordance with SDC 5.1.400, except when proposed for a development that is subject to Type 3 review, in which case it may be approved through a Type 3 review.

(2) Applicability. An application that proposes to comply with the Alternative Treatment Standard must demonstrate that the Site Performance Standard cannot be retained and infiltrated on-site due to technical infeasibility or site constraints.

(a) Site constraints that may be used to demonstrate technical infeasibility under this subsection include but are not limited to shallow bedrock, high groundwater, protection of groundwater from contamination, soil instability as documented by geotechnical analysis required elsewhere by this Code, land use that is inconsistent with capture and infiltration of

stormwater, the known presence of soil contamination, or constraints arising under the provisions of the Drinking Water Protection Overlay District in SDC 3.3.200.

(b) An applicant is not required to demonstrate that it is technically infeasible to evapotranspirate and/or reuse rainfall onsite to meet the Site Performance Standard.

(3) Design Standards.

(a) The development must retain rainfall onsite to the maximum extent practicable.

(b) All rainfall not retained onsite, up to the first one and four tenths inches (1.4") of rainfall from each storm event, must be treated to achieve:

(i) Reduction in the discharge of mercury, bacteria, and heavy metals to the maximum extent practicable; and

(ii) No less than 80% removal of total suspended solids (TSS) for typical influent concentrations ranging from 100-200 mg TSS per liter; or

(iii) For atypical influent concentrations less than 100 mg TSS/L or greater than 200 mg TSS/L, an alternative treatment standard may be required to target an equivalent water quality benefit as onsite retention.

(c) Detention ponds cannot be approved as a stand-alone treatment method and must be combined with Low Impact Development.

(d) All stormwater not retained on site must be discharged to the public stormwater system. Conveyances to the public stormwater systems must be designed to accommodate, at minimum, the peak runoff for the 25-year rainfall event for the entire tributary area. Exception: If the discharge of the runoff for the 25-year rainfall event is determined likely to exceed capacity of the public stormwater system or if said discharge would result in flooding, the conveyance must be designed to accommodate the peak runoff for the 100-year rainfall event.

(4) Low Impact Development (LID) Required. Structural stormwater controls used to meet the Treatment Standard must incorporate Low Impact Development (LID) as provided in Appendix D to the maximum extent practicable.

(5) Vegetation Standards.

(a) Trees that are required to be planted on-site under the provisions of this code must be planted to provide shade to the stormwater facility to the maximum extent practicable.

(b) Construction and planting must occur under conditions (such as temperature, moisture level, and handling) that prevent soil compaction and erosion. Any imported soil must be a sandy loam mixed with compost

or a sand/soil/compost blend. Soil must be at least one-third compost by volume, be free-draining, and support plant growth. The compost must be derived from plant material; animal waste is not permitted.

Commentary: *SDC 4.3.110(E) clarifies that a Stormwater Study is required for any development that installs a structural stormwater control as defined in SDC 4.3.110(B) above. The Study must detail how the proposed stormwater control targets natural surface or predevelopment hydrologic function and provide a hydrological study map that meets the standards in 4.3.110(E)(2)(b).*

(~~B~~ E) Stormwater Study Standards.

(1) An applicant must complete a Stormwater Study~~, as outlined below, must be submitted for all developments that generate public and/or private stormwater runoff from more than one acre of land or generate peak flows in excess of 0.5 cfs. Applications for development that creates 5,000 square feet of new impervious surface or modifies an existing stormwater management system with a capacity of 0.5 cfs or greater must also include a complete Stormwater Study~~ for any development requiring the installation of structural stormwater controls as specified in SDC 4.3.110(B).

~~All developments containing or adjacent to a floodplain, stream, wetland, natural resource area, or wellhead protection zone must include in the submitted Stormwater Study a review and report on the impact to those.~~

(2) A Stormwater Study must include the following:

(a) A written narrative describing the proposed stormwater management ~~system~~ approach in detail, describing how the approach targets natural surface or predevelopment hydrologic function through the installation and long-term operation and maintenance of the proposed structural stormwater controls. ~~including connections to the public stormwater management system, a description addressing water quality measures (Best Management Practices) proposed, as well as any necessary capacity measures that may be required for development (i.e. – a detention pond) as determined by the Stormwater Study~~.

(b) A hydrological study map, that contains all of the following for ~~(i)~~ the development site and adjacent areas that contribute in excess of 0.1 cfs from offsite flows~~, well defined,~~ and an area beyond the development site of not less than 100 feet~~:~~;

(~~ii~~ i) Streets adjacent to or hydrologically connected to the development area, and street names;

(~~iii~~ ii) Flow arrows in streets and ditches;

(~~iv~~ iii) Contours or spot elevations for verification of direction of overland flow and pipe cover; Contour intervals on the study map must be as follows:

Slope	Contour Interval

(%)	(Feet)
0 - 10	2
11 - 25	5
> 25	10

(~~v~~ iv) Drainage areas of all sub-basins (in acres);

(~~vi~~ v) Collection points (nodes) at downstream limits of all sub-basins;

(~~vii~~ vi) A profile of the stormwater management system showing invert elevations, maintenance access hole top and bottom elevations, existing utilities, and existing and finished ground line elevations;

(~~viii~~ vii) Existing and proposed stormwater pipes and ~~channels~~ surface waters with sizes and/or cross-sections included;

(~~ix~~ viii) Future pipes in the system, complete with proposed sizes, slopes, pipe cover, and flow line elevations at maintenance access holes;

(~~x~~ ix) North arrow, scale, Engineer's name and contact information, and date;

(~~xi~~ x) Environmentally sensitive areas (e.g. gullies, ravines, swales, wetlands, steep slopes, springs, creeks, etc.) and direction of the flow of natural drainage features; ~~and~~

(~~xii~~ xi) 100-year flood plain with flood elevations, and 100-year flood way; and~~, as applicable.~~

(~~xii~~ xii) The location of all locally significant natural resource areas, Water Quality Limited Watercourses, or wellhead protection zones.

(c) A report describing development impacts to any floodplain or floodway.

(~~c~~ d) Hydrologic calculations to establish runoff volumes and peak flows ~~as provided in subsection (D) below~~.

(~~d~~ e) Hydraulic calculations to establish pipe size, flow velocity, and hydraulic grade line.

Commentary: *SDC 4.3.110(F) amends the stormwater study types to be either a Small Site Study or a Full Site Study (a Mid-Level Site Study was removed from the code). A Small Site Stormwater Study is permitted when a site is less than 1 acre, meets the site performance standard in 4.3.110(B)(2)(A), and does not contain or is abutting a floodplain/floodway, locally significant natural resource area, wetland, or riparian area; Water Quality Limited Watercourse, or well-head protection zone. For sites that cannot meet these standards, a Full Site Study is required.*

(~~C~~ F) Stormwater Study Types

(1) A Small Site Stormwater Study is required when all the following criteria are met:

(a) The proposed development is on a site that is less than ~~five~~ one acre~~s~~ in size ~~for a residential development, or is a commercial, industrial, or mixed-use development that is on a site that is one acre or less in size~~ and the onsite stormwater basin structural controls do not treat any single drainage basin larger than 15,000 square feet impervious area.

(b) The development meets the Site Performance Standard as provided in 4.3.110(C)(2)(A). ~~study area drains into an existing public stormwater management system with available capacity, as determined by testing performed by an Oregon licensed Engineer in conformance with the Eugene Stormwater Manual, for the peak flow based on the storm event frequency required under SDC 4.3.110(D)~~.

(c) The study area does not contain or is not abutting to any of the following: a floodplain or floodway, ~~stream, wetland,~~ locally significant natural resource area, wetland, or riparian area; or Water Quality Limited Watercourse. ~~or well head protection zone. Only locally significant resources that are on an adopted inventory or map, or resources that are adopted as part of the WQWL map are applicable under this standard.~~

~~**(2)** A Mid-Level Site Stormwater Study is required when the criteria for a Small Site Stormwater Study cannot be met and when ALL of the following criteria are met:~~

~~**(a)** The development area, including any hydraulically connected area on the same property, is less than 25 acres in size.~~

~~**(b)** The development area, including any hydraulically connected area on the same property, drains to an established public system within the city limits.~~

~~**(c)** The development area, including any hydraulically connected area on the same property, does not contain or is not adjacent to a floodplain, stream, wetland, natural resource area, or well head protection zone.~~

(~~3~~2) A Full Site Stormwater Study is required when the criteria for a Small Site ~~and Mid-Level Site~~ Stormwater Study cannot be met. ~~and where any of the following conditions are met:~~

~~**(a)** The development area, including any hydraulically connected area on the same property, is greater than 25 acres in size.~~

~~**(b)** Developments that require creation of a new outfall and/or the stormwater from the new development will exceed the existing stormwater management system capacity.~~

~~**(c)** The development area, including any hydraulically connected area on the same property, contains or is adjacent to a floodplain, stream, wetland, or natural resource area.~~

~~**(d)** Any development that generates a peak flow in excess of 0.5 cfs, modifies an existing stormwater management system with a capacity of 0.5 cfs or greater, or is a redevelopment or new development that creates 5,000 square feet or more of new impervious area.~~

Commentary: *SDC 4.3.110(G) amends the stormwater study hydrologic calculation standards for a small site stormwater study or a full site study. For a small site study, the calculations must demonstrate compliance with the Site Performance Standard (calculations must use a value of 1.4" over 24 hours) or the Treatment Standard (calculations must use an intensity of at least 0.13 in/hr for off line facilities and 0.22 in/hr for online facilities) and be supported by the methods and calculators in Chapter 4 of the Engineering Manual. For a full site study, the calculations must be supported by calculations using the unit hydrograph method and the storm event frequencies in Table 4.3.1.*

(~~D~~ G) Stormwater Study Hydrologic Calculation Standards. The stormwater study required under SDC 4.3.110(~~C~~ F) must be supported by hydrologic calculations that conform to the following standards:

(1) A small site stormwater study must be supported by hyrdrologic calculations using the rational method or a unit hydrograph method (as required for a full site stormwater study in (2) below. The rational peak flow method, Q=CiA, where 'Q' is the peak flow, 'C' is a runoff coefficient, 'i' is the rainfall intensity, and 'A' is the catchment area. Rainfall intensity and design storm requirements must be used as provided in 4.3-110(C)2~~, as follows:~~

~~**(a)** When the runoff coefficient 'C' is 0.5 or greater, the peak flow for impervious surfaces must be calculated separately from the pervious surfaces and compared to the peak flow of the combined area. The higher of the two peak flow rates must be used as the peak flow rate for the purpose of the stormwater study.~~

(a) To demonstrate compliance with the Site Performance Standard, calculations must use a value of 1.4" over 24 hours using the type 1a SCS storm intensity curve

~~**(b)** For the purposes of determining whether stormwater quality standards are met using the rational method, a rainfall intensity 'i' of 0.25 inch per hour must be used to calculate peak flow.~~

(b) To demonstrate compliance with the Treatment Standard, calculations must use an intensity of at least 0.13inch/hour for off line facilities and 0.22inch/hour for online facilities, up to the maximum extent practicable.

~~**(c)** For the purposes of determining stormwater capacity using the rational peak flow method, the rainfall intensity 'i' must be calculated using the Intensity Duration Frequency curves from the West Springfield Drainage Master Plan (1983) (available in Chapter 4 of the *Engineering Design Standards and Procedures Manual*). The storm event frequencies in SDC Table 4.3.1 must be used:~~

(c) A small site stormwater study that is supported by the methods and calculators provided in section 4.03.1 of the *Engineering Design Standards and Procedures Manual* will be approved without requiring additional documentation or support for calculations.

~~Table 4.3.1 Storm Event Frequencies~~	
~~Peak Flow Range~~	~~Storm Event Frequency~~
~~<5 cfs~~	~~2-year storm event~~
~~5 cfs to <20 cfs~~	~~5-year storm event~~
~~20 cfs to <40 cfs~~	~~10-year storm event (1)~~
~~40 cfs and above~~	~~50-year storm event~~

~~(1) The 25-year storm event may be required when downstream capacity issues are identified during a Type 2 or Type 3 review process.~~

(2) A ~~Mid-Level Site Stormwater Study and~~ full site stormwater study must be supported by calculations using the unit hydrograph method.

(a) The Natural Resources Conservation Service (NRCS) SCS Type 1A distribution must be used (provided in the *Engineering Design Standards and Procedures Manual* for reference). The Storm Event Frequencies in Table 4.3.1 must be used.

Table 4.3.1 Storm Event Frequencies					
Recurrence Interval, Years	2	5	10	25	100
Flood Control, Destination: 24-Hour Depths, Inches	3.12	3.6	4.46	5.18	6.48
Water Quality Storm – Pollution reduction: 24-Hour Depths, 1.4 Inches					

(b) For the purposes of determining whether stormwater quality standards ~~for mid-level and full sites~~, a rainfall intensity of ~~0.83~~1.4 inches per 24-hour period must be used.

(c) A full site stormwater study must include floodplain analysis if the development will affect the floodplain. The 100-year ~~flood~~ storm event frequency must be used for development within the floodplain.

Commentary: *The Operations and Maintenance Requirements in the Engineering Manual were added to the code to ensure that all structural controls installed in compliance with the MS4 permit are operated and maintained to meet site performance or alternative treatment standards.*

(H) Operations and Maintenance Requirements.

(1) All structural stormwater controls must be operated and maintained to continue to meet the Site Performance Standard or alternative Treatment Standard as applicable.

(2) The owner of property subject to any application that proposes structural stormwater controls that will be privately-owned and operated must enter into an Operations and Maintenance Agreement with the City. The Agreement must specify at least the following:

(a) A plan to maintain and operate the structural stormwater controls to continue to meet the Site Performance Standard or alternative Treatment Standard, which may include but is not limited to operations and maintenance requirements in Appendix E.

(b) For structural stormwater controls that include vegetation, requirements to maintain and/or replace vegetation to ensure at least 90% vegetative coverage; and;

(c) For structural stormwater controls that include soils in the treatment process, requirements to maintain soil permeability and plant health; and

(d) Reporting requirements to document compliance with ongoing operations and maintenance requirements.

(3) For any property that is subject to an Operations and Maintenance Agreement, a Notice of Operations and Maintenance Agreement (NOMA) must be recorded with Lane County Deeds and Records. The NOMA must be in a form approved by the City, be sign by the property owner and properly notarized, and include a legal description of the subject property.

Commentary: *SDC 4.3.115 was amended to move SDC 4.3.110(6) Identification of Water Quality Limited Watercourses and SDC 4.3.110(7) Protection of Riparian Area Functions to this section for clarity and consistency. Clarification was provided to require site design, landscaping, and drainage management practices to protect, preserve, and restore riparian area functions.*

4.3.115 Water Quality Protection

(A) **Applicability.** These regulations apply water quality protection to only those sites that require Minimum Development Standards Review as specified in SDC 5.15.100, Site Plan Review approval as specified in SDC 5.17.100, and Land Divisions (Partition Tentative Plan and Subdivision Tentative Plan) approval as specified in SDC 5.12.100, or that disturb more than one acre of land through a Type 1 review. The following standards do not apply to single unit dwellings duplexes, or middle housing in the R-1 District that disturb less than one acre of land, unless as specified in SDC 4.3.115 (~~A~~B)(1). Existing buildings that are within the riparian areas specified in SDC 4.3.115(~~A~~B)(1) and (2) are not considered non-conforming. SDC 4.3-115(~~A~~B)(2)(a) and (b) provide additional protection from a non-conforming status.

(B) **Identification of Water Quality Limited Watercourses.** The Director must maintain a Water Quality Limited Watercourses (WQLW) Map on file in the Development Services

Department, which designates certain watercourses and their direct tributaries within the City and its urbanizing area. Any revision to the WQLW Map must be approved by the City Council as an amendment to this Code. Those watercourses and their direct tributaries included on the WQLW Map are Waters of the State that have been found to warrant protective measures in support of the City's response to State and federal regulations regarding surface and subsurface discharging stormwater management systems, by satisfying one or more of the following standards:

(1) Watercourse reaches, lying within the City and its urbanizing area, that are included by the State of Oregon Department of Environmental Quality (ODEQ) on its most recently adopted "303(d)" List of Impaired and Threatened Waterbodies.

(2) Watercourse reaches, lying within the City and its urbanizing area, with significant water quality impairment identified by water quality monitoring and sampling done in accordance with approved quality assurance/quality control (QA/QC) protocols.

(3) A direct tributary to a WQLW that satisfies the following standards:

(a) Any watercourse that flows directly into a WQLW. However, watercourses that flow into the WQLW as a piped connection, where the pipe system extends more than 200 feet upstream of the connection point are not considered as flowing into a WQLW under this standard.

(b) Any watercourse that is a diversion from a WQLW and that discharges into either a WQLW or other direct tributary to a WQLW and where the water quality of the diverted flow at the discharge point has been degraded when compared with the water quality at the diversion point.

(C) Protection of Riparian Area Functions. A developer is required to employ site design, landscaping, and drainage management practices to protect, preserve, and restore the riparian area functions of the reaches of those watercourses shown on the WQLW Map that are contained within or abut the lot/parcel upon which the proposed development is located.

(1) For the purposes of this Code, riparian area functions include, but are not limited to:

(a) Maintaining temperature;

(b) Maintaining channel stability;

(c) Providing flood storage;

(d) Providing groundwater recharge;

(e) Removing sediments;

(f) Reducing contaminants, for example: excess nutrients; oils and grease; metals; and fecal coliform;

(g) Moderating stormwater flows; and

(h) Providing fish and wildlife habitat.

(2) The following standards apply to the protection of water quality and protection of riparian area functions specified above:

(a) Avoid development or redevelopment in the following circumstances:

(i) Unsuitable areas, including, but not limited to, unstable slopes, wetlands and riparian areas;

(ii) Stream Crossings. Where crossings have to be provided, the impacts on water quality must be minimized to the maximum extent practical; and

(iii) Hardening or armoring of stream banks and shorelines.

(b) Prevent:

(i) Stormwater discharge impacts to water quality and quantity; and

(ii) Erosion and sediment run-off during and after construction.

(c) Protect:

(i) Riparian areas, buffers, and functions around all watercourses; and

(ii) Wetlands, wetland buffers and wetland functions.

(d) Preserve the hydrologic capacity of any watercourses.

(e) Utilize Native Vegetation in Riparian Areas. The required riparian area landscaping must be installed as part of the building permit process and may be bonded as specified in SDC 5.17.150.

(f) Restore and enhance riparian areas that are degraded in riparian function.

(3) In applying SDC 4.3.115(C)(2) above, riparian area protection, preservation, restoration, and enhancement measures must be applied as follows:

(a) For new development and redevelopment, existing riparian area functions must be protected and preserved. Degraded functions must be restored or enhanced through the full riparian area width, as specified in SDC 4.3.115(A)(1) and (2), and extending through the full frontage of the lot/parcel along the watercourse on the Water Quality Limited Watercourse (WQLW) Map.

(b) For additions and expansions on any portion of a lot/parcel, existing riparian area functions must be protected and preserved through the full riparian area width specified in SDC 4.3.115(A)(1) and (2), and extending through the full frontage of the lot/parcel along the watercourse on the WQLW Map.

(c) For additions and expansions within 100 feet of a watercourse on the WQLW Map on a lot/parcel that has degraded riparian functions, the area for restoration or enhancement must be based upon the ratio of the impervious area of the addition or expansion to the existing building or impervious area on the lot/parcel. The restoration or enhancement must start at the top of bank of the watercourse and work landward.

(~~A~~ D) Riparian Area Boundaries. When addressing criterion (E) as specified in SDC 5.12.125, for Land Divisions, and SDC 5.17.125 for Site Plan Review to protect riparian areas along watercourses shown on the Water Quality Limited Watercourses (WQLW) Map, the following riparian area boundaries must be utilized:

(1) Along all watercourses shown on the WQLW Map with average annual stream flow of 1,000 cubic feet per second (CFS) or greater, the riparian area boundary is 75 feet landward from the top of the bank. Existing native vegetative ground cover and trees must be preserved, conserved, and maintained between the ordinary low water line and the top of bank and 75 feet landward from the top of bank.

Within the Willamette Greenway, any change or intensification of use to a single unit dwelling or Middle Housing requires Site Plan Review as specified in SDC 3.3.315. through the Site Plan Review process the Director may reduce the size of the required riparian area if there is a finding that the proposed development is in compliance with SDC 3.3.300, the Willamette Greenway Overlay District, SDC 3.2.280 and other applicable provisions of this Code.

(2) Along all watercourses shown on the WQLW Map with average annual stream flow less than 1,000 CFS the riparian area boundary is 50 feet landward from the top of the bank. Existing native vegetative ground cover and trees must be preserved, conserved, and maintained both between the ordinary low water line and the top of bank and 50 feet landward from the top of bank.

(a) For all watercourses subject to Subsection 4.3.115(A)(2), other than the Mill Race or Cedar Creek, the 50-foot riparian area standard may be reduced to 35 feet, provided an equivalent amount and function of pervious land is established elsewhere on the property that utilizes water quality measures including, but not limited to: wetlands; bioswales; and additional trees, especially in parking areas, exclusive of otherwise required water quality measures and landscape areas. The applicant has the burden of proof to demonstrate, to the satisfaction of the Director, equivalency in relation to both the amount of pervious land (as specified above) and riparian area function (as specified in SDC 4.3.110(G)).

(b) An existing building within a riparian area is not considered a non-conforming use if destroyed by earthquake, flood or other natural disaster, or fire. In this case, the replacement building may be constructed within the same footprint as the existing building. If the building is within the Willamette Greenway, the standards in SDC 3.3.300, Willamette Greenway Overlay District apply.

(3) Where a watercourse divides a lot/parcel and the existing riparian area along that watercourse is degraded in riparian function, the applicant may relocate the watercourse to another portion of the property as approved by the Director and applicable State or Federal agency.

(~~B~~ E) Permitted Uses in Riparian Areas. The following uses are permitted in riparian areas as long as they do not diminish riparian functions:

(1) The planting of native trees and native vegetation to promote bank stability, enhance riparian areas, minimize erosion, preserve water quality and protect federally listed species. Trees may be clustered to allow the preservation of views; or to allow maintenance vehicles to approach City maintained stormwater facilities including detention basins, outfalls, culverts and similar stormwater facilities as may be permitted by the *Engineering Design Standards and Procedures Manual*.

(2) The felling of hazardous trees for safety reasons as specified in SDC 5.19.100, Tree Felling.

(3) Riparian area restoration and enhancement including the removal of invasive plant species, where necessary.

(4) Flood control structures, where necessary.

(5) Stormwater management systems and outfalls, as specified in the *Engineering Design Standards and Procedures Manual* or as required by other regulating authorities.

(6) Multi-use paths for pedestrian and/or bicycle use must be permitted, provided that the multi-use path drains away from the watercourse. Multi-use paths must be located along the outer edge of the required riparian area and away from the watercourse. The multi-use path must be located at the outermost edge of the 75-foot-wide Riparian Setback to the maximum extent practicable. Utilities may be extended within a multi-use path.

(7) Water-dependent or water-related uses between the Willamette River and the Greenway Setback Line as may be permitted in the Willamette Greenway Overlay District.

(8) Private driveways, public street crossings, bridges, and necessary culverts when there is no other vehicle access to the property. Crossings must be preferably at right angles to the watercourse. Public and private utilities must be permitted within the driveway, public street, or bridge right-of-way.

(9) Repair, replacement, or improvement of utility facilities as long as the riparian area is restored to its original condition.

(10) Routine repair and maintenance of existing structures, streets, driveways, utilities, accessory uses and other similar facilities.

(11) Other activities similar to those listed above that do not diminish riparian function. The Director must make the interpretations as specified in SDC 5.11.100.

~~(C) For protection of water quality and protection of riparian area functions as specified in SDC 4.3.110, the following standards apply:~~

~~(1) Avoid development or redevelopment in the following circumstances:~~

~~(a) Unsuitable areas, including, but not limited to, unstable slopes, wetlands and riparian areas;~~

~~(b) Stream Crossings. Where crossings have to be provided, the impacts on water quality must be minimized to the maximum extent practical; and~~

~~(c) Hardening or armoring of stream banks and shorelines.~~

~~(2) Prevent:~~

~~(a) Stormwater discharge impacts to water quality and quantity; and~~

~~(b) Erosion and sediment run-off during and after construction.~~

~~(3) Protect:~~

~~(a) Riparian areas, buffers, and functions around all watercourses; and~~

~~(b) Wetlands, wetland buffers and wetland functions.~~

~~(4) Preserve the hydrologic capacity of any watercourses.~~

~~(5) Utilize Native Vegetation in Riparian Areas. The required riparian area landscaping must be installed as part of the building permit process and may be bonded as specified in SDC 5.17.150.~~

~~(6) Restore and enhance riparian areas that are degraded in riparian function.~~

~~(7) In applying SDC 4.3.115(C)(1) through (6), riparian area protection, preservation, restoration, and enhancement measures must be applied as follows:~~

~~(a) For new development and redevelopment, existing riparian area functions must be protected and preserved. Degraded functions must be restored or enhanced through the full riparian area width, as specified in SDC 4.3.115(A)(1) and (2), and extending through the full frontage of the lot/parcel along the watercourse on the Water Quality Limited Watercourse (WQLW) Map.~~

~~(b) For additions and expansions on any portion of a lot/parcel, existing riparian area functions must be protected and preserved through the full riparian area width specified in SDC 4.3.115(A)(1) and (2), and extending through the full frontage of the lot/parcel along the watercourse on the WQLW Map.~~

~~(c) For additions and expansions within 100 feet of a watercourse on the WQLW Map on a lot/parcel that has degraded riparian functions, the area for restoration or enhancement must be based upon the ratio of the impervious area of the addition or expansion to the existing building or impervious area on the lot/parcel. The restoration or enhancement must start at the top of bank of the watercourse and work landward.~~

Commentary: *The recommendation to amend this section comes from the City of Springfield Stormwater Facilities Master Plan (2008) which proposed that the code be amended to add vegetated stormwater facilities in landscaping requirements. SDC 4.4.105 clarifies that Low Impact Development is a landscaping requirement and must be landscaped to comply with SDC 4.3.110(C) for review under the Treatment Standard. Where parking lot planting areas are required, Low Impact Development and vegetated structural stormwater controls may be used to meet that requirement.*

Note: Section 4.4.105(E) for Parking Lot landscaping are outside the scope of these Stormwater Post-Construction Requirements Update amendments but are provided for context and clarity.

4.4.100 - Landscaping, Screening, and Fence Standards

4.4.105 Landscaping.

(A) These regulations ensure that new development complies with the landscaping provisions of this code and any applicable Refinement Plans, Plan Districts, Master Plans, and Conceptual Development Plans; is adequately screened from less intensive development; considers the effects of vegetation on public facilities; retains significant clusters of natural trees and shrubs wherever possible; minimizes run-off, protects water quality and moderates temperature; facilitates energy conservation and crime prevention; and improves the appearance of the City to create a desirable place to live and work.

(B) ~~Three~~ Four types of landscaping may be required:

(1) Landscaping standards for private property as specified in this section and other sections of this code.

(2) Street trees in the public right-of-way as specified in SDC 4.2.140.

(3) Curbside planter strips in the public right-of-way as specified in SDC 4.2.135.

(4) Low Impact Development as specified in SDC 4.3.110(C) for review under the Treatment Standard.

~~**(C)** Materials and installation costs of required planting and irrigation, other than what is required by the Minimum Development Standards, SDC 5.15.100, must not exceed 10 percent of the value of the new development, including the cost of parking facilities.~~

(C) The following areas of a lot/parcel must be landscaped, unless otherwise specified in this code:

(1) All required setback areas and any additional planting areas as specified in the appropriate zoning district.

(2) Parking lot planting areas required in this section.

(3) Low Impact Development as specified in SDC 4.3.110(C) for review under the Treatment Standard.

(~~E~~ D) At least 65 percent of each required planting area listed in Subsection (D) above must be covered with living plant materials within 5 years of the date of installation, unless a higher standard applies elsewhere in this code. The living plant materials must be distributed throughout the required planting area. The planting acceptable per 1,000 square feet of required planting area is as follows:

(1) A minimum of 2 trees, not less than 6 feet in height, that are at least a 2 inch (dbh) caliper (at the time of planting, not including root ball); and

(2) Ten shrubs, 5 gallons or larger.

(3) Lawn and/or groundcover may be substituted for up to 25 percent of the living plant material requirement, unless trees or shrubbery are required for screening. This substitution is only allowed when the applicant has demonstrated that there ~~is~~ are provisions for ongoing maintenance of the landscape areas.

These standards do not apply to single unit detached dwellings and middle housing in the R-1 District.

(~~F~~ E) Parking Lots. ~~Parking lot planting areas must include 1 canopy tree at least 2 inches (dbh) in caliper that meets City street tree standards as may be permitted by the *Engineering Design Standards and Procedures Manual* and at least 4 shrubs, 5 gallon or larger, for each 100 square feet of planting area. Shrubs that abut public right-of-way or that is placed in the interior of any parking lot must not exceed 2.5 feet in height at maturity.~~

(1) The following Pparking lot planting areas must be landscaped in accordance with the standards in (2) below include:

(~~1~~a) Parking and driveway setback areas specified in the applicable land use district; and

(~~2~~b) Five percent of the interior of a parking lot, exclusive of any required parking setbacks, if 24 or more parking spaces are located between the street side of a building and an arterial or collector street and are visible from any street.

(~~3~~c) See also SDC 4.7.380 or 4.7.385 for multiple unit housing design standards.

(2) Parking lot planting areas must include at least 4 shrubs, 5 gallon or larger, for each 100 square feet of planting area. Any shrubs that abut public right-of-way or that is placed in the interior of any parking lot must not exceed 2.5 feet in height at maturity. Where parking lot planting areas are required, Low Impact Development and vegetated structural stormwater controls may be used to meet this requirement. Shrubs provided within a structural stormwater control may not be counted toward meeting this criterion.

(3~~2~~) Small Parking Lots and Modifications to Existing Parking Lots. Planting areas for developments with one-half acre or less of new surface parking lot area must include 1 canopy tree at least 2 inches (dbh) in caliper, for each 100 square feet of parking lot planting area. Trees must meet City street tree standards in the City of Springfield Street Tree list in Appendix G for the appropriately sized planter area.

(4) Large Parking Lots. Developments that include more than one-half acre of surface parking lot area must comply with the following:

(a) Developments not required to comply with OAR 330-135-0010 must provide a climate mitigation action including at least one of the following:

(i) Payment of at least $1500 per new parking space into a fund at the Oregon Department of Energy dedicated to equitable solar or wind energy development; or

(ii~~i~~) Tree canopy covering at least 40% of the new parking lot area at maturity but no more than 15 years after planting; or

(iii) If parking is provided for a non-residential use, the development may include a mixture of (i) and (ii) – providing between 30% and 40% tree canopy and paying for a proportionate percentage of parking spaces.

(b) Developments must provide either trees along driveways or a minimum of 30% tree canopy coverage over parking areas. Developments are not required to provide trees along drive aisles.

(c) The tree spacing and species planted must be designed to maintain a continuous canopy, except when interrupted by driveways, drive aisles, and other site design considerations. Trees that are provided in compliance with (4)(a)(ii) above meet this standard.

(d) Trees must meet City street tree standards as specified in City of Springfield Street Tree list in Appendix G for the appropriately sized planter area.

~~(e)~~ Development of a tree canopy under subsections (a) and (b) must be done in coordination with the local electric utility, including pre-design, building, and maintenance phases.

~~(f)~~ Applicant must provide a certification provided by a certified arborist with an Oregon Landscape Contractor license that trees planted to meet subsections (1) and (2) will be planted to meet or exceed the 2021 American National Standards Institute A300 standards.

~~(G)~~ F) All new required planting areas must be provided with a permanent irrigation system which can include a drip irrigation system. Areas planted with noninvasive drought tolerant species or plant communities are exempt from this standard.

~~(H)~~ G) Landscaped setbacks abutting required screening on the same property are exempted from planting requirements if the area is not visible from any public right-of-way or adjacent property.

~~(I)~~ H) **Planting Installation Standards.**

(1) Existing landscaping to be retained must be provided with protection which will remain through the construction process. The plants to be saved and the method of protection must be noted on the Landscape Plan.

(2) Existing trees to be retained on private property must not have construction occur within the drip line, unless a landscape architect certifies that affected trees will not have at least a 90 percent chance of survival over a 5-year period. Trees to be retained must be provided with protection with at least a 3-foot-tall temporary fence barrier around the drip line and include protection around the tree to prevent abrasion to the tree. The trees to be retained and the method of protection must be included on the Landscape Plan.

(3) The Landscape Plan must include specifications for topsoil, including depth and organic matter requirements, to ensure the health and vitality of required planting. Where planting areas have been excavated the replacement of topsoil must be provided for and indicated on the Landscape Plan. All waste material must be removed from required planting areas prior to the application of topsoil.

(a) Inspection may be made by the Director prior to planting to verify proper rough grade and installation of irrigation systems.

(b) Plant materials and soil preparation may be inspected prior to or in conjunction with the occupancy inspection to ensure that placement, quantity, size, and variety conform to the approved Planting Plan and the requirements of this section. Nursery tags identifying variety and species must remain on plant specimens until the Final Building Inspection by the Building Official or the issuance of a Certificate of Occupancy. (6443)

(4) Landscaping and vegetation within structural stormwater controls, including Low Impact Development, must meet the maintenance requirements in SDC 4.3.110(F).

Commentary: *The recommendation to amend this section comes from the City of Springfield Stormwater Facilities Master Plan (2008) which proposed that the code be amended to allow curb cuts to allow runoff from stormwater quality facilities in parking lot landscaping.*

4.6.120 Motor Vehicle Parking—Parking Lot Improvements.

All parking areas must conform to the setback, vision clearance, planting, and screening provisions of this code and must be completed prior to occupancy. Required parking spaces must be improved as follows:

****

(C) All parking spaces fronting a sidewalk, alley, street, landscaped area, or structure must be provided with a secured wheel bumper or linear curb not less than 6 inches in height to be set back from the front of the stall a minimum of 2 feet to allow for vehicle encroachment. Wheel bumpers must be a minimum of 6 feet in length. Curbs must be constructed in conformance with the Standard Construction Specifications. the curb into the landscape area. Curbs separating landscaped areas from parking areas must allow stormwater runoff to pass through, as provided in APWA detail drawing RD RD700 &701.

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Commentary: *The recommendation to amend this section comes from the City of Springfield Stormwater Facilities Master Plan (2008) which proposed that the code be amended to require review for stormwater management requirements or additions and expansions of impervious areas.*

5.17.100 - Site Plan Review

5.17.110 Applicability.

(A) The Site Plan Review process is used for:

(1) The following categories of multiple unit housing, commercial, public and semi-public, and industrial development or uses, including construction of impervious surfaces for parking lots, ~~and~~ storage areas, and stormwater improvements:

(a) New development on vacant sites and redevelopment, except:

(i) Where a proposed development qualifies for a Minimum Development Standards review in accordance with SDC 5.15;

(ii) Where multiple unit housing qualifies for a Type 1 process as specified in SDC 4.7.380.

(b) Additions or expansions that exceed either 50 percent of the existing building gross floor area or 5,000 square feet or more of new building gross floor area and/or impervious surface area, except where a

proposed development qualifies for a Minimum Development Standards review according to SDC 5.15;

(c) Additions, expansions, and changes of use, regardless of size or intervening use, that:

(i) Contain or are within 150 feet of the top of bank (as measured from the property line of the subject property) of any Water Quality Limited Watercourses (WQLW) identified on the WQLW Map on file in the Development ~~Services~~ and Public Works Department;

(ii) Contain or are within 100 feet of the top of bank (as measured from the property line of the subject property) of any direct tributaries of WQLW identified on the WQLW Map on file in the Development ~~Services~~ and Public Works Department;

(iii) Are located within the City's urbanizable area, outside of the city limits; or

(iv) Are located within 50 feet of property in a residential land use district or residentially designated land (as measured from the property line of the subject property); or

(v) Proposes review under the Treatment Standard in SDC 4.3.110(B)-(C) to demonstrate compliance with applicable stormwater treatment standards.

(d) Discretionary Uses, except where a proposed development qualifies for a Minimum Development Standards review in accordance with SDC 5.15; and

(e) Any uses listed in the applicable land use district, overlay, or plan district, which specifically require Site Plan Review.

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Commentary: *Definitions are provided to SDC 6.1.110 to clarify stormwater terms.*

6.1.100 – Definitions

6.1.110 Meaning of Specific Words and Terms.

Evapotranspiration. The sum of evaporation and transpiration of water from the earth's surface to the atmosphere. Includes the evaporation of liquid or solid water plus transpiration from plants (the release of water vapor into the atmosphere through plant stomata or pores).

~~**Impervious Surface.** Any surface that either prevents or delays the infiltration of water into the soil as it entered under natural conditions preexistent to development, and/or a surface area that causes water to run off the surface in greater quantities or at an increased rate of flow than prior to development. Common impervious surfaces include: building roofs; traditional concrete or~~

~~asphalt paving on walkways, driveways, parking lots, gravel lots and roads; and heavily compacted earthen materials.~~

Impervious Surface. Any surface resulting from development activities that prevents the infiltration of water. Common impervious surfaces include: building roofs; traditional concrete or asphalt paving on walkways, driveways, parking lots, gravel lots and roads; and heavily compacted earthen materials.

Low Impact Development (LID). A stormwater management approach that seeks to mitigate the impacts of increased runoff and stormwater pollution using a set of planning, design, and construction approaches and stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater, and can occur at a wide range of landscape scales (i.e., regional, community, and site). Low impact development is a comprehensive land planning and engineering design approach to stormwater management with a goal of mimicking the pre-development hydrologic regime of urban and developing watersheds.

Off-line Stormwater Facilities. Facilities that are sized for only the water quality storm and in which higher stormwater flows are bypassed around the treatment area. These facilities typically require an inlet control structure and typically include mechanical treatment facilities.

On-line Stormwater Facilities. Facilities in which stormwater flows are routed through the treatment area, so high flows are not bypassed around the facility, such as vegetated swales and most vegetated treatment facilities.

Predevelopment Hydrologic Function. The hydrology of a site reflecting the local rainfall patterns, soil characteristics, land cover, evapotranspiration, and topography. The term predevelopment as used in predevelopment hydrologic function is consistent with the term predevelopment as discussed in Federal Register Volume 64, Number 235 and refers to the runoff conditions that exist onsite immediately before the planned development activities occur. Predevelopment is not intended to be interpreted as the period before any human-induced land disturbance has occurred.

Storm Event. A precipitation event that results in surface runoff. For modeling purposes in the City of Springfield this is a Type 1a storm of 24-hour duration.

~~**Stormwater.** Water derived from a storm event or conveyed through a storm sewer water management system.~~

Stormwater or Stormwater Runoff. That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility. It includes snow melt runoff and surface runoff and drainage.

Structural Stormwater Controls. Stormwater controls that are physically designed, installed, and maintained to prevent or reduce the discharge of pollutants in stormwater to minimize the impacts of stormwater on waterbodies. Examples of structural stormwater controls or Best Management Practices (BMPs) include: (1) storage practices such as wet ponds and extended-

detention outlet structures; (2) filtration practices such as grassed swales, sand filters and filter strips; and, (3) infiltration practices such as infiltration basins and infiltration trenches.

Total Maximum Daily Loadings (TMDL). The calculated pollutant amount that a water body can receive and still meet Oregon water quality standards. The TMDL program evaluates and sets pollutant loads to impaired waterbodies and designates management agencies to implement water quality improvement plans.

Total Suspended Solids (TSS). The ratio of the weight of solid residue in a filtered sample to the volume of the sample, where the residue is obtained by filtering the sample through a 0.45 µm filter.

APPENDIX B

SANTA BARBARA URBAN HYDROGRAPHY METHOD

(A) Overview

(1) The Santa Barbara Urban Hydrograph (SBUH) method was developed by the Santa Barbara County Flood Control and Water Conservation District to determine a runoff hydrograph for an urbanized area.

(B) Elements Of the Santa Barbara Urban Hydrograph (SBUH) Method

(1) The SBUH method depends on several variables:

(a) Pervious (A_p) and impervious (A_{imp}) land areas

(b) Time of concentration (T_c) calculations

(c) Runoff curve numbers (CN) applicable to the site

(d) Design storm

(C) Land Area

(1) The total area, including the pervious and impervious areas within a drainage basin, shall be quantified in order to evaluate critical contributing areas and the resulting site runoff.

(2) Each area within a basin shall be analyzed separately and their hydrographs combined to determine the total basin hydrograph.

(3) Areas shall be selected to represent homogenous land use/development units.

(D) Time of Concentration

(1) Time of concentration, T_c, is the time for a theoretical drop of water to travel from the furthest point in the drainage basin to the facility being designed. (In this case, T_c is derived by calculating the overland flow time of concentration and the channelized flow time of concentration.) T_c depends on several factors, including

ground slope, ground roughness, and distance of flow. The following formula for determining Tc is:

(a) Formulas

(i) $T_c = T_{t1} + T_{c2} + T_{c3} + \ldots + T_{cn}$

(ii) $T_t = L/60V$ (Conversion of velocity to travel time)

(iii) $T_t = (0.42\ (nL)^{0.8})/(158(s)^{0.4})$ (Manning's kinematic solution for sheet flow less than 300 feet)

(b) Shallow concentrated flow for slopes less than 0.005 ft/ft.:

(i) $V = 16.1345(s)^{0.5}$ (Unpaved surfaces)

(ii) $V = 20.3282(s)^{0.5}$ (Paved surfaces)

(c) Where,

(i) Tt = travel time, minutes

(ii) Tc = total time of concentration, minutes (minimum Tc = 5 minutes)

(iii) L = flow length, feet

(iv) V = average velocity of flow, feet per second

(v) n = Manning's roughness coefficient for various surfaces

(vi) s = slope of the hydraulic grade line (land or watercourse slope), feet per foot

(d) When calculating T_c, the following limitations apply:

(i) Overland sheet flow (flow across flat areas that does not form into channels or rivulets) shall not extend for more than 300 feet.

(ii) For flow paths through closed conveyance facilities such as pipes and culverts, standard hydraulic formulas shall be used for establishing velocity and travel time.

(iii) Flow paths through lakes or wetlands may be assumed to be zero (i.e., $T_c = 0$).

(E) Runoff Curve Numbers

(1) The runoff curve numbers approved for water quantity/quality calculations are included as Table C-2 of this appendix.

(2) The curve numbers presented in Table C-2 are for wet antecedent moisture conditions. Wet conditions assume previous rainstorms have reduced the capacity of soil to absorb water. Given the frequency of rainstorms in this area, wet conditions are most likely and give conservative hydrographic values.

(F) Design Storm

(1) The SBUH method also requires a design storm to perform the runoff calculations. For flow control calculations, use NRCS Type 1A 24-hour storm distribution. This storm is shown in Figure C-1 and Table C-4. The depth of rainfall for the 2 through 100-year storm events is shown below in Table C-1.

Table C-1
24-HOUR RAINFALL DEPTHS

Recurrence Interval, Years	2	5	10	25	100
Flood Control, Destination: 24-Hour Depths, Inches	3.12	3.6	4.46	5.18	6.48
Water Quality Storm – Pollution reduction: 24-Hour Depths, 1.4 Inches					

Table C-2 Runoff Curve Numbers					
Cover description		**Curve numbers for hydrologic soil group**			
Cover type	**Hydrologic condition**	**A**	**B**	**C**	**D**
Runoff curve numbers for urban areas*					
Open space (lawns, parks, golf courses, cemeteries, etc.):					
Grass cover <50%		68	79	86	89
Grass cover 50% to 75%)		49	69	79	84
Grass cover > 75%		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way) Urban districts:		72	82	87	89
Urban districts:					
Commercial and business		89	92	94	95
Industrial		81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)		77	85	90	92
1/4 acre		61	75	83	87
1/3 acre		57	72	81	86
1/2 acre		54	70	80	85
1 acre		51	68	79	84
2 acres		46	65	77	82
Runoff curve numbers for other agricultural lands*					
Pasture, grassland, or range-continuous forage for grazing					
<50% ground cover or heavily grazed	Poor	68	79	86	89

with no mulch					
50 to 75% ground cover and not heavily grazed	Fair	49	69	79	84
>75% ground cover and lightly or only occasionally grazed	Good	39	61	74	80
Meadow-continuous grass, protected from grazing and generally mowed for hay	-	30	58	71	78
<50% ground cover	Poor	48	67	77	83
50 to 75% ground cover	Fair	35	56	70	77
>75% ground cover	Good	30	48	65	73
Woods-grass combination (orchard or tree farm)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods					
Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.	Poor	45	66	77	83
Woods are grazed but not burned, and some forest litter covers the soil.	Fair	36	60	73	79
Woods are protected from grazing, and litter and brush adequately cover the soil.	Good	30	55	70	77
Runoff curve numbers for Simplified Approaches**					
Eco-roof	Good	n/a	61	n/a	n/a
Roof Garden	Good	n/a	48	n/a	n/a
Contained Planter Box	Good	n/a	48	n/a	n/a
Infiltration & Flow-Through Planter Box	Good	n/a	48	n/a	n/a
Pervious Pavement	-	76	85	89	n/a
Trees					
New and/or Existing Evergreen	-	36	60	73	79
New and/or Existing	-	36	60	73	79
Deciduous					

n/a - Does not apply, as design criteria for the relevant mitigation measures do not include

the use of this soil type.
*Soil Conservation Service, *Urban Hydrology for Small Watersheds*, Technical Release 55, pp. 2.5-2.8, June 1986.
**CNs of various cover types were assigned to the Proposed Simplified Approaches with similar cover types as follows:

Eco-roof – assumed grass in good condition with soil type B.
Roof Garden – assumed brush-weed-grass mixture with >75% ground cover and soil type B. Contained Planter Box – assumed brush-weed-grass mixture with >75% ground cover and soil type B.
Infiltration & Flow-Through Planter Box – assumed brush-weed-grass mixture with >75% ground cover and soil type B.
Pervious Pavement – assumed gravel.
Trees – assumed woods with fair hydrologic conditions.

Note: To determine hydrologic soil type, consult local USDA Soil Conservation Service Soil Survey.

Table C-3 NRCS Hydrologic Soil Group Descriptions	
NRCS Hydrologic	
Soil Group	**Description**
Group A	Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist chiefly of deep, well drained to excessively drained sands or gravels. These soils have a high rate of water transmission.
Group B	Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.
Group C	Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils that have a layer that impedes the downward movement of water or soils that have a moderately fine texture. These soils have a slow rate of water transmission.
Group D	Soils having a very slow infiltrate rate (high runoff potential) when thoroughly wet. These consist chiefly of clay soils that have a high shrink-swell position, soils that have a permanent high water table, soils that have a fragipan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Figure C-4 NRCS 24-Hour Type 1A Hyetograph

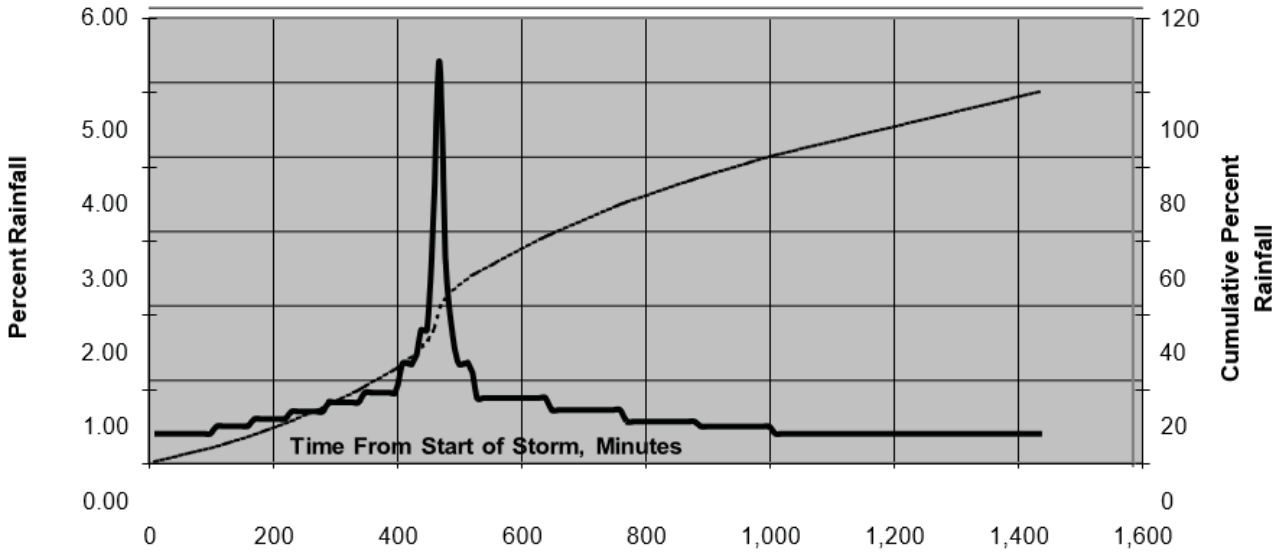


Table C-5 NRCS Type 1A Hyetographic Distribution - For Use In Water Quality/Quantity Design

Time From Start of Storm, Minutes		% Rainfall	Cumulative % Rainfall	Time From Start of Storm, Minutes		% Rainfall	Cumulative % Rainfall	Time From Start of Storm, Minutes		% Rainfall	Cumulative % Rainfall	Time From Start of Storm, Minutes		% Rainfall	Cumulative % Rainfall
0 -	10	0.40	0.40	360 -	370	0.95	22.57	720 -	730	0.72	67.40	1080 -	1090	0.40	86.00
10 -	20	0.40	0.80	370 -	380	0.95	23.52	730 -	740	0.72	68.12	1090 -	1100	0.40	86.40
20 -	30	0.40	1.20	380 -	390	0.95	24.47	740 -	750	0.72	68.84	1100 -	1110	0.40	86.80
30 -	40	0.40	1.60	390 -	400	0.95	25.42	750 -	760	0.72	69.56	1110 -	1120	0.40	87.20
40 -	50	0.40	2.00	400 -	410	1.34	26.76	760 -	770	0.57	70.13	1120 -	1130	0.40	87.60
50 -	60	0.40	2.40	410 -	420	1.34	28.10	770 -	780	0.57	70.70	1130 -	1140	0.40	88.00
60 -	70	0.40	2.80	420 -	430	1.34	29.44	780 -	790	0.57	71.27	1140 -	1150	0.40	88.40
70 -	80	0.40	3.20	430 -	440	1.80	31.24	790 -	800	0.57	71.84	1150 -	1160	0.40	88.80
80 -	90	0.40	3.60	440 -	450	1.80	33.04	800 -	810	0.57	72.41	1160 -	1170	0.40	89.20
90 -	100	0.40	4.00	450 -	460	3.40	36.44	810 -	820	0.57	72.98	1170 -	1180	0.40	89.60
100 -	110	0.50	4.50	460 -	470	5.40	41.84	820 -	830	0.57	73.55	1180 -	1190	0.40	90.00
110 -	120	0.50	5.00	470 -	480	2.70	44.54	830 -	840	0.57	74.12	1190 -	1200	0.40	90.40
120 -	130	0.50	5.50	480 -	490	1.80	46.34	840 -	850	0.57	74.69	1200 -	1210	0.40	90.80
130 -	140	0.50	6.00	490 -	500	1.34	47.68	850 -	860	0.57	75.26	1210 -	1220	0.40	91.20
140 -	150	0.50	6.50	500 -	510	1.34	49.02	860 -	870	0.57	75.83	1220 -	1230	0.40	91.60
150 -	160	0.50	7.00	510 -	520	1.34	50.36	870 -	880	0.57	76.40	1230 -	1240	0.40	92.00
160 -	170	0.60	7.60	520 -	530	0.88	51.24	880 -	890	0.50	76.90	1240 -	1250	0.40	92.40
170 -	180	0.60	8.20	530 -	540	0.88	52.12	890 -	900	0.50	77.40	1250 -	1260	0.40	92.80
180 -	190	0.60	8.80	540 -	550	0.88	53.00	900 -	910	0.50	77.90	1260 -	1270	0.40	93.20
190 -	200	0.60	9.40	550 -	560	0.88	53.88	910 -	920	0.50	78.40	1270 -	1280	0.40	93.60
200 -	210	0.60	10.00	560 -	570	0.88	54.76	920 -	930	0.50	78.90	1280 -	1290	0.40	94.00
210 -	220	0.60	10.60	570 -	580	0.88	55.64	930 -	940	0.50	79.40	1290 -	1300	0.40	94.40
220 -	230	0.70	11.30	580 -	590	0.88	56.52	940 -	950	0.50	79.90	1300 -	1310	0.40	94.80
230 -	240	0.70	12.00	590 -	600	0.88	57.40	950 -	960	0.50	80.40	1310 -	1320	0.40	95.20
240 -	250	0.70	12.70	600 -	610	0.88	58.28	960 -	970	0.50	80.90	1320 -	1330	0.40	95.60
250 -	260	0.70	13.40	610 -	620	0.88	59.16	970 -	980	0.50	81.40	1330 -	1340	0.40	96.00
260 -	270	0.70	14.10	620 -	630	0.88	60.04	980 -	990	0.50	81.90	1340 -	1350	0.40	96.40
270 -	280	0.70	14.80	630 -	640	0.88	60.92	990 -	1000	0.50	82.40	1350 -	1360	0.40	96.80
280 -	290	0.82	15.62	640 -	650	0.72	61.64	1000 -	1010	0.40	82.80	1360 -	1370	0.40	97.20
290 -	300	0.82	16.44	650 -	660	0.72	62.36	1010 -	1020	0.40	83.20	1370 -	1380	0.40	97.60
300 -	310	0.82	17.26	660 -	670	0.72	63.08	1020 -	1030	0.40	83.60	1380 -	1390	0.40	98.00
310 -	320	0.82	18.08	670 -	680	0.72	63.80	1030 -	1040	0.40	84.00	1390 -	1400	0.40	98.40
320 -	330	0.82	18.90	680 -	690	0.72	64.52	1040 -	1050	0.40	84.40	1400 -	1410	0.40	98.80
330 -	340	0.82	19.72	690 -	700	0.72	65.24	1050 -	1060	0.40	84.80	1410 -	1420	0.40	99.20
340 -	350	0.95	20.67	700 -	710	0.72	65.96	1060 -	1070	0.40	85.20	1420 -	1430	0.40	99.60
350 -	360	0.95	21.62	710 -	720	0.72	66.68	1070 -	1080	0.40	85.60	1430 -	1440	0.40	100.00

APPENDIX C
INFILTRATION TESTING

(A) Applicability

(1) To properly size and locate stormwater management facilities, it is necessary to characterize the soil infiltration conditions at the location of the proposed facility. All projects that propose onsite infiltration must evaluate existing site conditions and determine:

(a) If the infiltration rate is adequate to support the proposed stormwater management facility (satisfied through presence of mapped NRCS Type A & B Soils or the Simplified Approach infiltration test) or;

(b) The design infiltration rate prior to facility design (satisfied through the Presumptive Approach infiltration testing conducted by a qualified professional).

The following sections provide the approved standard infiltration testing specifications.

(B) Simplified Approach Open Pit Infiltration Test

(1) The purpose of the Simplified Approach is to provide a method which can be conducted by a nonprofessional for design of simple stormwater systems on small projects.

(2) The Simplified Approach open pit test is applicable only to projects on private property with less than 15,000 square feet of new or redeveloped impervious area.

(a) The results of infiltration testing must be documented on the Simplified Approach Form.

(b) The Simplified Approach cannot be used to find a design infiltration rate.

(c) The intent of the open pit test is to determine whether or not the local infiltration rate is adequate (2 inches/hour or greater) for the predesigned stormwater facilities described in Appendix F of the EDSPM(Infiltration swales, basins, planters, drywells, and trenches).

(d) The Simplified Approach Infiltration Test does not need to be conducted by a licensed professional.

(C) Simplified Approach Procedure

(1) A simple open pit infiltration test is required for each facility designed through the Simplified Approach. The test should be where the facility is proposed or within the immediate vicinity.

(a) Excavate a test hole to the depth of the bottom of the infiltration system, or otherwise to 4 feet.

(i) The test hole can be excavated with small excavation equipment or by hand using a shovel, auger, or post hole digger.

(ii) If a layer hard enough to prevent further excavation is encountered, or if noticeable moisture/water is encountered in the soil, stop and measure this depth from the surface and record it on the Simplified Approach Form. Proceed with the test at this depth.

(iii) Fill the hole with water to a height of about 6 inches from the bottom of the hole, and record the exact time. Check the water level at regular intervals (every 1 minute for fast draining soils to every 10 minutes for slower-draining soils) for a minimum of 1 hour or until all of the water has infiltrated. Record the distance the water has dropped from the top edge of the hole.

(iv) Repeat this process two more times, for a total of three rounds of testing.

(v) These tests should be performed as close together as possible to accurately portray the soil's ability to infiltrate at different levels of saturation. The third test provides the best measure of the saturated infiltration rate.

(b) For each test pit required, submit all three testing results with the date, duration, drop in water height, and conversion into inches per hour.

(c) If the results of the Simplified Approach open pit test show an infiltration rate greater than 2.0 inches per hour, the applicant can proceed with Simplified Approach facility design (where applicable).

(d) If the applicant would like to use an infiltration rate for design purposes, a Presumptive Infiltration Test must be conducted.

(D) Presumptive Infiltration Testing

(1) The Presumptive Approach must be used for all public and private developments where the Simplified Approach is not applicable.

(2) The qualified professional must exercise judgment in the selection of the infiltration test method.

(3) The three infiltration available testing methods used to determine a design infiltration rate are:

(a) Open pit falling head;

(b) Encased falling head; or

(c) Double-ring infiltrometer.

(4) Where satisfactory data from adjacent areas is available that demonstrates infiltration testing is not necessary, the infiltration testing requirement may be waived.

(5) Waiver of the site specific testing is subject to approval by the City.

(6) Recommendation for foregoing infiltration testing must be submitted in a report which includes supporting data and is stamped and signed by the project engineer or geologist.

(E) Testing Criteria

(1) Except for the Simplified Approach, all testing must be conducted or overseen by a qualified professional who is either a Professional Engineer, Registered Geologist, Soil Scientist or other professional testing service with equivalent training and experience in determining the permeability of soils.

(2) The depth of the test must correspond to the facility depth.

(a) If a confining layer is observed during the subsurface investigation to be within 4 feet of the bottom of the planned infiltration system, the testing should be conducted within that confining layer.

(b) Tests must be performed in the immediate vicinity of the proposed facility.

(c) Exceptions can be made to the test location provided the qualified professional can support that the strata are consistent from the proposed facility to the test location.

(d) Infiltration testing should not be conducted in engineered or undocumented fill.

(F) Minimum Number of Required Tests

(1) The simplified Approach requires one infiltration test for every proposed facility.

(2) The Presumptive Approach requires one infiltration test for every proposed facility or one test for every 100 feet of proposed linear facility.

(3) Generalized soil infiltration rates may be used if facilities are proposed in areas of consistent topography and soil strata as outlined in a Geotechnical report.

(G) Factor of Safety

(1) A minimum factor of safety of 2 shall be applied to field obtained infiltration rates where infiltration of the site performance standard storm per 4.3.110 (B) is proposed.

(H) Presumptive Infiltration Testing Instructions

Open Pit Falling Head Procedure

The open pit falling head procedure is performed in an open excavation and therefore is a test of the combination of vertical and lateral infiltration.

(1) Excavate a hole with bottom dimensions of approximately 2 feet by 2 feet into the native soil to the elevation of the proposed facility bottom. Smooth excavations should be scratched and loose material removed.

(2) Fill the hole with clean water a minimum of 1 foot above the soil to be tested, and maintain this depth of water for at least 4 hours (or overnight if clay soils are present) to presoak the native material.

(a) In sandy soils with little or no clay or silt, soaking is not necessary.

(b) If after filling the hole twice with 12 inches of water, the water seeps completely away in less than 10 minutes, the test can proceed immediately.

(3) Determine how the water level will be accurately measured. The measurements should be made with reference to a fixed point.

(4) After the presaturation period, refill the hole with water to 12 inches above the soil and record the time.

(a) Alternative water head heights may be used for testing provided the presaturation height is adjusted accordingly.

(b) Measure the water level at 10-minute intervals for a total period of 1 hour (or 20-minute intervals for 2 hours in slower soils) or until all of the water has drained.

(c) In faster draining soils (sands and gravels), it may be necessary to shorten the measurement interval in order to obtain a well-defined infiltration rate curve.

(d) Constant head tests may be substituted for falling head tests at the discretion of the professional overseeing the infiltration testing.

(5) Repeat the test.

(a) Successive trials should be run until the percent change in measured infiltration rate between two successive trials is minimal.

(b) The trial should be discounted if the infiltration rate between successive trials increases.

(c) At least three trials must be conducted. After each trial, the water level is readjusted to the 12 inch level.

(6) The average infiltration rate over the last trial should be used to calculate the unfactored infiltration rate. The final rate must be reported in inches per hour.

(7) For very rapidly draining soils, it may not be possible to maintain a water head above the bottom of the test pit. A rate based test may be used if the infiltration rate meets or exceeds the flow of water into the test pit.

Note that a maximum infiltration rate of 20 inches per hour can be used in stormwater system design.

(l) Encased Falling Head Test

The encased falling head procedure is performed with a 6-inch casing that is embedded approximately 6 inches into the native soil. The goal of this field test is to evaluate the vertical infiltration rate through a 6-inch plug of soil, without allowing any lateral infiltration. The test is not appropriate in gravelly soils or in other soils where a good seal with the casing cannot be established.

(1) Embed a solid 6-inch diameter casing into the native soil at the elevation of the proposed facility bottom. Ensure that the embedment provides a good seal around the pipe casing so that percolation will be limited to the 6-inch plug of the material within the casing.

(a) This method can also be used when testing within hollow stem augers, provided the driller and tester are reasonably certain that a good seal has been achieved between the soil and auger.

(3) Fill the pipe with clean water a minimum of 1 foot above the soil to be tested, and maintain this depth for at least 4 hours (or overnight if clay soils are present) to presoak the native material.

(a) Any soil that sloughed into the hole during the soaking period should be removed.

(b) In sandy soils with little or no clay or silt, soaking is not necessary.

(c) If after filling the hole twice with 12 inches of water, the water seeps completely away in less than 10 minutes, the test can proceed immediately.

(4) To conduct the first trial of the test, fill the pipe to approximately 12 inches above the soil and measure the water level.

(a) Alternative water head heights may be used for testing provided the presaturation height is adjusted accordingly.

(b) The level should be measured with reference to a fixed point. Record the exact time.

(c) Measure the water level at 10-minute intervals for a total period of 1 hour (or 20-minute intervals for 2 hours in slower soils) or until all of the water has drained.

(d) In faster draining soils (sands and gravels), it may be necessary to shorten the measurement interval in order to obtain a well-defined infiltration rate curve.

(i) Constant head tests may be substituted for falling head tests at the discretion of the professional overseeing the infiltration testing.

(ii) Successive trials should be run until the percent change in measured infiltration rate between two successive trials is minimal.

(iii) The trial should be discounted if the infiltration rate between successive trials increases.

(iv) At least three trials must be conducted.

(v) After each trial, the water level is readjusted to the 12 inch level.

(vi) The average infiltration rate over the last trial should be used to calculate the unfactored infiltration rate.

(vii) Alternatively, the infiltration rate measured over the range of water head applicable to the project stormwater system design may be used at the discretion of the professional overseeing the testing.

(viii) The final rate must be reported in inches per hour.

(J) Double Ring Infiltrometer Test

(1) The double-ring infiltrometer test procedure should be performed in accordance with ASTM 3385-94.

(2) The test is performed within two concentric casings embedded and sealed to the native soils. The outer ring maintains a volume of water to diminish the potential of lateral infiltration through the center casing. The volume of water added to the center ring to maintain a static water level is used to calculate the infiltration rate.

(3) The double-ring infiltrometer is appropriate only in soils where an adequate seal can be established.

(K) Reporting Requirements

The following information should be included in the Infiltration Testing Report. The Infiltration Testing Report should be attached to the project's Stormwater Management Report:

(1) Statement of project understanding (proposed stormwater system).

(2) Summary of subsurface conditions encountered.

(3) Summary of infiltration testing including location and number of tests and testing method used.

(4) Discussion of how the tests were performed (i.e. pipe type or diameter or test pit dimensions).

(5) Infiltration testing results in inches per hour.

(6) Recommended design infiltration rate including factors of safety.

(7) Groundwater observations within exploration and an estimate of the depth to seasonal high groundwater.

(8) Site plan showing location of infiltration tests.

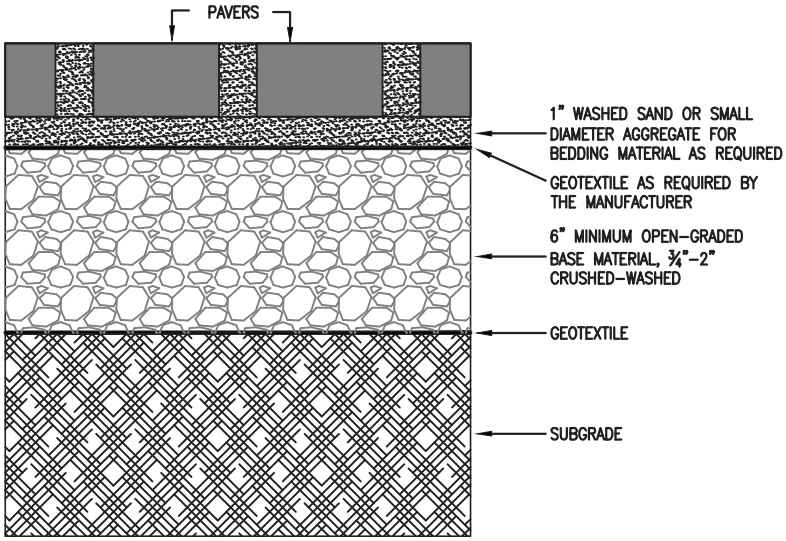
(9) Boring or test pit logs.

(a) The logs should include an associated soil classification consistent with ASTM D2488-00, Standard Practice for Classification for Description and Identification of Soils (Visual-Manual Procedure).

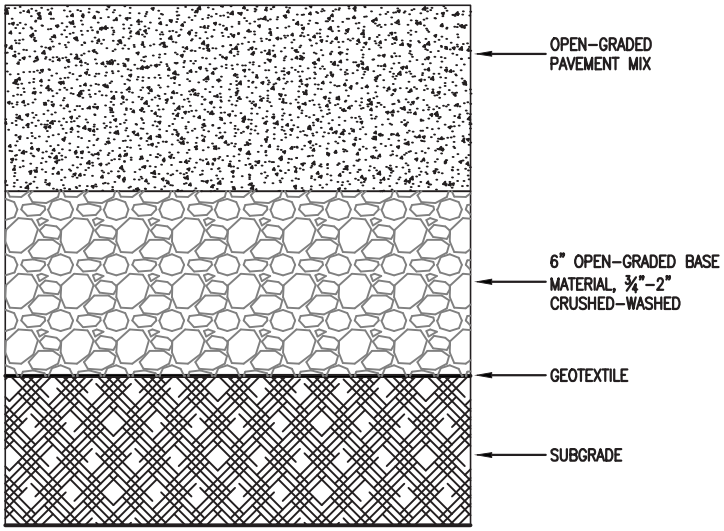
(b) The logs should also include any additional pertinent subsurface information, such as soil moisture conditions, depth and description of undocumented or engineered fill, soil color and mottling conditions, soil stiffness or density, and approximate depth of contact between soil types.

(10) Infiltration Test Data

APPENDIX D
TYPICAL FACILITY DETAILS



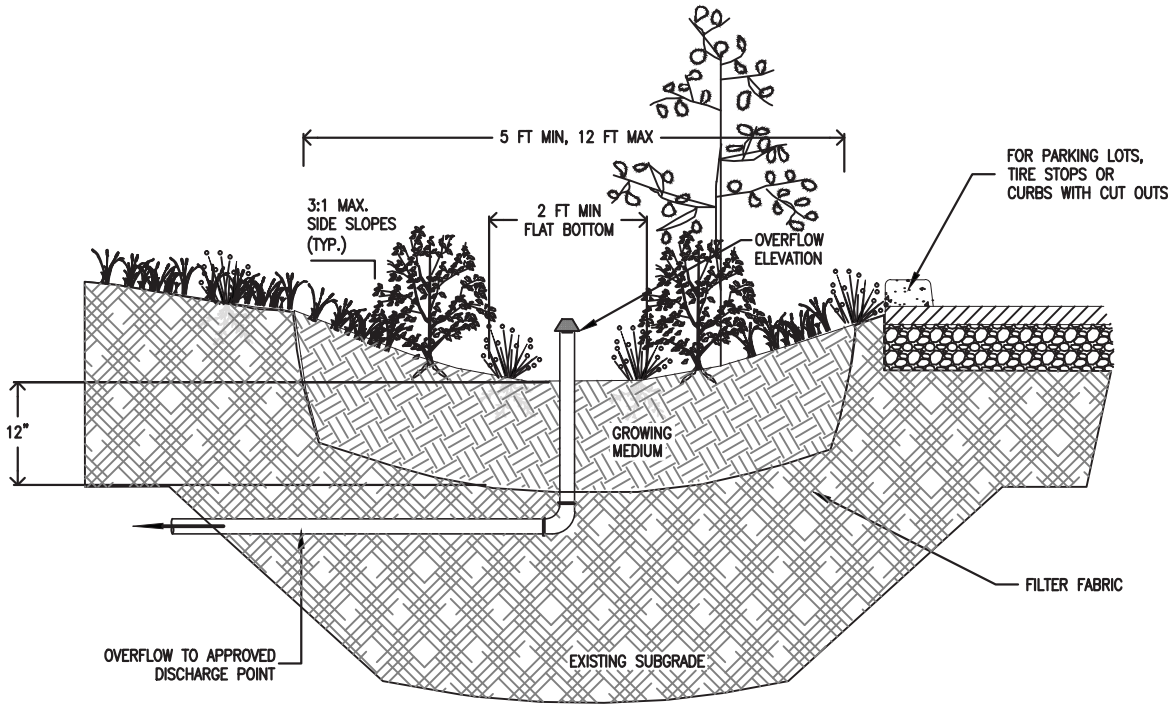
PERMEABLE CONCRETE BLOCK
OR "PAVER" SYSTEMS



PERVIOUS (OPEN GRADED) CONCRETE
AND ASPHALT

PERMEABLE PAVEMENT

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width of swale: 5' - 12'.
      Depth of swale: 12"
   b. Longitudinal slope of swale: 0.5% min and 6% max.
   c. Flat bottom width: 2' minimum.
   d. Side slopes of swale: 3:1 maximum.

3. Setbacks (from centerline of facility):
   a. Infiltration swales must be 10' from foundations and 5' from property lines.
   b. Filtration swales must have a waterproof liner when within 10' from foundation of 5' from property lines.

4. Overflow:
   a. Overflows are required to an approved point discharge point unless sized to fully infiltrate the flood control design storm.
   b. Inlet elevation must allow for 2" of freeboard, minimum.

5. Piping: Minimum 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Drain rock:
   a. Size: 3/4" - 2-1/2" washed
   b. Depth: 12" minimum

7. A geotextile is required to isolate the drain rock from the subgrade and growing medium.

8. Growing medium:
   a. In 0-2 year TOTZ, a 24" minimum with at least 50% organic material
   b. In all other areas, 12" minimum
   c. Import topsoil or amended native soil

9. Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Vegetative swales must have following plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers, 2 Small Shrubs, 4 Large Shrubs, and 1 Tree (deciduous or evergreen)

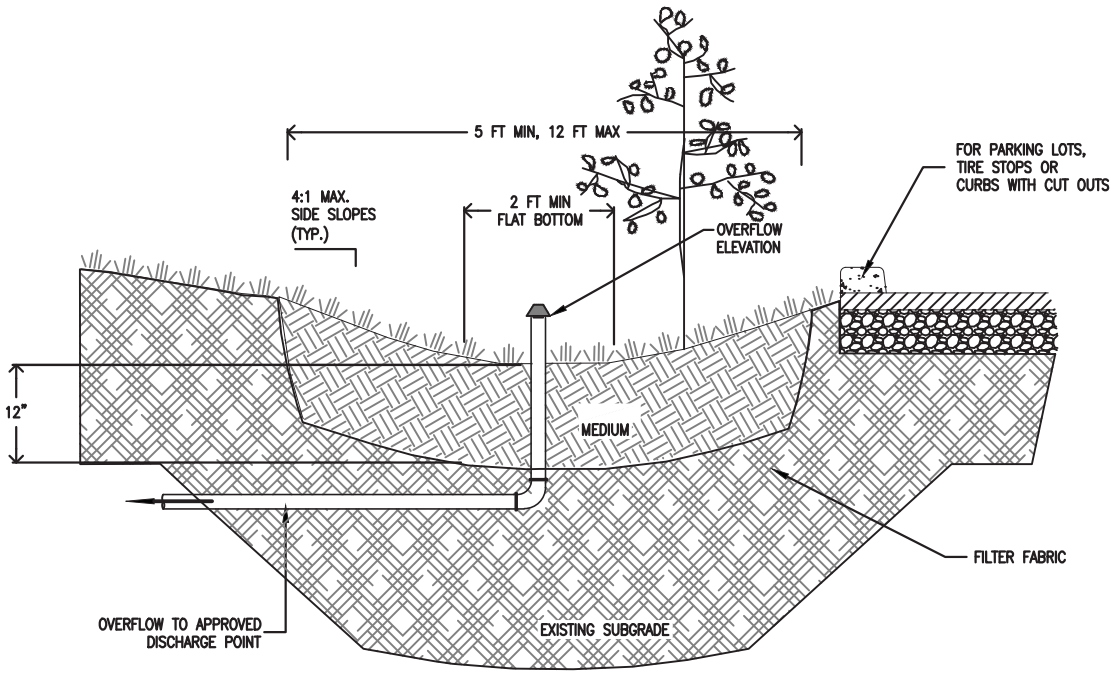
10. Waterproof liner: Shall be 30 mil PVC or equivalent for flow-through facilities.

11. Install washed pea gravel or river rock to transition from inlets and splash pad to growing medium.

12. Check dams: Shall be placed at 12" intervals along the length of the swale.

VEGETATED SWALE

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width of swale: 5' - 12'.
      Depth of swale: 12"
   b. Longitudinal slope of swale: 0.5% min and 6% max.
   c. Bottom width: 2' minimum.
   d. Side slopes: 3:1 maximum for vegetative and 4:1 for grassy.

3. Setbacks (from centerline of facility):
   a. Infiltration swales must be 10' from foundations and 5' from property lines.
   b. Filtration swales must have a waterproof liner when within 10' from foundation of 5' from property lines.

4. Overflow:
   a. Overflows are required to an approved point discharge point unless sized to fully infiltrate the flood control design storm.
   b. Inlet elevation must allow for 2" of freeboard, minimum.

5. Piping: Minimum 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Growing medium:
   a. In 0-2 year TOTZ, a 24" minimum with at least 50% organic material
   b. In all other areas, 12" minimum
   c. Import topsoil or amended native soil

7. Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Grassy swales must have 100 coverage. Vegetative swales must have following plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers, 2 Small Shrubs, 4 Large Shrubs, and 1 Tree (deciduous or evergreen)

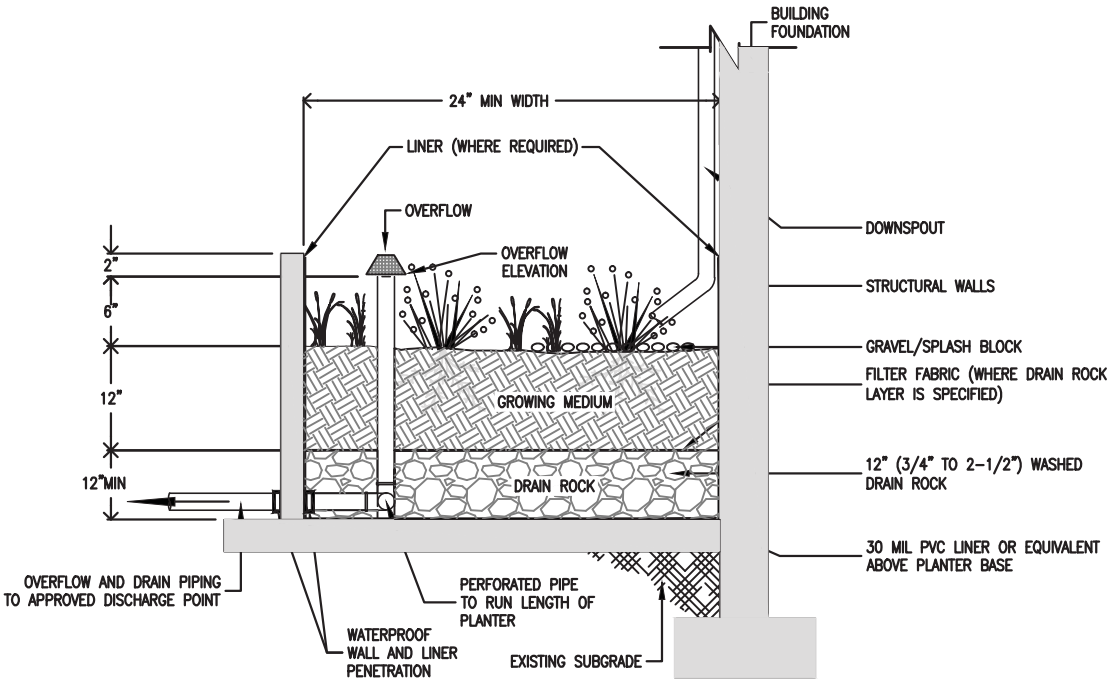
8. Waterproof liner: Shall be 30 mil PVC or equivalent where required.

9. Install washed pea gravel or river rock to transition from inlets and splash pad to growing medium.

10. Check dams: Shall be placed at 12" intervals along the length of the swale.

GRASSY SWALE

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width of planter: 24” minimum.
   b. Depth of planter: 6" minimum from top of growing medium to overflow elevation.
   c. Slope of planter: 0.5% or less.

3. Setbacks:
   a. Infiltration planters must be 10' from foundations and 5' from property lines.
   b. Filtration planters do not require a setback with an approved waterproof liner.

4. Overflow:
   a. Overflows are required to an approved discharge point when using the Simplified Method
   b. Overflows are not required when sized to fully infiltrate the flood control event using the Presumptive Method.
   c. Minimum 2" freeboard from overflow elevation to the top of the planter walls.

5. Piping: Minimum 3” pipe required for up to 1,500 sq ft of impervious area, otherwise 4” min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Drain rock:
   a. Size: 3/4” to 2-1/2" diameter open graded
   b. Depth: 12” Minimum
   c. Length and Width: Full length and width of facility

7. Drain rock layer shall be separated from the growing medium by a geotextile

8. Growing medium:
   a. In 0-2 year TOTZ, a 24" minimum with at least 50% organic material
   b. In all other areas, 12" minimum
   c. Import topsoil or amended native soil

9. Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Number of plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers and 4 Small Shrubs, OR
   c. 60 Ground Covers and 12 Small Shrubs

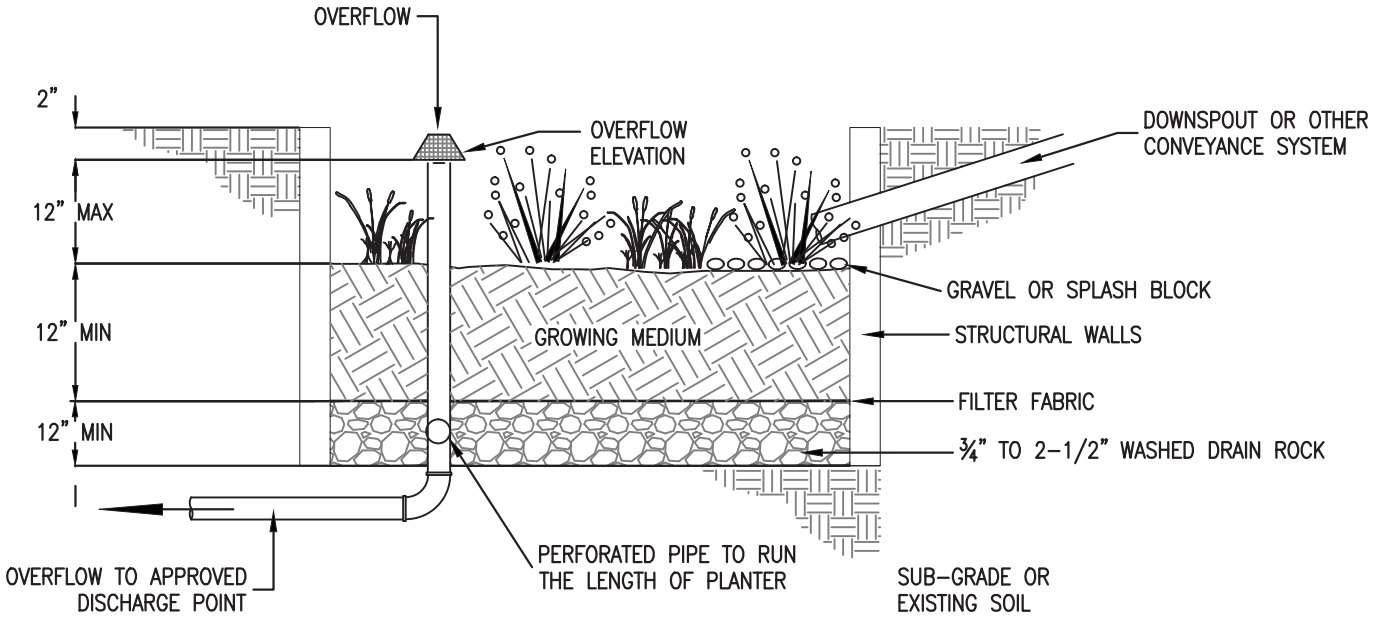
10. Planter walls:
   a. Material shall be stone, brick, concrete, wood, or other durable material (no chemically treated wood).
   b. Walls shall be included on building plans here incorporated into foundations or other permitted structures..

11. Waterproof liner (where required): Shall be 30 mil PVC or equivalent.

12. Install washed pea gravel or river rock to transition from inlet or splash pad to growing medium.

FOUNDATION
FILTRATION PLANTER

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width of planter: 24” minimum.
   b. Depth of planter: 6" minimum from top of growing medium to overflow elevation.
   c. Slope of planter: 0.5% or less.

3. Setbacks:
   a. Infiltration planters must be 10' from foundations and 5' from property lines.
   b. Filtration planters do not require a setback with an approved waterproof liner.

4. Overflow:
   a. Overflows are required to an approved discharge point when using the Simplified Method
   b. Overflows are not required when sized to fully infiltrate the flood control event using the Presumptive Method.
   c. Minimum 2" freeboard from overflow elevation to the top of the planter walls.

5. Piping: Minimum 3” pipe required for up to 1,500 sq ft of impervious area, otherwise 4” min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Drain rock:
   a. Size: 3/4” to 2-1/2" diameter open graded
   b. Depth: 12” Minimum
   c. Length and Width: Full length and width of facility

7. Drain rock layer shall be separated from the growing medium by a geotextile filter fabric

8. Growing medium:
   a. In 0-2 year TOTZ, a 24" minimum with at least 50% organic material
   b. In all other areas, 12" minimum
   c. Import topsoil or amended native soil.

9. Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Minimum container size is 1 gallon. # of plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers and 4 Small Shrubs, OR
   c. 60 Ground Covers and 12 Small Shrubs

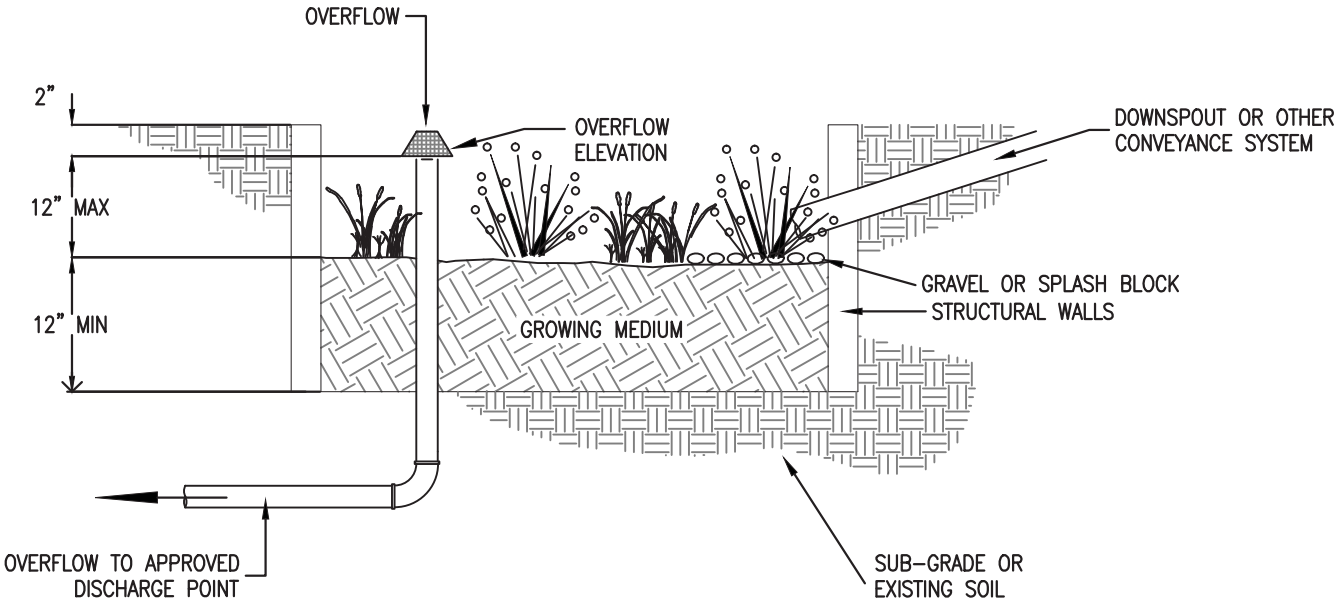
10. Planter walls:
   a. Material shall be stone, brick, concrete, wood, or other durable material (no chemically treated wood).
   b. Walls shall be included on building plans here incorporated into foundations or other permitted structures..

11. Waterproof liner (where required): Shall be 30 mil PVC or equivalent.

12. Install washed pea gravel or river rock to transition from inlet or splash pad to growing medium.

FILTRATION PLANTER

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width of planter: 24" minimum.
   b. Depth of planter: 6" minimum from top of growing medium to overflow elevation.
   c. Slope of planter: 0.5% or less.

3. Setbacks:
   a. Infiltration planters must be 10' from foundations and 5' from property lines.
   b. Filtration planters do not require a setback with an approved waterproof liner.

4. Overflow:
   a. Overflows are required to an approved discharge point when using the Simplified Method
   b. Overflows are not required when sized to fully infiltrate the flood control event using the Presumptive Method.
   c. Minimum 2" freeboard from overflow elevation to the top of the planter walls.

5. Piping: Minimum 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Growing medium:
   a. In 0-2 year TOTZ, a 24" minimum with at least 50% organic material
   b. In all other areas, 12" minimum
   c. Import topsoil or amended native soil

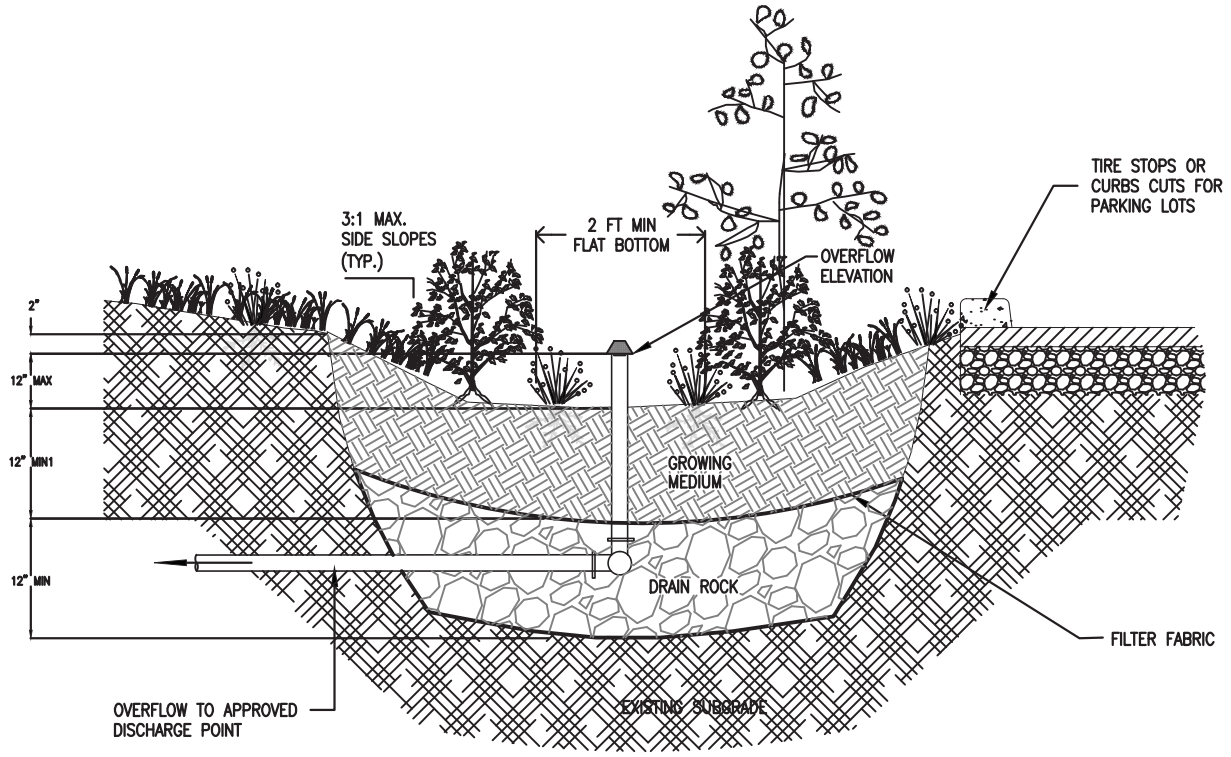
7. Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Minimum container size is 1 gallon. # of plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers and 4 Small Shrubs, OR
   c. 60 Ground Covers and 12 Small Shrubs

8. Planter walls:
   a. Material shall be stone, brick, concrete, wood, or other durable material (no chemically treated wood).
   b. Walls shall be included on building plans here incorporated into foundations or other permitted structures..

9. Install washed pea gravel or river rock to transition from inlet or splash pad to growing medium.

INFILTRATION PLANTER

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Depth of rain garden: 6" minimum and 12” maximum
   b. Flat bottom width: 2' min.
   c. Side slopes of Rain Garden: 3:1 maximum.

3. Setbacks:
   a. Infiltration rain gardens must be 10' from foundations and 5' from property lines. Filtration Rain Garden do not require a setback with an approved waterproof liner.

4. Overflow:
   a. Overflows are required unless sized to fully infiltrate the flood control design storm.
   b. Inlet elevation must allow for 2” of freeboard, minimum.

5. Piping: Minimum 3” pipe required for up to 1,500 sq ft of impervious area, otherwise 4” min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Drain rock:
   a. Size: 3/4"-2-1/2" washed
   b. Depth: 12” Minimum

7. Drain rock later shall be separated form the growing medium and the surround soils by a geotextile filter fabric.

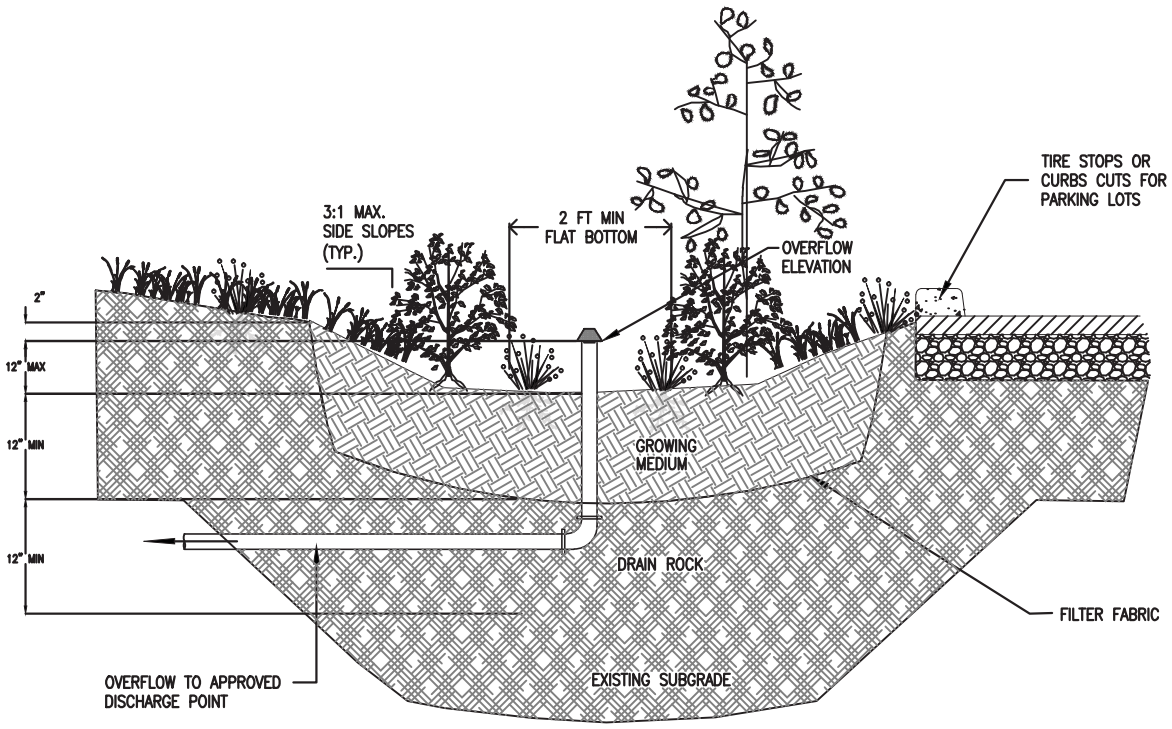
8. Growing medium:
   a. In 0-2 year TOTZ, a 24" minimum with at least 50% organic material
   b. In all other areas, 12" minimum
   c. Import topsoil or amended native soil

9. Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Number of plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers, 2 Large Shrubs 4 Small Shrubs and 1 tress (deciduous or evergreen)

10. Install washed pea gravel or river rock to transition from inlets and splash pad to growing medium.

FILTRATION RAIN GARDEN

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Depth of rain garden: 6" minimum and 12” maximum
   b. Flat bottom width: 2' min.
   c. Side slopes of Rain Garden: 3:1 maximum.

3. Setbacks:
   a. Infiltration rain gardens must be 10' from foundations and 5' from property lines. Filtration Rain Garden do not require a setback with an approved waterproof liner.

4. Overflow:
   a. Overflows are required unless sized to fully infiltrate the flood control design storm.
   b. Inlet elevation must allow for 2” of freeboard, minimum.

5. Piping: Minimum 3” pipe required for up to 1,500 sq ft of impervious area, otherwise 4” min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

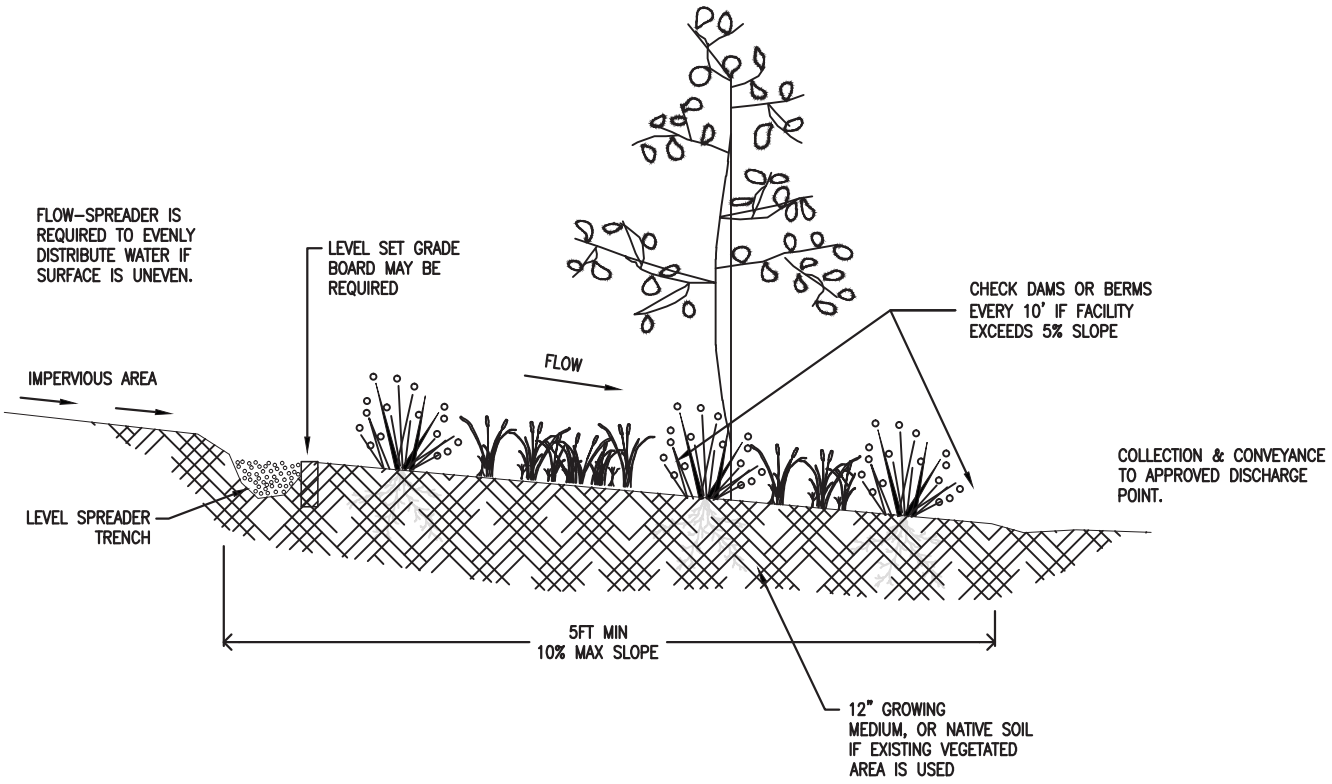
6. Growing medium:
   a. In 0-2 year TOTZ, a 24" minimum with at least 50% organic material
   b. In all other areas, 12" minimum
   c. Import topsoil or amended native soil

7. Vegetation: Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Number of plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers, 2 Large Shrubs 4 Small Shrubs and 1 tress (deciduous or evergreen)

8. Install washed pea gravel or river rock to transition from inlets and splash pad to growing medium.

INFILTRATION RAIN GARDEN

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, as well as foot traffic for proposed infiltration areas prior to and during construction.

2. Dimensions:
   a. Flow line length: 5' minimum.
   b. Slopes: 0.5 - 10%

3. Setbacks (from beginning of facility):
   a. 5' from property line
   b. 10ft from buildings
   c. 50ft from wetlands, rivers, streams, and creeks where required.

4. Overflow: Collection from filter strip shall be specified on plans to approved discharge point.

5. Growing medium: Unless existing vegetated areas are used for the filter strip, growing medium shall be used within the top 12".

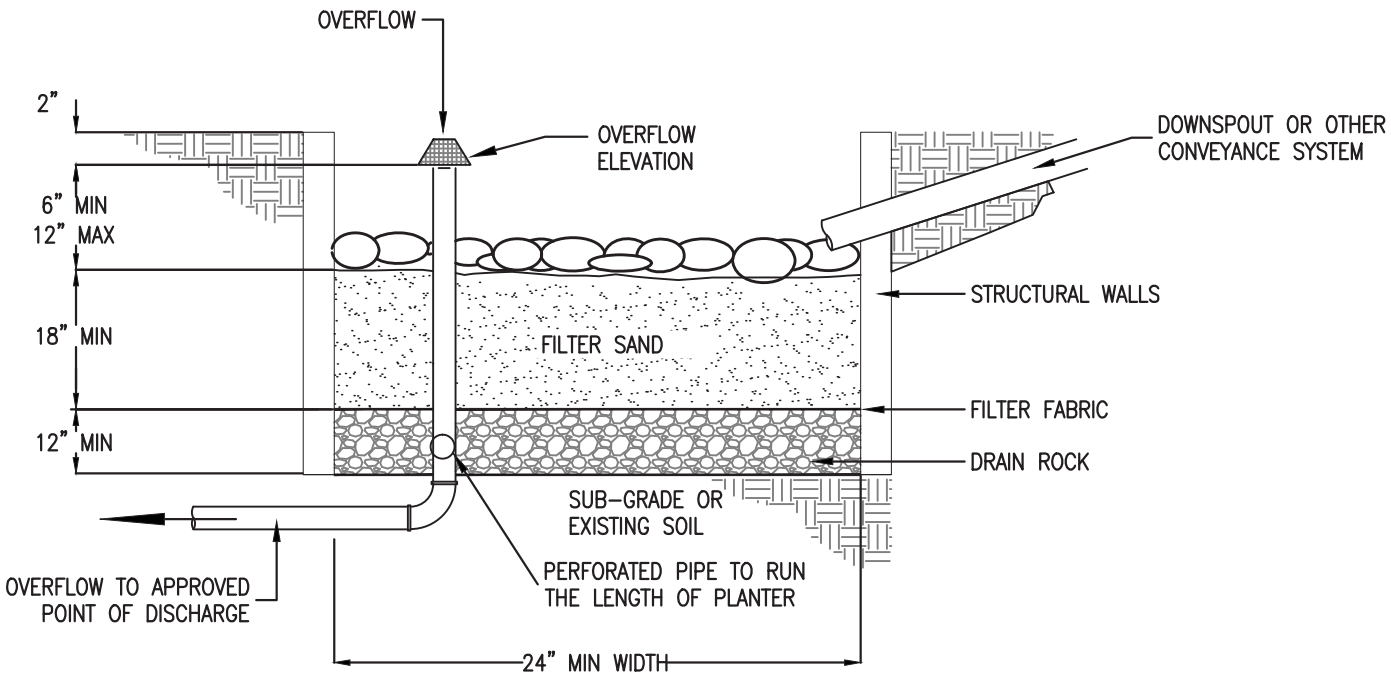
6. Vegetation: The entire filter strip must have 100% coverage by native grasses, native wildflower blends, native ground covers, or any combination thereof. Follow landscape plans otherwise refer to plant list in SWMM Appendix F. Number of plantings per 100sf of facility area:
   a. 100 Ground Covers, OR
   b. 80 Ground Covers, 4 Small Shrubs, OR
   c. 60 Ground Covers, 12 Small Shrubs

7. Level Spreaders: A grade board, perforated pipe, berm or trench may be required to disperse the runoff evenly across the filter strip to prevent a point of discharge. The top of the level spreader must be horizontal and at an appropriate height to provide sheet flow directly to the soil without scour. Grade boards can be made of any material that will withstand weather and solar degradation. Trenches used as level spreaders can be open or filled with washed crushed rock, pea gravel, or sand

8. Check dams: shall be placed according to facility design otherwise:
   a. Equal to the width of the filter
   b. Every 10' where slope exceeds 5%.

FILTER STRIP

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width: 24" minimum.
   b. Depth: 6" minimum
   c. Slope: 0.5% or less

3. Setbacks (from centerline of f):
   a. Infiltration sand filters must be 10' from foundations and 5' from property lines. Filtration sand filters do not have setbacks with an approved waterproof liner.

4. Overflow:
   a. Overflows are required to an approved point of discharge.
   b. Inlet elevation must allow for 2" of freeboard, minimum.

5. Piping: Minimum 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Drain rock (minimum): 12" minimum of 3/4" - 2-1/2" washed.
   .

7. Separation between drain rock: Drain rock shall be separated from sand layer and surrounding sold by a geotextile filter fabric

8. Filter sand:
   a. 18" minimum.
   b. See sand specification in SWMM.

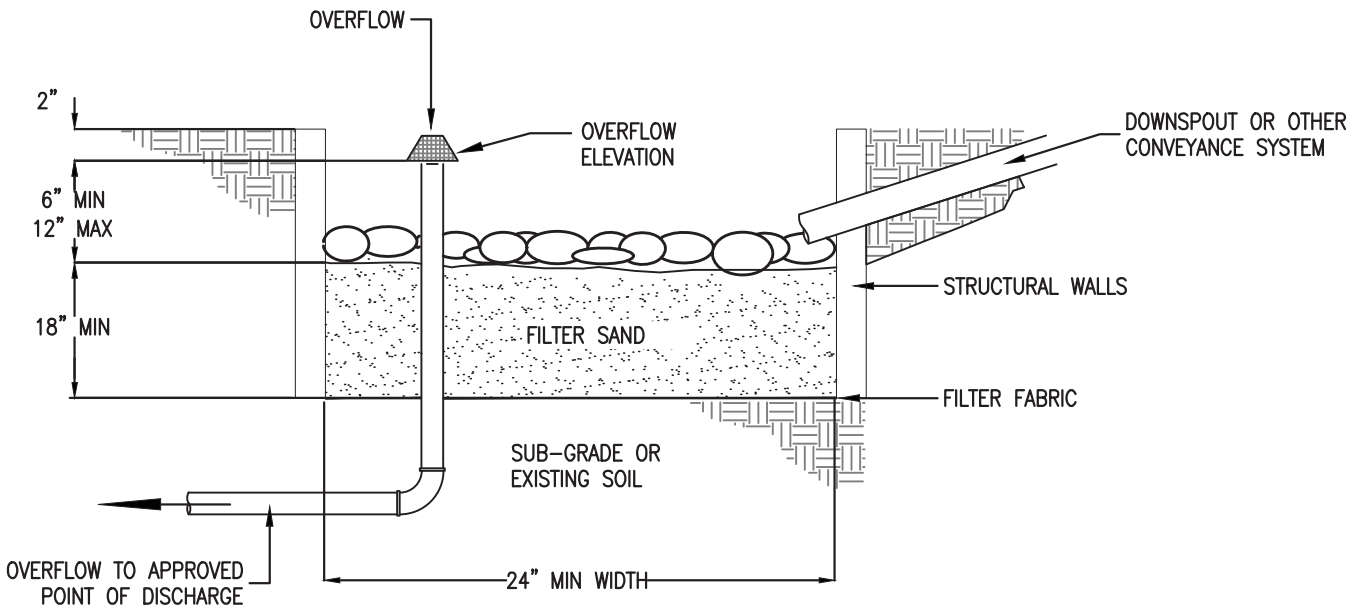
9. Sand filter walls:
   a. Material shall be stone, brick, concrete, wood, or other durable material (no chemically treated wood).
   b. Filter walls built into foundation walls shall be shown on building plans.

10. Waterproof liner (where required): Shall be 30 mil PVC or equivalent.

11. Install washed pea gravel or river rock to transition from inlet or splash pad to growing medium.

FILTRATION SAND FILTER

TYPICAL DETAILS



1. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

2. Dimensions:
   a. Width: 24" minimum
   b. Depth: 6" minimum
   c. Slope: 0.5% or less.

3. Setbacks:
   a. Infiltration sand filters must be 10' from foundations and 5' from property lines.
   b. Flow-through sand filters must be less than 30" in height above surrounding area if within 5 feet of property line.

4. Overflow (where required):
   a. Overflow required for Simplified Approach.
   b. Inlet elevation must allow for 2" of freeboard, minimum.
   c. Protect from debris, sand, and sediment with strainer or grate.

5. Piping: Minimum 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

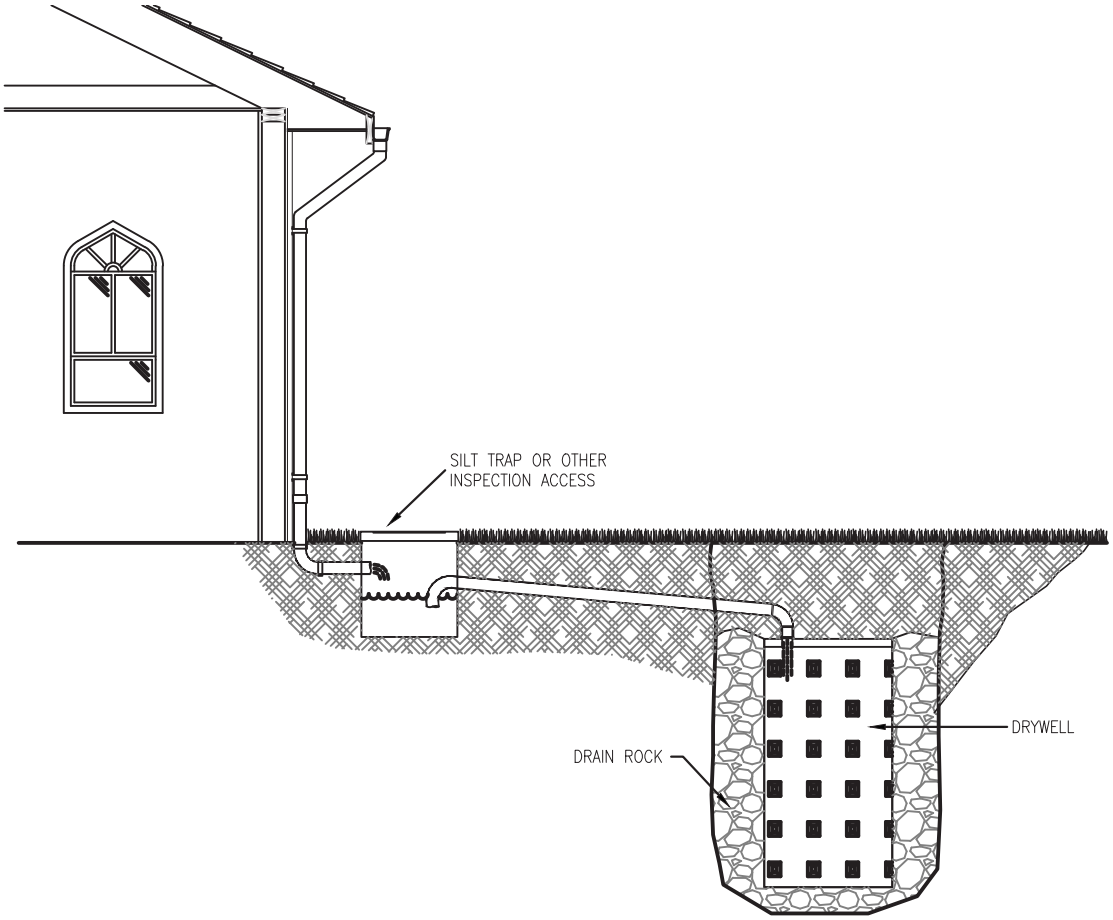
6. Filter sand:
   a. 18" minimum.
   b. See sand spec in SWMM Exhibit 2-4.

7. Sand filter walls:
   a. Material shall be stone, brick, concrete, wood, or other durable material (no chemically treated wood).
   b. Concrete, brick, or stone walls shall be included on foundation plans.

8. Install washed pea gravel or river rock to transition from inlet or splash pad to growing medium.

INFILTRATION SAND FILTER

TYPICAL DETAILS



1. All drywells are considered Class 5 injection wells and must be registered with the Oregon Department of Environmental Quality as Underground Injection Control (UIC) systems.

2. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

3. Drywells shall be designed using the presumptive approach due to the limited soil conditions in Eugene and the need to fully infiltrate the flood control design storm. This detail is intended to illustrate a typical drywell installation. Installation shall conform to the drywell design provided by the Presumptive Method.

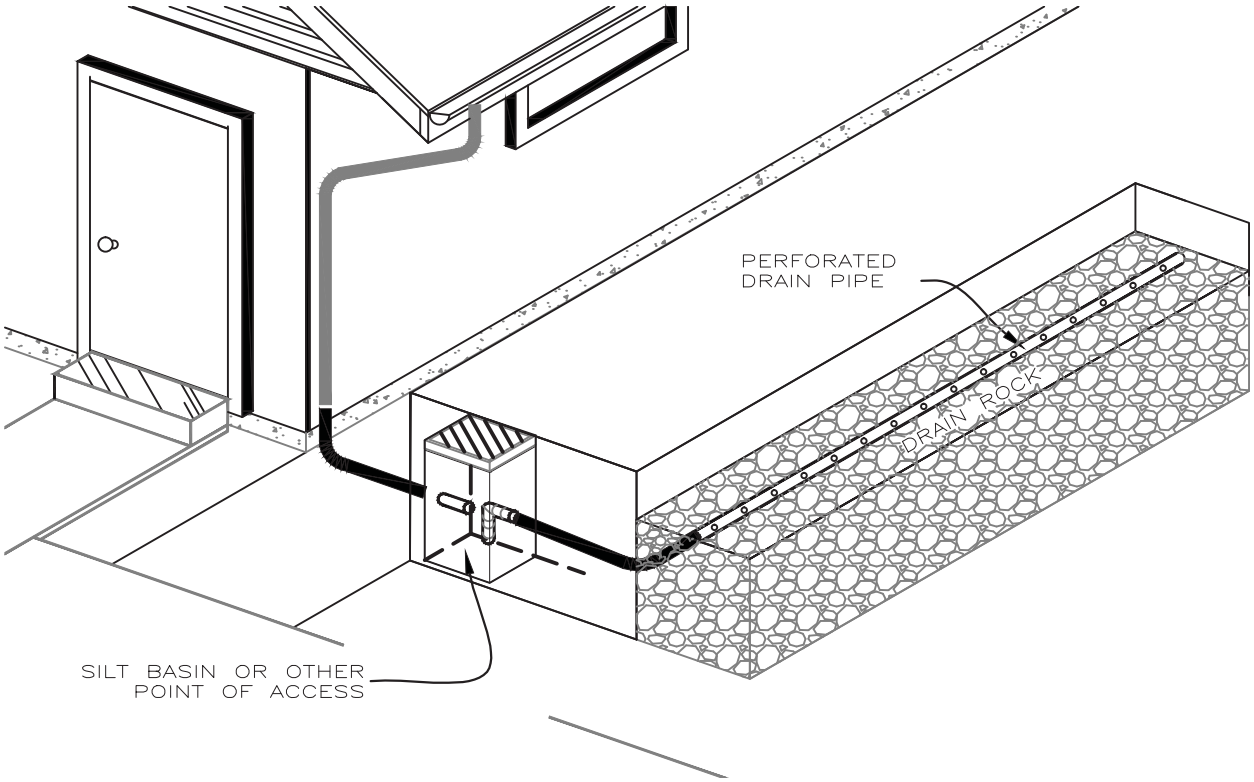
4. Setbacks (from center of facility):
   a. 10' from foundations
   b. 5' from property lines

5. Piping: Minimum 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Silt Traps: A silt trap or other access point is required at finished grade for inspection and maintenance access

DRYWELL

TYPICAL DETAILS



1. All soakage trenches are considered injection wells and must be registered with the Oregon Department of Environmental Quality as Underground Injection Control (UIC) systems.

2. Provide protection from all vehicle traffic, equipment staging, and foot traffic in proposed infiltration areas prior to, during, and after construction.

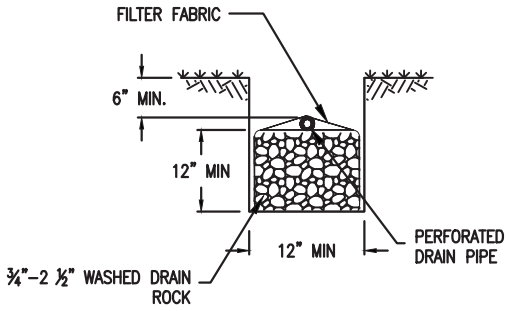
3. Soakage trenches shall be designed using the presumptive approach due to the limited soil conditions in Eugene and the need to fully infiltrate the flood control design storm. This detail is intended to illustrate a typical soakage trench installation. Installation shall conform to the soakage trench design provided by the Presumptive Method.

4. Setbacks (from center of facility):
   a. 10' from foundations
   b. 5' from property lines

5. Piping: Minimum 3" pipe required for up to 1,500 sq ft of impervious area, otherwise 4" min. Piping material, slopes and installation shall follow the Uniform Plumbing Code.

6. Silt Traps: A silt trap or other access point is required at finished grade for inspection and maintenance access

SOAKAGE TRENCH
TYPICAL CROSS SECTION



SOAKAGE TRENCH

TYPICAL DETAILS

APPENDIX E
OPERATIONS AND MAINTENANCE

This appendix presents the operation and maintenance (O&M) requirements for stormwater management facilities designed and installed in the City of Springfield pursuant to SDC 4.3.110.

INTRODUCTION

Notice of Operations and Maintenance Agreement – (NOMA)
The NOMA must be in a form approved by the City Attorney and must identify the property as having a stormwater management facility and the responsible party for future operations and maintenance. *The NOMA must be completed and recorded at Lane County Deeds and Records. Signatures on the NOMA shall be notarized.*

The intent of the NOMA is to ensure that the facility will be identified to future property owners and that the facility will be maintained according to the Springfield Development Code, Springfield Municipal Code, the O&M Agreement, and the O&M Plan for the site.

Operations and Maintenance Agreement – (O&M Agreement)
The O&M Agreement must be on a form approved by the City Attorney and must identify the property as having a stormwater management facility; the owner's name, address, email, and phone number; the site address; financially responsible party for ongoing operation and maintenance; and parties responsible for inspecting and maintaining the facility.

The O&M Agreement does not need to be recorded. The intent of the Agreement is to ensure that the facility will be maintained for functionality, aesthetics, and will identify accountability. The stormwater site plan attached to the Agreement will help identify to the owners and inspectors the location and the functions of the stormwater facilities, and the Facility Specific O&M Plan will identify the routine maintenance procedures and scheduling.

Facility Specific Operations and Maintenance Plan – (&M Plan)
This appendix provides pre-approved Facility Specific Operations and Maintenance Plans (O&M Plans) for various types of stormwater quality facilities. Stormwater facilities that are not included in this appendix (i.e. a manufactured stormwater treatment technology), are required to submit an O&M Plan that meets the manufacturer's requirements and facility specific operations and maintenance activities consistent with ongoing function of the stormwater facility(ies).

The O&M Plan strategies in this appendix apply to all stormwater management facilities and related facility components identified in SDC 4.3.110. Stormwater destination facilities are required to be operated and maintained in working condition for the life of the facility.

Private Facilities:
Record a copy of the NOMA with Lane County Deeds and Records. Submit with the final site plan, a *recorded copy* of the NOMA, the O&M Agreement, and the Facility Specific Operations and Maintenance Plan (O&M Plan) for each type of stormwater management facility permitted on the site. The operations and maintenance activities listed on the O&M Plan documents, which will be on file with the City Engineer, may later be revised with City Engineer approval.

Public Facilities:

Submit a copy of a Facility Specific O&M Plan with the Public Improvement Permit Project. County recording of this plan is not necessary.

OPERATIONS AND MAINTENANCE PLAN SUBMITTALS

Privately Maintained Facilities

The *O&M Plan* for a privately maintained facility shall include the following components for each development site. A complete Plan must be submitted and approved as provided in SDC 4.3.110.

1. A recorded copy of the Notice of Operation and Maintenance Agreement (NOMA)
2. Operations and Maintenance Agreement (O&M Agreement)
3. Stormwater Management Site Plan (as approved under the Development Agreement)
4. Landscape Plan
5. Stormwater Management Facility Inspection and Maintenance Log
6. Facility-Specific Operations and Maintenance Plan(s) (O&M Plan(s))

Detailed submission requirements for the above items are found below.

1.) ***Notice of Operations and Maintenance Agreement – (NOMA)*****:** The NOMA identifies the property as having a stormwater management facility and identifies the responsible party for future operations and maintenance. *The Notice must be completed and recorded at Lane County Deeds and Records. Signatures on the Notice shall be notarized.* The NOMA may be submitted in person or mailed, along with payment of the applicable fees, to the County Recorder's Office. Lane County Deeds and Records, 125 E 8th Avenue, Eugene, OR 97401.

https://www.lanecounty.org/government/county_departments/county_administration/operations/county_clerk/real_property_recording/document_recording_requirements

The property description on the NOMA must be a full legal description of the property and may not be a tax lot number. Legal descriptions may be obtained from the county assessor's office. *The NOMA shall be printed on legal-sized (8 ½ x 14) paper to facilitate the recording process. If printed on smaller paper, additional recording fees may apply.*

2.) ***Operations and Maintenance Agreement – (O&M Agreement):*** The completed Agreement must identify the owner's name, address, and phone number, the site address, financial method used to cover future operation and maintenance, and parties responsible for inspecting and maintaining the facility. The O&M Agreement does not need to be recorded.

3.) ***Stormwater Management Site Plan:*** A copy of the Stormwater Management Site Plan shall be attached to the O&M Agreement. The Plan must show the location of the facility(ies) on the site, the sources of runoff entering the facility, and the ultimate stormwater destination.

4.) ***Landscape Plan:*** A Landscape Plan (if separate from the Stormwater Management Site Plan) shall be attached to the O&M Agreement. The Plan must show the location, density, plant size, quantity, and species by scientific and common name.

5.) ***Stormwater Management Facility Inspection and Maintenance Log:*** Stormwater Management Facility Inspection and Maintenance Logs must be kept on file by the facility owner(s). Logs should note all inspection dates, the facility components that were inspected, and any maintenance or repairs made. The Facility-Specific O&M Plans can serve as a checklist for what should be included in the Log (e.g. the facility elements that need to be inspected, frequency of inspection, conditions that indicate maintenance is needed, etc.). Logs must include the information listed in the form included in this appendix. Logs must be retained on site for a minimum of two years.

6.) ***Facility Specific Operations and Maintenance Plans – (O&M Plan):*** O&M Plans provided in this packet identify the specific operations and maintenance activities that are required for each of the approved stormwater management facilities listed in Appendix D Stormwater Facility Details. The appropriate Plan must be attached to the O&M Agreement and submitted as part of the application process. Applicants may either select and use the pre-approved Facility Specific O&M Plans provided in this packet or prepare a Facility Specific O&M Plan that incorporates the specific activities that corresponds with their chosen type of stormwater facilities through a Type II review process. The Facility Specific O&M Plans do not have to be recorded. This allows the future stormwater management facility owner to submit operations and maintenance activity revisions to the City without the need to re-record the O&M Plans with the County.

The facility specific operations and maintenance activities for private facilities may be modified any time after permit issuance subject to mutual agreement by the City and owner, in writing. Modifying the operations and maintenance activities is optional, and is intended to give the owner an opportunity to adjust maintenance needs according to site-specific history and conditions. Modifications may require the owner to apply for concurrent modification of a prior land use approval. Proposed modifications to the O&M Plan must be submitted, along with an updated O&M Agreement, to the City for review and approval.

7.) Operations and Maintenance Plans for Proprietary Facilities: Proprietary O&M Plans for approved proprietary facilities must describe the inspection, cleaning, and operation and maintenance criteria for the facility and provide manufacturer's recommended maintenance if applicable.

Stormwater Management Facility

Inspection & Maintenance Log

STORMWATER MANAGEMENT FACILITY INSPECTION AND MAINTENANCE LOG
Property Address:
Inspection Date:
Inspection Time:
Inspected By:
Approximate Date/Time of Last Rainfall:
Type of Stormwater Management Facility:
Location of Facility on Site (in relation to buildings or other permanent structures):
Water levels and observations (ponded water (indicating poor soil permeability), oil sheen, smell, turbidity, etc.):
Sediment accumulation and/or areas of erosion? Record sediment removal/erosion repair:
Condition of vegetation? Record survival rates, invasive species present, number of dead plants, etc. Record any replacement of plants and type of management (mowing, weeding, etc.):
Condition of physical properties such as inlets, outlets, piping, fences, irrigation facilities, and side slopes? Record damaged items and replacement activities:
Presence of litter? Presence of insects or damage from animals? Record removal activities:
Identify safety hazards present. Record resolution activities:

Facility Specific

Operations & Maintenance Plans

FACILITY SPECIFIC OPERATIONS AND MAINTENANCE PLANS	
Eco-Roofs	
Contained Planters	
Permeable Pavement	
Swales (Vegetated, Grassy and Street)	
Level Spreaders	
Vegetated Filter Strips	
Stormwater Planters	
Rain Gardens	
Sand Filters	
Soakage Trenches	
Wet, Extended Wet, and Dry Ponds	
Constructed Treatment Wetlands	
Underground Detention Tanks, Vaults and Pipes	
Drywells	
Spill Control Manholes	

Eco-Roofs
Operations and Maintenance Plan

Eco-Roofs are lightweight vegetated roof systems used in place of conventional roofs that retain and filter stormwater and provide aesthetic and energy conservation benefits. All facility components, including soil substrate or growth medium, vegetation, drains, irrigation systems (if applicable), membranes, and roof structure shall be inspected for proper operations, integrity of the waterproofing, and structural stability throughout the life of the eco-roof. All elements shall be inspected once a month from April through September. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Soil Substrate/ Growing Medium shall be inspected for evidence of erosion from wind or water. If erosion channels are evident, they shall be stabilized with additional soil substrate/growth medium and covered with additional plants.

Structural Components shall be operated and maintained in accordance with manufacturer's requirements. Drain inlets shall be kept unrestricted.

- Inlet/outlet pipe shall be cleared when soil substrate, vegetation, debris or other materials clog the drains. Sources of sediment and debris shall be identified and corrected.
- Determine if drain pipe is in good condition and correct as needed.

Debris and Litter shall be removed to prevent clogging of drains and interference with plant growth.

Vegetation shall be maintained to provide 90% plant cover.

- During the Establishment Period, plants shall be replaced once per month as needed. During the long-term period, dead plants shall generally be replaced once per year in the fall months.
- Fallen leaves and debris from deciduous plant foliage shall be removed if build up occurs.
- Nuisance and prohibited vegetation shall be removed when discovered.
- Dead vegetation shall be removed and replaced with new plants.
- Weeding shall be manual with no herbicides or pesticides used. Weeds shall be removed regularly and not allowed to accumulate.
- Fertilization is not necessary and fertilizers shall not be applied.
- During drought conditions, mulch or shade cloth may be applied to prevent excess solar damage and water loss.
- Mowing of grasses shall occur as needed. Clippings shall be removed if build up occurs.

Irrigation can be accomplished either through hand watering or automatic sprinkler systems. If automatic sprinklers are used, manufacturers' instructions for operations and maintenance shall be followed.

- During the Establishment Period (1-3 years), water sufficient to assure plant establishment and not to exceed ¼ inch of water once every 3 days shall be applied.
- During the long-term period (3+ years), water sufficient to maintain plant cover and not to exceed ¼ inch of water once every 14 days shall be applied.

Spill Prevention measures from mechanical systems located on roofs shall be exercised when handling substances that can contaminate stormwater.

- Releases of pollutants shall be corrected as soon as identified.
- The presence of a green/eco roof does not waive requirements for containment of mechanical systems.

Training and/or written guidance information for operating and maintaining rooftop gardens shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access and Safety to the eco-roof shall be safe and efficient.

- Egress and ingress routes shall be maintained to design standards. Walkways shall be clear of obstructions and maintained to design standards.

Aesthetics of the rooftop garden shall be maintained as an asset to the property owner and community.

- Evidence of damage or vandalism shall be repaired and accumulation of trash or debris shall be removed upon discovery.

Insects shall not be harbored on the eco-roof.

- Standing water creating an environment for development of insect larvae shall be eliminated by manual means. Chemical sprays shall not be used.

Contained Planters
Operations and Maintenance Plan

Contained planters are designed to intercept rainfall that would normally fall on impervious surfaces. In this respect, contained planters convert impervious surfaces to pervious surfaces, decreasing the amount of stormwater runoff from a site. Water should drain through the planter within 3-4 hours after a storm event. All facility components and vegetation shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first 2 years from the date of installation and 2 times per year thereafter. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Filter Media consisting of sand or topsoil shall allow stormwater to percolate uniformly through the planter.

- Planter shall be excavated and cleaned, and gravel or soil shall be replaced to correct low infiltration rates.
- Holes that are not consistent with the design and allow water to flow directly through the planter to the ground shall be plugged.
- Litter and debris shall be removed routinely (e.g., no less than quarterly) and upon discovery

Planter shall contain filter media and vegetation.

- Structural deficiencies in the planter including rot, cracks, and failure shall be repaired.

Planter Reservoir receives and detains storm water prior to infiltration. If water does not drain from reservoir within 3-4 hours of storm event, sources of clogging shall be identified and corrected. Topsoil may need to be amended with sand or replaced all together.

Vegetation shall be healthy and dense enough to provide filtering while protecting underlying soils from erosion.

- Mulch shall be replenished at least annually.
- Planter vegetation shall be irrigated to ensure survival.
- Vegetation or trees that limit access or interfere with planter operation shall be pruned or removed.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed.
- Nuisance and prohibited vegetation shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species (measured in a 10 x 10 foot plot) shall be removed and replaced.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when planter function is impaired. Vegetation shall be replaced within a specific timeframe, e.g., 3 months, or immediately if required to maintain cover density and control erosion where soils are exposed.

Training and/or written guidance information for operating and maintaining planters shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the stormwater planter shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable.

- Obstacles preventing maintenance personnel and/or equipment access to the planter shall be removed.
- Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored at the stormwater planter. Pest control measures shall be taken when insects/rodents are found to be present.

- Standing water creating an environment for development of insect larvae shall be eliminated.
- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first nonchemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:

i. Installation of predacious bird or bat nesting boxes.
ii. Alterations of water levels approximately every 4 days in order to disrupt mosquito larval cycles.
iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.

- Holes in the ground located in and around the stormwater planter shall be filled and compacted.

Debris and Litter shall be removed to maintain soil health and to prevent interference with plant growth.

Permeable Pavement
Operations and Maintenance Plan

Permeable Pavement is a porous pavement surface with an underlying stone reservoir that temporarily stores surface runoff before infiltrating into the subsoil or being collected in underlying drain pipes and being discharged off-site. There are many types of permeable pavement including plastic rings planted with grass, stone or concrete blocks with pore spaces backfilled with gravel or sand, porous asphalt, and porous concrete. Permeable pavement accepts only precipitation, not stormwater runoff. All facility components, vegetation, and source controls shall be inspected for proper operations and structural stability, at a minimum, quarterly for the first 2 years from the date of installation, 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Surface: In most permeable pavement design, the pavement itself acts as pretreatment to the stone reservoir below. The surface shall be kept clean and free of leaves, debris, and sediment. The surface shall not be overlaid with an impermeable paving surface.

- Regular sweeping shall be implemented for porous asphalt or concrete systems. Vacuum sweeping is preferred and can greatly prolong the effective life of the pavement.

Overflows or Emergency Spillways are used in the event that the facility's infiltration capacity is exceeded. Overflow devices shall be inspected for obstructions or debris, which shall be removed upon discovery. Overflow or emergency spillways shall be capable of transporting high flows of stormwater to an approved stormwater receiving system.

- Sources of erosion damage shall be identified and controlled when native soil is exposed near the overflow structure.

Vegetation (where applicable) shall be healthy and dense enough to provide filtering while protecting underlying soils from erosion. Vegetation, such as trees and shrubs, should not be located in or around the permeable pavement because roots from trees can penetrate the pavement, and leaves from deciduous trees and shrubs can increase the risk of clogging the surface.

- Vegetation and large shrubs/trees that limit access or interfere with porous pavement operation shall be pruned.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed.
- Poisonous, nuisance, dead or odor producing vegetation shall be removed immediately.
- Grass shall be mowed to less than four inches and grass clippings shall be bagged and removed.
- Irrigation shall be provided as needed.

Source Control measures prevent pollutants from mixing with stormwater. Typical non-structural control measures include raking and removing leaves, street sweeping, vacuum sweeping, limited and controlled application of pesticides and fertilizers, and other good housekeeping practices.

Spill Prevention measures shall be exercised when handling substances that can contaminate stormwater. A spill prevention plan shall be implemented at all non-residential sites and in areas where there is likelihood of spills from hazardous materials. However, virtually all sites, including residential and commercial, present potential danger from spills. All homes contain a wide variety of toxic materials including gasoline for lawn mowers, antifreeze for cars, solvents, pesticides, and cleaning aids that can adversely affect stormwater if spilled. It is important to exercise caution when handling substances that can contaminate stormwater. Releases of pollutants shall be corrected as soon as identified. In addition, long term exposure to low levels of petroleum products, such as that form a leaky vehicle, can severely degrade the pavement.

Training and/or written guidance information for operating and maintaining permeable pavement shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the permeable pavement shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable. Obstacles preventing maintenance personnel and/or equipment access to the porous pavement shall be removed. Gravel or ground cover shall be added if erosion occurs, e.g., due to

vehicular or pedestrian traffic.

Debris and Litter shall be removed to prevent clogging.

Insects and Rodents shall not be harbored at the permeable pavement. Pest control measures shall be taken when insects/rodents are found to be present.

- Standing water creating an environment for development of insect larvae shall be eliminated.
- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the permeable pavement shall be filled and compacted.

If used at this site, the following will be applicable:

Signage may serve to educate people about the importance or function of the site's stormwater protection measures. It may also discourage behaviors that adversely affect stormwater protection measures. For example, if debris is a problem, a sign reminding people not to litter may partially solve the problem. Broken or defaced signs shall be replaced/repaired.

Placing of permeable pavement on site:

Permeable pavement should not be placed in any area where there is high likelihood of spills or contamination such as vehicle fueling areas, washing areas, loading docks, trash enclosures or material handling areas. Permeable pavement is not well suited to high traffic areas or areas where heavy vehicles will frequently travel. Such areas include parking lot lanes, entrance lanes and any areas subject to vehicle braking and turning movements. Parking lot stalls, emergency access areas and infrequently used areas are typically suitable for permeable pavement treatment.

Swales (Vegetated, Grassy and Street)
Operations and Maintenance Plan

Swales are vegetated or grassed open channels that trap pollutants by filtering and slowing flows, allowing particles to settle out. The swale should drain within 48 hours of a storm event. All facility components, vegetation, and source controls shall be inspected for proper operations and structural stability, at a minimum, quarterly for the first 2 years from the date of installation, 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Swale Inlet (such as curb cuts or pipes) shall maintain a calm flow of water entering the swale**.**

- Source of erosion shall be identified and controlled when native soil is exposed or erosion channels are forming.
- Sediment accumulation shall be hand-removed with minimum damage to vegetation using proper erosion control measures. Sediment shall be removed if it is more than 3" thick or so thick as to damage or kill vegetation.
- Inlet shall be cleared when conveyance capacity is plugged. Sources of sediment and debris shall be identified and corrected.
- Rock splash pads, spreaders and dissipaters shall be replenished to prevent erosion.

Side Slopes shall be maintained to prevent erosion that introduces sediment into the swale.

- Slopes shall be stabilized and planted using appropriate erosion control measures when native soil is exposed or erosion channels are forming.

Swale Media shall allow stormwater to percolate uniformly through the landscape swale. If the swale does not drain within 48 hours, it shall be tilled and replanted according to design specifications.

- Swale area shall be protected during construction from compaction.
- Annual or semi-annual tilling shall be implemented if compaction or clogging continues.
- Debris in quantities that inhibit operation shall be removed routinely (e.g., no less than quarterly), or upon discovery.

Swale Outlet shall maintain sheet flow of water exiting swale unless a collection drain is used. Source of erosion damage shall be identified and controlled when native soil is exposed or erosion channels are forming.

- Outlets such as drains and overland flow paths shall be cleared when 50% of the conveyance capacity is plugged.
- Outlet structures shall be cleaned of sediment and debris at least 1 time per year or when the level is at 50% of the conveyance capacity.
- Sources of sediment and debris shall be identified and corrected.

Vegetation shall be healthy and dense enough (at least 90% cover) to provide filtering while protecting underlying soils from erosion. Mulch shall be replenished as needed to ensure survival of vegetation.

- Vegetation, large shrubs or trees that interfere with landscape swale operation shall be pruned.
- Fallen leaves and debris from deciduous plant foliage shall be removed if build up is damaging vegetation.
- Grassy swales shall be mowed to keep grass 4” to 9” in height. Clippings shall be removed when possible, to remove pollutants absorbed in grasses, or when build up is damaging vegetation.
- Nuisance and prohibited vegetation (such as blackberries and English Ivy) shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.
- Dead vegetation and woody material shall be removed to maintain less than 10% of area coverage or when swale function is impaired. Vegetation shall be replaced within 3 months, or immediately if required to maintain cover density and control erosion where soils are exposed.

Debris and Litter shall be removed to ensure stormwater conveyance and to prevent clogging of inlet and outlet drains and interference with plant growth.

Spill Prevention measures shall be exercised when handling substances that contaminate stormwater.

Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining swales shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the swale shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable.

- Obstacles preventing maintenance personnel and/or equipment access to the swale shall be removed.
- Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored in the swale. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the swale shall be filled.

If used at this site, the following will be applicable:

Check Dams, flow spreaders and dissipaters shall control and distribute flow.

- Causes for altered water flow or short circuits shall be identified, and obstructions cleared upon discovery.
- Causes for channelization shall be identified and repaired.
- Systems shall remain free of sediment build up and debris.

Level Spreaders
Operations and Maintenance Plan

Level Spreaders are used to spread and disperse a concentrated flow thinly over a vegetated or forested riparian buffer or filter strip. Stormwater enters the spreader as a concentrated flow and discharges as sheet flow across a buffer area. All facility components and the vegetated buffer shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first 2 years from the date of installation, 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Level Spreader shall allow runoff to enter the vegetative filter as predominantly sheet flow.

- Source of erosion damage shall be identified and controlled when native soil is exposed or erosion channels are forming.
- Sediment build-up near or exceeding 2" in depth shall be removed.

Inlet shall assure unrestricted stormwater flow to the level spreader.

- Sources of erosion shall be identified and controlled when native soil is exposed or erosion channels are present.
- Sediment accumulation shall be hand-removed with minimum damage to vegetation using proper erosion control measures. Sediment shall be removed if it is more than 3 inches thick or so thick as to damage or kill vegetation.
- Inlet shall be cleared when conveyance capacity is plugged.
- Rock splash pads and dissipaters shall be replenished to prevent erosion.

Spreader lip shall allow water to exit the level spreader as sheet flow.

- Sources of erosion damage shall be identified and controlled when native soil is exposed or erosion channels are deeper than 2 inches.
- Outlet shall be cleared when 50% of the conveyance capacity is plugged. Sources of sediment and debris shall be identified and corrected.

Vegetated buffer shall be healthy and dense enough (at least 90% cover) to provide filtering while protecting underlying soils from erosion.

- Nuisance and prohibited vegetation (such as blackberries and English Ivy) shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when vegetation function is impaired. Vegetation shall be replaced immediately to control erosion where soils are exposed and within 3 months to maintain cover density.

Spill Prevention measures shall be exercised when handling substances that contaminate stormwater. Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining level spreaders shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the level spreaders shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Obstacles preventing maintenance personnel and/or equipment access to the facility shall be removed.

Insects and Rodents shall not be harbored in the level spreader. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.

ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.

iii. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.

- Holes in the ground located in and around the level spreader shall be filled.

Vegetated Filter Strips
Operations and Maintenance Plan

Vegetated Filter Strips are gently sloped vegetated areas that stormwater runoff is directed to flow and filter through. Stormwater enters the filter as sheet flow from an impervious surface or is converted to sheet flow using a flow spreader. Flow control is achieved using the relatively large surface area and check dams. Pollutants are removed through infiltration and sedimentation. The vegetative filter should drain within 48 hours of storm event. All facility components and vegetation shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first 2 years from the date of installation, 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Flow Spreader shall allow runoff to enter the vegetative filter as predominantly sheet flow.

- Source of erosion damage shall be identified and controlled when native soil is exposed or erosion channels are forming.
- Sediment build-up near or exceeding 2 inch in depth shall be removed.

Filter Inlet shall assure unrestricted stormwater flow to the vegetative filter.

- Sources of erosion shall be identified and controlled when native soil is exposed or erosion channels are present.
- Sediment accumulation shall be hand-removed with minimum damage to vegetation using proper erosion control measures. ediment shall be removed if it is more than 2 inches thick or so thick as to damage or kill vegetation.
- Inlet shall be cleared when conveyance capacity is plugged.
- Rock splash pads shall be replenished to prevent erosion.

Filter Media shall allow stormwater to percolate uniformly through the vegetative filter.

- If the vegetative filter does not drain within 48 hours, it shall be re-graded and replanted according to design specifications. Established trees shall not be removed or harmed in this process.
- Debris in quantities more than 2 inch deep or sufficient to inhibit operation shall be removed routinely (e.g., no less than quarterly), or upon discovery.

Check Dams and Dissipaters shall direct and control flow.

- Causes for altered water flow and channelization shall be identified, and obstructions cleared upon discovery.
- Cracks, rot, and structural damage shall be repaired.

Filter Outlet shall allow water to exit the vegetative filter as sheet flow, unless a collection drainpipe is used.

- Sources of erosion damage shall be identified and controlled when native soil is exposed or erosion channels are deeper than 2 inches.
- Outlet shall be cleared when 50% of the conveyance capacity is plugged. Sources of sediment and debris shall be identified and corrected.

Vegetation shall be healthy and dense enough (at least 90% cover) to provide filtering while protecting underlying soils from erosion.

- Fallen leaves and debris from deciduous plant foliage shall be raked and removed if build up is damaging vegetation.
- Nuisance and prohibited vegetation (such as blackberries and English Ivy) shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when vegetative filter function is impaired. Vegetation shall be replaced immediately to control erosion where soils are exposed and within 3 months to maintain cover density.

Debris and Litter shall be removed to ensure stormwater conveyance and to prevent clogging of inlet and outlet drains and interference with plant growth.

Spill Prevention measures shall be exercised when handling substances that contaminate stormwater.

Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining vegetated filters shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the vegetative filter shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Obstacles preventing maintenance personnel and/or equipment access to the facility shall be removed. Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored in the vegetated filter. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the vegetated filter shall be filled.

Stormwater Planters
Operations and Maintenance Plan

Stormwater Planters are designed to allow runoff to filter through layers of topsoil (thus capturing pollutants) and then either infiltrate into the native soils (infiltration planter) or be collected in a pipe to be discharged off-site (flow-through planter). The planter is sized to accept runoff and temporarily store the water in a reservoir on top of the soil. The flow-through planter is designed with an impervious bottom or is placed on an impervious surface. Water should drain through the planter within 3-4 hours after a storm event. All facility components and vegetation shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first 2 years from the date of installation, 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Downspout from rooftop or sheet flow from paving allows unimpeded stormwater flow to the planter.

- Debris shall be removed routinely (e.g., no less than every 6 months) and upon discovery.
- Damaged pipe shall be repaired upon discovery.

Splash Blocks prevent splashing against adjacent structures and convey water without disrupting media.

- Any deficiencies in structure such as cracking, rotting, and failure shall be repaired.

Planter Reservoir receives and detains storm water prior to infiltration. Water should drain from reservoir within 3-4 hours of storm event.

- Sources of clogging shall be identified and corrected to prevent short circuiting.
- Topsoil may need to be amended with sand or replaced all together to achieve a satisfactory infiltration rate.

Filter Media consisting of sand, gravel and topsoil shall allow stormwater to percolate uniformly through the planter. The planter shall be excavated and cleaned, and gravel or soil shall be replaced to correct low infiltration rates.

- Holes that are not consistent with the design and allow water to flow directly through the planter to the ground shall be plugged.
- Sediment accumulation shall be hand removed with minimum damage to vegetation using proper erosion control measures. Sediment shall be removed if it is more than 4 inches thick or so thick as to damage or kill vegetation.
- Litter and debris shall be removed routinely (e.g., no less than quarterly) and upon discovery.

Planter shall contain filter media and vegetation.

- Structural deficiencies in the planter including rot, cracks, and failure shall be repaired.

Overflow Pipe safely conveys flow exceeding reservoir capacity to an approved stormwater receiving system.

- Overflow pipe shall be cleared of sediment and debris when 50% of the conveyance capacity is plugged.
- Damaged pipe shall be repaired or replaced upon discovery.

Vegetation shall be healthy and dense enough (at least 90% cover) to provide filtering while protecting underlying soils from erosion.

- Mulch shall be replenished at least annually.
- Vegetation, large shrubs or trees that limit access or interfere with planter operation shall be pruned or removed.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed if build up is damaging vegetation.
- Nuisance or prohibited vegetation shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when planter function is impaired. Vegetation shall be replaced within a specific timeframe, e.g., 3 months, or immediately if required to maintain cover density and control erosion where soils are exposed.

Debris and Litter shall be removed to ensure stormwater infiltration and to prevent clogging of overflow

drains and interference with plant growth.

Spill Prevention measures shall be exercised when handling substances that contaminate stormwater. Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining stormwater planters shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the stormwater planter shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable.

- Obstacles preventing maintenance personnel and/or equipment access to the stormwater planter shall be removed.
- Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored in the stormwater planter. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the stormwater planter shall be filled and compacted.

Rain Gardens
Operations and Maintenance Plan

A vegetated Infiltration Basin or rain garden is a vegetated depression created by excavation, berms, or small dams to provide for short-term ponding of surface water until it percolates into the soil. The basin shall infiltrate stormwater within 24 hours. All facility components and vegetation shall be inspected for proper operations and structural stability, at a minimum, quarterly for the first 2 years from the date of installation, 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Basin Inlet shall assure unrestricted stormwater flow to the vegetated basin.

- Sources of erosion shall be identified and controlled when native soil is exposed or erosion channels are present.
- Inlet shall be cleared when conveyance capacity is plugged.
- Rock splash pads shall be replenished to prevent erosion.

Embankment, Dikes, Berms and Side Slopes retain water in the infiltration basin.

- Structural deficiencies shall be corrected upon discovery:
  - Slopes shall be stabilized using appropriate erosion control measures when soil is exposed/ flow channels are forming.
  - Sources of erosion damage shall be identified and controlled.

Overflow or Emergency Spillway conveys flow exceeding reservoir capacity to an approved stormwater receiving system.

- Overflow shall be cleared when 25% of the conveyance capacity is plugged.
- Sources of erosion damage shall be identified and controlled when soil is exposed.
- Rocks or other armament shall be replaced when only one layer of rock exists.

Filter Media shall allow stormwater to percolate uniformly through the infiltration basin. If water remains 36-48 hours after storm, sources of possible clogging shall be identified and corrected.

- Basin shall be raked and, if necessary, soil shall be excavated, and cleaned or replaced.
- Infiltration area shall be protected from compaction during construction.

Sediment/ Basin Debris Management shall prevent loss of infiltration basin volume caused by sedimentation. Gauges located at the opposite ends of the basin shall be maintained to monitor sedimentation.

- Sediment and debris exceeding 3 inch in depth shall be removed every 2-5 years or sooner if performance is affected.

Debris and Litter shall be removed to ensure stormwater infiltration and to prevent clogging of overflow drains and interference with plant growth.

- Restricted sources of sediment and debris, such as discarded lawn clippings, shall be identified and prevented.

Vegetation shall be healthy and dense enough (at least 90% cover) to provide filtering while protecting underlying soils from erosion.

- Mulch shall be replenished as needed to ensure healthy plant growth
- Vegetation, large shrubs or trees that limit access or interfere with basin operation shall be pruned or removed.
- Grass shall be mowed to 4”-9” high and grass clippings shall be removed no less than 2 times per year.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed if build up is damaging vegetation.
- Nuisance or prohibited vegetation (such as blackberries or English Ivy) shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when infiltration basin function is impaired. Vegetation shall be replaced within 3 months, or immediately if required to control erosion.

Spill Prevention measures shall be exercised when handling substances that contaminate stormwater. Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining vegetated infiltration basins shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the infiltration basin shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable.

- Obstacles preventing maintenance personnel and/or equipment access to the infiltration basin shall be removed.
- Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored in the infiltration basin. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the infiltration basin shall be filled.

If used at this site, the following will be applicable:

Fences shall be maintained to preserve their functionality and appearance.

- Collapsed fences shall be restored to an upright position.
- Jagged edges and damaged fences shall be repaired or replaced.

Sand Filters
Operations and Maintenance Plan

Sand filters consist of a layer of sand in a structural box used to trap pollutants. The water filters through the sand and then flows into the surrounding soils or an underdrain system that conveys the filtered stormwater to a discharge point. All facility components, vegetation, and source controls shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first 2 years from the date of installation, and 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Filter Inlet shall allow water to uniformly enter the sand filter as calm flow, in a manner that prevents erosion.

- Inlet shall be cleared of sediment and debris when 40% of the conveyance capacity is plugged.
- Source of erosion damage shall be identified and controlled when native soil is exposed or erosion channels are forming.
- Sediment accumulation shall be hand-removed with minimum damage to vegetation using proper erosion control measures. Sediment shall be removed if it is more than 4 inches thick or so thick as to damage or kill vegetation.
- Rock splash pads shall be replenished to prevent erosion.

Reservoir receives and detains stormwater prior to infiltration. If water does not drain within 2-3 hours of storm event, sources of clogging shall be identified and correction action taken.

- Debris in quantities more than 1 cu ft or sufficient to inhibit operation shall be removed routinely (e.g., no less than quarterly), or upon discovery.
- Structural deficiencies in the sand filter box including rot, cracks, and failure shall be repaired upon discovery.

Filter Media shall allow to stormwater to infiltrate uniformly through the sand filter. If water remains 36-48 hours after storm, sources of possible clogging shall be identified and corrected.

- Sand filter shall be raked and if necessary, the sand/gravel shall be excavated, and cleaned or replaced.
- Sources of restricted sediment or debris (such as discarded lawn clippings) shall be identified and prevented.
- Debris in quantities sufficient to inhibit operation shall be removed no less than quarterly, or upon discovery.
- Holes that are not consistent with the design structure and allow water to flow directly through the sand filter to the ground shall be filled.
- The infiltration area shall be protected from compaction during construction.

Underdrain Piping (where applicable) shall provide drainage from the sand filter, and **Cleanouts** (where applicable) located on laterals and manifolds shall be free of obstruction, and accessible from the surface.

- Under-drain piping shall be cleared of sediment and debris when conveyance capacity is plugged. Cleanouts may have been constructed for this purpose.
- Obstructions shall be removed from cleanouts without disturbing the filter media.

Overflow or Emergency Spillway conveys flow exceeding reservoir capacity to an approved stormwater receiving system.

- Overflow spillway shall be cleared of sediment and debris when 50% of the conveyance capacity is plugged.
- Source of erosion damage shall be identified and controlled when erosion channels are forming.
- Rocks or other armament shall be replaced when sand is exposed and eroding from wind or rain.

Vegetation

- Vegetation, large shrubs or trees that limit access or interfere with sand filter operation shall be pruned.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed.
- Nuisance or prohibited vegetation (such as blackberries or English Ivy) shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed.

Debris and Litter shall be removed to ensure stormwater infiltration and to prevent clogging.

Spill Prevention measures shall be exercised when handling substances that contaminate stormwater. Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining sand filters shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the sand filter shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable.

- Obstacles preventing maintenance personnel and/or equipment access to the facility shall be removed.
- Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored in the sand filter. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the infiltration basin shall be filled.

Soakage Trenches
Operations and Maintenance Plan

Soakage Trenches consist of drain rock and sand, and receive stormwater from roof downspouts and/or area drains. There are various components within the system – piping, silt basin and the trench itself. The **Conveyance Piping** consists of an inlet pipe (downspout or area drain), an outlet pipe located between the silt basin and the soakage trench, and a perforated pipe, located on top of the aggregate bed of the soakage trench. The **Silt Basin** is a structure receiving runoff from an inlet pipe and conveying it to the soakage trench. The silt basin serves as the pre-treatment system for the soakage trench, removing sediments and other debris that can impact its proper functioning. All facility components, vegetation, and source controls shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first two years from the date of installation, then two times per year afterwards, or within 48 hours after each major storm. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Soakage trench infiltration: If water is noticed on top of the trench within 48 hours of a major storm, the soakage trench may be clogged.

- Check for debris/sediment accumulation, rake and remove and evaluate upland causes (erosion, surface or roof debris, etc.
- Assess the condition of the aggregate and the filter fabric in the trench. If there is sediment in the aggregate, excavate and replace.
- If there is a tear in the filter fabric, repair or replace.
- The soakage trench area shall be protected from compaction during construction.

Conveyance Piping: If water ponds over the trench for more than 48 hours after a major storm and no other cause if identified, it may be necessary to remove the filter fabric to determine if the perforated pipe is clogged with sediment or debris.

- Any debris or algae growth located on top of the soakage trench should be removed and disposed of properly.
- If the piping has settled more than 1-inch, add fill material. If there are cracks or releases, replace or repair the pipe. If there are signs of erosion around the pipe, this may be an indication of water seeping due to a crack or break.

Silt Basin: If water remains in the soakage trench for 36-48 hours after storm, check for sediment accumulation in the silt basin

- If less than 50% capacity remains in the basin or 6” of sediment has accumulated, remove and dispose the sediment.

Spill Prevention*:* Virtually all sites, including residential and commercial, present dangers from spills. All homes contain a wide variety of toxic materials including gasoline for lawn mowers, antifreeze for cars, nail polish remover, pesticides, and cleaning aids that can adversely affect groundwater if spilled. It is important to exercise caution when handling substances that can contaminate stormwater.

- Activities that pose the chance of hazardous material spills shall not take place near soakage trenches.

A Shut-Off Valve or Flow-Blocking Mechanism may have been required with the construction of the soakage trench to temporarily prevent stormwater from flowing into it, in the event of an accidental material spill. This may also involve mats kept on-site that can be used to cover inlet drains in parking lots. The shut-off valve shall remain in good working order, or if mats or other flow-blocking mechanisms are used, they shall be kept in stock on-site.

Training and/or written guidance information for operating and maintaining soakage trenches shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the soakage trench is required for efficient maintenance. Egress and ingress routes will be maintained to design standards at inspections.

Insects and Rodents shall not be harbored in the soakage trench. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested

with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:

i. Installation of predacious bird or bat nesting boxes.
ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larva ides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.

- Holes in the ground located in and around the soakage trench shall be filled.

Wet, Extended Wet, and Dry Ponds
Operations and Maintenance Plan

Wet Ponds are constructed ponds with a permanent pool of water. Pollutants are removed from stormwater through gravitational settling and biologic processes. **Extended Wet Ponds** are constructed ponds with a permanent pool of water and open storage space above for retention or short-term detention of large storm events. Pollutants are removed from stormwater through gravitational settling and biologic processes. **Dry Ponds** are constructed ponds with temporary storage for the retention or detention of large storm events. The stormwater is stored and released slowly over a matter of hours. All facility components, vegetation, and source controls shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first 2 years from the date of installation, and 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Pond Inlet shall assure unrestricted stormwater flow to the wet pond.

- Inlet pipe shall be cleared when conveyance capacity is plugged. Sources of sediment and debris shall be identified and corrected.
- Determine if pipe is in good condition:
  - If more than 1 inch of settlement, add fill material and compact soils.
  - If alignment is faulty, correct alignment.
  - If cracks or openings exist indicated by evidence of erosion at leaks, repair or replace pipe as needed.

Forebay traps coarse sediments, reduces incoming velocity, and distributes runoff evenly over the wet pond. A minimum 1-foot freeboard shall be maintained.

- Sediment buildup exceeding 50% of the facility capacity shall be removed every 2-5 years or sooner if performance is being affected.

Embankment, Dikes, Berms and Side Slopes retain water in the wet pond.

- Slopes shall be stabilized using appropriate erosion control measures when native soil is exposed or erosion channels are forming.
- Structural deficiencies shall be corrected upon discovery:
  - If cracks exist, repair or replace structure.
  - If erosion channels deeper than 2 inches exist, stabilize surface. Sources of erosion damage shall be identified and controlled.

Control Devices (e.g., weirs, baffles, etc.) shall direct and reduce flow velocity. Structural deficiencies shall be corrected upon discovery:

- If cracks exist, repair or replace structure.

Overflow Structure conveys flow exceeding reservoir capacity to an approved stormwater receiving system.

- Overflow structure shall be cleared when 50% of the conveyance capacity is plugged. Sources of sediment and debris shall be identified and corrected.
- Sources of erosion damage shall be identified and controlled when native soil is exposed at the top of overflow structure or erosion channels are forming.
- Rocks or other armoring shall be replaced when only one layer of rock exists above native soil.

Sediment and Debris Management shall prevent loss of wet pond volume caused by sedimentation.

- Wet ponds shall be dredged when 1 foot of sediment accumulates in the pond.
- Gauges located at the opposite ends of the wet pond shall be maintained to monitor sedimentation. Gauges shall be checked 2 times per year.
- Sources of restricted sediment or debris, such as discarded lawn clippings, shall be identified and prevented.
- Debris in quantities sufficient to inhibit operation shall be removed routinely, e.g. no less than quarterly, or upon discovery.
- Litter shall be removed upon discovery.

Vegetation shall be healthy and dense enough to provide filtering while protecting underlying soils from erosion and minimizing solar exposure of open water areas.

- Mulch shall be replenished at least annually.
- Vegetation, large shrubs or trees that limit access or interfere with wet pond operation shall be pruned or removed.
- Grass (where applicable) shall be mowed to 4 inch-9 inch high and grass clippings shall be removed if build up is damaging vegetation.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed if build up is damaging vegetation.
- Nuisance or prohibited vegetation (such as blackberries or English Ivy) shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when wet pond function is impaired. Vegetation shall be replaced within 3 months, or immediately if required to maintain cover density and control erosion where soils are exposed. If removing a dead or hazard tree a permit maybe required, contact the City's Public Works Department for details on tree removal.
- Vegetation producing foul odors shall be eliminated.

Spill Prevention measures shall be exercised when handling substances that can contaminate stormwater Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining ponds shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the wet pond shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable.

- Obstacles preventing maintenance personnel and/or equipment access to the wet pond shall be removed.
- Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored in the pond. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the pond shall be filled.

If used at this site, the following will be applicable:

Signage shall clearly convey information.

- Broken or defaced signs shall be replaced or repaired.

Fences shall be maintained to preserve their functionality and appearance.

- Collapsed fences shall be restored to an upright position.
- Jagged edges and damaged fences and shall be repaired or replaced.

Constructed Treatment Wetlands
Operations and Maintenance Plan

Constructed Treatment Wetlands remove pollutants through several processes: sedimentation, filtration, and biological processes. All facility components, vegetation, and source controls shall be inspected for proper operations and structural stability. These inspections shall occur, at a minimum, quarterly for the first 2 years from the date of installation, and 2 times per year thereafter, and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Wetland Inlet shall assure unrestricted stormwater flow to the wetland.

- Inlet pipe shall be cleared when conveyance capacity is plugged. Sources of sediment and debris shall be identified and corrected.
- Determine if pipe is in good condition:
  - If more than 1 inch of settlement, add fill material and compact soils.
  - If alignment is faulty, correct alignment.
  - If cracks or openings exist indicated by evidence of erosion at leaks, repair or replace pipe as needed.

Forebay traps coarse sediments, reduces incoming velocity, and distributes runoff evenly over the wetland. A minimum 1-foot freeboard shall be maintained.

- Sediment buildup exceeding 50% of the facility capacity shall be removed every 2-5 years or sooner if performance is being affected.

Embankment, Dikes, Berms and Side Slopes retain water in the wetland.

- Slopes shall be stabilized using appropriate erosion control measures when native soil is exposed or erosion channels are forming.
- Structural deficiencies shall be corrected upon discovery:
  - If cracks exist, repair or replace structure.
  - If erosion channels deeper than 2 inches exist, stabilize surface. Sources of erosion damage shall be identified and controlled.

Control Devices (e.g., weirs, baffles, etc.) shall direct and reduce flow velocity.

- Structural deficiencies shall be corrected upon discovery:
  - If cracks exist, repair or replace structure.

Overflow Structure conveys flow exceeding reservoir capacity to an approved stormwater receiving system.

- Overflow structure shall be cleared when 50% of the conveyance capacity is plugged. Sources of sediment and debris shall be identified and corrected.
- Sources of erosion damage shall be identified and controlled when native soil is exposed at the top of overflow structure or erosion channels are forming.
- Rocks or other armament shall be replaced when only one layer of rock exists above native soil.

Sediment and Debris Management shall prevent loss of wetland volume caused by sedimentation.

- Wetlands shall be dredged when 1 foot of sediment accumulates.
- Gauges located at the opposite ends of the wetland shall be maintained to monitor sedimentation. Gauges shall be checked 2 times per year.
- Sources of restricted sediment or debris, such as discarded lawn clippings, shall be identified and prevented.
- Debris in quantities sufficient to inhibit operation shall be removed routinely, e.g. no less than quarterly, or upon discovery.
- Litter shall be removed upon discovery.

Vegetation shall be healthy and dense enough to provide filtering while protecting underlying soils from erosion and minimizing solar exposure of open water areas.

- Mulch shall be replenished when needed.
- Vegetation, large shrubs or trees that limit access or interfere with wetland operation shall be pruned.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed.

- Nuisance or prohibited vegetation (such as blackberries or English Ivy) shall be removed when discovered. Invasive vegetation contributing up to 25% of vegetation of all species shall be removed and replaced.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when wetland function is impaired. Vegetation shall be replaced within 3 months, or immediately if required to maintain cover density and control erosion where soils are exposed.
- Vegetation producing foul odors shall be eliminated.

Spill Prevention measures shall be exercised when handling substances that can contaminate stormwater Releases of pollutants shall be corrected as soon as identified.

Training and/or written guidance information for operating and maintaining treatment wetlands shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the wetland shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles, if applicable.

- Obstacles preventing maintenance personnel and/or equipment access to the wetland shall be removed.
- Gravel or ground cover shall be added if erosion occurs, e.g., due to vehicular or pedestrian traffic.

Insects and Rodents shall not be harbored in the constructed treatment wetland. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the constructed treatment wetland shall be filled.

If used at this site, the following will be applicable:

Signage shall clearly convey information.

- Broken or defaced signs shall be replaced or repaired.

Fences shall be maintained to preserve their functionality and appearance.

- Collapsed fences shall be restored to an upright position.
- Jagged edges and damaged fences and shall be repaired or replaced.

Underground Detention Tanks, Vaults and Pipes
Operations and Maintenance Plan

Underground Detention Tanks, Vaults, and Pipes are designed to fill with stormwater during large storm events, slowly releasing it over a number of hours. There are numerous components to each system. **Drain Inlet Pipes** convey stormwater into the detention facility. The **Detention Chamber** is the structure in which stormwater accumulates during a storm event. **Orifice Structure/ Outlet Drain Pipe** restricts the flow out of the detention chamber, allowing it to fill up and slowly drain out. The orifice structure is located at the downstream end of the detention chamber. Underground facilities shall be inspected quarterly and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Proprietary Structures such as oil-water separators, sedimentation manholes, grit chambers, etc. are required to have an O&M plan submitted with material from the manufacturer for that specific product for the O&M Agreement.

- If such material is not available or satisfactory for maintenance needs, city staff will assist developer/property owner in preparing the O&M plan.

Drain Inlet Pipes shall be inspected for clogging or leaks where it enters the vault or basin during every inspection and cleanout.

- Debris/sediment that is found to clog the inlet shall be removed, and disposed of in accordance with applicable federal and state requirements.

Detention Chamber shall be inspected for cracks or damage during each inspection.

- The detention chamber shall be cleaned out yearly or after an inch of sediment has accumulated. If there is a valve on the outlet pipe it shall be closed otherwise the outlet shall be plugged prior to cleanout. Grit and sediment that has settled to the bottom of the chamber shall be removed during each cleaning.
- Water and sediment in the detention chamber shall be removed, and disposed of in accordance with regulations.
- Cleaning shall be done without use of detergents or surfactants. A pressure washer may be used if necessary.

Orifice Structure/ Outlet Drain Pipe shall be inspected for clogging during unit inspections/cleanouts.

- Debris/sediment that is found to clog the inlet shall be removed, and disposed of in accordance with applicable federal and state requirements.

Vegetation such as trees should not be located in or around the detention facility because roots from trees can penetrate the unit body, and leaves from deciduous trees and shrubs can increase the risk of clogging the intake pipe.

- Large shrubs or trees that are likely to interfere with detention facility operation shall be identified at each inspection then removed.

Source Control measures typically include structural and non-structural controls. Non-structural controls can include street sweeping and other good housekeeping practices. It is often easier to prevent pollutants from entering stormwater than to remove them.

- Source control measures shall be inspected and maintained (where applicable).

Spill Prevention procedures require high-risk site users to reduce the risk of spills. However, virtually all sites, including residential and commercial, present dangers from spills. Homes contain a wide variety of toxic materials including gasoline for lawn mowers, antifreeze for cars, pesticides, and cleaning aids that can adversely affect storm water if spilled. It is important for everyone to exercise caution when handling substances that can contaminate stormwater. Spill prevention procedures shall be implemented in areas where there is likelihood of spills from hazardous materials.

Training and/or written guidance information for operating and maintaining detention facilities shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the detention facility is required for efficient maintenance. Egress and ingress routes shall be open and maintained to design standards.

Signage may serve to educate people about the importance or function of the site's stormwater protection measures. Signs may also discourage behavior that adversely impacts the stormwater protection measures and encourages behavior that enhances or preserves stormwater quality. If debris is a problem, a sign reminding people not to litter may partially solve the problem. Signage (where applicable) will be maintained and repaired as needed during or shortly after inspections.

Insects and Rodents shall not be harbored in the detention facility. Pest control measures shall be taken when insects/rodents are found to be present

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:
  i. Installation of predacious bird or bat nesting boxes.
  ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
  iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
  iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.
- Holes in the ground located in and around the detention facility shall be filled.

Drywells
Operations and Maintenance Plan

Drywells are designed to infiltrate stormwater into the ground. Stormwater is piped to drywells from roof downspouts or pollution control facilities such as swales or planters. The pollution control facility is designed to settle out sediments and separate oils and greases from the water before releasing it through a pipe to the drywell. This prolongs the life of the drywell and helps to prevent the contamination of soils and groundwater. The drywell is a concrete or plastic manhole section with many small holes in the sides to allow stormwater to infiltrate into the surrounding soil. The drywell system shall be inspected and cleaned quarterly and within 48 hours after each major storm event. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. Drywells are considered Underground Injection Wells in Oregon and are subject to State regulations for permitting and testing by the Oregon DEQ. The following items shall be inspected and maintained as stated:

Stormwater Drain Pipe shall be inspected for clogging or leaks where it enters the drywell.

- Debris/sediment that is found to clog the pipe shall be removed and disposed of in accordance with applicable federal and state requirements.

Drywell shall be inspected during each cleanout. Ponding around the catch basins or sedimentation manhole or drywell lids may indicate that the drywell is failing due to siltation, or the clogging of the sediment pores surrounding the drywell. Clogged drywells must be replaced.

Vegetation such as trees should not be located in or around the drywell because roots from trees can penetrate the unit body, and leaves from deciduous trees and shrubs can increase the risk of clogging the intake pipe.

- Large shrubs or trees that are likely to interfere with operation will be identified at each inspection and removed.

Source Control measures typically include structural and non-structural controls. Non-structural controls can include parking lot or street sweeping and other good housekeeping practices. It is often easier to prevent pollutants from entering stormwater than to remove them.

- Source control measures shall be inspected and maintained (where applicable).

Spill Prevention procedures require high-risk site users to reduce the risk of spills. However, virtually all sites, including residential and commercial, present dangers from spills. Homes contain a wide variety of toxic materials including gasoline for lawn mowers, antifreeze for cars, solvents, pesticides, and cleaning aids that can adversely affect storm water if spilled. It is important to exercise caution when handling substances that can contaminate stormwater. Spill prevention procedures shall be implemented in areas where there is likelihood of spills from hazardous materials.

A Shut-Off Valve or Flow-Blocking Mechanism may have been required with the construction of the drywell to temporarily prevent stormwater from flowing into it, in the event of an accidental material spill. This may also involve mats kept on-site that can be used to cover inlet drains in parking lots. The shutoff valve shall remain in good working order, or if mats or other flow-blocking mechanisms are used, they shall be kept in stock on-site.

Training and/or written guidance information for operating and maintaining drywell systems shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the drywell is required for efficient maintenance. Egress and ingress routes shall be open and maintained to design standards.

- City inspection staff may require owners to provide proof of registration, permitting and maintenance logs for the facility as required by the Oregon DEQ.

Insects and Rodents shall not be harbored in the drywell. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the

following:

i. Installation of predacious bird or bat nesting boxes.
ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.

- Holes in the ground located in and around the drywell shall be filled.

Signage may serve to educate people about the importance or function of the site's stormwater protection measures. Signs may also discourage behavior that adversely impacts the stormwater protection measures and encourages behavior that enhances or preserves stormwater quality. If debris is a problem, a sign reminding people not to litter may partially solve the problem. Signage (where applicable) shall be maintained and repaired as needed during or shortly after inspections.

Spill Control Manholes
Operations and Maintenance Plan

Spill Control Manholes operate using the principal that oil and water are immiscible (do not mix) and have different densities. Oil, being less dense than water, floats to the surface. The spill control manhole shall be inspected and cleaned quarterly. The facility owner must keep a log, recording all inspection dates, observations, and maintenance activities. The following items shall be inspected and maintained as stated:

Stormwater Drain Inlet Pipe shall be inspected for clogging or leaks where it enters the manhole during every inspection and cleanout. Debris/sediment that is found to clog the inlet shall be removed, tested, and disposed of in accordance with applicable federal and state requirements.

Manhole Chamber shall be inspected for cracks or damage during each inspection.

- The manhole shall be cleaned out quarterly. Cleanout shall be done in a manner to minimize the amount of trapped oil entering the outlet pipe. If there is a valve on the outlet pipe it shall be closed otherwise the outlet will be plugged prior to clean-out.
- Water and oil shall be removed, tested, and disposed of in accordance with regulations. Grit and sediment that has settled to the bottom of the chamber shall be removed during each cleaning
- Cleaning shall be done without use of detergents or surfactants. A pressure washer along with a vacuum may be used if necessary.

Absorbent Pillows and Pads (where applicable) absorb oil from the separation chamber.

- Replacement shall occur at least twice a year, in the spring and fall, or as necessary to retain oil-absorbing function.

Stormwater Drain Outlet Pipe shall be inspected for clogging or leaks where it exits the manhole. Particular attention shall be paid to ensure that the joint where the tee joins the outlet pipe is watertight.

- Debris/sediment that is found to clog the outlet shall be removed, tested, and disposed of in accordance with applicable federal and state requirements.

Vegetation such as trees should not be located in or around the spill control manhole because roots can penetrate the unit body, and leaves from deciduous trees and shrubs can increase the risk of clogging.

- Large shrubs or trees that are likely to interfere with manhole operation shall be identified at each inspection and removed.

Source Control measures typically include structural and non-structural controls. Non-structural controls can include street sweeping and other good housekeeping practices.

- Source control measures shall be inspected and maintained.

Spill Prevention procedures require high-risk site users to reduce the risk of spills. However, virtually all sites, including residential and commercial, present dangers from spills. Homes contain a wide variety of toxic materials including gasoline for lawn mowers, antifreeze for cars, pesticides, and cleaning aids that can adversely affect storm water if spilled. It is important to exercise caution when handling substances that can contaminate stormwater. Spill prevention procedures shall be implemented in areas where there is likelihood of spills from hazardous materials.

Training and/or written guidance information for operating and maintaining spill control manholes shall be provided to all property owners and tenants. A copy of the O&M Plan shall be provided to all property owners and tenants.

Access to the spill control manhole is required for efficient maintenance. Egress and ingress routes shall be open and maintained to design standards.

Insects and Rodents shall not be harbored in the spill control manhole. Pest control measures shall be taken when insects/rodents are found to be present.

- If a complaint is received or an inspection reveals that a stormwater facility is significantly infested with mosquitoes or other vectors, the property owner/owners or their designee may be required to eliminate the infestation at the City inspector's discretion. Control of the infestation shall be attempted by using first non-chemical methods and secondly, only those chemical methods specifically approved by the City's inspector. Acceptable methods include but are not limited to the following:

i. Installation of predacious bird or bat nesting boxes.
ii. Alterations of pond water levels approximately every four days in order to disrupt mosquito larval development cycles.
iii. Stocking ponds and other permanent water facilities with fish or other predatory species.
iv. If non-chemical methods have proved unsuccessful, contact the City inspector prior to use of chemical methods such as the mosquito larvicides Bacillus thurengensis var. israeliensis or other approved larvicides. These materials may only be used with City inspector approval if evidence can be provided that these materials will not migrate off-site or enter the public stormwater system. Chemical larvicides shall be applied by a licensed individual or contractor.

- Holes in the ground located in and around the manhole shall be filled.

Signage may serve to educate people about the importance or function of the site's stormwater protection measures. Signage (where applicable) shall be maintained and repaired as needed during or shortly after inspections.

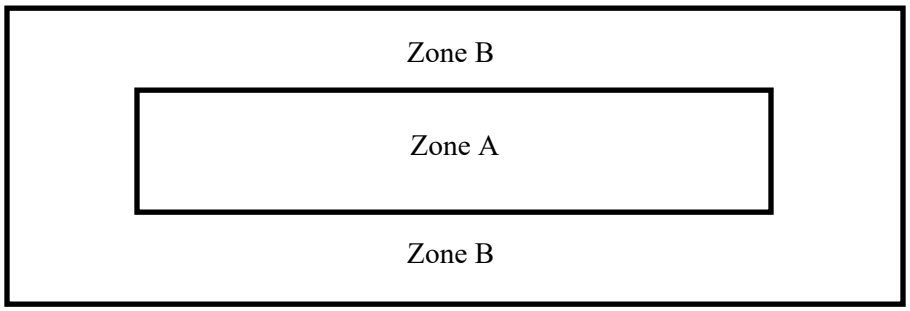
APPENDIX F – APPROVED VEGETATION LIST

Facility Planting Zones

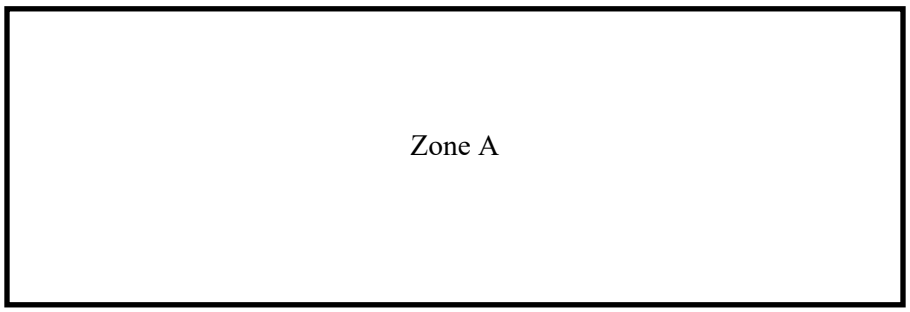
Zone A: Area of the facility defined as the bottom of the facility to the designated high-water mark. This area has wet to moist soils and plants located here shall be tolerant of mild inundation.

Zone B: Area of the facility defined as the side slopes from the designated high-water mark up to the edge of the facility. This area typically has drier to moist soils with the moist soils being located farther down the side slopes. Plants here should be drought tolerant and help stabilize the slopes.

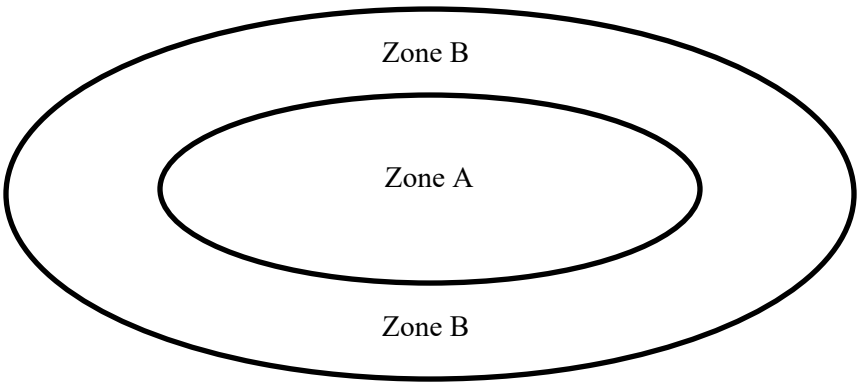
Swale Planting Zones



Planter Planting Zones



Rain Garden Planting Zones



Facility Plant List

Note: Alternative plants not found on this list may be approved based on ease of maintenance and beneficial impacts to water and soil quality. Non-native invasive plants are not allowed. Only native plants are allowed in stormwater facilities within Natural Resource Protection Area setbacks (SDC 4.3-117.F.4). Each stormwater facility must have a minimum of three unique species.

X = yes, blank = no

	Scientific Name *approved for public facilities	Common Name	Grassy Swales	Vegetated Swales/Filter Strips	Stormwater Planters	Rain Gardens/Dry Ponds	Wet/Extended Wet Ponds	Zone A (wet to moist soil)	Zone B (moist to dry soil)	NW Native	Groundcover	Evergreen	Potential Height	O.C. Spacing	Sun Exposure
Herbaceous Plants	*Agrostis exarata*	Spike Bentgrass	X					X		X			36”	Seed	Full to Part
	Alisma plantago-aquatica var. americanum	Water Plantain					X	X		X	X		24”	12”	Full
	Allium acuminatum	Hooker’s Onion	X				X	X		X			12”	12”	Full
	Allium amplectens	Slim Leaf Onion	X	X	X	X		X		X			12”	12”	Full
	Arctostaphylos uva-ursi*	**Kinnickinnick**		X		X	X		X	X	X	X	6”	12”	Full to Part
	Asclepias speciosa	Showy Milkweed	X	X	X	X	X	X	X	X			48”	36”	Full
	Aster hallii	Hall’s Aster	X	X		X			X	X			36”	18”	Full
	Aster suspicatus	Douglas Aster	X	X		X			X	X			36”	18”	Full
	Athyrium felix-femin	Lady Fern	X	X		X			X	X			36”	24”	Shade
	Beckmania syzigachne	American Slough Grass	X					X		X	X		36”	Seed 12”	Full
	Bidens cernua	Nodding Beggerticks					X	X	X	X			24”	12”	Full to Part
	Blechnum spicant	Deer Fern		X	X	X	X	X		X			24”	24”	Shade
	Brodiaea coronaria	Harvest Brodiaea			X	X				X	X		36”	12”	Full
	Bromus carinatus	California Brome Grass	X					X	X	X			18”	Seed	Full to Part
	Bromus sitchensis	Alaska Brome	X					X		X			18”	Seed	Full to Part
	Bromus vulgaris	Columbia Brome	X					X		X			18”	Seed	Full to Part
	Carex densa*	**Dense Sedge**		X	X	X	X	X		X	X		24”	12”	Full to Part

Herbaceous Plants	*Carex deweyanna*	Dewey Sedge		X	X		X	X		X	X		36”	12”	Part to Shade
	Carex hendersonii	Henderson Sedge		X				X		X	X	X	40”	12”	Full to Part
	Carex obnupta*	**Slough Sedge**		X	X	X	X	X		X	X	X	4’	12”	Full to Part
	Carex stipata*	**Sawbeak Sedge**		X	X	X	X	X		X	X		20”	12”	Full to Part
	Carex tumulicola*	**Foothill Sedge**		X	X	X	X	X		X	X	X	24”	12”	Full to Shade
	Carex unilateralis	Lateral Sedge		X	X	X	X	X		X	X		24”	12”	Full to Part
	Carex vesicaria	Inflated Sedge		X	X	X	X	X		X	X	X	36”	12”	Part
	Danthonia californica	California Oatgrass	X					X		X			18”	Seed 12”	Full to Part
	Deschampsia cespitosa	Tufted Hair Grass	X	X			X	X	X	X	X		36”	Seed 12”	Full to Part
	Eleocharis acicularis	Needle Spike Rush		X	X	X	X	X		X	X	X	30”	12”	Part
	Eleocharis ovata	Ovate Spike Rush	X	X	X	X	X	X		X	X	X	30”	12”	Part
	Eleocharis palustris	Creeping Spike Rush		X	X	X	X	X		X	X	X	30”	12”	Part
	Elymus glaucus	Blue Wild Rye	X					X	X	X			24”	Seed	Full to Part
	Eriophyllum lanatum	Oregon Sunshine		X		X	X	X	X	X			18”	12”	Full
	Festuca occidentalis	Western Fescue Grass	X					X		X			24”	Seed	Full to Part
	Festuca roemeri var. roemeri	Roemer’s Fescue	X	X		X		X	X	X	X		24”	Seed 12”	Full
	Festuca rubra	Red Fescue	X						X	X			24”	Seed	Full to Part
	Fragaria chiloensis*	**Coastal Strawberry**	X	X		X	X		X	X	X	X	6”	12”	Full to Part
	Fragaria vesca	Woodland Strawberry	X	X		X	X		X	X	X	X	6”	12”	Full to Part
	Fragaria virginiana	Wild Strawberry	X	X		X	X		X	X	X	X	6”	12”	Full to Part
	Glyceria occidentalis	Western Manna Grass	X					X		X			18”	Seed	Part
	Grindelia integrifolia	Gumweed		X			X	X		X	X		30”	12”	Full
	Hordeum brachyantherum	Meadow Barley	X					X		X			30”	Seed	Full
	Iris douglasiana*	**Douglas Iris**		X		X	X		X	X	X		18”	12”	Full to Part
	Iris tenax*	**Oregon Iris**		X		X	X		X	X	X		18”	12”	Full to Part
	Juncus acuminatus*	**Tapertip Rush**		X	X	X	X	X		X	X		24”	12”	Full
	Juncus balticus	Baltic Rush		X	X	X	X	X		X	X	X	20”	12”	Full to Part
	Juncus effusus	**Common/Soft**		X	X	X	X	X		X	X	X	36”	12”	Full to

	var. gracilis*	**Rush**													Part
	Juncus effusus var. pacificus*	**Common Rush**		X	X	X	X	X		X	X	X	36”	12”	Full to Part
	Juncus ensifolius*	**Dagger-leaf Rush**		X	X	X	X	X		X	X		10”	12”	Full to Part
	Juncus oxymeris	Pointed Rush	X	X	X	X	X	X		X	X	X	24”	12”	Full to Part
	Juncus patens*	**Spreading or Grooved Rush**		X	X	X	X	X		X	X	X	36”	12”	Full to Part
	Juncus tenuis	Slender Rush	X	X	X	X	X	X		X	X	X	36”	12”	Full to Part
	Koeleria macrantha	Junegrass	X					X	X	X			24”	Seed	Full
	Lupinus polyphyllus	Large-leaved Lupine	X	X		X	X	X	X	X			12”	12”	Full to Part
	Lupinus rivularis	Riverbank Lupine	X	X		X	X	X	X	X			36”	24”	Full
	Olsynium douglasii	Purple-eyed Grass	X	X	X	X	X	X		X			12”	24”	Full to Part
	Polystichum munitum	Sword Fern	X	X		X	X		X	X		X	24”	24”	Part to Shade
	Rubus calycinoides* (pentalobus)	**Creeping Bramble**	X	X	X	X	X		X		X	X		12”	Full to Part
	Sagittaria latifolia	Wapato					X	X		X			24”	12”	Full
	Solidago canadensis	Canada Goldenrod		X	X	X	X	X		X			4’	24”	Full to Part
	Schoenoplectus acutus var. acutus	Hardstem Bulrush					X	X		X	X	X	5’	12”	Full
Herbs	*Schoenoplectus americanus*	American Bulrush					X	X		X	X	X	7’	12”	Full
	Schoenoplectus microcarpus	Small Fruited Bulrush	X	X		X	X	X		X	X	X	24”	12”	Full to Part
	Schoenoplectus validus	Softstem Bulrush	X	X		X	X	X		X	X	X	5’	24”	Full to Part
	Sidalcea campestris	Meadow Sidalcea	X	X	X	X	X	X	X	X			36”	12”	Full to Part
	Sisyrinchium idahoense	Blue-eyed Grass	X	X	X	X	X	X	X	X			6”	12”	Full to Part
	Viola glabella	Stream Violet	X	X	X	X	X	X		X			4”	6”	Full to Part
Small Shrubs	***Cornus sericea* 'Kelseyii'***	**Kelsey Dogwood**		X	X	X	X		X				24”	24”	Full to Part
	Gaultheria shallon	Salal		X			X		X	X		X	24”	24”	Part
	Mahonia nervosa*	**Dull Oregon Grape**		X		X	X		X	X		X	24”	24”	Part
	Mahonia repens*	**Creeping Oregon Grape**		X		X	X		X	X		X	18”	18”	Part
	Spiraea betulifolia	Birchleaf Spiraea	X	X	X	X	X	X	X				3’	24”	Full to Part
	Spiraea spp.*	**Dwarf Spirea**	X	X	X	X	X		X				3’	3’	Full

	Symphoricarpos alba	Common Snowberry	X	X		X	X		X	X			4’	3’	Full to Part
Large Shrubs	*Ceanothus cuneatus*	Buckbrush	X	X		X	X	X		X		X	7’	7’	Full
	Ceanothus integerrimus	Deerbrush		X			X		X	X			13’	10’	Full to Part
	Ceanothus sanguineus	Oregon Redstem Ceanothus	X	X		X	X		X	X		X	7’	4’	Full
	Ceanothus velutinus	Snowbrush	X	X		X	X		X	X		X	5’	3’	Full
	Cornus sericea	Red-twig Dogwood	X	X	X	X	X	X	X	X			6’	6’	Full to Part
	Holodiscus discolor	Oceanspray	X	X		X	X		X	X			6’	6’	Full to Part
	Lonicera involucrata	Black Twinberry	X	X		X	X	X	X	X			5’	4’	Full to Part
	Mahonia (Berberis) aquifolium	Tall Oregon Grape	X	X		X	X		X	X		X	5’	3’	Full to Part
Large Shrubs	*Morella (Myrica) californica*	Pacific Wax Myrtle	X	X		X	X	X	X	X		X	10’	10’	Full to Part
	Oemleria cerasiformis	Osoberry	X	X		X	X		X	X			6’	4’	Full to Part
	Philadelphus lewisii	Wild Mock Orange	X	X		X			X	X			6’	4’	Full to Part
	Physocarpus capitatus	Pacific Ninebark	X	X	X	X	X	X	X	X			10’	5’	Full to Part
	Ribes sanguineum	Red-flowering Currant	X	X	X	X	X		X	X			8’	4’	Full to Part
	Rubus parviflorus	Thimbleberry	X	X	X	X	X	X	X	X			8’	4’	Full to Part
	Rubus spectabilis	Salmonberry	X	X	X	X	X	X		X			10’	4’	Full to Part
	Salix lucida var. 'Lasiandra'	Pacific Willow					X	X		X			13’	6’	Full
	Sambucus nigra ssp. cerulea	Blue Elderberry	X	X		X	X		X	X			10’	10’	Full to Part
	Sambucus racemosa	Red Elderberry	X	X		X	X		X	X			10’	10’	Full to Part
	Spiraea douglasii	Douglas Spiraea	X			X	X	X	X	X			7’	4’	Full to Part
	Viburnum edule	Highbush Cranberry		X		X	X	X	X	X			6’	6’	Full to Part
Tree	**Approved street tree species*														
	Abies koreana	Silver Korean Fir	X	X		X	X		X			X	50’		Full to Part
	**Acer circinatum*	Vine Maple	X	X	X	X	X	X	X	X			15’	10’	Full to Part
	**Acer griseum*	Paperbark Maple	X	X		X	X		X				30’		Full to Part
	Alnus rhombifolia	White Alder	X	X		X	X	X	X	X			100’		Full to Part
	Alnus rubra	Red Alder	X	X		X	X	X	X	X			80’		Full to

															Part
	Amelanchier alnifolia	Western (Saskatoon) Serviceberry	X	X		X	X		X	X			20’	10’	Full to Part
	**Amelanchier x grandiflora*	Apple Serviceberry	X	X		X	X		X				25’		Full to Part
	Arbutus x ‘Marina’	Marina Strawberry Tree	X	X		X	X		X			X	40’		Full to Part
Trees	*Arbutus menziesii*	Madrone	X	X		X	X		X	X		X	35’		Full
	**Arbutus unedo*	Strawberry Madrone	X	X		X	X		X				15’		Full
	**Carpinus betulus*	European Hornbeam		X		X	X		X				40’		Full
	**Celtis occidentalis*	Common Hackberry	X	X		X	X	X	X				100’		Full to Part
	Celtis reticulata	Netleaf Hackberry	X	X		X	X		X				25’		Full to Part
	**x Chitalpa tashkentensis*	Chitalpa	X	X		X	X		x				35’		Full to Part
	Cornus nuttalii (and hybrids)	Western Flowering Dogwood	X	X		X	X		X	X			20’		Full to Part
	Corylus cornuta	Western Beaked Hazelnut	X	X	X	X		X	X	X			15’		Full to Part
	Crataegus douglasii	Black Hawthorn		X			X	X		X			40’	10’	Full
	**Lagerstroemia indica x fauriei*	Crepe Myrtle	X	X		X	X		X				15’		Full
	Malus fusca	Pacific Crabapple	X	X		X	X	X		X			30’	10’	Full to Part
	**Nyssa sylvatica*	Black Tupelo	X	X		X	X		X				75’		Full to Part
	**Parrotia persica*	Persian Ironwood	X	X		X	X		X				50’		Full to Part
	**Pistacia chinesis*	Chinese Pistache	X	X		X			X				35’		Full
	**Quercus bicolor*	Swamp White Oak	X	X		X	X	X	X				60’		Full to Part
	**Quercus douglasii*	Blue Oak	X	X		X	X		X				80’		Full to Part
	**Quercus garryana*	Oregon White Oak	X	X		X	X		X	X			100’		Full to Part
	Quercus kelloggii	California Black Oak	X	X		X	X		X	X			100’	20’	Full to Part
	**Quercus shumardii*	Shumard Oak	X	X		X	X	X	X				60’		Full
	Quercus suber	Cork Oak	X	X		X	X		X			X	100’		Full
	Rhamnus purshiana	Cascara	X	X		X	X	X	X	X			30’		Full to Part
	Taxodium distichum	Bald Cypress	X	X		X	X		X				100’		Full

APPENDIX G

APPROVED STREET TREE LIST

APPENDIX G
APPROVED STREET TREE LIST

Street Trees for Under Powerlines	
Botanical Name	**Common Name**
Acer ginnala	Amur Maple
Acer Grandidentatum	Bigtooth Maple
Acer tartaricum	Tartarian Maple
Acer truncatum	Shantung Maple
Amelanchier arborea	Shadbush
Amelanchier x grandiflora 'var.'	'Autumn Brilliance' Serviceberry
Amelanchier x grandiflora 'var.'	'Robin Hill' Serviceberry
Amelanchier leavis	Smooth Shadbush, Smooth Serviceberry
Arbus unedo	Strawberry Tree
Carpinus Caroliana	American Hornbeam
Cercis	Redbud most varieties
Clerodendrum trichotomum	Glorybower Tree
Cornus florida	Flowering Dogwood
Cornus kousa	Korean Dogwood
Syringa reticulata 'var.'	'Summer Snow' Japanese Tree Lilac

Street Trees for Parking Strips 4 Feet to 6 Feet Wide	
Botanical Name	**Common Name**
Acer campestre	Hedge Maple
Acer campestre 'var.'	'Queen Elizabeth' Hedge Maple
Acer cappadocicum	Coliseum Maple
Acer grandidentatum	Bigtooth Maple
Acer griseum	Paperbark Maple
Acer platanoides 'var.'	'Olmsted' Norway Maple
Acer rubrum	Red Maple
Acer rubrum 'Armstrong'	'Armstrong' Red Maple
Acer rubrum 'var.'	'Autumn Flame' Red Maple
Acer rubrum 'var.'	'Bowhall' Red Maple
Acer rubrum 'var.'	'Karpick' Red Maple
Acer rubrum 'var.'	'October Glory' Red Maple
Acer rubrum 'var.'	'Red Sunset' Red Maple
Acer x freemanii 'var.'	'Armstrong II' Maple
Acer x freemanii 'var.'	'Autumn Blaze' Maple
Acer x freemanii 'var.'	'Autumn Fantasy' Maple
Acer x freemanii 'var.'	'Scarlet Sentinel' Maple
Aesculus x carnea 'var.'	'Briotti' Red Horsechestnut
Aesculus x carnea 'var.'	'Ft. McNair' Red Horsechestnut
Amelanchier x grandiflora	Serviceberry
Amelanchier x grandiflora 'var.'	'Cumulus' Serviceberry
Betula jacquemontii	Jacquemontii Birch
Carpinus betulus 'var.'	'Fastigiate' European Hornbeam
Carpinus carolinia	American Hornbeam
Celtis laevigata 'var.,'	'All Seasons' Sugar Hackberry
Celtis occidentalis	Hackberry
Celtis occidentalis 'var.'	'Chicagoland' Hackberry
Celtis occidentalis 'var.'	'Prairie Pride' Hackberry
Cercidiphyllum japonica	Katsura
Cercis canadensis	Redbud
Chionanthus virginicus	Fringe Tree
Chitalpa tashkentensis	Chitalpa
Cornus nuttallii	Pacific Dogwood
Koelreuteria paniculata	Goldenrain Tree
Ostrya virginiana	American Hop Hornbeam
Parrotia persica	Persian Parrotia

Street Trees for Parking Strips 6 Feet to 8 Feet Wide	
Botanical Name	**Common Name**
Acer campestre	Hedge Maple
Acer campestre 'var.'	'Queen Elizabeth' Hedge Maple
Acer cappadocicum	Coliseum Maple
Acer rubrum	Red Maple
Acer rubrum 'var.'	'Autumn Flame' Red Maple
Acer rubrum 'var.'	'Bowhall' Red Maple
Acer rubrum 'var.'	'Karpick' Red Maple
Acer rubrum 'var.'	'October Glory' Red Maple
Acer rubrum 'var.'	'Red Sunset' Red Maple
Acer saccharum	Sugar Maple
Acer saccharum 'var.'	'Legacy' Sugar Maple
Acer saccharum 'var.'	'Bonfire' Sugar Maple
Acer saccharum 'var.'	'Commemoration' Sugar Maple
Acer saccharum 'var.'	'Green Mountain' Sugar Maple
Acer saccharum 'var.'	'Seneca Chief' Sugar Maple
Acer truncatum x 'var.'	'Norwegian Sunset' Maple
Acer truncatum x 'var.'	'Pacific Sunset' Maple
Acer x freemanii 'var.'	'Autumn Blaze' Maple
Acer x freemanii 'var.'	'Autumn Fantasy' Maple
Acer x freemanii 'var.'	'Celebration' Maple
Acer x freemanii 'var.'	'Scarlet Sentinel' Maple
Aesculus hippocastanum 'var.'	'Bauman' Horsechestnut
Aesculus x carnea 'var.'	'Briotti' Red Horsechestnut
Aesculus x carnea 'var.'	'Ft. McNair' Red Horsechestnut
Castenea Dentata	Blight Resistant Chestnut
Carpinus betulus	European Hornbeam
Carpinus betulus 'var.'	'Fastigiate' European Hornbeam
Carpinus carolinia	American Hornbeam
Celtis laevigata 'var.,'	'All Seasons' Sugar Hackberry
Celtis occidentalis	Hackberry
Celtis occidentalis 'var.'	'Chicagoland' Hackberry
Celtis occidentalis 'var.'	'Prairie Pride' Hackberry

Street Trees for Parking Strips 6 Feet to 8 Feet Wide (continued)	
Botanical Name	**Common Name**
Ginkgo biloba	Ginkgo Male Only
Ginkgo biloba 'var.'	'Autumn Gold' Ginkgo Male only
Ginkgo biloba 'var.'	'Lakeview' Ginkgo Male only
Ginkgo biloba 'var.'	'Magyar' Ginkgo male only
Halesia carolina	Carolina Silverbell
Halesia monticola	Mountain Silverbell
Koelreuteria paniculata	Goldenrain Tree
Ostrya virginiana	American Hop Hornbeam
Quercus robur	English Oak
Quercus robur 'var.'	'Skymaster' English Oak
Quercus rubra	Northern Red Oak
Quercus garryana	Oregon White Oak
Quercus shumardii	Shumard Oak
Sophora japonica	Scholartree
Sophora japonica 'var.'	'Princeton Upright' Scholartree
Sophora japonica 'var.'	'Regent' Scholartree
Umbellularia californica	Oregon Myrtle
Zelkova serrata	Japanese Zelkova
Zelkova serrata 'var.'	'Green Vase' Japanese Zelkova
Zelkova serrata 'var.'	'Halka' Japanese Zelkova
Zelkova serrata 'var.'	'Village Green' Japanese Zelkova

Street Trees for Parking Strips 10 Feet Wide and Larger	
Botanical Name	**Common Name**
Acer macrophyllum	Bigleaf Maple
Acer nigrum	Black Maple
Acer pseudoplatanus	Sycamore Maple
Acer pseudoplatanus 'var.'	'Lustre' Sycamore Maple
Acer pseudoplatanus 'var.'	'Spaethii' Sycamore Maple
Acer saccharum	Sugar Maple
Acer saccharum 'var.'	'Legacy' Sugar Maple
Acer saccharum 'var.'	'Bonfire' Sugar Maple
Acer saccharum 'var.'	'Commemoration' Sugar Maple
Acer saccharum 'var.'	'Green Mountain' Sugar Maple
Acer saccharum 'var.'	'Seneca Chief' Sugar Maple
Aesculus hippocastanum 'var.'	'Bauman' Horsechestnut
Castenea dentata	Blight Resistant Chestnut
Carpinus betulus	European Hornbeam
Celtis laevigata	Sugar Hackberry
Cladrastis lutea	Yellowwood
Eucommia ulmoides	Hardy Rubber Tree
Ginkgo biloba	Ginkgo male only
Ginkgo biloba 'var.'	'Autumn Gold' Ginkgo male only
Ginkgo biloba 'var.'	'Lakeview' Ginkgo male only
Ginkgo biloba 'var.'	'Magyar' Ginkgo male only
Ginkgo biloba 'var.'	'Princeton Sentry' Ginkgo male only
Gymnocladus dioicus	Kentucky Coffeetree
Gymnoclaudus dioicus 'var.'	'Expresso' Kentucky Coffeetree
Halesia carolina	Carolina Silverbell
Liriodendron tulipifera	Tulip Tree
Lithocarpus densiflorus	Tanbark Oak
Magnolia grandiflora	Southern Magnolia
Nyssa sylvatica	Blackgum
Quercus bicolor	Swamp White Oak
Quercus coccinea	Scarlet Oak
Quercus douglassi	Blue Oak
Quercus lobata	Valley Oak
Quercus frainetto 'var.'	'Forest Green' Hungarian Oak
Quercus macrocarpa	Bur Oak
Quercus phellos	Willow Oak
Quercus robur	English Oak
Quercus robur 'var.'	'Skymaster' English Oak
Quercus rubra	Northern Red Oak
Quercus shumardii	Shumard Oak
Sophora japonica	Scholartree
Sophora japonica 'var.'	'Princeton Upright' Scholartree
Sophora japonica 'var.'	'Regent' Scholartree
Tilia americana	American Linden
Tilia americana 'var,'	'Redmond' American Linden

Street Trees for Parking Strips 10 Feet Wide and Larger	
Botanical Name	**Common Name**
Tilia americana 'var.'	'Legend' American Linden
Tilia tomentosa	Silver Linden
Tilia platyphyllos	Bigleaf Linden
Tilia x euchlora	Crimean Linden
Ulmus accolade	Accolade Elm Dutch elm disease tolerant only
Ulmus parvifolia	Chinese Elm Dutch elm disease tolerant only
Umbellularia californica	Oregon Myrtle
Zelkova serrata	Japanese Zelkova
Zelkova serrata 'var.'	'Green Vase' Japanese Zelkova
Zelkova serrata 'var.'	'Halka' Japanese Zelkova
Zelkova serrata 'var.'	'Village Green' Japanese Zelkova

APPENDIX H

Onsite Source Stormwater Controls

(A) Overview

(1) Some site characteristics and uses may generate specific pollutants that are not addressed solely through implementation of the stormwater quality measures identified in 4.3.110. The site characteristics and uses in this chapter have been identified as potential sources for chronic loadings or acute releases of pollutants such as oil and grease, toxic hydrocarbons, heavy metals, toxic compounds, solvents, abnormal pH levels, nutrients, organics, bacteria, chemicals, and suspended solids. This appendix presents source controls for managing these pollutants at their source.

(2) Industrial facilities may be subject to additional requirements through State of Oregon issued NPDES permits or as outlined in Oregon Administrative Rules (OAR) 340 Division 041.

(3) Springfield Municipal Code 4.372 lists prohibited discharges to the City's storm sewer system. The City has used these standards in the development of the listed source controls so stormwater discharges can better meet these criteria. The implementation of this chapter is in addition to the applicable water quality, flow control, and flood control requirements.

(4) Applicants may propose alternatives to the source controls identified in this chapter. Proposal of an alternative source control or alternative design element will require an additional review process and may delay issuance of related building or public works permits.

(B) Site Uses and Characteristics That Trigger Source Controls

(1) As provided in SDC 4.3.110(C)(8), development that includes any of the following uses and characteristics are subject to the design methodologies of this chapter:

(a) Fuel Dispensing Facilities and Surrounding Traffic Areas (Section C)

(b) Above-Ground Storage of Liquid Materials (Section D)

(c) Solid Waste Storage Areas, Containers, and Trash Compactors (Section E)

(d) Outdoor Storage of Bulk Materials (Section F)

(e) Material Transfer Areas/Loading Docks (Section G)

(f) Equipment and/or Vehicle Washing Facilities (Section H)

(g) Covered Vehicle Parking Areas (Section I)

Applicants are required to address all of the site characteristics and uses listed in Sections (C) through (I). For example, if a development includes both a fuel dispensing area and a vehicle washing facility, the source controls in both Sections (C) and (H) will apply.

(2) Source Control Goals and Objectives

(a) The specific source control standards are based on the following goals and objectives:

(i) Prevent stormwater pollution by eliminating pathways that may introduce pollutants into stormwater.

(ii) Protect soil, groundwater and surface water by capturing acute releases and reducing chronic contamination of the environment.

(iii) Direct wastewater discharges (including wash water) to a sanitary sewer system.

(iv) Direct areas that have the potential for acute releases or accidental spills, and are not expected to regularly receive flow or require water use (such as covered fuel islands or covered containment areas), to an approved method of containment or destination.

(v) Safely contain spills on-site, avoiding preventable discharges to sanitary sewer facilities, surface water bodies, or underground injection control structures (UICs).

(vi) Emphasize structural controls over operational procedures. Structural controls are not operator dependent and are considered to provide more permanent and reliable source control. Any proposals for operation-based source controls need to describe the long-term viability of the maintenance program.

(3) Signage

(a) Informational signage is required for certain site uses and activities that may pollute stormwater. Signage addresses good housekeeping rules and provides emergency response measures in case of an accidental spill. Required spill response supplies must be clearly marked, located where the signage is posted (or the location of the supplies must be

clearly indicated by the signage), and must be located near the high-risk activity area. Required spill response supplies, such as absorbent material and protective clothing, should be available at all potential spill areas. Employees must be familiar with the site's operations and maintenance plan and proper spill cleanup procedures.

(b) All signage must conform to the standards described below. Additional signage for specific activities is noted in applicable Sections C through I.

(c) Signs must be 8.5" x 11" or larger and located and plainly visible from all activity areas. More than one sign may be needed to accommodate larger activity areas. Signs must be water-resistant and include the following information:

(i) Safety precautions for self-protection and spill containment.

(ii) Immediate spill response procedures—for example: "Turn the valve located at..." or "Use absorbent materials"

(iii) Emergency contact(s) and telephone number(s)—for example: "Call 911" and "City of Springfield Public Works"

(C) Fuel Dispensing Facilities

(1) Fuel Dispensing Facilities include areas where fuel is transferred from bulk storage tanks to vehicles, equipment, and/or mobile containers (including fuel islands, above ground fuel tanks, fuel pumps, and the surrounding pad). This applies to large-sized gas stations as well as single-pump fueling operations.

(2) Cover

(a) The fuel dispensing area must be covered with a permanent canopy, roof, or awning so precipitation cannot come in contact with the fueling activity areas. Rainfall must be directed from the cover to an approved stormwater destination.

(b) Covers 10 feet high or less must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated fueling activity area/pad it is to cover.

(c) Covers higher than 10 feet must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated fueling activity area/pad it is to cover.

(3) Pavement

(a) A paved fueling pad must be placed under and around the fueling activity area with asphalt or concrete and must meet all applicable building code requirements.

(b) Sizing of the paved areas must be adequate to cover the activity area, including placement and number of the vehicles or pieces of equipment to be fueled by each pump.

(c) Fuel pumps must be located a minimum of seven feet from the edge of the fueling pad.

(4) Drainage

(a) The paved area beneath the cover must be hydraulically isolated through grading, berms, or drains. This will prevent uncontaminated stormwater from running onto the area and carrying pollutants away.

(b) Drainage from the hydraulically isolated area must be directed to an approved City sanitary sewer system, or authorized pretreatment facility.

(c) Surrounding runoff must be directed away from the hydraulically isolated fueling pad to a stormwater destination that meet all stormwater management practices of the Springfield Development code and other applicable code requirements.

(5) Signage

(a) Signage must be provided at the fuel dispensing area and must be plainly visible from all fueling activity areas.

(b) Signage must clearly specify the location of any applicable spill control kits, shut-off valves, etc. and include all necessary instructions for their use.

(6) Spill Control Manhole

(a) A spill control manhole must be installed on the discharge line of the fueling pad (before the domestic waste line tie-in).

(b) The tee section must extend 18 inches below the outlet elevation, with an additional 3 feet of dead storage volume below the tee to provide storage for oil and grease.

(c) The total containment volume must be no less than 110% the volume of the largest container or 10% of the total volume of product stored, whichever is larger.

(d) The manhole must be located on private property.

(7) Shut-Off Valves

(a) Shut-off valves are required to protect the City sewer systems or onsite infiltration facilities of spill risks from chemicals and other constituents that provide a danger for wide spread contamination, system damages or risk to the public health. Manual shut-off valves must not be permitted unless a request for an adjustment is approved by the City.

(b) Shut-off valves will be required in the following situations:

(i) Site or activity areas where corrosives or oxidizers are used or stored (for example, concentrated acids are corrosives having a pH of less than or equal to 5.0 and bases such as sodium or ammonium hydroxide having a pH of greater than or equal to 12.0, common oxidizers are hydrogen peroxide and bleach); or

(ii) Substances which are water soluble or float on water; or

(iii) Solvents and petroleum products

(c) Traffic pathways that surround the fueling pad, also designated as high-use/high-risk areas, will require a shut-off valve on the storm drainage system.

(i) Valves installed on storm drainage systems must be installed downstream of all private stormwater quality facilities to accommodate spill containment.

(ii) These valves should be left open to facilitate stormwater flows during normal conditions, and immediately closed in the event of a spill.

(iii) The switch or handle to operate the shut-off valve must be clearly marked and accessible, and identified on the signage at the fuel dispensing area. In the event of a spill the valve must remain closed until all spilled fuel and residue has been properly removed and disposed of.

(d) Fueling pads will require a shut-off valve downstream of the spill control manhole.

(i) Valves installed on sanitary sewer systems must be installed before the domestic waste line tie-in.

(ii) These valves must automatically revert to the closed position.

(iii) These valves must be kept closed, and opened only to allow incidental drainage activities that do not pose to be a threat or risk to the destination system.

(e) Shut-off valves must be located on private property and downstream of the exposed area's collection system.

(i) All valves must be installed and maintained as per manufacturer's recommendations. For more information about shut-off valves and associated valve boxes, contact Building & Permit Services at 541-682-5086.

(8) Additional Requirements

(a) Installation, alteration, or removal of above-ground fuel tanks larger than 55 gallons, and any related equipment, are subject to additional permitting requirements by the Springfield-Eugene Fire Marshal's Office. For technical questions and permitting, call the Fire Marshal's Office Permit Center at 541-682-5411, or visit them at Permit & Information Center, 99 W. 10th Avenue, Eugene, OR 97401.

(b) Bulk fuel terminals, also known as tank farms, will require the following:

(i) Secondary containment equal to 110 percent of the product's largest container or 10 percent of the total volume of product stored, whichever is larger.

(ii) A separate containment area for all valves, pumps and coupling areas with sub-bermed areas either in front of or inside the main containment areas. These sub-bermed areas are required to have rain shields and be directed to a City sanitary sewer destination that meets all applicable code requirements if no City sanitary sewer facility is available, drainage must be directed to a temporary holding facility for proper disposal.

(iii) An impervious floor within all containment areas. Floors must be sealed to prevent spills from contaminating the groundwater.

(iv) Truck loading and off-loading areas. These areas must follow cover, pavement, drainage, spill control, and shut-off valve requirements identified for fuel dispensing facilities.

(v) Shut-off valves installed for the drainage of the tank yard, must be installed downstream of the drainage system of the primary containment area, and kept closed. Valves installed for the drainage of the truck pad and sub-bermed containment areas must be installed on the sanitary sewer line downstream of the spill control manhole.

(vi) A batch discharge authorization before draining a containment area. This authorization will determine appropriate disposal methods, identify pretreatment requirements (if applicable), and authorize the discharge. Pretreatment may be required for oil and grease removal, and testing may be required to establish the specific characteristics of the discharge.

(c) Underground fuel tanks less than 4,000 gallons in size are subject to additional permitting requirements by Oregon's Department of Environmental Quality (DEQ) and tanks larger than 4,000 gallons are referred to the Federal Environmental Protection Agency (EPA). For technical questions and permitting, call DEQ's NW Region main office at 1-800-844-8467 and ask for the Underground Storage Tank Permitting Department.

(D) Above-ground Storage of Liquid Materials

(1) Above-Ground Storage of Liquid Materials include places where exterior storage (either permanent or temporary) of liquid chemicals, food products, waste oils, solvents, or petroleum products in above-ground containers, in quantities of 50 gallons or more exist.

(2) Containment

(a) Liquid materials must be stored and contained in such a manner that if the container(s) is ruptured, the contents will not discharge, flow, or be washed into a receiving system.

(b) A containment device and/or structure for accidental spills must have enough capacity to capture a minimum of 110 percent of the product's largest container or 10 percent of the total volume of product stored, whichever is larger. Containers, such as double-walled containers, with internal protection are considered to meet this requirement.

(3) Cover

(a) Storage containers (other than tanks) must be completely covered to prevent stormwater contact. Runoff must be directed from the cover to a stormwater destination that meets all applicable code requirements.

(b) Covers 10 feet high or less must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

(c) Covers higher than 10 feet must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

(2) Pavement

(a) All above ground storage of liquid material must occur in paved areas. The storage area must be paved with asphalt or concrete and must meet all applicable building code requirements. Sizing of the paved areas must be adequate to cover the area intended for storage.

(3) Drainage

(a) All paved storage areas must be hydraulically isolated through grading, berms, or drains to prevent uncontaminated stormwater run-on to a storage area.

(b) Covered storage areas:

(i) Significant amounts of precipitation are not expected to accumulate in covered storage areas, and drainage facilities are not required for the contained area beneath the cover.

(ii) If the applicant elects to install drainage facilities, the drainage from the hydraulically isolated area must be directed to a sanitary sewer destination that meets all applicable code criteria.

(c) Uncovered storage areas with containment:

(i) Water will accumulate in uncovered storage areas during and after rain. Any contaminated water cannot simply be drained from the area. It must be collected, inspected, and tested at the expense of the property owner before proper disposal can be determined.

(ii) Some type of monitoring may also be needed to determine the characteristics and level of contamination of the stormwater.

(d) All discharges to the sanitary sewer system must be considered batch discharges and must require approval and meet applicable code requirements.

(i) Pretreatment requirements must be set as part of the discharge approval process, based on the types and quantities of material to be discharged.

(ii) A discharge evaluation must be performed before connection to a sanitary sewer facility.

(iii) Testing may be required to establish characteristics of the sanitary sewer or contaminated stormwater and to verify that local

discharge limits are not exceeded. MWMC illicit discharge staff can be contacted to start this process.

(4) Signage

(a) Signage must be provided at the liquid storage area and must be plainly visible from all surrounding activity areas.

(E) Solid Waste Storage

(1) Solid Waste Storage Areas, Containers, and Trash Compactors include outdoor areas with one or more facilities that store solid waste (both food and non-food waste) containers.

(a) One- and two-family residential solid waste storage areas, containers, and trash compactors are exempt from this code subsection.

(b) Solid waste includes both food and non-food waste or recycling. Solid waste containers include compactors, dumpsters, compost bins, grease bins, recycling areas, and garbage cans.

(c) Debris collection areas used only for the storage of wood pallets or cardboard is excluded from these requirements.

(d) The following site uses and activities include all commercial and industrial development with facilities that store solid wastes, both food and non-food.

(i) Outdoor solid waste storage areas.

(ii) Multi-family residential sites if a shared trash collection area is proposed.

(iii) Activity areas used to collect and store refuse or recyclable materials, such as can or bottle return stations and debris collection areas.

(iv) Facilities whose business is to process and/or recycle wood pallets or cardboard.

(2) Design

(a) For approval of solid waste storage and handling activity areas in the City of Springfield, the following design requirements will apply. See below for a clarification of each requirement:

Activity/Use	Requirements

	Cover	Pavement	Hydraulicly Isolated	Sanitary Sewer Drain
Multi Residential (with shared trash areas)	X	X	X	X
Commercial	X	X	X	X
Industrial	X	X	X	X
Compactors (regardless of use)	X	X	X	X
Can and Bottle Return Stations	X	X	X	X

(3) Cover

(a) A permanent canopy, roof, or awning must be provided to cover the solid waste storage activity area and must be constructed to cover the activity area so rainfall cannot come in contact with the waste materials being stored. The cover must be sized relative to the perimeter of the hydraulically isolated activity area it is to cover. Runoff must be directed from the cover to a stormwater destination that meets all applicable code requirements.

(F) Outdoor Storage of Bulk Materials

Any bulk materials storage location that is not completely enclosed by a roof and sidewalls is an outdoor storage area.

(1) Bulk Materials Categories

(a) Bulk materials are separated into three categories based on risk assessments for each material stored: high-risk, low-risk, and exempt.

High-Risk Materials	Low-Risk Materials	Exempt Materials
• Recycling materials with potential effluent • Corrosive materials (e.g. lead-acid batteries) • Storage and processing of food items • Chalk/gypsum products • Feedstock/grain • Material by-products with potential effluent • Asphalt • Fertilizer	• Recycling materials without potential effluent • Scrap or salvage goods • Metal • Sawdust/bark chips • Sand/dirt/soil (including contaminated soil piles) • Material by-products without potential effluent • Unwashed gravel/rock • Composting Operations	• Washed gravel/rock • Finished lumber • Plastic products (hoses, gaskets, pipe, etc.) • Clean concrete products (blocks, pipe, etc.) • Glass products (new, non-recycled)

• Pesticides • Lime/lye/soda ash • Animal/human wastes • Treated Lumber		

(2) Cover

(a) Low-risk materials must be covered with a temporary plastic film or sheeting at a minimum.

(b) High-risk materials are required to be permanently covered with a canopy or roof to prevent stormwater contact and minimize the quantity of rainfall entering the storage area. Runoff must be directed from the cover to a stormwater destination that meets all applicable code requirements.

(c) Covers 10 feet high or less must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

(d) Covers higher than 10 feet must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

(3) Pavement

(a) Low-risk and exempt material storage areas are not required to be paved.

(b) High-risk material storage areas must be paved beneath the structural cover.

(4) Drainage

(a) Low-risk material storage areas are allowed in areas served by standard stormwater management systems. However, all erodible materials being stored must be protected from rainfall.

(b) If materials are erodible, a structural containment barrier must be placed on at least three sides of every stockpile to act as a barrier to prevent uncontaminated stormwater from running onto the storage area and carrying pollutants away.

(i) If the area under the stockpile is paved, the barrier can be constructed of asphalt berms, concrete curbing, or retaining walls.

(ii) If the area under the stockpile is unpaved, sunken retaining walls can be used. The applicant must clearly identify the method of containment on the building plans.

(c) For high-risk material storage areas, the paved area beneath the structural cover must be hydraulically isolated through grading, structural containment berms or walls, or perimeter drains to prevent runoff.

(i) Significant amounts of precipitation are not expected to accumulate in covered storage areas, and drainage facilities are not required for the containment area beneath the cover.

(ii) If the applicant elects to install drainage facilities, the drainage from the hydraulically isolated area must be directed to the City's sanitary sewer (with approval from the MWMC Illicit discharge division) and must meet all applicable code criteria.

(5) Additional Requirements

(a) Storage of pesticides and fertilizers may need to comply with specific regulations outlined by the Oregon Department of Environmental Quality (DEQ). For answers to technical questions, call DEQ's NW Region main office at 1-800-844-8467.

(b) A sampling manhole or other suitable stormwater monitoring access point may be required to monitor stormwater runoff from the storage area. This may apply to certain types of storage activities and materials or if an alternative source control is proposed. This requirement complies with Springfield Development Code 4.3.110D, which requires discharge to be treated. PW staff will review for applicability of this requirement.

(c) Signage must be provided at the storage area if hazardous materials or other materials of concern are stored. Signage must be located so it is plainly visible from all storage activity areas. More than one sign may be needed to accommodate large storage areas.

(d) If the applicant elects to install drainage facilities to the City's sanitary sewer system, a shut-off valve must be required for the structurally covered storage area.

(6) Alternative Protection Measures

(a) In lieu of covering mineral resource mining, recovery, stockpiling, and processing operations and low-risk material storage areas receiving land use approval, the applicant may propose alternative protection measures that demonstrate that stormwater runoff from the site will not contaminate adjoining properties, surface waters, and ground water as part of their land use application.

(G) Material Transfer Areas/Loading Docs

(1) Material Transfer Areas/Loading Docks include areas that are either interior or exterior to a building, designed to accommodate a commercial truck/trailer being backed up to or into them, and used specifically to receive or distribute materials to and/or from commercial trucks/trailers. Includes loading/unloading facilities with docks, and large bay doors without docks.

(a) These requirements also apply to all development proposing the installation of new material transfer areas or structural alterations to existing material transfer areas (e.g., access ramp regrading, leveler installations) with the following characteristics:

(i) The area is designed (size, width, etc.) to accommodate a commercial truck (1 ton and larger) or trailer being backed up to or into it; and

(ii) The area is designed so that it can be used to receive or distribute materials to and from trucks or trailers from any side.

(b) Two standard types of material transfer areas associated with buildings are:

(i) Loading/unloading facilities with docks

(ii) Large bay doors without docks

(c) The requirements in this section do not apply to material transfer areas or loading docks used only for mid-sized to small-sized passenger vehicles and areas restricted by lease agreements or other regulatory requirements to storing, transporting or using materials that are classified as domestic use, for example, primary educational facilities (elementary, middle or high schools), or buildings used for temporary storage, and churches.

(2) Cover

(a) The hydraulically isolated areas in front of loading docks are required to be permanently covered with a canopy or roof to prevent stormwater contact and to minimize the quantity of rainfall entering the loading dock area. Runoff must be directed from the cover to a stormwater destination that meets all applicable code requirements.

(b) Covers 10 feet high or less must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

(c) Covers higher than 10 feet must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

(3) Pavement

(a) A paved material transfer area must be placed underneath and around the loading and unloading activity area with asphalt or concrete that meets all applicable building code requirements. This will reduce the potential for soil contamination with potential impacts on groundwater and will help control any acute or chronic release of materials present in these areas.

(4) Drainage

(a) Loading Docks:

(i) Drainage from the hydraulically isolated area must be directed to a sanitary sewer that meets all applicable code requirements. Surrounding runoff and drainage from the access ramp must be directed away from the hydraulically isolated area to a stormwater destination that meets all applicable requirements of the Springfield Development Code.

(ii) The requirement for the drainage from the hydraulically isolated area of the loading dock to be directed to the City's sanitary sewer, or authorized pretreatment facility may be waived if PW determines there is no gravity sanitary sewer service available and an appropriately sized, underground temporary storage structure (such as a catch basin with no outlet or dead-end sump) is provided.

(5) Non-Gravity Option

(a) Activity areas that cannot achieve gravity sanitary sewer service may be allowed to install a pressurized (pumped) system. These types of installations will require the following to be provided at the time of building permit application:

(i) Proof that gravity sanitary sewer service cannot be obtained; and

(ii) Details of an electronic sump pump system equipped with a float switch

(b) Pressurized system installations are considered "permanent equipment" and deemed the property owner's liability in the event of system failure or if the property becomes vacated.

(c) The Building & Permit Services will review all sump pump or sewage ejector installations for compliance with Uniform Plumbing Code and Oregon State Plumbing Specialty Code.

(d) Bay Doors and Other Interior Transfer Areas: Because interior material transfer areas are not expected to accumulate precipitation, installation of floor drains is not required or recommended. It is preferable to handle these areas with a dry-mop or absorbent material. If interior floor drains are installed, they must be plumbed to the City's sanitary sewer facility or authorized pretreatment facility. Interior transfer areas may not be sloped to drain to the exterior of the building.

(e) Bay doors and other interior transfer areas must be designed so that stormwater runoff does not enter the building. This can be accomplished by grading or drains. Interior surfaces may not drain or be washed down to the exterior of the building.

(6) Signage

(a) Signage must be provided at the material transfer area and must be plainly visible from all surrounding activity areas.

(5) Additional Requirements

(a) Bay doors and other interior transfer areas must provide a 10-foot "no obstruction zone" beyond the entrance within the building. This will allow the transfer of materials to occur with the truck or trailer end placed at least 5 feet inside the building, with an additional staging area of 5 feet beyond that. The "no obstruction" zone must be clearly identified on the stormwater management plan and on the building plan at the time of the building permit application. The area must be identified at the facility by painting the "no obstruction zone" with bright or fluorescent floor paint.

(b) Shut-off valves will be required under the following situations:

(i) Site activity areas that are exposed to corrosives or oxidizers that can harm conveyance system components (such as battery acid).

(ii) Substances that do not settle or remain in one location, but are capable of being dissolved in or float on top of water (such as oil and grease). These substances can spread rapidly into downstream systems, causing widespread impacts and difficult clean-up situations.

(iii) Substances that are known to infiltrate through soils and contaminate groundwater.

(c) Valves located in material transfer areas are typically left open to facilitate drainage during normal conditions, and immediately closed in the event of a spill.

(d) Prior to transfer activities of harmful substances, the valves should be closed and only re-opened after the transfer is complete. The shut-off valves must be located on private property and downstream of the exposed area's collection system.

(H) Equipment and/or Vehicle Washing Facilities

(1) Equipment and/or Vehicle Washing Facilities include designated equipment and/or vehicle washing or steam cleaning areas, including smaller activity areas such as wheel washing stations.

(2) Cover

(a) The washing area must be covered with a permanent canopy or roof so precipitation cannot come in contact with the washing activity area. Precipitation must be directed from the cover to a stormwater destination that meets all applicable code requirements.

(b) Covers 10 feet high or less must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated washing activity area it is to cover.

(c) Covers higher than 10 feet must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated washing activity area it is to cover.

(3) Pavement

(a) A paved wash pad must be placed under and around the washing activity area with asphalt or concrete that meets all applicable building code requirements. Sizing of the paved area must adequately cover the activity area, including the placement of the vehicle or piece of equipment to be cleaned.

(4) Drainage

(a) The paved area beneath the cover must be hydraulically isolated through grading, berms, or drains to prevent uncontaminated stormwater from running onto the area and carrying pollutants away.

(b) Drainage from the hydraulically isolated area must be directed to the City's sanitary sewer, or authorized pretreatment facility.

(c) Surrounding runoff must be directed away from the hydraulically isolated washing pad to a stormwater destination that meets all applicable requirements of the Springfield Development Code.

(5) Oil Control

(a) All vehicle and equipment washing activities will be reviewed for needed oil controls to comply with the City's adopted plumbing code and Metropolitan Wastewater Management Commission requirements for pretreatment.

(b) The following design criteria are established for oil/water separators discharging to a sanitary sewer facility:

(i) Washing Areas Protected with a Cover or Located Inside a Structure:

Baffled oil/water separators and spill control (SC-Type) separators must not be allowed for use with equipment and/or vehicle washing applications.

Note: activities and processes of a washing facility change over time and the introduction of heat and surfactants may occur.

(ii) Coalescing plate separators must be designed to achieve 100 ppm non-polar oil and grease in the effluent from the peak flow generated by the washing activity. Testing information must be submitted by the manufacturer of the unit that supports the 100 ppm effluent standard at the calculated flow rate. Standard flow from a 5/8" hose is estimated to be 10 gpm. For specially designed washing units, check the vendor specifications for maximum flow rates.

(iii) Any pumping devices must be installed downstream of the separator to prevent oil emulsification.

(iv) Separator details must be shown on the building plans submitted for permit, and must match manufacturer specifications and details, including the unit flow rate, effluent water quality, and maximum process flow rate.

(c) On-site Wash Recycling Systems Wash may be used for oil control as long as they can meet effluent discharge limits for the City's sanitary sewer system. A detail of the wash recycling system and vendor

specifications identifying effluent efficiencies must be submitted as part of the building plans at the time of building permit application.

(l) Covered Vehicle Parking Structures

(1) Covered Vehicle Parking Structures include enclosed buildings, not including single-level covers such as canopies, overhangs, and carports, used to cover parked vehicles.

(2) Drainage

(a) Stormwater runoff from the top floor of a multi-level parking structure must be directed to a stormwater destination that meets all water quality requirements of the Springfield Development Code and any other applicable code requirements.

(b) Drainage from lower floor of a multi-level parking structure is not expected to accumulate significant amounts of precipitation runoff and drainage facilities are not required for the lower floors.

(c) If the applicant elects to install drainage facilities, the drainage from the lower floors must be directed to the sanitary sewer.

(3) Adjacent, Uncovered Portions of the Site

(a) The surrounding uncovered portions of the site must be designed so stormwater does not enter the covered parking areas. This can be accomplished through grading, drains, or exterior walls

STAFF REPORT and FINDINGS OF FACT

TYPE IV – LEGISLATIVE AMENDMENT TO THE SPRINGFIELD DEVELOPMENT CODE

SPRINGFIELD CASE NUMBER: 811-23-000124-TYP4
PLANNING COMMISSIONS' HEARING DATE: August 1, 2023, continued to September 5, 2023
ELECTED OFFICIALS' HEARING DATE: November 6, 2023
REPORT DATE: September 20, 2023, revised November 9, 2023
PROJECT NAME: Stormwater Post-Construction Requirements Code Amendments
AFFECTED AREA: All properties within the City of Springfield urban growth boundary

I. NATURE OF THE REQUEST

The City of Springfield seeks approval of amendments to the Springfield Development Code for consistency with the City's Municipal Separate Storm Sewer System (MS4) Permit. The purpose of the Post-Construction Requirements Update project is to modify the Springfield Development Code to comply with the Oregon Department Environmental Quality's (DEQ) requirements of the City. Updating Springfield's Development Code to align with current state requirements will allow the City to continue to participate in the MS4 permit program.

II. BACKGROUND

In accordance with the 1972 Federal Clean Water Act, the Oregon Department of Environmental Quality (DEQ) issued a permit to the City of Springfield called a Municipal Separate Storm Sewer System (MS4) permit. The permit regulates pollution from stormwater released to surface water, including the McKenzie and Willamette Rivers. The current MS4 permit characterizes Springfield's stormwater drainage system, establishes goals, policies and implementation actions; and measures, reports, and adaptively manages the City's water resources and stormwater runoff. The permit and Springfield Development Code implement and enforce post-construction site runoff controls within the Springfield urban growth boundary, including unannexed areas through an intergovernmental agreement with Lane County. The post-construction site runoff control program reduces discharge of pollutants and addresses stormwater runoff from new development and redevelopment.

Regulations for post-construction stormwater runoff are contained in the Springfield Development Code and the Engineering Design Standards and Procedures Manual (or EDSPM). Amendments to the Springfield Development Code are subject to a land use approval process that includes public hearings, recommendations from the Planning Commissions, and final co-adoption by the elected officials. The amendments to the EDSPM do not require a land use process and will be adopted directly by the City Council without a Planning Commission recommendation. Information from the City's EDSPM will be shared at the meeting as portions of the manual are proposed for adoption into the Code.

The purpose of the MS4 Post-Construction Runoff Amendment Project is to update the Springfield Development Code to comply with Oregon DEQ's requirements of the City, including requirements to regulate post-construction site runoff and minimize barriers to low impact development and green infrastructure under the City's MS4 Permit. These amendments would allow and encourage the use of stormwater treatment facilities including swales, rain gardens, and pervious pavements and strengthen requirements that address stormwater quality issues and improve the quality of water in the City's drinking water protection areas.

The project objectives are to:

1) Review and update enforceable post-construction stormwater management requirements in ordinance or other regulatory mechanism that includes a site performance standard and alternative treatment standard.
2) Review and update post-construction requirements for development and redevelopment, especially for project sites that create or replace 5,000 square feet or more of impervious area.
3) Review development code and remove barriers to low impact development and green infrastructure.

III. SITE INFORMATION

The amendments are not site-specific, they apply to a large area and a large number of properties. Affected properties are those with project sites that discharge stormwater to the storm sewer system that create or replace 5,000 square feet or more of impervious surface area or for development projects that disturb one or more acres of land. Runoff from these developments must be captured by structural stormwater controls which are physically designed, installed, and maintained facilities that prevent or reduce the discharge of pollutants to minimize the impacts on waterbodies.

IV. PROCEDURAL REQUIREMENTS AND CITIZEN INVOLVEMENT

Under SDC 5.6.110, amendments of the Development Code text are reviewed under a Type 4 procedure as a legislative action. Type 4 procedures, as defined in SDC 5.1.600, require a review and recommendation by the Planning Commission and adoption of ordinance by City Council.

The code updates include changes that apply within the urbanizable areas that are between the City limits and the Springfield urban growth boundary. Therefore, the code updates are subject to provisions of the City of Springfield and Lane County's urban transition agreement, which requires the City and County to jointly develop land use regulations to be applied to the urbanizable portion of the Springfield UGB. The Springfield Planning Commission and Lane County Planning Commission held a joint public hearing for the purpose of developing their recommendations to City Council and Board of Commissioners, respectively. The City Council and Board of County Commissioners will hold a joint public hearing to co-adopt the regulations applicable to the urbanizable area. The Director for the City of Springfield initiated these development code amendments as is allowed under SDC 5.6.105(B).

In accordance with the City of Springfield Citizen Involvement Program, the Committee for Citizen Involvement (CCI) reviewed and approved a Citizen Involvement Strategy for this proposal on April 18, 2023. Per this strategy and other requirements the City has completed the following:

- In April 2023, created a project page on Springfield Oregon Speaks with links to the Development Code Updates webpage on the City of Springfield website. The webpages provided opportunities for the public to view key messages or relevant resources and factsheets and collect input from the public.
- Held two public workshops to convey the main points of the project to development professionals, on June 13 and June 15, 2023.

- Emailed notice of the proposed amendments to stakeholder groups per the Citizen Involvement Strategy on June 23, 2023.
- As required by SDC 5.1.615(E), provided agency referrals to the Development Review Committee regarding the proposed amendments via email on June 23, 2021.
- Submitted notice of the proposed amendments to the Department of Land Conservation and Development (DLCD) on June 26, 2023, 35 days in advance of the first evidentiary hearing as required by ORS 197.610(1) and OAR 660-018-0020.
- Mailed notice of the Planning Commission Joint Hearing on July 6, 2023 to development professionals (developers, builders, landscape architects, engineers, and realtors, including the Springfield Board of Realtors and Lane County Home Builders Association) and environmental groups who expressed an interest in being notified of future code amendments (following the 2022 Development Code Update Project).
- Emailed notice of the proposed amendments to stakeholder groups per the Citizen Involvement Strategy on June 23, 2023.
- As required by SDC 5.1.615(E), provided agency referrals to the Development Review Committee regarding the proposed amendments via email on June 23, 2021.
- Published notice of the proposed amendments in The Chronicle on July 6, 2023 as required by SDC 5.1.615.
- Posted notice of the proposed amendments and the dates of the Planning Commissions' public hearings on the City of Springfield website which routinely posts public hearing notices.
- An amendment to the proposed code would prohibit stormwater infiltration and affect property setbacks, which triggered "Ballot Measure 56" notice under ORS 227.186. As this code revision was not initially included in the draft amendments staff did not provide said notice prior to the August 1 public hearing. Staff mailed notice pursuant to ORS 227.186 on August 11, at least 21 days prior to the continued hearing date of September 5, 2023.
- Published notice of the Elected Officials' public hearing in the Chronicle on October 12, 2023 as required by SDC 5.1.615(A).

As of the date of this staff report, there were inquiries about the proposed code language. Staff received one written comment from Staff at the Long Tom Watershed Council and one written comment from Mike Koivula in response to the information in the notices.

- *There are a number of reasons why it makes sense to align with the City of Eugene's stormwater manual, but Eugene's manual is nearly a decade old and does not reflect current best practices. Eugene is aware of this and is in the process of updating their manual to address the latest science, inconstancies, and other shortfalls. As such, it does not seem to be in Springfield's best interest to adopt a manual that is known to be out of date, especially at it relates to facility design. Known best practices are to have a functional sediment drop at all inlets, to have no fabric, and to limit gravel galleries and associated underdrains to the lowest third of the facility. Good examples of typical details that incorporate these concepts and more can be found in Portland's stormwater manual. Depth of soil, soil types, and how newly imported soil interfaces with existing soils should also be updated to best practices. Typically, new soil should be tilled to a min depth of 6" with a min. of 18" of new stormwater specific soil added. This soil should be high in organics and incorporate biochar at a minimum of 4% by volume to best manage*

the urban complex of pollutants and to maximize detention and infiltration. I am happy to discuss these recommendations further, and point you to scientific articles that support these recommendations if that is desired. – Sarah Whitney

Staff Response: Staff appreciate the Long Tom Watershed Council for providing feedback on the Stormwater Post-Construction Requirements Update and acknowledge that some of the proposed practices are pragmatic, including changing the standard facility design details or requirements of some items (the depth of soil and soil types). While some of the proposed details in the Eugene manual may be out of date, Springfield is aligning with the currently adopted regional standards, which are well established and are what can reasonably be built by most developers. Sourcing exotic materials like biochar may be unrealistic in many Low Impact Development or vegetated structural stormwater control facilities. For instance, biochars have been reported to improve plant health through providing improved water, nutrient retention, drainage and aeration; but they can also produce high pH which can reduce soil acidity levels and negatively impact soil microbes causing a detrimental effect to certain plants. Furthermore, many studies refer to relatively limited experimental assessments and report on quite specific plant, soil, and environmental interactions. Therefore, more research is recommended before including biochars in a typical stormwater facility design. Amendments to the Springfield Development Code include the addition of Appendix D Typical Stormwater Facility Details which was brought over from the Springfield Engineering Manual (EDSPM). One such amendment, is the requirement of a minimum 24-inch growing medium with at least 50% organic material in the Drinking Water Protection 0-2 Year Time of Travel Zone, which can accomplish nearly the same soil composition traits as the installation of biochars. Finally, Staff will consider amending these standards when regional stormwater codes at the City of Eugene and Lane County are amended and codified.

- *2 ideas. I question if sfr should be allowed to dispose of storm water in a drywell. A convenient drywell open to access, will likely be used by residents to dispose of many products that could damage ground water, oil, pesticides, paint, etc. Consider a program to encourage use of non toxic moss control products. Most of the zinc moss killers are toxic to fish and amphibians, and do not reliably break down. Sodium percarbonate is a very effective moss killer and destroys preemergent moss spores yet breaks down fairly quickly to completely benign compounds. A treatment is not expensive and lasts for a long time. Thank you to Planning Commissioners for your service to Springfield residents. - Mike Koivula*

Staff Response: The City has some tools and programs that address the concerns that are not currently regulated through the Springfield Development Code:

- First, Springfield does not allow open drywells. They must be covered so that the only entrance is the pipe carrying the water. The most frequently used type of drywell is a soakage trench which does not have any openings above ground except for the pipe that connects to the roof drains and typical installation does not having an easy entry point to dispose of liquids. Therefore, frequent use of drywells for residential use is not a concern at this time. Furthermore, Springfield Municipal Code 4.370-4.372 prohibits illicit discharges into the City stormwater system. This prohibition applies to over-use or misuse of products like moss killer in a residential area if it is posing a threat to the water quality of the city's storm system. If there was an open stormwater facility, it also applies to using that facility

as a dump/to dispose of items. The Environmental Services Department staff do take enforcement action when they become aware that someone is discharging substances into a stormwater facility that are not stormwater.

- Second, the MS4 permit also requires the City to provide education and outreach related to water quality. The Environmental Services Department "Stream Team" provides information to Springfield residents through their SUB bills several times a year and with the help of Eugene and Lane County, are actively working on a handout for moss control best practices specifically for Springfield. The handout and future outreach campaign will be based on resources from regional municipalities and the Northwest Center for Alternatives to Pesticides.

For this request, the Springfield and Lane County Planning Commission shall make a recommendations respectively to the Springfield City Council and Lane County Board of Commissioners which are the Approval Authorities for the final local decision. Per the Urban Transition Intergovernmental Agreement and SDC 5.1.625, development code amendments which impact areas outside the City limits must be co-adopted by the Lane County Board of Commissioners in order to apply to urbanizable areas within the Springfield UGB. Decisions of the Springfield City Council and Lane County Board of Commissioners may be appealed to the Oregon Land Use Board of Appeals within 21 calendar days of the date the decision becomes final as specified in ORS 197.830 (SDC 5.1.630(F)).

V. APPROVAL CRITERIA & FINDINGS

The request is subject to approval criteria in SDC 5.6.115, which covers adoption or amendment of refinement plans, plan districts and the development code. The following approval criteria are listed under SDC 5.6.115:

A. In reaching a decision on the adoption or amendment of refinement plans and this Code's text, the City Council shall adopt findings that demonstrate conformance to the following:

1. The Metro Plan and Springfield Comprehensive Plan;
2. Applicable State statutes; and
3. Applicable State-wide Planning Goals and Administrative Rules.

Findings showing that the amendments to the development code meet the applicable criteria of approval appear in regular text below. Direct citations or summaries of criteria appear in *italics* and precede or are contained within the relevant findings.

Conformance with the Metro Plan and Springfield Comprehensive Plan

The adopted Metro Plan and Springfield Comprehensive Plan are the acknowledged long-range plans that provide the board framework for land use planning within the City of Springfield. The policies of the Springfield Comprehensive Plan – Residential Land Use and Housing Element are intended to refine and update (as opposed to replace) the goals, objectives and policies of the Metro Plan's Residential Land Use and Housing Element. The Springfield Comprehensive Plan – Economic and Urbanization Elements replace the applicable sections of the Metro Plan pertaining to employment lands and urbanizable lands.

The Metro Plan and Springfield Comprehensive Plan contain topics or "elements". Each element contains a goal and policies that will guide Springfield's growth and development through the 2010-2030 planning period.

The Stormwater Post-Construction Requirements Update project is consistent with the following Metro Plan policies:

Environmental Resources Element

Air, Water and Land Resources Quality (Goal 6)

C.25 Springfield, Lane County, and Eugene shall consider downstream impacts when planning for urbanization, flood control, urban storm runoff, recreation, and water quality along the Willamette and McKenzie Rivers.

Finding 1: The amended standards in SDC 4.3.110 Stormwater Management require the City of Springfield to review all permit applications to determine if development is proposed to:

1) Create or replace 5,000 square feet or more of impervious surface area and discharge to the storm system;
2) Disturb one or more acres of land within the development area; and
3) Generate peak flows in excess of 0.5 cubic feet per second within the development area.

If an application does meet these standards, then the City requires developers to incorporate one or more structural stormwater controls.

Finding 2: Structural stormwater controls are physically designed, installed, and maintained to prevent or reduce the discharge of pollutants in stormwater to minimize the impacts of stormwater on water bodies. Examples of structural stormwater controls or Best Management Practices (BMPs) include: (1) storage practices such as wet ponds and extended detention outlet structures; (2) filtration practices such as grassed swales, sand filters and filter strips; and (3) filtration practices such as filtration basins and infiltration trenches.

Finding 3: The standards require that applicants capture the first one and four tenths inches (1.4") of rainfall from each storm event and route them to one or more structural stormwater controls (referred to as the Site Performance Standard) or if that standard cannot be met, rainfall must be retained onsite to the maximum extent practicable and the remainder of the runoff up to 1.4" must be treated to remove at least 80% of Total Suspended Solids (TSS) (referred to as the Treatment Standard).

Finding 4: Furthermore, per the amended code, the City will require applicants to submit a Stormwater Study to describe how the proposed stormwater management approach targets the natural surface or predevelopment hydrologic function of the area through the installation of a structural stormwater control. It must also address the facilities impact on offsite flows, drainage areas, environmentally sensitive areas, flood elevations or flood ways, and their proximity to natural resource areas. By requiring a stormwater study for all structural stormwater controls that are installed to offset the impacts of impervious surface development, the City of Springfield considers the downstream impact of urbanization, flood control, stormwater runoff, recreation, and water quality along the McKenzie and Willamette Rivers.

C.26 Local governments shall continue to monitor, to plan for, and to enforce applicable air and water quality standards and shall cooperate in meeting applicable federal, state, and local air and water quality standards.

Finding 5: These amendments are required for the City to comply with its MS4 Permit, pursuant to Oregon Revised Statute (ORS) 468B. 050 and Section 402 of the Federal Clean Water Act. This Metro Plan policy is further addressed in response to Statewide Planning Goal 6. See Finding 30 below.

Natural Hazards (Goal 7)

C.32 Local governments shall require site-specific soil surveys and geologic studies where potential problems exist. When problems are identified, local governments shall require special design considerations and construction measures be taken to offset the soil and geologic constraints present, to protect life and property, public investments, and environmentally-sensitive areas.

Finding 6: The City's MS4 permit requires the City to require structural stormwater controls for new development and redevelopment project that create or replace 5,000 square feet or more of impervious surface area or disturb one or more acres of land. As discussed above, applicants must capture the first one and four tenths inches (1.4") of rainfall from each storm event and route them to one or more structural stormwater controls. If that standard cannot be met due to technical infeasibility or site constraints, applicants can apply for review under the alternative Treatment Standard. Under the Treatment Standard, rainfall must be retained onsite to the maximum extent practicable and the remainder of the 1.4" of runoff must remove at least 80% of Total Suspended Solids from any storm event. The alternative Treatment Standard provides "special design consideration" for sites that may not be able to capture the Site Performance Standard of 1.4" rainfall due to: shallow bedrock, high groundwater, protection of groundwater from contamination, soil instability as documented by geotechnical analysis, land use that is inconsistent with the capture and infiltration of stormwater, the known presence of soil contamination, or constraints arising from the Drinking Water Protection Overlay District. Therefore, where an application proposes development on a property with site constraints, an applicant must take measures to offset the soil and geologic constraints present to protect life, property, public investments, and environmentally-sensitive areas.

Environmental Design Element

E.2 Natural vegetation, natural water features, and drainage-ways shall be protected and retained to the maximum extent practical. Landscaping shall be utilized to enhance those natural features. This policy does not preclude increasing their conveyance capacity in an environmentally responsible manner.

Finding 7: The development code amendments have clear allowances for the use of vegetated stormwater treatment. Structural stormwater controls should primarily include vegetation with mechanical treatment used as a last resort. The vegetation may also count as part of the required site landscaping. Therefore, the use of vegetated structural stormwater controls or Low Impact Development may form the basis of natural vegetation areas or in

required setbacks along natural water features and will capture and retain runoff before they impact drainage-ways to protect them to the maximum extent practical.

E.3 The planting of street trees shall be strongly encouraged, especially for all new developments and redeveloping areas (where feasible) and new streets and reconstruction of major arterials within the UGB.

Finding 8: The amendments are in conformance with the above stated policy as the City of Springfield maintains a list of approved street trees. The City's plant and tree lists have been updated and reformatted to be clearer and easier to use. During draft review, staff contacted local arborists and landscape architects to receive feedback on the City's Facility Plant and Street Tree lists. The lists have been amended to include criteria for approval of species not currently on the list and to be consistent with Eugene's 2014 Stormwater Management Manual Facility Planting Design. Non-native invasive species are not allowed in stormwater facilities and only natives are allowed in stormwater facilities within Natural Resource Protection Area setbacks. A minimum of three unique species are required per facility for species diversity.

E.4 Public and private facilities shall be designed and located in a manner that preserves and enhances desirable features of local and neighborhood areas and promotes their sense of identity.

Finding 9: The amendments require developers to design structural stormwater control facilities based on their ability to prevent or reduce the discharge of pollutants in stormwater on waterbodies. Examples of structural stormwater controls include: wet ponds and extended detention outlet structures, grassed swales, sand filters and filter strips, and filtration basins and infiltration trenches. By prioritizing management practices that mimic natural surface or predevelopment hydrological functions and the use of Low Impact Development approaches or green infrastructure, the City is actively working to preserve and enhance local neighborhood areas and promote their sense of identity through the installation of these facilities.

The Stormwater Post-Construction Requirements Update project is consistent with the following Public Facilities and Services Element policies:

Services to Development Within the Urban Growth Boundary: Stormwater

G.13 Improve surface and ground water quality and quantity in the metropolitan area by developing regulations or instituting programs for stormwater to:

- *a. Increase public awareness of techniques and practices private individuals can employ to help correct water quality and quantity problems;*
- *b. Improve management of industrial and commercial operations to reduce negative water quality and quantity impacts;*
- *c. Regulate site planning for new development and construction to better manage pre- and post-construction storm runoff, including erosion, velocity, pollutant loading, and drainage;*
- *d. Increase storage and retention and natural filtration of storm runoff to lower and delay peak storm flows to settle out pollutants prior to discharge into waterways;*

e. Require on-site controls and development standards, as practical, to reduce off-site impacts from stormwater runoff;
f. Use natural and simple mechanical treatment systems to provide treatment for potentially contaminated runoff waters;
g. Reduce street-related water quality and quantity problems;
h. Regulate use and require containment and/or pretreatment of toxic substances;
i. Include containment measures in site review standards to minimize the effects of chemical and petroleum spills; and
j. Consider impacts to ground water quality in the design and location of dry wells.

Finding 10: Stormwater management in Springfield is regulated by multiple programs, ordinances, and code provisions. Three divisions provide support to the review of stormwater plans and permits. Long-term stormwater infrastructure planning and development review is managed by the Community Development Division, stormwater maintenance and enforcement on private development sites and outreach to the public and property owners are handled by the Environmental Services Division, and stormwater maintenance of public facilities is the responsibility of the Operations Division. The Environmental Services Division has a stormwater public awareness program where they inform residents, businesses, and industries about the importance of our Drinking Water Protection program and water recreational resources.

Finding 11: The Stormwater Post-Construction Requirements that are included in the code amendments will improve management of industrial and commercial operations by requiring structural stormwater controls for any development or redevelopment that disturbs more than 5,000 square feet of impervious surface or one or more acres of land and regulates site planning for new development, redevelopment, and construction to better manage post-construction storm runoff in compliance with the MS4 permit. Portions of the Engineering Design Standards and Procedures Manual (or EDSPM) that apply to private development (such as erosion, velocity, pollutant loading, and drainage requirements) will be added to the development code. Construction specifications and design standards that only apply to public infrastructure approvals or that are non-mandatory guidelines will remain in the EDSPM.

Finding 12: The new code standards will: (1) facilitate and encourage the incorporation of site-specific management practices that mimic natural surface or predevelopment hydrological functions, optimizing on-site retention; (2) result in reduced site specific post-construction stormwater runoff, volume, duration and rates of discharge to the storm sewer system, thereby minimizing water quality impacts from impervious surface. By increasing the storage, retention, and natural filtration of stormwater runoff to lower and delay peak storm flows, the stormwater facilities settle out pollutants prior to discharge to local waterways. (3) encourage the use of Low-Impact Development or green infrastructure to use natural and simple mechanical treatment systems that can effectively treat contaminated water quality and quantity issues; (4) further the intent to capture and treat 100% of the first 1.4” of rainfall or at least 80% of Total Suspended Solids of whatever portion of the first 1.4” that cannot be captured; and (5) encourage design techniques that minimize impervious surfaces and again, reduce stormwater runoff.

G.14 Implement changes to stormwater facilities and management practices to reduce the presence of pollutants regulated under the Clean Water Act and to address the requirements of the Endangered Species Act.

Finding 13: The amendments to the Springfield Development Code are in compliance with the City's MS4 Permit. The City is implementing these changes to portions of the stormwater code requirements to reduce impacts of stormwater runoff on our Drinking Water Protection areas and local waterways.

G.15 Consider wellhead protection areas and surface water supplies when planning stormwater facilities.

Finding 14: A Stormwater Study is required for the installation of a structural stormwater control facility. The Stormwater Study must address any impact on wellhead protection areas, floodplains and floodways, natural resources, wetland and riparian areas, and Water Quality Limited Watercourses. The amendments to the Drinking Water Protection Overlay District includes limitations on stormwater facilities in proximity to wellheads that are necessary to ensure the safety of the city's drinking water supply.

G.16 Manage or enhance waterways and open stormwater systems to reduce water quality impacts from runoff and to improve stormwater conveyance.

Finding 15: The code amendments manage and enhance the City's waterways and stormwater systems by:

- Capturing the first 1.4" of rainfall or at least 80% of Total Suspended Solids of whatever portion of the first 1.4" that cannot be retained onsite. This reduces our stormwater runoff impact and improves stormwater conveyance;
- Enhancing our water quality and protecting the McKenzie and Willamette rivers from said runoff helps shield properties and infrastructure from flooding.

G.17 Include measures in local land development regulations that minimize the amount of impervious surface in new development in a manner that reduces stormwater pollution, reduces the negative effects from increases in runoff, and is compatible with Metro Plan policies.

Finding 16: The purpose of these code amendments is to review and update post-construction requirements for development and redevelopment, especially for project sites that create or replace 5,000 square feet or more of impervious area and remove barriers to low impact development and green infrastructure. The amended development code minimizes the amount of impervious surface in new developments by encouraging the use of vegetated stormwater facilities or permeable pavements in required landscaping for buildings, parking lots and parking strips, and open spaces. Amending the code to implement the MS4 permit requirements for structural stormwater controls not only reduces the negative effects from stormwater pollution and increases in runoff but is also compatible with the Metro Plan policies.

Conformance with Applicable State Statutes

Finding 17: ORS 197.610 requires local jurisdictions to submit proposed comprehensive plan or land use regulation changes to the Department of Land Conservation and Development (DLCD). Notice of the proposed amendments to the Springfield Development Code was provided

to DLCD 35 days in advance of the Planning Commission public hearing in compliance with ORS 197.610 and ORS 197.620(3). Therefore, the amendments are consistent with the state statute.

Finding 18: ORS 227.186 requires the local government to mail a notice to every landowner whose property is proposed to be "rezoned" as a result of adoption or amendment of a proposed ordinance (also known as "Ballot Measure 56" notice). Rezoning under ORS 227.186 includes an ordinance that amends or adopts regulations that limit or prohibit land uses previously allowed in the affected land use district. Specifically, the code amendments affect the "uses" allowed in the Drinking Water Protection Area by prohibiting stormwater infiltration facilities within 100' of any drinking water wellhead. Because this amendment would prohibit stormwater infiltration and affect property setbacks, Measure 56 notice is warranted. This notice was not provided within 21 days of the initial hearing on August 1; however, the notice issue is cured by continuing the public hearing with the Springfield and Lane County Planning Commissions until September 5, 2023.

Finding 19: ORS 197.307(4) requires that jurisdictions "may adopt and apply only clear and objective standards, conditions and procedures regulating the development of housing" and "may not discourage needed housing through unreasonable cost or delay". The amendments allow residential development to meet the stormwater management standards through compliance with the Site Performance Standard in SDC 4.3.110(C)(2). This is a clear and objective standard requiring on-site retention of the first 1.4" of stormwater, which corresponds to the 80th percentile storm event. The appendices referenced in SDC 4.3.110 provide clear and objective design standards for a variety of stormwater facilities that could be used to meet the Site Performance Standard. Compliance with the site performance standard will not result in unreasonable costs or delays because (1) it is a requirement that the City must impose under the MS4 permit, (2) it requires on-site retention of the 80th percentile storm, which is a reasonable target for development to achieve, and (3) it provides options for treatment facility types in the code appendices. As permitted in ORS 197.307(6), SDC 4.3.110(C)(2)(b) provides a discretionary alternative treatment standard if the applicant demonstrates that it is technically infeasible to meet the Site Performance Standard. ORS 468A.050 requires the City to obtain a permit from the DEQ in order to discharge any wastes into the waters of the state from any industrial or commercial establishment or activity or any disposal system, or to construct, install, modify or operate any disposal system or part thereof or any extension or addition thereto. Development within the City of Springfield that adds impervious surface results in rainwater runoff that may be discharged ultimately into state waters of the McKenzie River or Willamette River in and near Springfield. The City's MS4 permit authorizes the City to continue to convey stormwater runoff into waters of the state. These development code amendments are required to be in compliance with the MS4 permit and therefore in compliance with ORS 468A.050.

Conformance with Applicable State-wide Planning Goals and Administrative Rules

Statewide Planning Goal 1 – Citizen Involvement. To develop a citizen involvement program that provides the opportunity for citizens to be involved in all phases of the planning process.

Finding 20: Requirements under Goal 1 are met by adherence to the citizen involvement process required by the Metro Plan and implemented by the Springfield Development Code. As detailed above, a public outreach process occurred during the development code amendment process. The amendments are subject to the Type IV legislative procedure, which requires public notification and public hearings before the Planning Commission and City Council. The procedure has been established by the City and determined to be consistent with the City's acknowledged Citizen Involvement Program and Statewide Planning Goal 1. The public hearing notice and hearings before the Planning Commission and City Council and Springfield Oregon Speaks (Springfield's public outreach website) are recognized as opportunities for citizen participation. Therefore, the amendments are in compliance with Goal 1.

Statewide Planning Goal 2 – Land Use Planning. To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual basis for such decisions and actions.

Finding 21: This goal outlines the land use planning process and policy framework. The Metro Plan, Springfield Comprehensive Plan, and Springfield Development Code have been acknowledged by DLCD as being consistent with the Statewide Planning Goals. The City has followed the land use planning process and policy framework established in the City's acknowledged comprehensive plan elements and Springfield Development Code as a basis for all decision and actions related to the use of land and to assure an adequate basis for such decisions and actions.

Finding 22: The Stormwater Post-Construction Requirements included in the code amendments will be adopted by the City Council and Lane County Board of County Commissioners after the November 6, 2023 Public Hearing. Opportunities have been provided for review and comment by citizens and local governments.

Finding 23: The amendments originate from the Department of Environmental Quality's (DEQ) approval of the City's MS4 permit which require the City to regulate post-construction site runoff and minimize barriers to low impact development and green infrastructure. As stated in the background, these amendments would allow and encourage the use of stormwater treatment facilities including swales, rain gardens, and pervious pavements and strengthen requirements that address stormwater quality issues and improve the quality of water in the City's drinking water protection areas.

Finding 24: Furthermore, the need for stormwater code updates was addressed in *Appendix F of the Springfield Stormwater Facilities Master Plan* (*Detailed Summary of Recommended Changes to Standards and Codes*). The memorandum identified a number of code changes needed to meet goals, policies, and implementation actions in the City of *Springfield Stormwater Management Plan* (2004). They include:

- Up-to-date Standards, With Regional Consistency
- Reduce Impacts of Streets and Parking Lots
- Specifically Allow & Encourage Vegetated Stormwater Facilities in Development Site Landscaping

- Improve Water Quality Protection Requirements in the Drinking Water Protection District
- Improve Tree & Vegetation Protection Standards
- Improve Erosion Prevention
- Expand and Fully Implement the LDAP
- [Implement] Maintenance Practices

Staff analyzed these recommendations and the current code to address those implementation actions that were not already implemented with the 2022 Development Code Update Project or were in existing code following updates that occurred from 1998 to 2007.

Finding 25: Recommendations that weren't addressed during the previous code amendments or are required in the MS4 permit are addressed in the Stormwater Post-Construction Requirements Update including: updating the code to be consistent with regional standards as recommended by The Springfield Stormwater Facilities Master Plan for infiltration stormwater quality facilities; allowing and encouraging vegetated stormwater facilities (including Low Impact Development); improving the water quality protection requirements and tree and vegetation protection standards; and codifying the maintenance responsibilities and ownership for stormwater quality facilities. Therefore, the amendments are in compliance with the MS4 permit and Goal 2.

Statewide Planning Goal 3 – Agricultural Lands. To preserve agricultural lands.

Finding 26: The amendments are for property located within the urban growth boundary of Springfield and do not affect any land designated for agricultural use. Therefore, Goal 3 does not apply.

Statewide Planning Goal 4 – Forest Lands. To conserve forest lands.

Finding 27: The amendments are for property located within the urban growth boundary of Springfield and do not affect any land designated for forest use. Therefore, Goal 4 does not apply.

Statewide Planning Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources. To conserve open space and protect natural and scenic resources.

Finding 28: The Springfield Development Code is currently acknowledged to be in compliance with Statewide Planning Goal 5. Pursuant to OAR 660-023-0250(3) local governments are not required to apply Goal 5 in consideration of an amendment unless the amendment affects a Goal 5 resource. The amendment would only affect the resource if it: creates or amends a resource list or portion of an acknowledged plan that protects or addresses specific requirements of a Goal 5; allows new uses that could conflict with a Goal 5 resource; or the amendment affects an acknowledged UGB and information is submitted demonstrating that a resource site is included in the amended UGB area.

Finding 29: The amendments do not create or amend the City's list of Goal 5 resources, do not allow new uses that could conflict with a Goal 5 resource, and do not amend the acknowledged UGB. The amendments change code provisions that apply to significant Goal 5

resources that are classified as Water Quality Limited Watercourses (WQLWs) by moving provisions regarding identification of WQLWs and protection of riparian area functions from SDC 4.3.110 to 4.3.117. However, this change is for code organization purposes only and does not change the substance of any code requirements or standards that apply to WQLWs. Therefore, the amendments are in compliance with Goal 5.

Statewide Planning Goal 6 – Air, Water and Land Resources Quality. To maintain and improve the quality of the air, water and land resources of the state.

Finding 30: Goal 6 addresses waste and discharges from development and is aimed at protecting air, water and land from impacts from those discharges. This goal requires local comprehensive plans to implement measures that are consistent with state and federal regulations on matters such as groundwater pollution. Goal 6 does not provide a legal standard that is independent of what the state and federal water quality programs require, which are administered by DEQ under the MS4 permit program in this matter. Instead, Goal 6 works in concert with those standards to ensure that land use planning and regulations prohibit discharges from development that 'threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards.' The stormwater amendments do not authorize any new development or increase intensity of development in way that threatens to violate state or federal regulations.

Finding 31: The City's MS4 permit requires the City to continue to implement its post-construction stormwater pollutant and runoff control program. Additionally, the permit requires that by February 2024, the City's program as it applies to new development and redevelopment projects will:

1) Implement the use of structural stormwater controls at all qualifying sites that create or replace 5,000 square feet or more of impervious surface area or disturb one or more acres of land;

2) Identify, minimize or eliminate ordinance, code and/or development standard barriers that inhibit Low Impact Development and Green Infrastructure, which is intended to minimize impervious surfaces and reduce stormwater runoff. Most of the development code amendments outside of SDC 4.3.110 Stormwater Management reduce barriers to using Low Impact Development and Green Infrastructure;

3) Implement a site-specific stormwater management approach that targets natural surface or predevelopment hydrological function through the installation, operation, and maintenance of structural stormwater controls. The permit allows the City to establish a site performance standard that is either volume based (for example, capture the first inch of each storm event), storm event percentile-based (for example, the 95th percentile storm event), or annual average runoff-based (for example, 80% of annual average runoff). The Site Performance Standard requiring capture of the first one and four tenths inches (1.4") of rainfall from each storm event is a volume-based standard that correlates to historical rainfall data for the Eugene-Springfield area, so that 80% of all storm events will be fully infiltrated on-site under this standard. If the Site Performance Standard cannot be met due to site constraints or technical infeasibility, the site must infiltrate as much rainfall as practicable. The remainder of the runoff up to 1.4" must meet the Treatment Standard to remove at least 80% of Total Suspended Solids .Review and approve structural stormwater

control plans for new development and redevelopment projects for sites that disturb one or more acres of land and sites that use the alternative treatment standard mentioned above; and

4) Maintain an inventory and implement a strategy to ensure that all structural stormwater controls are installed in compliance with the MS4 permit and operated and maintained to meet the Site Performance Standard mentioned above.

Finding 32: The amendments are necessary to comply with the DEQ requirements in the City's MS4 permit, which is what is required by Goal 6. Therefore, the amendments are consistent with Goal 6.

Statewide Planning Goal 7 – Areas Subject to Natural Disasters and Hazards. To protect life and property from natural disasters and hazards.

Finding 33: Goal 7 requires local government planning program include provisions to protect people and property from natural hazards such as floods, landslides, earthquakes and related hazards, tsunamis and wildfires. The Goal prohibits development in natural hazard areas without appropriate safeguards. The Springfield Development Code is acknowledged to be in compliance with Goal 7. The amendments do not alter the City's acknowledged land use programs regarding landslide areas (SDC 3.3.500, Hillside Development Overlay) or flood protection (SDC 3.3.400). Therefore, the Stormwater Post-Construction Requirements Update project is in compliance with Goal 7.

Statewide Planning Goal 8 – Recreational Needs. To satisfy the recreational needs of the citizens of the state and visitors, and where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

Finding 34: Recreational services within Springfield is the responsibility of Willamalane Park & Recreation District. Willamalane has an adopted 20-Year Comprehensive Plan for the provision of park, open space and recreation services for Springfield. This goal is not applicable to the Stormwater Post-Construction Requirements Update project and the amendments will have no effect on the availability of or access to recreational opportunities as planned in Willamalane's Comprehensive Plan. Therefore, the updates are in compliance with Goal 8.

Statewide Planning Goal 9 – Economic Development: To provide adequate opportunities throughout the state for a variety of economic activities vital to the health welfare, and prosperity of Oregon's citizens.

Finding 35: Goal 9 requires the City to "provide for at least an adequate supply of sites of suitable sizes, types, locations, and service levels for a variety of industrial and commercial uses consistent with plan policies." The City's adopted Economic Opportunities Analysis and Commercial Industrial Buildable Lands Inventory is acknowledged to comply with Goal 9. The amendments do not impact the supply of industrial or commercial lands.

Finding 36: The Stormwater Post-Construction Requirements do not render any property unusable for commercial or industrial uses. The amendments prioritize the selection of structural stormwater controls to capture and retain as much stormwater runoff as feasible

onsite. Applicants that qualify for the Alternative Treatment Standard due to technical infeasibility and/or site constraints does not restrict any buildable land area; it merely requires that development target an equivalent water quality benefit as onsite retention. An applicant demonstrates technical infeasibility by submitting a report demonstrating that the required size of the structural stormwater control needed for the development's impervious surface area would not be feasible or would need to be reduced to meet the Site Performance Standard.

Finding 37: The code amendments retain the existing minimum development areas and broad categories of uses that are currently allowed in each land use district, which maintains the existing inventory of sites suitable for a variety of employment uses. Therefore, the amendments are consistent with Goal 9.

Statewide Planning Goal 10 – Housing. To provide for the housing needs of citizens of the state.

Finding 38: Goal 10 requires jurisdictions inventory buildable lands for residential use and develop plans that encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which meet the financial capabilities of Oregon households and allow for flexibility of housing location type and density. The City of Springfield completed a Housing Needs Analysis and Buildable Lands Inventory in 2011. This document serves as the City's compliance document under Goal 10 and provides the basis for the City's determination that Springfield's UGB has sufficient buildable land to meet the identified housing needs during the 20-year planning period.

Finding 39: The Stormwater Post-Construction Requirements Update amendments do not conflict with Goal 10 because they preserve the City's inventory of buildable residential lands, by either not changing or not increasing the overall net density that may be constructed on residentially designated land. The amendments are more restrictive in terms of how much impervious surface area can be built before a structural stormwater control is required (development that creates or replaces 5,000 square feet or more of impervious surface area; development that disturbs one or more acres of land within the development area; and development that generates peak flows in excess of 0.5 cubic feet per second within the development area).

Finding 40: The amendments do not regulate if development can occur, but rather how development is done. The new regulations:

- Add specific standards for structural stormwater controls to capture the first one and four tenths inches (1.4") of rainfall from each storm event (Site Performance Standard) and route the stormwater to one or more structural stormwater controls or if that standard cannot be met, the remainder of the runoff must be treated to remove at least 80% of Total Suspended Solids (Treatment Standard) (SDC 4.3.110(C)(2));
- Specifically require that any development that cannot meet the Site Performance Standard in SDC 4.3.110(C)(2) demonstrate that an Alternative Treatment Standard is proposed due to technical infeasibility or site constraints including but not limited to: shallow bedrock, high groundwater, protection of groundwater from contamination, soil instability as documented by a geotechnical analysis, land use that is inconsistent with capture and infiltration of stormwater, the known presence of soil contamination, or constraints arising under the provisions of the Drinking Water Protection Overlay District in SDC 3.3.200. Any structural stormwater controls used to meet the Treatment

Standard must incorporate Low Impact Development (LID) to the maximum extent practicable (SDC 4.3.110(D)2) and SDC 4.3.110(D)(4));

- Change the City's requirements for Stormwater Study Types to describe how the proposed stormwater management approach targets the natural surface or predevelopment hydrologic function of the area through the installation of a structural stormwater control. It must also address the facilities impact on offsite flows, drainage areas, environmentally sensitive areas, flood elevations or flood ways, and their proximity to natural resource areas.

These design requirements do not have a material effect on the density of residential development. Thus, the amendments do not reduce the development potential of Springfield's housing land inventories in a manner inconsistent with Goal 10.

Statewide Planning Goal 11 – Public Facilities and Services. To plan and develop a timely, orderly and efficient arrangement or public facilities and services to serve as a framework for urban and rural development.

Finding 41: Goal 11 requires the City to plan and develop an efficient arrangement of public facilities and services to serve urban and rural development. Pursuant to OAR 660-011-0020(2) a public facility plan must identify significant public facility projects which support the land uses designated in the comprehensive plan. The Eugene-Springfield Metropolitan Area Public Facilities and Services Plan (PFSP) and the Springfield 2035 Transportation System Plan (TSP) are the City's acknowledged public facilities and transportation plans that inform infrastructure investments (i.e., water, stormwater, wastewater, electricity, and transportation). The TSP is addressed under Goal 12 below. There are no changes to the PFSP in conjunction with these amendments, and the project is otherwise consistent with Goal 11 as explained below.

Finding 42: The code updates comply with Goal 11 because they do not result in any need to amend the PFSP to include additional or different public facilities projects. OAR 660-011-0045(4) states that "Land use amendments that are those modifications or amendments to the list, location or provider of, public facility projects, which significantly impact a public facility project identified in the comprehensive plan and which do not qualify under subsection (3)(a) or (b) of this rule. Amendments made pursuant to this subsection are subject to the administrative procedures and review and appeal provisions accorded "land use decisions" in ORS Chapter 197 and those set forth in OAR Chapter 660 Division 18." The amendments do not modify or amend the list, location or provider of public facility projects identified in the Eugene-Springfield Public Facilities Plan. Furthermore, OAR 660-011-0020(2) requires the public facility plan to identify significant public facility projects which support the land uses designated in the comprehensive plan. Because these amendments will require more onsite retention and treatment than when the PFSP was written, it will reduce the need for public stormwater facilities in the future as compared to the prior code. Therefore, the amendments do not change the designations or categories of any residential, employment, commercial, industrial, or urbanizable lands and are consistent with Statewide Planning Goal 11.

Statewide Planning Goal 12 – Transportation. To provide and encourage a safe, convenient and economic transportation system.

Finding 43: The Transportation Planning Rule (TRR), at OAR 660-012-0060, requires the City to adopt mitigation measures whenever "an amendment to a functional plan, an acknowledged

comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility." An amendment causes a significant effect under the TPR when it changes the functional classification of an existing or planned transportation facility, changes the standards for implementing the functional classification system, or results in any of the effected listed in OAR 660-012-0060(1)(A) - (C) regarding degradation of the performance of an existing or planned transportation facility.

Finding 44: A land use regulation amendment "significantly affects" transportation under Subsection 1(a) if it *"Change[s] the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan)."* The amendments do not change any functional classification under OAR 66-012-0060(1)(a).

Finding 45: A land use regulation amendment "significantly affects" transportation under Subsection 1(b) if it *"Change[s] standards implementing a functional classification system."* The amendments do not change the City's standards for implementing its functional classification system under OAR 66-012-0060(1)(b).

Finding 46: Under Subsection (1)(c), a land use regulation amendment "significantly affects" transportation if it results in *(A) types or levels of travel or access inconsistent with the functional classification of a transportation facility; (B) degrades the performance of a transportation facility such that it would not meet performance standards identified in the TSP or comprehensive plan; or (C) degrades the performance of a transportation facility that is otherwise projected to not meet the performance standards in the TSP or comprehensive plan.* To determine whether the amendments "significantly affect" a transportation facility within the meaning of (1)(c) a local government should compare the most traffic-generative use reasonably allowed in the current zone with the most traffic-generative use reasonably allowed in the new zone.

Finding 47: OAR chapter 660, Division 12 includes provisions adopted under the "Climate Friendly and Equitable Communities" rules adopted and certified effective on August 17, 2022, as amended by temporary rules effective May 12, 2023 through November 7, 2023. These provisions are either not yet operative for the City of Springfield under OAR 660-012-0012 or apply only upon amendment to the Springfield Transportation System Plan. Amendments to Springfield's Transportation System Plan do not accompany the subject amendments, and therefore the remaining provisions of OAR chapter 660, Division 12, are not applicable.

Finding 48: The amendments do not change the underlying zoning districts or change the uses that are allowed. Accordingly, the amendments do not change the most traffic-generative uses allowed and therefore do not result in any of the effects described under (A)-(C). The amendments to the code will not "significantly affect" an existing or planned transportation facility under OAR 660-012-0060(1)(a), (b), or (c). Therefore, the amendments are consistent with OAR 660-012-0060 and Statewide Planning Goal 12.

Goal 13 – Energy Conservation. To conserve energy.

Finding 49: The City does not have specific Goal 13 regulations. However, conservation of water as a renewable energy source is a policy under Goal 13. Goal 13 Policy A. 5. states: "Plans

directed toward energy conservation within the planning area should consider as a major determinant the existing and potential capacity of the renewable energy sources to yield useful energy output. Renewable energy sources include water, sunshine, wind, geothermal heat and municipal, forest and farm waste. Whenever possible, land conservation and development actions provided for under such plans should utilize renewable energy sources." The code amendments further Goal 13's policy for energy conservation by prioritizing infiltration, evapotransporation, and the re-use of stormwater before it is discharged to our public system or local waterbodies. Therefore, the amendments are consistent with Statewide Planning Goal 13.

Goal 14 –Urbanization. To provide for an orderly and efficient transition from rural to urban land use.

Finding 50: Goal 14 requires cities to estimate future growth rates and patterns, and to incorporate, plan, and zone enough land to meet the projected demands. The amendments do not affect the existing code provisions regarding the transition of land from rural to urban uses or annexation. The code provisions regarding urbanizable land are contained in the Urban Fringe Overlay District and the Agricultural Urban Holding Area district. There are no amendments to these sections or standards. Therefore, the amendments are consistent with the requirements of Statewide Planning Goal 14.

Goal 15 –Willamette River Greenway. To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.

Finding 51: Statewide Planning Goal 15 requires cities to adopt local greenway plans, along with criteria for new development or uses along the river. Pursuant to SDC 3.3.320(A), uses allowed in the Willamette Greenway Overlay District are the same as those in the underlying zoning district; thus the Stormwater Post Construction Requirements Update amendments do not repeal, replace, or void these existing code provisions related to Goal 15. Furthermore, there are no changes to the existing overlay protections from this amendment. Therefore, the amendments are consistent with the requirements of Statewide Planning Goal 15.

Goal 16 – 19 Estuarine Resources, Coastal Shorelands, Beaches and Dunes, and Ocean Resources.

Finding 52: Statewide Planning Goals 16 – 19 relate to coastal lands in Oregon, which are not applicable within the planning jurisdiction of the City of Springfield and are not applicable to the amendments.

VI. CONCLUSION

Based upon the evidence above and the criteria of SDC 5.6.115 for approving amendments to the Springfield Development Code, the text amendments to SDC 4.3.110 and various other sections for stormwater management are consistent with these criteria.

CITY OF SPRINGFIELD, OREGON
ORDINANCE NO. 6465 (GENERAL)

AN ORDINANCE AMENDING THE SPRINGFIELD DEVELOPMENT CODE RELATED TO ON-SITE PARKING REGULATIONS AS REQUIRED BY THE OREGON TRANSPORTATION PLANNING RULE, ADOPTING A SAVINGS CLAUSE AND A SEVERABILITY CLAUSE, AND PROVIDING AN EFFECTIVE DATE

WHEREAS, Springfield City Council adopted the Springfield Development Code (SDC) on May 5, 1986, and has subsequently adopted amendments thereto by ordinance;

WHEREAS, the Oregon Transportation Planning Rule in Oregon Administrative Rule (OAR) chapter 660, division 12, requires the City of Springfield to amend its land use regulations (contained within the Springfield Development Code) to implement provisions related to on-site parking regulations;

WHEREAS, the Springfield and Lane County Planning Commissions conducted a joint public hearing on the Springfield Development Code amendments on August 1, 2023, and forwarded recommendations to the Springfield City Council and Lane County Board of Commissioners to approve the proposed amendments;

WHEREAS, the Springfield City Council held a joint public hearing with the Lane County Board of Commissioners on these amendments on November 6, 2023, and is now ready to act based upon the above recommendations and evidence and testimony already in the record and the evidence and testimony presented at the joint elected officials' public hearing;

WHEREAS, timely and sufficient notice of the public hearings have been provided according to SDC 5.1.615 and OAR 660-018-0020; and

WHEREAS, substantial evidence exists within the record to demonstrate that the Springfield Development Code amendments meet the requirements of the Springfield Comprehensive Plan, Metro Plan, Springfield Development Code, Lane Code, and applicable state and local law as described in the findings attached as Exhibit B,

NOW, THEREFORE, THE COMMON COUNCIL OF THE CITY OF SPRINGFIELD ORDAINS AS FOLLOWS:

Section 1. The Springfield Development Code is amended as provided in Exhibit A, which is attached hereto and incorporated herein by reference.

Section 2. The findings set forth in Exhibit B are adopted in support of this ordinance.

Section 3. Savings Clause. Except as specifically amended herein, the Springfield Development Code will continue in full force and effect. The prior code and land use regulations repealed or amended by this Ordinance remain in full force and effect to authorize prosecution of persons in violation thereof prior to the effective date of this ordinance.

Section 4. Severability Clause. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is, for any reason, held invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portion hereof.

Section 5. Effective Date. The effective date of this Ordinance is as provided in the Chapter IX of the Springfield Charter and Section 2.110 of the Springfield Municipal Code, 30 days from the date of passage by the Council and approval by the Mayor; or upon the date that an ordinance is enacted by the Lane County Board of Commissioners approving the same amendments as described in Section 1 of this Ordinance; or upon acknowledgment of this ordinance under ORS 197.625; whichever occurs last.

ADOPTED by the Common Council of the City of Springfield this **20** day of **November**, **2023**, by a vote of **5** for and **0** against. **(1 Absent - Blackwell)**

APPROVED by the Mayor of the City of Springfield this **20th** day of **November**, **2023**.

Mayor

ATTEST:

City Recorder

REVIEWED & APPROVED
AS TO FORM
Kristina Kraaz
DATE: 11/20/2023
SPRINGFIELD CITY ATTORNEY'S OFFICE

Amendments to the Springfield Development Code to address the Parking Requirements under the Climate-Friendly and Equitable Communities Rules

- Changes are shown in legislative format.
- Language that has been skipped is indicated by ****.
- Commentary shown in ***purple italics font***. Commentary is not to be part of the Code.

3.2.200 – Residential Districts (R-1, R-2, R-3)

****

Provision to include special development standards for a Child Care Center located in a residential district. Springfield Development Code 4.7.300 requires developers to provide a vehicle drop-off location either on-site or from the right of way to be approved by the City Traffic Engineer.

3.2.210 Permitted Land Uses.

(A) Permitted Uses. The land uses listed in Table 3.2.210 are permitted in the residential districts, subject to the provisions of this chapter. Only land uses that are specifically listed in Table 3.2.210, land uses that are incidental and subordinate to a permitted use, and land uses that are approved as "similar" to those in Table 3.2.210 are permitted.

(B) Determination of Similar Land Use. Similar use determinations must be made in conformance with the procedures in SDC 5.11.100, Interpretations.

(C) Exceptions. Existing uses and buildings lawfully established under previously effective land use regulations can continue subject to SDC 5.8.100, Non-Conforming Uses—Determination, Continuance, Expansion and Modification, except as otherwise specified in this section.

Table 3.2.210 Permitted Uses				
Uses	Districts			Applicable code standards
	R-1	R-2	R-3	
Residential				
Single-Unit Dwelling, detached (SD-D)	P	N	N	
Duplex	P*	P*	N	SDC 3.2.245
Triplex/Fourplex	P*	P*	P*	SDC 3.2.250 and 3.2.255

Table 3.2.210 Permitted Uses				
Uses	**Districts**			**Applicable code standards**
	R-1	**R-2**	**R-3**	
Townhouse (Single-Unit Dwelling, attached, e.g., row houses, etc.)	P*	P*	P*	SDC 3.2.250 and 3.2.265
Cottage Cluster Housing	P*	P*	P*	SDC 3.2.250 and 3.2.260
Courtyard Housing	P*	P*	P*	SDC 3.2.335
Emergency Medical Hardship	P*	P*	P*	SDC 4.7.400
Accessory Dwelling Units (ADUs)	P*	P*	P*	SDC 3.2.275
Single Room Occupancy (SROs)	P	P	P	
Short Term Rental				
Type 1	P*	P*	P*	SDC 4.7.355
Type 2	D*	D*	D*	SDC 4.7.355
Manufactured Dwelling Park	P, S*	P, S*	N	SDC 4.7.345
Multiple Unit Housing	N	P*	P*	SDC 4.7.375 thru 4.7.385
Family Child Care Home	P	P	P	
Child Care Center	S*	S*	S*	SDC 4.7.340
Residential Care Facility; 5 or fewer people	P*	P*	P*	SDC 4.7.350
Residential Care Facility; 6 or more people	P, S*	P, S*	P, S*	SDC 4.7.350
Public and Institutional* (SDC 4.7.375)				
Automobile Parking, Public Off-Street Parking	N	D	D	
Club (see definition SDC 6.1.110(C))	N	N	N	
Community Service; includes Governmental Offices	N	D	D	
Community Garden	D	D	D	
Educational Facilities: Elementary and Middle Schools	D*	D*	D*	SDC 4.7.195 and 5.9.110
Emergency Services; Police, Fire, Ambulance	D, S	D, S	D, S	
Parks and Open Space, including Playgrounds, Trails, Nature Preserves, Athletic Fields, Courts, Swim Pools, and similar uses	P/D*	P/D*	P/D*	SDC 4.7.200
Place of Worship	D, S*	D, S*	D, S*	SDC 4.7.370

Table 3.2.210 Permitted Uses				
Uses	Districts			Applicable code standards
	R-1	R-2	R-3	
Commercial* (SDC 4.7.375)				
Home Business	P*	P*	P*	SDC 4.7.365
Professional Office	S*	S*	S*	SDC 4.7.190
Mixed-Use Buildings	S*	S*	S*	SDC 4.7.375

P = Permitted Use; S = Site Plan Required; D = Discretionary Use Permit Required; N = Not Allowed;

* = Permitted in conformance with cited code standards.

****

3.2.260 Cottage Cluster Housing.

****

Removed off-street parking requirement as required per OAR 660-012-400(3) and relocated Parking Location and Access under parking design standards. In addition, deleted Figure 3.2-K because the images and shown setbacks did not match existing code language.

(L) Pedestrian Access.

(1) An ADA accessible pedestrian path must be provided that connects the main entrance of each cottage to the following:

(a) The common courtyard;

(b) ~~Shared p~~Parking areas (if provided);

(c) Community buildings; and

(d) Sidewalks in public rights-of-way abutting the site or rights-of-way if there are not sidewalks.

(2) The pedestrian path must be hard-surfaced and a minimum of 4 feet wide.

****

~~**(N) Parking.**~~

~~**(1)** The minimum number of required off-street parking spaces for a cottage cluster project is 1 space per dwelling unit.~~

~~**(2)** Off street parking spaces may be provided in a garage or carport.~~

~~**(3)** Off street parking space credits are allowed in conformance with the standards of SDC 4.6.110.~~

(~~O~~N) Parking Design. ~~See Figure 3.2-K.~~ Any proposed off-street parking spaces and parking lots must meet the following criteria;

(1) Parking Location and Access.

(a) Off-street parking spaces and vehicle maneuvering areas must not be located:

(ii) Within 5 feet from any street property line, except alley property lines; or

(iii) Between a street property line and the front façade of cottages located closest to the street property line. This standard does not apply to alleys.

(b) Off-street parking spaces must not be located within 5 feet of any other property line, except alley property lines. Driveways and drive aisles are permitted within 10 feet of other property lines.

(c) Off-street parking spaces may be provided in a garage or carport provided that the garage or carport complies with the parking location and access ~~requirements~~criteria in this subsection.

(~~1~~2) Clustered Parking. Off-street parking may be arranged in clusters, subject to the following standards.

(a) A cottage cluster project with fewer than 16 cottages is permitted to have parking clusters of not more than 5 contiguous spaces in each parking cluster.

(b) A cottage cluster project with 16 cottages or more is permitted to have parking clusters of not more than 8 contiguous spaces in each parking cluster.

(c) Parking clusters must be separated from other spaces and other parking clusters by at least 4 feet of landscaping.

(d) Clustered parking areas may be covered.

~~**(2) Parking Location and Access.**~~

~~**(a)** Off-street parking spaces and vehicle maneuvering areas must not be located:~~

~~**(i)** Within 5 feet from any street property line, except alley property lines; or~~

~~**(iii)** Between a street property line and the front façade of cottages located closest to the street property line. This standard does not apply to alleys.~~

~~**(b)** Off-street parking spaces must not be located within 5 feet of any other property line, except alley property lines. Driveways and drive aisles are permitted within 10 feet of other property lines.~~

(3) Driveway Approach. Driveway approaches must comply with the applicable standards in SDC 4.2.120.

(4) Screening. Landscaping, fencing, or walls at least 3 feet tall must separate clustered parking areas and parking structures from common courtyards and public streets.

(5) Garages and Carports.

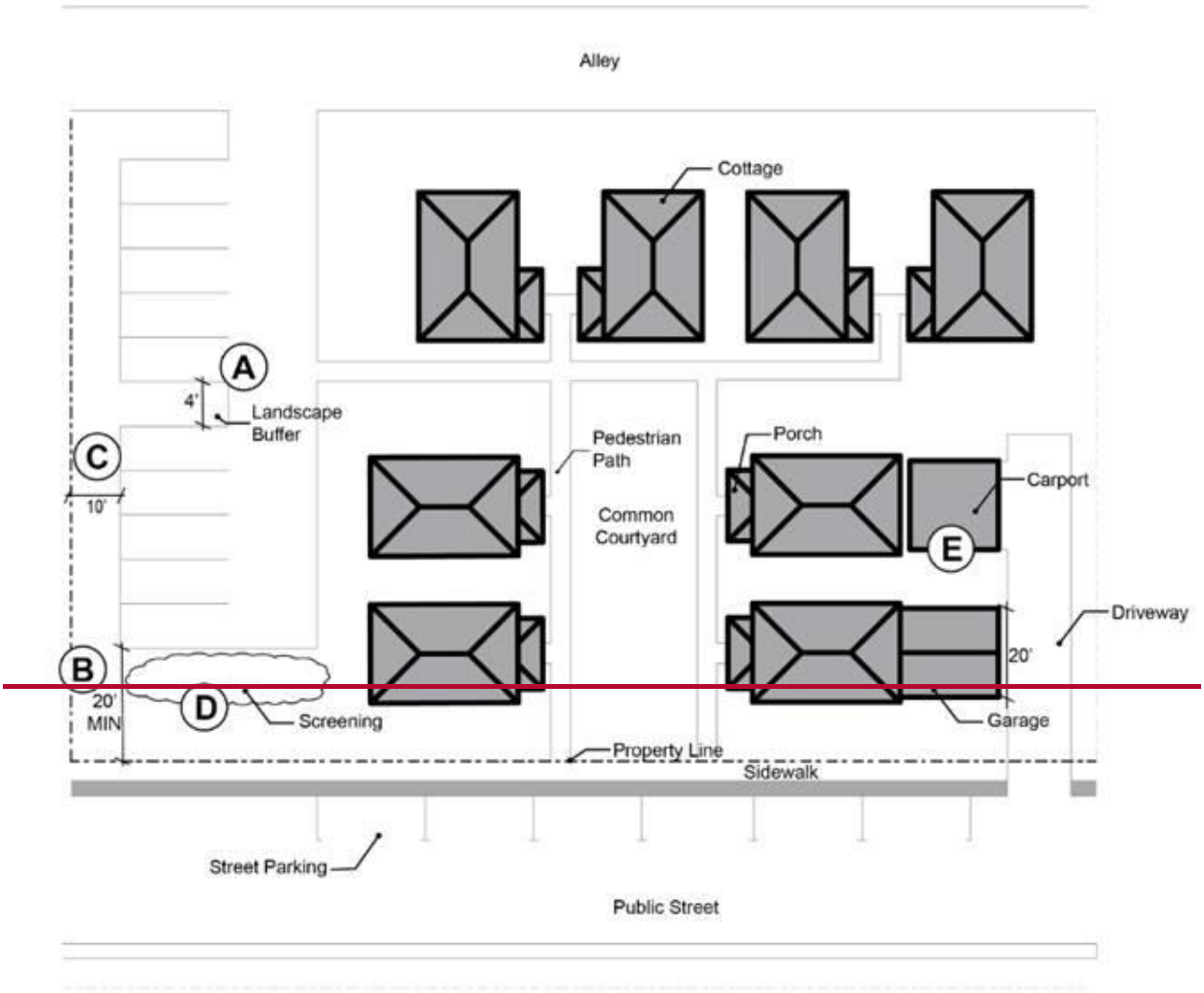
(a) Garages and carports (whether shared or individual) must not abut common courtyards.

(b) Individual attached garages up to 200 square feet in size are exempt from the calculation of maximum building footprint for cottages.

(c) Individual detached garages must not exceed 400 square feet in floor area.

(d) Garage doors for attached and detached individual garages must not exceed 20 feet in width.

~~Figure 3.2-K. Cottage Cluster Parking Design Standards~~



A Parking allowed in clusters of up to 5 spaces. Clusters separated by minimum 4 feet of landscaping.

B No parking or vehicle area within 20 feet from street property line (except alley).

C No parking within 10 feet from other property lines (except alley). Driveways and drive aisles permitted within 10 feet.

D Screening required between clustered parking areas or parking structures and public streets or common courtyards.

E Garages and carports must not abut common courtyards. Garage doors for individual garages must not exceed 20 feet in width.

(OP) Existing Structures. On a lot or parcel to be used for a cottage cluster project, an existing detached single unit dwelling on the same lot or parcel at the time of proposed development of the cottage cluster may remain within the cottage cluster project area under the following conditions:

(1) The existing dwelling may be non-conforming with respect to the requirements of this code.

(2) The existing dwelling may be expanded up to the maximum height in (H) above or the maximum building footprint in (D) above; however, existing dwellings that exceed the maximum height and/or footprint of this code cannot be expanded.

(3) The floor area of the existing dwelling does not count towards the maximum average floor area of a cottage cluster.

(4) The existing dwelling is excluded from the calculation of orientation toward the common courtyard.

(PQ) Accessory Structures. Accessory structures must not exceed 400 square feet in floor area.

(QR) Home Types.

(1) Detached or attached dwelling unit types containing 1 to 4 dwelling units are allowed.

(2) Accessory dwelling units (ADUs) (either within, attached, or detached) are allowed for any detached or attached dwelling in a cluster housing development.

3.2.265 Townhouses.

Added language to the Driveway Access and Parking to clarify that this is only required if off-street parking is provided.

(A) New townhouse units must comply with the requirements in subsections (A)(1) through (4) of this section.

For purpose of this section, a “townhouse” means (as defined in SDC 6.1.100) a dwelling unit that is part of a row of 2 or more attached dwelling units, where each unit is located on an individual lot or parcel and shares at least 1 common wall with an adjacent dwelling unit. Single unit

attached homes may have detached garages or ADUs that share a common wall between the 2 lots or parcels.

****

(4) Driveway Access and Parking. Townhouses with frontage on a public street must meet the following standards if providing off-street parking:

****

3.2.275 Accessory Dwelling Unit (ADU).

****

Clarification language was included in the submittal requirements to show existing parking and driveways and any planned additional parking.

(E) Submittal Requirements.

(1) A plan drawn to scale and dimensioned showing:

(a) The proposed accessory dwelling unit and its relation to the property lines;

(b) The primary dwelling and other structures on the lot or parcel including fences ~~and~~, walls, and existing parking spaces and driveways;

(c) Existing and proposed trees and landscaping;

(d) Lot or parcel area and dimensions, percent of lot or parcel coverage, building height, entrance locations; location of utilities and meters, curb cuts, sidewalks (public and private) and any proposed off-street parking ~~area~~ spaces or driveway;

(e) Stormwater destination and/or facility;

(f) A detailed floor plan of the accessory dwelling unit, drawn to scale with labels on rooms indicating uses or proposed uses; and

(g) A separate written response demonstrating how the required development and design standards listed in SDC 3.2.275(F) and (G) can be met.

****

3.2.600 – Mixed Use Zoning Districts

****

Provision to include special development standards for a Child Care Center located in a residential district. Springfield Development Code 4.7.300 requires developers to provide a vehicle drop-off location either on-site or from the right of way to be approved by the City Traffic Engineer.

3.2.610 Schedule of Use Categories.

The following uses are permitted in the districts as indicated, subject to the provisions, additional restrictions and exceptions specified in this code. Uses not specifically listed may be approved as specified in SDC 5.11.100.

"P" = PERMITTED USE subject to the standards of this code.

"S" = SPECIAL STANDARDS subject to special locational and siting standards to be met prior to being deemed a permitted use (SDC 4.7.100).

"D" = DISCRETIONARY APPROVAL subject to review and analysis under Type 3 procedure (as a discretionary use under SDC 5.9.100 except where other criteria are indicated in the applicable special standards).

"N" = NOT PERMITTED

SITE PLAN REVIEW SHALL BE REQUIRED for all development proposals within all mixed use districts unless exempted elsewhere in this code.

	Districts		
Use Categories/Uses	**MUC**	**MUE**	**MUR**
****			
Child Care Facilities			
Child Care Center (See standards in SDC 4.7.340 for MUR)	~~S~~**P**	~~S~~**P**	**S**

****

3.2.615 Base Zone Mixed-Use Development Standards.

Grammar correction and removal of the off-street parking requirement.

The following base zone mixed-use development standards are established.

Development Standard	*MUC*	*MUE*	*MUR*
Minimum Area	6,000 square feet	10,000 square feet	See SDC 3.2.215
Minimum Street Frontage**(1)**	40 feet	75 feet	See SDC 3.2.215
Maximum Lot/Parcel Coverage	Lot/parcel coverage standards in the MUC and MUE Districts are ~~shall be~~ limited only by standards (including, but not limited to: ~~required~~ parking, landscaping) specified in SDC 4.4.105 and 4.6.100. Generally, there is no maximum lot/parcel coverage standard.		45%
Minimum Landscaping	Minimum requirements defined by standards in other sections of this code.		

****

3.3.500 – Hillside Development Overlay District

****

3.3.535 Modification of Standards.

Clarification regarding the reduction of public right of way widths for developments within the Hillside Development Overlay. The modification is permitted when provisions are made to provide additional off-street parking above the suggested parking in Table 4.6.2.

The Director may modify the standards of this code, as they apply to the entire development area, within the following prescribed limits:

(A) Front, side and rear yard setbacks may be reduced to zero (when permitted by the Building Safety Codes); provided, however, where attached dwellings are proposed, there shall not be more than 5 dwelling units in any group.

(B) The reduction of public right-of-way, pavement width, and/or requirements for the installation of sidewalks as specified in Table 4.2.1, may be allowed if provisions are made to provide more off-street parking spaces than the number of suggested parking spaces listed for the particular use in SDC 4.6.125. The ~~Director~~ Approval Authority may require proposed parking lots, spaces, or driveways to be arranged as ~~combinations of~~ collective private driveways, shared parking areas, and on-street parallel

parking bays where topography, special traffic, building, grading, or other circumstances necessitate additional regulation to minimize land and soil disturbance and minimize impervious surface areas.

****

3.3.900 – Historic Overlay District

****

3.3.935 Schedule of Use Categories.

The following buildings and uses are permitted in the H Overlay District as indicated subject to the provisions, additional restrictions and exceptions specified in this code.

****

Removed parking mandate.

(C) Washburne Historic Landmark District Specific Development Standards.

(1) Both the business and the dwelling shall be owned and operated by the resident.

(2) Not more than 40 percent of the habitable floor area of the dwelling may be used for business purposes; i.e., at least 60 percent of the habitable floor area shall be used for residential purposes.

(3) The business may not employ more than 2 full-time support persons, exclusive of family members who reside on the premises. All professional practitioners shall reside on premises.

~~**(4)** In addition to the 2 required parking spaces for the dwelling, 1 off-street parking space is required for each full time employee.~~

~~**a)** Access to employee parking shall be through an alley, and employee parking spaces shall not be located between the house and front or street side property line.~~

~~**(b)** In cases where the installation of employee parking would require the removal of a Historic Landmark Site or Structure, the Historical Commission may waive one or both of the~~

~~required spaces if substantial traffic problems would not result. In making this determination, the Historical Commission shall consider the report of the Transportation Manager.~~

(~~4~~5) No display of merchandise either from the windows of a structure or on the property itself is permitted.

(~~5~~6) No commercial vehicle repair and/or sales is permitted.

(~~6~~7) Home businesses shall not be open to the public on Sundays or holidays recognized by the City, apart from for activities sponsored by the City or the Washburne Neighborhood Association.

(~~7~~8) Hours of operation are limited as follows:

(a) On local streets, from 9:00 a.m. to 8:00 p.m.

(b) On collector or arterial streets, from 7:00 a.m. to 10:00 p.m.

(D) Commercial uses as specified in SDC 3.3.935(B)(1) through (3) may be permitted on Assessor's Map 17-03-35-24 Tax Lots 10800, 10801, 10900, 12900, 13000 and 13100 when the integrity of the Historic Landmark Site or Structure is not substantially altered provided that:

(1) The development meets the standards of SDC 5.17.100.

(2) Parking areas shall have paved alley access, and shall not be located between the house and front or streetside property line.

~~(3)~~ ~~In cases where the installation of parking would require the removal of a Historic Landmark Site or Structure, the Historical Commission may waive up to 50 percent of the required spaces if substantial traffic problems would not result. In making this determination, the Historical Commission shall consider the report of the City Engineer.~~

(~~3~~4) No display of merchandise for sale that is incompatible with the residential character of the neighborhood is permitted.

(~~4~~5) No commercial vehicle repair and/or sales is permitted.

****

3.4.200 – Glenwood Riverfront Mixed-Use Plan District

****

3.4.270 Public and Private Development Standards.

Provided clarification language regarding on-street parking management.

The following public and private development standards are established for the Glenwood Riverfront Mixed-Use Plan District:

(A) Public Streets, Alleys and Sidewalks.

(3) The street system must be designed and maintained to meet needs for mobility, parking, and loading in the Glenwood Riverfront while minimizing adverse visual, environmental, and financial impacts on the public. The Director may require a parking study to determine adequacy of parking to support a given use or proposed development. Public streets, alleys, and sidewalks shall be designed and constructed as specified in the following street cross-section standards and in the Springfield *Engineering Design Standards and Procedures Manual.*

****

(F) Private Property Landscape Standards.

****

Minor edits to clarify when the landscaping standards apply and added citation for when provided parking lots exceed one-half acre.

(2) Applicability.

(a) The landscaping standards of this subsection shall apply to all private property (property located outside of public right-of-way) in the Glenwood Riverfront as follows:

(i) New development;

(ii) Redevelopment including expansions of use;

(iii) A change of use for existing buildings where the landscaping is non-conforming; and

(iv) A change of use that results in ~~the need to supply~~ additional on-site parking or loading areas, or that modifies the driveway location.

EXCEPTION: Portions of private property within the Willamette Greenway Overlay District, as specified in SDC 3.4.280, shall comply with riparian/wetland protection standards specified in SDC 4.3.115 and 4.3.117 and the Springfield *Engineering Design Standards and Procedures Manual*.

(b) All portions of a development area that are not used for buildings, parking, internal sidewalks, mid-block connectors or other impervious surfaces shall be landscaped as specified in SDC 3.4.270(F)(4)(a).

****

(4) Landscape Standard Categories.

****

(~~a~~c) The L3 standard is a landscape treatment that applies within parking lots, including interior courts, but not including any required landscape setbacks necessary for screening, as specified in subsection (F)(4)(b)(i). At least 10 percent of the interior of a parking lot shall be landscaped. If the parking lot is larger than one-half acre, the provisions of SDC 4.6.015-(F)(3) also apply. The L3 standard serves 3 purposes: to eliminate stormwater runoff through infiltration swales and other measures; to provide shade; and for screening. Water quality features may be incorporated into planter islands and required setbacks. The L3 standard shall comply with the vision clearance standards specified in SDC 4.2.130.

****

(G) Vehicle/Bicycle Parking and Loading Standards.

Removed parking mandate language.

(1) Vehicle/bicycle parking standards shall be as described in the Glenwood Refinement Plan Transportation and the Housing and Economic Development chapters.

(2) Applicable Glenwood Refinement Plan Vehicle/Bicycle Parking Policies and Implementation Strategies shall be as specified in the Appendix of this code.

(3) Vehicle/bicycle parking and loading standards shall be designed and constructed as specified in this subsection.

(4) **Vehicle Parking—General.** ~~Adequate vehicle parking shall be provided to support new development and redevelopment in the Glenwood Riverfront, while minimizing adverse visual, environmental, and financial impacts on the public.~~ In line with the land use vision for compact development and a walkable, pedestrian-friendly environment, on-street parking, aboveground and underground off-street parking structures, and parking located within or under buildings shall be encouraged. Locating and designing all ~~required~~ on-site vehicle parking to minimize the visibility of parked cars to pedestrians from street frontages and light and noise impacts of parking lots strengthens the character of the Glenwood Riverfront, reinforces the emphasis on pedestrian, bike, and transit for travel, and minimizes the potential for vehicle/pedestrian conflicts. ~~The Director may require a parking study to determine adequacy of parking to support a given use or proposed development, but p~~On-site parking must not exceed the maximum number of spaces established in Table 3.4.1 except as provided in SDC 3.4.270(G)(8).

(5) **Types of Vehicle Parking Facilities Permitted.**

(a) In all subareas, the following types of parking facilities shall be permitted:

(i) On-street parking.

(ii) Aboveground and underground parking structures.

(i) Surface parking facilities located in interior courts.

(iv) Parking facilities incorporated within or on top of a building.

(b) In Subarea D south of the Union Pacific railroad trestle and outside of the nodal development area (except for Assessor's Maps and Tax Lots 18-03-03-11-01401, 17-03-34-44-03300, and 17-03-34-44-00301), in addition to parking facilities

permitted in SDC 3.4.270(G)(5)(a)(i)—(iv), surface parking facilities that are screened as specified in SDC 3.4.270(F)(4)(b) shall be permitted along McVay Highway and any other street frontage, in the following circumstances:

(i) Two rows of visitor parking including a travel lane that can accommodate bi-directional traffic in the front of and facing a building as specified in SDC 3.4.275(H)(2)(b); and

(ii) Overflow visitor parking and other permitted vehicular parking on 1 side of, and in the rear of a building.

(6) Maximum off-street vehicle parking spaces by use category shall be as specified in Table 3.4.1.

Vehicle Parking ~~Standards~~ Maximums Table 3.4.1

Removed parking mandate language. Additionally, added language to the Carpool and Vanpool to mimic OAR 660-012-0405(1)

Use Category	Use Sub-Category	Maximum Number of ~~Required~~ Parking Spaces
Commercial	Eating and Drinking Establishments (1)	1 per each 30 square feet of seating floor area plus 1 per each 500 gross square feet of non-seating floor area
	Hospitality	1 per guest bedroom plus 1 space per each full-time employee on the largest shift
	Personal Services	1 per each 350 square feet of gross floor area
	Professional, Scientific and Technical Services	1 per each 350 square feet of gross floor area
	Retail Sales and Services	1 per each 300 square feet of gross floor area
Employment	Hospital	1 per each 200 square feet of gross floor area or 1.5 per bed
	Light Manufacturing (2)	1 per each 550 square feet of gross floor area plus 1 space per company owned vehicle
	Light Manufacturing Storage (2)	1 per each 1650 square feet of gross floor area plus 1 space per company vehicle
	Office Employment	1 per each 350 square feet of gross floor area
	Educational Facilities	To be determined by a parking study that considers number of employees, students, and hours of operation
	Warehousing (2)	1 per each full-time employee on the largest shift plus 1 space per company vehicle
Recreation	Park Blocks or Riverfront Linear park Recreational Facilities (3)	0
Residential **(High-Density)**	Residential Occupancy of Dwelling Units	1 per bedroom with a maximum of 2.5 per dwelling unit plus 1 space for every 15 dwelling units for visitors. 1 per each 4 beds plus 1 space per each full time employee on the largest shift for nursing homes and assisted living; or 1 per every 2

		beds plus 1 space per each full time employee on the largest shift for independent living
Vehicle Related Uses	Structured Parking	N/A

Notes:

(1) When calculating the maximum parking limits ~~requirements~~ for an eating or drinking establishment that has outdoor seating, up to 20 outdoor seats shall be exempt from the seating calculation.

(2) The U.S. Department of Transportation establishes commercial truck classifications based on the vehicle's gross vehicle weight rating. Classes 1, 2 and 3 are "light duty"; Classes 4, 5 and 6 are "medium duty"; and Classes 7 and 8 are "heavy duty." Trucks classified as medium and heavy duty that are used as part of a commercial or light manufacturing use shall be located either:

(a) Within an enclosed building; or

(b) Outside of a building when:

(i) Screened by a masonry or concrete wall or other permanent fully opaque screen that extends from the building and complements the façade of the building. The wall shall have a minimum height of 8 feet. The screen shall totally conceal trucks from McVay Highway and the Willamette River and shall meet the building setback standard specified in SDC 3.4.275(H)(2)(b); or

(ii) Within a courtyard surrounded by buildings in a manner that medium and heavy duty truck parking cannot be seen from McVay Highway or the Willamette River.

(c) Medium and heavy duty truck parking shall be prohibited in front and street side yards.

(3) Public parking for the park blocks and riverfront linear park will be provided on street.

(7) Parking Maximum Benefits and Options.

(a) Parking Maximum Benefits.

(i) Supports Mobility Management. Parking management is an important component of efforts to encourage more efficient transportation choices, that helps reduce problems such as traffic congestion, roadway costs, pollution emissions, energy consumption and traffic accidents;

(ii) Improves Walkability. By allowing more clustered development and buildings located closer to sidewalks and streets, parking management helps create more walkable communities;

(ii) Supports Transit. Parking management supports transit oriented development and transit use;

(iv) **Provides Facility Cost Savings.** Reduces development costs to governments, businesses, developers and consumers;

(v) **Supports Compact Growth.** Parking management helps create more accessible and efficient land use patterns, and so helps preserve green space and other valuable ecological, historic and cultural resources;

(vi) **Allows More Flexible Facility Location and Design.** Parking management gives architects, designers and planners more ways to ~~address~~ provide parking ~~requirements~~, creating more functional and attractive communities;

(vii) **Supports Equity Objectives.** Management strategies can reduce the need for subsidies, improve travel options for non-drivers, and increase affordability for lower-income households; and

(viii) **Reduces Stormwater Management Costs, Water Pollution and Heat Island Effects.** Parking management can reduce total pavement area and incorporate better design features.

(b) Options available to help meet parking maximums include:

(i) A legally-binding shared parking agreement may be submitted as specified in SDC 4.6.110(F) where multiple uses or multiple developments share 1 or more parking facilities, and peak parking demand occurs during different times of the day. An example of this option is office development with nearby residential development.

(ii) Unbundled parking may be utilized where parking spaces are rented or sold separately, rather than automatically included with the rent or purchase price of a residential or commercial unit. In this option, tenants or owners are able to purchase only as much parking as they need or want and are given the opportunity to save money by using fewer parking stalls. The developer shall specify the number of unbundled parking spaces

proposed and provide an explanation of how this parking reduction option will affect the proposed development as part of the Site Plan Review application submittal. No more than 50 percent of the parking provided shall be unbundled parking.

(iii) Car Sharing.

A. Car sharing reduces the rate of personal vehicle ownership. In this option, a household or business gains the benefits of private vehicle use without the costs and responsibilities of ownership. A household or business has access to a fleet of shared-use vehicles on an as-needed basis. A household or business gains access to these vehicles by joining an organization that maintains a fleet of cars and/or light trucks, e.g., ZipCar, that are parked in designated, leased spaces in a network of locations.

B. Car sharing shall be permitted in public and private parking structures and parking lots.

(iv) Carpool/Vanpool Parking.

A. If the carpool/vanpool option is chosen, it shall apply when there are at least 20 parking spaces. The number of carpool/vanpool parking spaces ~~shall~~ must be based upon 5 percent of the parking spaces in Table 3.4.1. ~~employees on the largest shift.~~

B. The carpool/vanpool spaces ~~shall~~must be located closer to the primary employee entrance or secondary entrance from a parking lot than any other employee parking, except disabled accessible spaces.

C. Carpool/vanpool spaces must~~Reserved areas shall~~ have markings and signs that indicate the space is reserved for carpool/vanpool use.

D. Only vehicles that are part of a ~~Parking in reserved areas for carpools/vanpools shall be established through~~ rideshare program sanctioned by the employer or a public agency~~ies~~ may park in designated carpool/vanpool parking spaces.~~and to vehicles meeting minimum rideshare qualifications set by the employer~~.

****

3.4.280 Willamette Greenway Development Standards.

Provided clarification language the off-street parking is not required.

The following standards are established for the Glenwood Riverfront portion of the Willamette Greenway (WG) Overlay District:

****

(F) Development Standards. In addition to addressing the criteria of approval specified in SDC 3.4.280(M), the applicant shall address the following development standards:

****

(4) Off-Street Parking.

Off-street motor vehicle parking lots and spaces are not required, however provided off-street parking must meet the following criteria:

(a) Parking lots shall be designed to manage the quantity and quality of stormwater generated by any new or expanded impervious surface area as specified in the base zone, additional overlay zone, this Plan District or the Springfield *Engineering Design Standards and Procedures Manual*.

(b) Parking lots shall use the required landscape area to manage stormwater from the new or redeveloped area, as specified in the base zone, additional overlay zone, this Plan District or the Springfield *Engineering Design Standards and Procedures Manual*.

(c) Parking lots shall be screened from the Willamette River and from all abutting properties as specified in the base zone, additional overlay zone or this Plan District.

(d) Parking lots may use alternative paving techniques as a mitigation measure to reduce the total amount of effective impervious surface area present on the site as specified in the base zone, additional overlay zone, this Plan District or the Springfield *Engineering Design Standards and Procedures Manual*.

(e) Parking lot stormwater facilities shall be operated and maintained so as to avoid groundwater contamination, erosion and off-site sediment transport, landslide hazards, and other similar concerns in the base zone, additional overlay zone, this Plan District or the Springfield *Engineering Design Standards and Procedures Manual*.

4.2.100 – Infrastructure Standards - Transportation

****

4.2.105 Public Streets.

****

Removed parking mandate language.

(G) Additional Right-of-Way and Street Improvements.

****

(2) Whenever a proposed land division or development will increase traffic on the City street system and the development site has unimproved street frontage, that street frontage must be fully improved to City specifications in accordance with the following criteria:

****

(f) Siting accessory structures or other structures not occupied by humans , ~~or changes of use which do not increase parking requirements~~ are not ~~be~~ considered development which increases traffic on the City street system; full street improvement or an Improvement Agreement will not be required.

(3) An approved performance bond or suitable substitute in a sufficient amount to ensure the completion of all required improvements, including the installation of sidewalks and accessways is required prior to occupancy or Final Plat approval when necessary to ensure compliance with a development agreement.

****

4.3.100 Infrastructure Standards – Utilities

****

Removed parking mandate language.

4.3.145 Wireless Telecommunications System (WTS) Facilities.

****

(F) **General Standards.** The Federal Telecommunications Act of 1996 establishes limitations on the siting standards that local governments can place on WTS facilities. Section 704 of the Act states that local siting standards must not: (1) "unreasonably discriminate among providers of functionally equivalent services," nor (2) "prohibit or have the effect of prohibiting the provision of personal wireless services."

All applications for WTS facilities are subject to the standards in this section to the extent that they do not violate Federal limitations on local siting standards. Where application of the standards found in this section constitutes a violation, the least intrusive alternative for providing coverage are allowed as an exception to the standards.

****

~~**(22) Parking.** No net loss in required on-site parking spaces may occur as a result of the installation of any WTS facility.~~

(223) Sidewalks and Pathways. Cabinets and other equipment must not impair pedestrian use of sidewalks or other pedestrian paths or bikeways on public or private land.

(234) Lighting. WTS facilities must not include any beacon lights or strobe lights, unless required by the Federal Aviation Administration (FAA) or other applicable authority. If beacon lights or strobe lights are required, the Approval Authority will review any available alternatives and approve the design with the least visual impact. All other site lighting for security and

maintenance purposes must be shielded and directed downward, and must comply with the outdoor lighting standards in SDC 4.5.100, unless required by any other applicable law.

(245) Landscaping. For WTS facilities with towers that exceed the height limitations of the base zone, at least 1 row of evergreen trees or shrubs, not less than 4 feet high at the time of planting, and spaced out not more than 15 feet apart, must be provided in the landscape setback. Shrubs must be of a variety that can be expected to grow to form a continuous hedge at least 5 feet in height within 2 years of planting. Trees and shrubs in the vicinity of guy wires must be of a kind that would not exceed 20 feet in height or would not affect the stability of the guys. In all other cases, the landscaping, screening and fence standards specified in SDC 4.4.100 apply.

(256) Prohibited WTS Facilities.

(a) Any high or moderate visibility WTS facility in the Historic Overlay District.

(b) Any WTS facility in the public right-of-way that severely limits access to abutting property, which limits public access or use of the sidewalk, or which constitutes a vision clearance violation.

(c) Any detached WTS facility taller than 150 feet above finished grade at the base of the tower.

(267) Speculation. No application will be accepted or approved for a speculation WTS tower, i.e., from an applicant that simply constructs towers and leases tower space to service carriers, but is not a service carrier, unless the applicant submits a binding written commitment or executed lease from a service carrier to utilize or lease space on the tower.

(278) Small Wireless Facilities in the Public Right-of-Way. Small wireless facilities in the public right-of-way must comply with the following standards:

****

4.4.100 – Landscaping, Screening and Fence Standards

4.4.105 Landscaping.

****

OAR 660-012-0405(4) required specific landscaping standards for new provided parking lots over one-half acre. Changes include separation of the tree and shrub requirement for both small and large parking lots to ensure that shrubs are provided within both. Existing tree planting requirements were retained in small parking lots and addition OAR requirements were included for large parking lots.

(EF) Parking Lots.

~~(1)~~ ~~Parking lot planting areas must include 1 canopy tree at least 2 inches (dbh) in caliper that meets City street tree standards as may be permitted by the *Engineering Design Standards and Procedures Manual* and at least 4 shrubs, 5 gallon or larger, for each 100 square feet of planting area. Shrubs that abut public right-of-way or that is placed in the interior of any parking lot must not exceed 2.5 feet in height at maturity.~~ (1) The following ~~P~~parking lot planting areas must be landscaped in accordance with the standards in (2) below~~include~~:

(~~1~~a) Parking and driveway setback areas specified in the applicable land use district; and

(~~2~~b) Five percent of the interior of a parking lot, exclusive of any required parking setbacks, if 24 or more parking spaces are located between the street side of a building and an arterial or collector street and are visible from any street.

(~~3~~c) See also SDC 4.7.380 or 4.7.385 for multiple unit housing design standards.

(2) Parking lot planting areas must include at least 4 shrubs, 5 gallon or larger, for each 100 square feet of planting area. Any ~~S~~shrubs~~s~~ that abuts public right-of-way or that is placed in the interior of any parking lot must not exceed 2.5 feet in height at maturity. Where parking lot planting areas are required, Low Impact Development and vegetated structural stormwater controls may be used to meet this requirement. ~~-~~Shrubs provided within a structural stormwater control may not be counted toward meeting this criterion.

(3~~2~~) Small Parking Lots and Modifications to Existing Parking Lots. Planting areas for developments with one-half acre or less of new surface parking lot area must include 1 canopy tree at least 2 inches (dbh) in caliper~~,~~ for each 100 square feet of parking lot planting area. ~~-~~Trees must meet City street tree standards in the City of Springfield Street Tree list in Appendix G for the appropriately sized planter area.

(4) Large Parking Lots. Developments that include more than one-half acre of new off-street surface parking lot area, measured based on the perimeter of all new parking spaces, maneuvering lanes, and maneuvering areas, including driveways and drive aisles, must comply with the following:

(a) Developments not required to comply with OAR 330-135-0010 must provide a climate mitigation action including at least one of the following:

(i) Installation of solar panels with a generation capacity of at least 0.5 kilowatt per new off-street parking space. Panels may be located anywhere on the property.

(ii) Payment of at least $1500 per new off-street parking space into a fund at the Oregon Department of Energy dedicated to equitable solar or wind energy development; or

(iii) Tree canopy covering at least 40% of the new parking lot area at maturity but no more than 15 years after planting.

(b) Developments must provide either trees along driveways or a minimum of 30% tree canopy coverage over new off-street parking areas. Developments are not required to provide trees along drive aisles.

(c) The tree ~~spacing~~spacing, and species planted must be designed to maintain a continuous canopy, except when interrupted by driveways, drive aisles, and other site design considerations. Trees that are provided in compliance with (4)(a)(ii) above meet this standard.

(d) Trees must meet City street tree standards as specified in City of Springfield Street Tree list in Appendix G for the appropriately sized planter area.

(e~~c~~) Development of a tree canopy under subsections (a) and (b) must be done in coordination with the local electric utility, including pre-design, building, and maintenance phases.

(f~~d~~) Applicant must provide a certification provided by a certified arborist with an Oregon Landscape Contractor license that trees planted to meet subsections (1) and (2) will be planted to meet or exceed the 2021 American National Standards Institute A300 standards.

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4.6.100 – Motor Vehicle Parking, Loading and Bicycle Parking Standards

Removed parking mandates including the deletion of the general parking standards, SDC 4.6.110. Added clarification that off-street parking is not required.

4.6.105 Vehicle Parking—Purpose and Applicability.

(A) Off-street motor vehicle parking lots or spaces are not required, however if provided must meet minimum standards of the Springfield Development Code. These regulations provide standards for the development of vehicle parking.

(B) Unless exempted elsewhere in this code, all development within the City and its urbanizable area must comply with the vehicle parking provisions of this section.

~~4.6.110 Motor Vehicle Parking—General.~~

~~**(A)** Off-street parking spaces must be provided, consistent with requirements in SDC 4.6.125 and Table 4.6.2, unless excepted as allowed herein, for:~~

~~**(1)** All new construction and expansion of multiple unit housing, commercial, industrial, and public and semi-public uses. For expansions or additions, the parking spaces required in Table 4.6.2 are calculated based only upon: (a) the number of new dwelling units constructed, for residential uses; or (b) the area of the expansion or addition, for all other uses.~~

~~**(2)** Changes in use or the use category of an existing building or structure.~~

~~**(B)** If parking has been provided to serve an existing use, the number of parking spaces cannot be reduced if the result would be fewer spaces than required by this section, except as parking reductions are allowed below and under Special Provisions to Table 4.6.2.~~

~~**(C)** Parking reductions under SDC 4.6.110(H) through (L) and Special Provisions to Table 4.6.2 must not reduce the number of ADA parking spaces required in accordance with the minimum parking in Table 4.6.2 or under SDC 4.6.110(M).~~

~~**(D)** Required parking spaces must be available for the parking of passenger vehicles of residents, customers, patrons, visitors, and employees only, and must not be used for outdoor displays, storage of vehicles, equipment, or materials. Parking for company motor vehicles that remain on the premises overnight, or enclosures designed for the temporary collection of shopping carts, must be provided in addition to the number of parking spaces required by this section.~~

~~**(E)** Unless joint use of parking facilities is requested as may be permitted in subsection (F) below, the total requirement for off-street parking spaces is the sum of the requirements for all uses. If the total number of required parking spaces results in a fraction, the fraction must be rounded up to the next whole number. Off-street parking facilities for 1 use must not be considered as providing parking facilities for any other use. Alternatively, the Director may approve joint use of parking facilities as may be permitted in subsection (F), below.~~

~~**(BF)** The Director, upon application by all involved property owners, may authorize joint use of parking facilities, provided that:~~

~~**(1)** The applicant demonstrates that there is no substantial conflict in the principal operating hours of the buildings or uses for which the joint use of parking facilities is proposed;~~

~~**(2)** The parties concerned in the joint use of off-street parking facilities must provide evidence of agreement for the joint use by a legal instrument approved by the City Attorney. An agreement for joint use of parking facilities must provide for continuing maintenance of jointly used parking facilities; and~~

~~**(3)** The agreement must be recorded at Lane County Deeds and Records at the applicant's expense.~~

~~**(G)** When on-street parking is available directly abutting the property and there are no adopted plans to remove the on-street parking, parking spaces in a public right-of-way directly abutting the development area is allowed to be counted as fulfilling a part of the parking requirements for a development as follows: For each 18 feet of available on-street parking, there will be 1 space credit toward the required amount of off-street parking spaces. The developer is responsible for marking any on-street spaces.~~

~~**(H) Motor Vehicle Parking Space Reduction Credit for Additional Bicycle Parking.** Additional bicycle parking beyond the minimum amount required in Table 4.6.3 that complies with the bike parking standards in SDC 4.6.145 and 4.6.150 may substitute up to 20 percent of off-street motor vehicle parking otherwise required in Table 4.6.2. For every 2 non-required bicycle parking spaces that meet the short- or long-term bicycle parking standards specified in Table 4.6.3, the motor vehicle parking requirement is reduced by 1 space.~~

~~When existing parking converted to bicycle parking under this subsection results in surplus motor vehicle parking spaces, the surplus parking may be converted to another use in conformance with the requirements of this code.~~

~~**(I) Motor Vehicle Parking Space Reduction Credit for Frequent Transit Corridors—Abutting Sites.** Development sites abutting an existing or proposed Frequent Transit Corridor may request a reduction of up to 15 percent from minimum off-street motor vehicle parking required in Table 4.6.2.~~

~~**(J) Motor Vehicle Parking Space Reduction Credit for Frequent Transit Corridors—Nearby Sites.** Development sites not abutting but within 1/4-mile of an existing or proposed Frequent Transit Corridor may request a reduction of up to 10 percent from minimum off-street motor vehicle parking required in Table 4.6.2.~~

~~**(K) Reduction Credit for ADA Improvements for Frequent Transit Corridors.** Development sites abutting or within 1/4 mile of an existing or proposed Frequent Transit Corridor may receive a reduction of up to 10 percent from the minimum off-street motor vehicle parking required in Table 4.6.2 in exchange for contribution to the City for ADA improvements in the public right-of-way. The required contribution will be equal to the Base Curb Ramp Fee multiplied by each set of 4 parking spaces to be reduced, rounded up to the next whole number (e.g. 1 Base Curb Ramp Fee for 1 to 4 parking spaces reduced, double the Base Curb Ramp Fee for 5 to 8 parking spaces reduced, etc.). The Base Curb Ramp Fee must be set by Council resolution and must be approximately the cost of constructing 1 ADA-compliant curb ramp. Nothing in this subsection waives or alters any requirement for a developer to construct or provide on-site or off-site ADA improvements.~~

~~**(L)** Outside of the Downtown Exception Area and Glenwood Riverfront Mixed-Use Plan District, a cumulative maximum reduction of 20 percent of the minimum off-street parking required in Table 4.6.2 may be applied using the credits, allowances, and exceptions to minimum parking requirements established in this code.~~

~~**(M) Right Size Parking Alternative—Minimum.** The Approval Authority may authorize an alternative parking standard that is less than the minimum off-street parking standard in SDC 4.6.125, including reductions in excess of the cumulative maximum reduction specified in SDC 4.6.110(K) above. The alternative parking standard must be 1 of the following:~~

~~**(1)** The average peak period parking demand identified for the use in the current version of the Institute of Transportation Engineers (ITE) Parking Manual, for the day(s) of the week with the highest parking demand; or~~

~~**(2)** The peak parking demand identified by the applicant and supported by information that a reasonable person would rely upon as determined by the Approval Authority. This information may include, but is not limited to, transportation demand management or a parking study for a similar development.~~

~~**(N) Right Size Parking Alternative – Maximum.** The Approval Authority may authorize an alternative parking standard that is more than 125 percent of the minimum off-street parking standard in SDC 4.6.125. The alternative parking standard must be the peak parking demand identified by a parking generation study conducted according to the ITE Manual of Transportation Engineering Studies and prepared by a licensed engineer. (6443;6412)~~

****

4.6.125 Motor Vehicle Parking—Parking Space Requirements.

Removed parking mandates and retained and renamed Table 4.6.2 to "Suggested Parking Standard". Table 4.6.2 is to be used as a guide if a development wishes to provide off-street parking and for calculating Maximum Parking requirements.

(A) Although no minimum motor vehicle parking is required, Table 4.6.2 establishes ~~minimum~~ suggested off-street parking standards according to use~~, which apply to that use in any~~ within any land use district.

~~**(B)** The minimum parking standard for any use not specified in Table 4.6.2 is the average peak period parking demand identified for that use in the current version of the ITE Parking Manual, for the day(s) of the week with the highest parking demand.~~

(B) Parking spaces must be used only for the parking of passenger vehicles, customers, patrons, visitors, and employees. Changing the use of parking spaces so they can be used for another use such as outdoor displays, storage of vehicles, equipment, or materials requires a development approval, except as authorized by special event permit or other temporary or business license under the Springfield Municipal code.

(C) The maximum off-street parking standard for any use that is not a residential use is 125 percent of the ~~minimum~~ suggested off-street parking standard. There is no maximum off-street parking standard for residential uses. The Approval Authority may authorize an alternative parking standard that is more than 125 percent of the minimum off-street parking standard. The alternative parking standard must be the peak parking demand identified by a parking generation study conducted according to the ITE Manual of Transportation Engineering Studies and prepared by a licensed engineer.

~~**(D)** Parking standards established in Table 4.6.2 may be modified as provided in SDC 4.6.110.~~

Table 4.6.2

Use	~~Minimum~~ Suggested Parking Standard
Residential Uses	
Single unit dwelling, detached	2 spaces for each dwelling, not including an accessory dwelling unit.
Duplex	1 space per dwelling unit, 2 spaces total.
Triplex	1 space per dwelling unit, 3 spaces total.
Fourplex	1 space per dwelling unit, 4 spaces total.

Use	~~Minimum~~ Suggested Parking Standard
Townhome	1 space for each townhome dwelling unit.
Cottage clusters	1 space for each dwelling unit in a cottage cluster.
Multiple unit housing	1 space for each dwelling unit.
Group care facilities	1 quarter space for each bedroom or dwelling unit plus 1 per full time employee on the busiest shift.
Short term rental (see SDC 4.7-355)	Type 1 – No additional spaces above what is required for the primary residence. Type 2 – 1 on-site parking space for each guest room.
Commercial/Industrial Uses	
Child care center	1 space for each 350 square feet of gross area~~, plus 1 drop-off space for each 700 square feet of gross floor area.~~
Hotel/motel	1 space plus 1 space for each guest room.
Eating and drinking establishments	1 space for each 100 square feet of gross floor area.
Retail trade and services (including shopping centers)	1 space for every 300 square feet of gross floor area.
Manufacture and assembly, and other primary industrial uses. Includes warehousing.	1 space for each 1000 square feet of gross floor area.
Warehouse commercial sales (including bulky merchandise)	1 space for each 600 square feet of gross floor area.
Public and Institutional Uses	
Educational facilities	1 space for each classroom, plus 1 for each 100 square feet of the largest public assembly area.
Public utility facility	None, unless utility vehicles will be parked overnight.
Recreational facilities, and religious, social and public institutions	1 space for each 100 square feet of floor area in the primary assembly area and 1 for each 200 square feet of gross floor area for the remainder of the building.
Transportation facilities	1 space for each 300 square feet of gross floor area not including vehicle storage areas.

Removed parking mandates and incorporated OARs 660-012-0405(4) including carpool/vanpool requirements, electric vehicle charging, large (one-half acre) parking lot requirements, and provision to allow shared use parking between land uses.

(D) Special Provisions.

(1A) ~~**Downtown Exception Area.** Within the Downtown Exception Area, all lots/parcels and uses are exempt from the minimum off-street parking space requirements of this section. However, if the Director determines there is a need for off-street parking, the Director may require an Institute of Transportation Engineering (ITE) Parking Generation Report to determine the off-street parking requirements.~~ **Carpool and Vanpool Parking Requirements.** ~~In~~ In commercial, industrial, and mixed-use ~~industrial, institutional, government, and office~~ developments with at least 50 existing or proposed parking spaces:

(a) The number of carpool/vanpool parking spaces must be a minimum of five percent (5%) of the suggested parking spaces for the particular use.

(b) The carpool/vanpool spaces must be located closer to the primary employee entrance or secondary entrance from a parking lot than any other employee parking, except disabled accessible spaces.

(c) Carpool/vanpool spaces must have markings and signs that indicate the space is reserved for carpool/vanpool use.

(d) Only vehicles that are part of a rideshare program sanctioned by the ~~employer~~employer, or a public agency may park in designated carpool/vanpool parking spaces.

(~~B~~2) Commercial Districts.

(a~~1~~) Parking lots in the Neighborhood Commercial (NC) District must be designed so that a landscaped separator is in between every 7 spaces~~.~~. A development in the NC district that ~~require~~include~~s~~ more than 25 parking spaces must locate half of all the ~~required~~ additional spaces over 25 behind ~~proposed~~ buildings. For example, if a developer wishes to provide 30 parking spaces, at least 3 of them must be located behind a building.

(b~~2~~) Parking lots ~~must be used exclusively for the parking of vehicles. However, parking spaces in excess of the number required by this code~~ may be used for temporary sales or display of merchandise where the activity does not create a hazard for automobile or pedestrian traffic or where otherwise allowed under this code or the Springfield Municipal Code.

~~**(3)** A minimum of 4 off-street parking spaces is required for all sites in commercial zoning districts that require parking, unless reduced under SDC 4.6.110(M).~~

(3C) ~~**Light-Medium Industrial (LMI), Heavy Industrial (HI), and Special Heavy Industrial (SHI) Districts.** In addition to reductions permitted in accordance with the provisions of SDC 4.6.110, parking spaces may be reduced in LMI, HI, or SHI land use districts on a 1-for-1 basis when the number of spaces required is more than the number of employees working on the busiest shift, provided that a landscaped area equal to the total~~

~~number of spaces reduced must be held in reserve for future use.~~**Electric Vehicle Charging**. Developments of new buildings with five or more residential dwelling units (includes both residential buildings and mixed-use buildings) that include on-site vehicle parking must provide electrical service capacity, as defined in ORS 455.417, to accommodate 40 percent of all vehicle parking spaces.

(~~D~~4) Campus Industrial (CI) District.

(a~~1~~) To the greatest extent practicable, parking must be located behind buildings, internal to development or to the side of a building.

(b~~2~~) The maximum number of ~~required~~ parking spaces for uses not shown in Table 4.6.2 must be determined based upon standards for similar uses.

~~**(3)** Parking spaces may be reduced on a 1-for-1 basis when the number of spaces required is more than the shift with the largest number of employees, provided that a landscaped area equal to the total number of spaces reduced is held in reserve for future use.~~

(4c) An additional 5 percent of impermeable surface may be allowed in cases where all parking on a lot/parcel is screened by earthen berms with an average height of 3 feet (measured from the finished grade of the edge of the parking lot), sunken below grade an average depth of 3 feet (measured from the finished grade of the edge of the parking lot to the finished grade of the adjacent berm or landscaped area), or both.

(d~~5~~) Truck parking for vehicles necessary for the operation of the facility may be located either:

(~~a~~i) Within an enclosed building; or

(ii~~b~~) Outside of a building if the following standards are met and must:

~~(i)~~A. Be prohibited in all front and street-side yards;

~~(ii)~~B. Meet the building setback standards specified in SDC 3.2.420; and

~~(iii)~~C. Be screened as specified in SDC 3.2.445.

(5~~E~~) **Medical Services (MS) District.** Motor vehicle parking ~~standards~~ maximums are determined based upon standards for similar uses in Table 4.6.2 ~~and~~or upon ~~the required~~a Parking~~Traffic~~ Study.

(6~~F~~) **Public Land and Open Space District.** Motor vehicle parking ~~standards~~ maximums are determined based upon standards for similar uses in Table 4.6.2 or ~~. Uses not listed require~~ a Parking Study.

~~**(G) Mixed Use Districts.**~~

~~**(1) Nonresidential Requirements.** Off-street surface parking must meet the minimum parking requirement for the various commercial and industrial uses in Table 4.6.2 unless reduced under applicable provisions in this code.~~

~~**(2) Residential Requirements.** Minimum off-street parking standards for residential uses must comply with the standards specified in Table 4.6.2 unless reduced under applicable provisions in this code. (6443; 6412)~~

(7) **Large Parking Lots.** Developments that include more than one-half acre of surface parking area must include pedestrian connections from the parking lot to building entrances. ~~-~~If the parking lot is located between a public right-of-way and a building, the parking lot must include pedestrian connections between pedestrian facilities in the adjacent public right-of-way and building entrances.

(8) Shared use parking for two or more land uses, structures, or parcels of land is permitted.

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4.6.135 Loading Areas—Facility Design and Improvements.

Removed parking mandates and language regarding bicycle parking. The bicycle parking is regulated under SDC 4.6.140.

(A) All necessary loading areas for commercial and industrial development must be located off-street ~~and provided in addition to the required parking spaces~~.

~~**(B)** Required bicycle parking spaces and facilities must be constructed and installed in accordance with SDC 4.6.150 and Figures 4.6-B and 4.6-C. Bicycle parking must be provided at ground level unless an elevator with bicycle wayfinding~~

~~signage directs users to an approved bicycle storage area. Each required bicycle parking space must allow a bicycle to be placed in the space without removing another bicycle from another space.~~

~~**(C)** All required long-term bicycle parking spaces must be sheltered from precipitation, in conformance with (D)(3) below, and include lighting in conformance with the lighting standards in SDC 4.5.100.~~

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4.7.300 Specific Development Standards

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4.7.195 Public/Private Elementary/Middle Schools.

Removed parking mandate including a loading space. Removed Parking Study from the alternative off-street parking calculations.

(A) Schools are identified in the Metro Plan or Springfield Comprehensive Plan as key urban services, which shall be provided in an efficient and logical manner to keep pace with demand. Schools may be located in any zone that permits schools. A unique relationship exists between schools and the community, which requires special consideration when applying screening standards. Maintaining clear sight lines for the security and safety of children is desirable and may be achieved through the use of non-opaque fencing and/or landscaping. The screening standards in SDC 5.17.100 are applied only when required to screen playground structures, spectator seating facilities, parking, storage yards and trash receptacles or where significant conflicts are determined by the Director.

****

(8) All parking lots and driveways shall be designated to separate bus and passenger vehicle traffic. All parking lots shall have sidewalks raised a minimum of 6 inches above grade where pedestrians have to cross parking lots to enter or leave the school grounds. All parking lots must be designed so that a person walking between the bicycle parking facilities and the main building entrance or primary point of entry to the school is not required to cross a driveway, loading area~~space~~, or other area intended for motor vehicle circulation. The Director may require wider sidewalks at major approaches to schools as deemed necessary for pedestrian safety and capacity.

****

(11) A Traffic Impact Study ~~and Parking Study~~, prepared by a Transportation Engineer, ~~shall~~ must be approved by the City Engineer.

(B) In the PLO District, public/private elementary/middle schools shall be adjacent to residentially-zoned property. (6443; 6412; 6211)

4.7.200 Public and Private Parks.

Removed Parking Study for alternative off-street parking calculations.

Public parks shall be designated in the Metro Plan including the Willamalane Park and Recreation District Comprehensive Plan or be approved in accordance with a Discretionary Use application as specified in SDC 5.9.100.

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(B) Standards for Public and Private Parks in the PLO District.

(1) Primary access shall be on arterial or collector streets unless specified or exempted elsewhere in this section.

(2) Stadiums, swimming pools and other major noise generators within parks shall be located at least 30 feet from residential property lines and screened by a noise attenuating barrier.

(3) Community and regional parks shall be designated on a Park Facilities Plan adopted by the City, or be approved in accordance with Type 3 review procedure (Discretionary Use).

(4) A Ttraffic iimpact ~~and parking~~ Sstudy ~~shall~~ must be prepared by a Traffic Engineer and approved by the City Engineer.

(C) Standards for the Urbanizable Fringe Overlay District. Neighborhood Parks ~~shall~~ must be shown on the Metro Plan or an adopted refinement plan, or ~~shall~~ be reviewed under Type 3 Discretionary Use procedures.

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4.7.300 – Standards and Regulations for Certain Residential Uses and Certain Uses in Residential Districts

4.7.340 Child Care Center

Child Care Centers previously required drop-off parking spaces which have been removed. Requirements in residential land use districts, in accordance with Oregon Revised Statutes, must provide safe pick up and drop off location. Regulations are proposed in residential districts only.

The center must take precautions to protect children from vehicular traffic by providing a drop off and pick up spot at:

(A) An off-street location or

(B) An on-street location approved by the City Traffic Engineer that does not impede a vehicle or bicycle travel lane or ~~be~~is not located within a vision clearance area.

(C) An ADA pedestrian path must be provided from the drop off location to the main entrance.

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4.7.350 Residential Care Facility.

Removed parking mandate.

(A) These facilities must have a front yard setback of 15 feet and side and rear yard setbacks of 20 feet. The landscaped setbacks for parking lots and driveways may be reduced to 5 feet when the Director determines, through a Type 2 process, that adequate buffering has been provided.

(B) A minimum of 25 percent of the lot/parcel shall be landscaped.

(C) No parking is permitted within the front yard setback. ~~Required p~~Parking must be screened from public view.

(D) For structures on the Springfield Historic Inventory, any external modification must be in conformance with SDC 3.3.900.

(E) The maximum density in the R-1 District is 24 bedrooms per net acre. (6443; 6286)

4.7.355 Short Term Rental.

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Removed parking mandate.

(B) Type 2.

(1) Food Service. If food service is provided, it may only be provided to overnight guests.

(2) Location. There must be at least 400 feet of separation along the same street between Type 2 short term rentals.

~~**(3) Parking.** There must be 1 on-site parking space for each guest room. Each parking space must meet the applicable requirements of SDC 4.6.100. (6443; 6412)~~

****

4.7.380 Multiple Unit Housing (Clear and Objective Standards).

Removed parking mandate and added language for when off-street parking is provided.

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(C) Development Standards for Multiple Unit Housing Developments in the R-2 and R-3 Districts. The following standards apply to multiple unit housing developments unless otherwise stated. These standards do not apply to Cottage Cluster Housing developments.

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(7) Parking. Any vehicle parking provided must comply with ~~Multiple unit housing developments must provide parking as specified in~~ SDC 4.6.100 through 4.6.13~~5~~5. Bicycle parking must be provided as specified in SDC 4.6.140 through 4.6.155.

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4.7.385 Multiple Unit Housing (Discretionary Option).

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Provided clarifying language when off-street parking is provided.

(l) **Parking.** The Approval Authority must find that the placement of parking contributes to attractive street frontages and visual compatibility with surrounding areas and is located with consideration for the safety of residents. This criterion may be met by complying with either subsection (l)(1) or (2) below or by meeting SDC 4.7.390.

(1) **Type 2 Process.** Parking for ~~M~~multi-unit developments must ~~provide parking~~ be designed as specified in the following standards.

****

(2) **Type 3 Process.** Alternatively, this criterion may be met by considering the following guidelines.

(a) Avoid placing parking lots, carports, garages, and driveways between the buildings and the street. To minimize the visual impacts, locate parking to a portion of the site least visible from the street.

(b) Provide rear and below grade parking where practicable.

(c) Use alley access for parking areas where practicable.

(d) Use low, dense hedges or landscape berms at the edges of parking lots to screen autos and direct pedestrians to entry and exit points.

(e) Provide no more parking than the suggested~~minimum~~ parking requirement, where practicable.

(f) Avoid placing parking lots, garages, and carports that abut and/or are visible from R-1 areas. As an alternative, locate parking next to arterial and collector streets with landscape buffering, when possible.

(g) Design garages and free standing carports to be visually compatible with, or screened from, adjacent R-1 uses and dwellings on-site (e.g., similar siding, trim, roof line and materials, detailing, and color, as applicable).

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5.1.100 – The Development Review Process

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5.1.110 Applicability.

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Clarifying language that review is required when new off-street parking is proposed and provided.

(C) The following developments and activities do not require Type 1, 2, 3, or 4 review procedures, but must conform to all other applicable provisions of this code or any other applicable code as determined by the Director.

****

(7) A change of use that does not increase demand on public facilities, ~~, or~~ change property access or circulation, ~~or require~~ or propose new area for off-street parking ~~additional parking spaces,~~ provided that, prior to granting building occupancy, the property complies with applicable requirements related to landscaping in SDC 4.4.105, parking lot striping in SDC 4.6.115, on-site lighting in SDC 4.5.100, and bicycle parking in SDC 4.6.145. (7). This exemption does not apply when the change of use includes development that otherwise requires Development Approval under this code, such as additions or expansions of buildings or impervious surfaces for which site plan review or minimum development standards review is required.

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5.11.100 Interpretations

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5.11.120 Interpretation of New Uses.

Removed parking mandate but off-street parking can still be evidence for a New Use Interpretation.

(A) **Application Submittal.** The request ~~shall~~ must include information on the following characteristics of the new use:

(1) A description of proposed structures and the operational characteristics of the new use.

(2) Where commercial and industrial uses are involved, the following topics are considered:

(a) Emission of smoke, dust, fumes, vapors, odors, and gases;

(b) Use, storage and/or disposal of flammable or explosive materials;

(c) Glare;

(d) Use of hazardous materials that may impact groundwater quality;

(e) Noise;

(f) The potential for ground vibration; and

(g) The amount and type of traffic to be generated, parking to be provided ~~, parking required~~ and hours of operation.

(3) Where residential uses are involved, the following topics are considered:

(a) Density; and

(b) The amount and type of traffic to be generated and parking to be provided ~~and parking required~~.

(B) Criteria. A new use may be considered to be a permitted use when, after consultation with the City Attorney or other City staff, the Director determines that the new use:

(1) Has the characteristics of one or more use categories currently listed in the applicable zoning district;

(2) Is similar to other permitted uses in operational characteristics, including, but not limited to~~,~~ traffic generation, parking, or density; and

(3) Is consistent with all land use policies in this code which are applicable to the particular zoning district.

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5.13.100 - Master Plans

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5.13.120 Preliminary Master Plan—Submittal Requirements.

The Preliminary and Final Master Plan applications shall be prepared by a professional design team. The applicant shall select a project coordinator. All related maps, excluding vicinity and detail maps, shall be at the same scale. A Preliminary Master Plan shall contain all of the elements necessary to demonstrate compliance with the applicable provisions of this code and shall include, but not be limited to:

Master Plans are still required to provide a parking plan and study to ensure parking maximums and landscaping requirements are accommodated for.

(l) A Parking Plan and Parking Study.

~~(1)~~ A Parking Plan ~~shall~~ must be submitted for all proposed development that includes ~~vehicular~~ parking and/or required bicycle parking. The Parking Plan ~~and shall~~ must contain the following information:

(1~~a~~) The location and number of proposed parking spaces;

(2~~b~~) On-site vehicular and pedestrian circulation;

(3~~c~~) Access to streets, alleys and properties to be served, including the location and dimensions of existing and proposed driveways and any existing driveways proposed to be closed;

(4~~d~~) The location of and number proposed bicycle parking spaces;

(5~~e~~) The amount of gross floor area applicable to the parking for the proposed use; and

(6~~f~~) The location and dimensions of off-street loading areas, if any.

(2) A Parking Study, for other than single-unit detached dwelling developments, with maps and a narrative depicting projected parking impacts, including, but not limited to: projected peak parking demand; an analysis of peak demand compared to, or use of, the proposed on-site and off-site supply; potential impacts to the on-street parking system and adjacent land uses; and proposed mitigation measures, if necessary.

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5.13.135 Final Master Plan—Modifications.

A proposed Final Master Plan modification, or a proposed modification to a Master Plan approved prior to the effective date of this regulation, shall be processed under the applicable procedures described below:

****

(B) The following modifications to the Final Master Plan shall be processed under Type 2 procedure, unless the Director determines that the proposed modification should be reviewed as a Type 3 procedure, based on the proposed size of the Master Plan site; and/or the availability/capacity of public facilities; and/or impacts to adjacent properties including, but not limited to noise and traffic. These modifications include a request:

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(3) By the applicant for increases in ~~or decreases in~~ the amount of ~~approved or required~~ parking by a factor of 10 percent or greater. ~~The applicant shall provide a new parking analysis related to the proposal~~;

****

5.15.100 Minimum Development Standards (MDS)

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5.15.110 Applicability.

Removed parking mandate and added clarifying language regarding Site Plan Review.

(A) The MDS review process applies to Commercial, Industrial, R-2, R-3, and Public Land and Open Space land use districts.

If an application triggers the need for a Traffic Impact Study (TIS) as specified in SDC 4.2.105(B), then the application does not qualify for an MDS and must be processed through a Site Plan Review process.

A proposal for developments in commercial, industrial, R-2, or R-3 land use districts where the development is within 150 feet of a locally significant wetland or riparian area is not eligible for the MDS process. Site Plan Review is required according to SDC 4.3.117(D) in these cases.

Minimum Development Standards review procedures are applied subject to applicability and locational standards.

(1) The MDS process is used for:

(a) New construction on a vacant development site where the new construction does not exceed 50,000 square feet of impervious area;

(b) Addition or expansion on a development site where the addition or expansion does not exceed 50 percent of the existing building area or up to 50,000 square feet of new impervious area or new gross floor area, whichever is less.

(c) An outdoor use or parking area expansion of up to 50 percent of the existing outdoor use area or parking area or up to 5,000 square feet of new outdoor use area or parking area, whichever is less;

(d) A change in land use category or building occupancy of a structure or property that does not otherwise require Site Plan Review~~that requires new additional parking spaces~~; or

(e) Relocating or reconfiguring an existing driveway that does not increase a nonconformity or create a nonconformity.

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5.17.100 Site Plan Review

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5.17.115 Submittal Standards.

Clarification between bicycle and vehicle parking.

Application materials must be submitted as required below in addition to the requirements in SDC 5.1.215, Application Requirements. Applications that do not include all the necessary information may be deemed incomplete in accordance with SDC 5.1.220, Acceptance of Application.

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(F) Access, Circulation, Parking, and Lighting Plan. The application must include an Access, Circulation, Parking, and Lighting that shows:

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(7) The amount of gross floor area applicable to the bicycle parking requirement for the proposed use;

****

5.21.100 Variances

****

5.21.125 Minor Variances—Criteria.

Removed parking mandate from review criteria.

(D) The Director must approve the Minor Variance if the applicant demonstrates compliance with all of the applicable approval criteria:

****

~~**(6)** In addition to the applicable approval criteria specified in subsections (D)(1) through (5), above, the following approval criteria shall also apply to a request involving parking reductions on infill lots/parcels in the Commercial and Industrial Districts when there is a change of use, addition or expansion that requires Site Plan Review Modification. The Minor Variance for parking reductions shall not apply to MDS applications as specified in SDC 5.15.100:~~

~~**(a)** The individual characteristics of the proposed use require more parking than is generally required for a use of this type,~~

~~**(b)** The Minor Variance for a parking reduction shall run with the use or uses to which it pertains and not run with the land itself,~~

~~**(c)** The need for additional parking cannot reasonably be met through provision of on-street parking or shared parking with adjacent or nearby uses because:~~

~~**(i)** The owners of abutting properties cannot agree to execute a joint access/parking agreement, and/or~~

~~**(ii)** The Public Works Director has determined the proposed shared parking area is a safety hazard because it is located too far from the proposed use,~~

~~**(d)** The request shall not result in the parking or loading of vehicles on public streets in a manner that may interfere with the free flow of traffic on the streets,~~

~~**(e)** The property otherwise complies with the provisions of this code.~~

6.1.110 Meaning of Specific Words and Terms.

****

Removed parking mandate language, deleted drop-off space definition (no longer required), and added a definition for Parking Lot Area in compliance with OAR definitions.

~~**Drop-Off Space.** A paved, clearly marked short-term (less than 20 minutes) parking space, generally within 50 feet of a main building entrance, separated from required parking for staff and long-term visitors.~~

****

Hotel. A building, not including a building designed or arranged as a single unit dwelling, in which lodging is provided to guests for compensation, consisting of a lobby and individual sleeping quarters, typically without cooking facilities, with separate entrances opening directly to an internal hallway. ~~Parking may be on site or in a separate parking structure.~~

****

Loading ~~Space~~Area. An off-street ~~space~~ area or berth serving a business for the temporary parking of commercial vehicles while loading or unloading, while not block driveway aisles and having an appropriate means of ingress and egress.

****

Motel. A building or group of buildings, not including a building designed or arranged as a single unit dwelling, in which lodging is provided to guests for compensation, consisting of individual sleeping quarters, with or without cooking facilities, with separate entrances opening directly ~~on a parking area~~ outside.

****

Parking Lot Area. For purposes of calculating the size of a parking lot, the parking lot area includes the parking spaces, interior parking lot landscaping, interior pedestrian walkways, and vehicle maneuvering areas. ~~-~~It does not include a loading area~~s~~.

****

Shopping Center. A group of commercial establishments planned, developed, and managed as a unit with ~~off-street parking and~~on-site vehicle and pedestrian circulation provided on the property.

****

Siting Standard. A standard related to the position, bulk, scale, or form of a structure or a standard that makes land suitable for development. Siting standards include, but are not limited to, standards that regulate setbacks, dimensions, bulk, scale coverage, ~~minimum and~~ maximum vehicular parking requirements, bicycle parking requirements, utilities, and public facilities.

Appendix GLENWOOD REFINEMENT PLAN POLICIES AND IMPLEMENTATION STRATEGIES—PHASE 1

Removed parking mandate.

B.5 Parking

B.5.a. Evaluate and develop parking standards for inclusion in the Glenwood Riverfront Mixed Use Plan District that~~:~~ support Plan goals for transit, bicycling, walking, and ridesharing~~; and provide sufficient parking,~~ in conjunction with an access system that provides balanced travel mode options.

~~**B.5.a.1.** Establish low turnover, longer term off street parking ratios for new development or redevelopment to ensure that access impacts are meaningfully addressed and correlated to actual parking demand, and to provide a potential future revenue source through a parking fee-in-lieu option.~~

B.5.a.~~2~~1. Promote employer and/or developer-based initiatives to encourage employee or resident use of alternative travel modes.

STAFF REPORT and FINDINGS OF FACT

TYPE 4 – LEGISLATIVE AMENDMENT TO THE SPRINGFIELD DEVELOPMENT CODE

SPRINGFIELD CASE NUMBER: 811-23-000125-TYP4
PLANNING COMMISSIONS' HEARING DATE: August 1, 2023
ELECTED OFFICIALS' HEARING DATE: November 6, 2023
REPORT DATE: September 20, 2023, revised November 9, 2023

PROJECT NAME: Climate Friendly and Equitable Communities Parking Code Amendments
AFFECTED AREA: All property within Springfield's Urban Growth Boundary

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I. NATURE OF THE REQUEST

The City of Springfield seeks approval of amendments to the Springfield Development Code (SDC) to incorporate Oregon Administrative Rules (OAR) regarding Climate Friendly and Equitable Communities Parking mandates; OAR 660-012-0400 – 0410. Code amendments include removing all minimum on-site motor vehicle parking space requirements in the City of Springfield's Urban Growth Boundary, and inclusion of electrical service conduit for future electric vehicle (EV) parking for multi-unit residential development, preferential parking for carpools and vanpools, and special standards for parking lots over ½ acre. As these changes affect land outside the city limits, they must be co-adopted by Lane County.

II. BACKGROUND

In March 2020, Governor Kate Brown issued Executive Order 20-04 directing state agencies to take actions to reduce and regulate greenhouse gas emissions and mitigate the impacts of climate change while also centering the needs of Oregon's most vulnerable communities. In response, the Oregon Land Conservation and Development Commission (LCDC) directed the Department of Land Conservation and Development (DLCD) to draft updates to Oregon's transportation and land use planning rules. The Commission adopted the Climate Friendly and Equitable Communities (CFEC) permanent rules on July 21, 2022. The LCDC adopted additional revisions to the administrative rules in chapter 660 division 12 on November 2 which impact the required parking amendments. These revisions were presented to the City Council and Board of County Commissioners at their joint hearing in November 2023. Corresponding revisions are incorporated into the code amendments for local adoption.

These rules set new standards for land use and transportation plans in Oregon's eight metropolitan areas - Albany, Bend, Corvallis, Eugene-Springfield, Grants Pass, Medford-Ashland, Portland Metro, and Salem-Keizer. The intent is to encourage walking, biking, taking the bus, and switching to electrical vehicles. The rules also state an intent to require that the city allow more dense developments in areas of "high quality transit service", bring different land uses (housing, employment, shopping, and parks) close together, and make them walkable.

This project is implementing a state parking mandate consisting of prescriptive rules with little room for flexibility. In light of the limited flexibility and costly nature of the alternatives offered within the administrative rules, the Springfield City Council directed staff to proceed with the option that makes providing on-site motor vehicle parking voluntary for new developments and redevelopments. The code amendments will generally maintain existing development standards for parking spaces – should an applicant choose to provide on-site parking – with some specific amendments to those standards as required by the CFEC rules.

The Committee for Citizen Involvement approved a Community Involvement Strategy that outlines how Springfield will inform and engage the public throughout the project. The Community Involvement Strategy outlines the timeline, decision-making groups involved, and the community involvement tactics planned for this project. It also highlights the City of Springfield's commitment to transparent communication, accurate information dissemination, and incorporating public input into the final code amendments.

III. SITE INFORMATION

Affected properties are those which are located within the City of Springfield's Urban Growth Boundary (UGB).

IV. PROCEDURAL REQUIREMENTS AND CITIZEN INVOLVEMENT

Under SDC 5.6.110, amendments of the Development Code text are reviewed under a Type 4 procedure as a legislative action. Type 4 procedures, as defined in SDC 5.1.605, require a review and recommendation by the Planning Commission and adoption of ordinance by City Council. As the CFEC Parking regulations apply outside the city limits, per the Urban Transition Agreement with Lane County, the Lane County Board must co-adopt the code amendments for them to apply outside the city limits. The Director for the City of Springfield initiated the development code amendments on June 5, 2023, on behalf of the City of Springfield as is allowed under SDC 5.6.105(B).

In accordance with the City of Springfield Citizen Involvement Program, the Committee for Citizen Involvement (CCI) reviewed and approved a Citizen Engagement Strategy for this proposal on April 18, 2023. Per this strategy and other requirements (as noted) the City has completed the following:

- Submitted notice of the proposed amendments to the Department of Land Conservation and Development (DLCD) on June 22, 2023, 40 days in advance of the first evidentiary hearing in conformance with by ORS 197.610(1) and OAR 660-018-0020.
- Mailed notice of the Joint Planning Commission Hearing on July 7, 2023, to interested parties identified during the Transportation System Plan Implementation process.
- Emailed notice of the proposed amendments to stakeholder groups per the Citizen Engagement Strategy on July 6, 2023.

- As required by SDC 5.1.245(F) provided agency referrals to the Development Review Committee regarding the proposed amendments via email on July 6, 2023 (Lane County Transportation, Springfield Police, Eugene-Springfield Fire, Springfield Utility Board Water and Electric Division Directors, Northwest Natural, CenturyLink, Comcast, Rainbow Water and Fire District, Emerald People's Utility District, and Willamalane Park and Recreation).
- Published notice of the Planning Commissions' public hearing on the proposed amendments in the Chronicle on June 29, 2023, as required by SDC 5.1.615(A).
- Published notice of the Elected Officials' public hearing in the Chronicle on October 12, 2023 as required by SDC 5.1.615(A).
- Posted notice of the proposed amendments and the dates of the public hearings on the City of Springfield website which routinely posts public hearing notices.

For this request, the Springfield and Lane County Planning Commissions made recommendations respectively to the Springfield City Council and Lane County Board of Commissioners which are the Approval Authorities for the final local decision (SDC 5.1.630(B)). Per the *Urban Transition Intergovernmental Agreement* and SDC 5.6-115(B), development code amendments which impact areas outside the City limits must be co-adopted by the Lane County Board of Commissioners in order to apply to urbanizable areas within the Springfield UGB. Decisions of the Springfield City Council and Lane County Board of Commissioners may be appealed to the Oregon Land Use Board of Appeals within 21 calendar days of the date the decision becomes final as specified in ORS 197.830 (SDC 5.1.630(F)).

V. APPROVAL CRITERIA & FINDINGS

The request is subject to approval criteria in SDC 5.6.115, which covers adoption or amendment of refinement plans, plan districts and the development code. The following approval criteria are listed under SDC 5.6.115:

A. In reaching a decision on the adoption or amendment of refinement plans and this Code's text, the City Council shall adopt findings that demonstrate conformance to the following:

1. *The Metro Plan and Springfield Comprehensive Plan;*
2. *Applicable State statutes; and*
3. *Applicable State-wide Planning Goals and Administrative Rules.*

Findings showing that the amendments to the development code meet the applicable criteria of approval appear in regular text below. Direct citations or summaries of criteria appear in *italics* and precede or are contained within the relevant findings.

Conformance with the Metro Plan

The *Eugene-Springfield Metropolitan Area General Plan* (Metro Plan) includes policy direction relevant to parking regulations, including Housing.

Housing Goals:

"H.5 Develop additional incentives to encourage and facilitate development of high density housing in areas designated for Mixed Use Nodal Development."

Finding 1: The Oregon Administrative Rules (OAR) 660-012-0400 – 0410 require cities and counties to remove all requirements for on-site parking or amend the comprehensive plans and land use regulations to implement additional provisions of OAR 660-012-0425 – 0450. The Springfield City Council directed staff to proceed with the option to remove all parking requirements for on-site parking.

Finding 2: The amended standards specifically have removed all required on-site parking from the Springfield Development Code (SDC) which will encourage and facilitate higher density developments by allowing redevelopment of existing parking lots to provide additional dwelling units and by allowing new development to utilize the entirety of a site.

Finding 3: The amendments do not preclude landowners or developers from providing on-site parking and amendments have been made to incorporate OAR 660-012-0405 – 0410.

Finding 4: Based on Findings 1 – 3, the SDC amendments follow Housing Goal 5.

Conformance with the Springfield Comprehensive Plan

The Springfield Comprehensive Plan includes Springfield-specific housing policies that further refine the housing and residential land use policies of the *Metro Plan*. In addition, the Springfield Transportation System Plan (TSP) is a functional plan of the Springfield Comprehensive Plan and applies to these code amendments.

Housing Policies and Goals:

"H.3 Support community-wide, district-wide and neighborhood-specific livability and redevelopment objectives and regional land use planning and transportation planning policies by locating higher density residential development and increasing the density of development near employment or commercial services, within transportation-efficient Mixed-Use Nodal Development centers and along corridors served by frequent transit service."

"H.4 Continue to identify and remove regulatory barriers to siting and constructing higher density housing types in the existing medium and high density residential districts."

Finding 5: The amendments, specifically to remove minimum vehicle parking mandates, intend to limit urban sprawl and focus residential development within the urban core to remove regulatory barriers to encourage higher density development near commercial services and along corridors served by frequent transit service.

Springfield Transportation System Plan Policies:

"1.3: Provide a multi-modal transportation system that supports mixed-use areas, major employment centers, recreation, commercial, residential, and public developments, to reduce reliance on single-occupancy vehicles (SOVs).

"2.3: Expand existing Transportation Demand Management (TDM) programs related to carpooling, alternate work schedules, walking, bicycling, and transit uses in order to reduce peak hour congestion and reliance on SOVs.

"2.7: Manage the off-street parking system to assure major activity centers meet their parking demand through a combination of shared, leased, and new off-street parking facilities and TDM programs."

Finding 6: The *2035 Transportation System Plan* (TSP) is functional plan that serves as the transportation element of Springfield's Comprehensive Plan. The *2035 TSP* identifies the City's policies related to the transportation system to guide future transportation related decisions in Springfield.

Finding 7: OAR 660-012-0405 requires cities to incorporate preferential parking for carpools and vanpools in designated employee parking areas in new development with more than 50 parking spaces. The amendments to SDC 4.6.125(D) have incorporated preferential carpool and vanpool parking.

Finding 8: TDM measures, discussed in the TSP, include any method intended to allow travelers to shift travel demand from SOVs to active modes (biking, walking, or taking transit) or carpooling. The amendments specifically support TDM expansion by requiring preferential carpool and vanpool parking for employees and meets that stated TSP policies regarding Transportation Demand Management.

Finding 9: The elimination of parking minimums is intended to help reduce reliance on the single-occupancy automobile and encourage carpooling, vanpooling, and other alternative modes of transportation which will reduce vehicle miles traveled. However, the elimination of parking minimums does not preclude property owners or developers from providing on-site parking.

Finding 10: OAR 660-012-0405 requires cities to provide regulations that allow and facilitate shared parking. Amendment SDC 4.6.125(D)(8) allows shared use parking between land uses. The SDC amendment meets the requirements of OAR 660-012-0405(3) and satisfies Policy 2.7 to manage parking by allowing for shared off-street parking.

Finding 11: Based on Findings 5 – 9, the SDC amendments follow Springfield's Transportation System Plan policies 1.3, 2.3, & 2.7.

Conformance with Applicable State Statutes

ORS 197.307(4) Except as provided in subsection (6) of this section, a local government may adopt and apply only clear and objective standards, conditions and procedures regulating the development of housing, including needed housing. The standards, conditions, and procedures:

a. *May include, but are not limited to, one or more provisions regulating the density or height of a development.*
b. *May not have the effect, either in themselves or cumulatively, of discouraging needed housing through unreasonable cost or delay.*

Finding 12: The removal of parking minimums allows property owners the flexibility to develop the site as they deem appropriate including new additional dwelling units or reuse of existing parking to provide additional dwelling units. The amendments allow for higher density development and do not discourage needed housing.

ORS 197.610 and OAR 660-018-0020 require local jurisdictions to submit proposed land use regulation changes to the Department of Land Conservation and Development.

Finding 13: As noted in Section IV, the City provided notice of the proposed amendments to DLCD on June 22, 2023, 40 days in advance of the first evidentiary hearing in conformance with ORS 197.610(1) and OAR 660-018-0020.

Finding 14: ORS 227.186 requires the local government to mail a notice to every landowner whose property is proposed to be "rezoned" because of adoption or amendment of a proposed ordinance (also known as "Ballot Measure 56" notice). Rezoning under ORS 227.186 includes an ordinance that amends or adopts regulations that limit or prohibit land uses previously allowed in the affected land use district. The amendments do not limit or prohibit any land uses that were previously allowed in an existing land use district. Therefore, this state statute does not apply.

Conformance with Applicable State-wide Planning Goals and Administrative Rules

Planning Goals

Statewide Planning Goal 1 – Citizen Involvement: This goal outlines the citizen involvement requirement for adoption of Comprehensive Plans and changes to the Comprehensive Plan and implementing documents.

Finding 15: Requirements under Goal 1 are met by adherence to the citizen involvement processes required by the Metro Plan and implemented by the Springfield Development Code Chapter 5. As detailed in Section IV above, notice was provided to DLCD on June 22, 2023, notice to the interested parties list was emailed on July 6 and mailed on July 7. Additionally, notice of the Planning Commissions' public hearing was published in the Chronicle on June 29, 2023 and notice of the Elected Officials' public hearing was published in the Chronicle on October 12, 2023.

Statewide Planning Goal 2 – Lane Use Planning: This goal requires a land use planning process and policy framework as a basis for all decision and action related to the use of land and to assure an adequate factual base for such decisions and actions.

Finding 16: This goal outlines the land use planning process and policy framework. The Metro Plan, Springfield 2023 Comprehensive Plan, and Springfield Development Code have been acknowledged by DLCD as being consistent with the statewide planning goals. The City has followed the land use planning process and policy framework established in the City's acknowledged comprehensive plan elements and Springfield Development Code as a basis for all decision and actions related to the use of land and to assure an adequate factual basis for such decisions and actions.

Finding 17: The amendments will be adopted by the City Council and Lane County Board of County Commissioners (as applicable outside city limits) after a public a public hearing. Opportunities have been provided for review and comment by citizens and affected governmental units during the process; therefore, Goal 2 has been satisfied.

Statewide Planning Goal 3 & 4 – Agricultural Lands and Forest Lands:

Finding 18: These statewide planning goals relate to agricultural and forest land in Oregon and are not applicable to these amendments.

Statewide Planning Goal 5 – Natural Resources, Scenic and Historic Areas

Finding 19: The City is currently in compliance with this goal. The amendments do not alter the City's acknowledged Goal 5 inventories or land use programs and therefore Goal 5 is not applicable.

Statewide Planning Goal 6 – Air, Water, and Land Resources Quality

Finding 20: Goal 6 is not applicable because the City's acknowledged regulations implementing Goal 6 remain in effect with no change in applicability.

Statewide Planning Goal 7 – Areas Subject to Natural Hazards Housing

Finding 21: Goal is not applicable because the City's acknowledged regulations implementing Goal 7 remain in effect with no change in applicability.

Statewide Planning Goal 8 – Recreational Needs

Finding 22: The provision of recreation services within Springfield is the responsibility of Willamalane Park & Recreation District. This goal is not applicable as the parking code updates have no effect on the availability of or access to recreational opportunities as planned in Willamalane's Comprehensive plan.

Statewide Planning Goal 9 – Economic Development

Finding 23: This goal is implemented through Oregon Administrative Rule (OAR) Division 9, which is intended to ensure that each jurisdiction maintain an adequate land supply for economic development and employment growth.

Finding 24: The amendments eliminate required on-site parking minimums and will let businesses and developments provide parking when they determine there is demand. Ending requirements for on-site parking will also allow existing parking areas to be redeveloped into more productive uses. The Springfield Development Code will continue to have parking maximums for commercial and industrial uses to help limit the development of excess parking. These amendments will contribute to less land being used for parking and allow more land to be developed for economic purposes. Therefore, compliance with Goal 9 has been met.

Statewide Planning Goal 10 - Housing

Finding 25: Goal 10 requires that jurisdictions inventory buildable lands for residential use and develop plans that encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type, and density.

Finding 26: The amendments remove barriers to the development of housing by eliminating parking minimums and will help reduce housing cost; therefore, the amendments comply with Goal 10.

Statewide Planning Goal 11 – Public Facilities and Services

Finding 27: Goal 11 requires the City to plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. The amendments do not result in the need to adjust or amend existing policies or projects in the City's adopted facility plans; therefore, compliance with Goal 11 is maintained.

Statewide Planning Goal 12 – Transportation

Finding 28: The amendments are intended to comply with requirements under OAR chapter 660, division 12, related to parking deregulation, as explained in further detail in the findings under the second criterion below (compliance with Oregon Administrative Rules). The amendments will not result in changes in the most traffic-generative uses allowed in any land use district. In addition, the amendments are not site specific and therefore do not affect the functional classification of any street. The amendments will have no immediately measurable impacts on the amount of traffic on the existing transportation system; therefore, the amendments do not cause a "significant effect" under OAR 660-012-0060; therefore, compliance with Goal 12 is maintained.

Statewide Planning Goal 13 – Energy Conservation

Finding 29: Goal 13 requires land uses to be managed and controlled to maximize the conservation of energy, based upon sound economic principles. The state's purpose in adopting parking regulations in OAR chapter 600, division 12 was to reduce vehicle miles traveled and encourage the use of TDM programs that will conserve energy, and the amendments comply with the division 12 requirements. The amendments comply with Goal 13.

Statewide Planning Goal 14 – Urbanization

Finding 30: Goal 14 requires the City to provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities. The amendments intend to limit urban sprawl and focus residential development within the urban core which may lead to higher density development near existing city services; therefore, compliance with Goal 12 is maintained.

Statewide Planning Goal 15 – Willamette River Greenway

Finding 31: The amendments do not alter or adopt new regulations within the protect Willamette River Greenway; therefore, this goal is not applicable.

Statewide Planning Goal 16 - 19 – Estuarine Resources; Coastal Shorelands; Beaches and Dunes; and Ocean Resources

Finding 32: Goal 16 – 19 apply to jurisdictions along the Oregon coast and are not applicable to the City of Springfield.

Oregon Administrative Rules

OAR 660-012-0420(1): Cities and counties that adopt land use regulations that do not include parking mandates are exempt from OAR 660-012-0425 through OAR 660-012-0450.

OAR 660-012-0420(2): Cities and counties that retain land use regulations with parking mandates shall conform with OAR 660-012-0425 through OAR 660-012-0450.

Finding 33: Springfield City Council directed staff to proceed with OAR 660-012-420(1) that makes providing on-site motor vehicle parking voluntary for new developments and redevelopments. Therefore, the City of Springfield is exempt from OAR 660-012-0425 – 0450.

OAR 660-012-405: Parking Regulation Improvements

Finding 34: As stated above, the Land Conservation and Development Commission (LCDC) is considering amendments to the current administrative rules in chapter 660, division 12, that will have an impact on the required parking amendments. The amendments discussed in this staff report reflect the amendments in the revisions adopted by LCDC on November 2, 2023.

OAR 660-012-0405(1)(a) requires designated employee parking areas in new developments with more than 50 parking spaces to provide preferential parking for carpools and vanpools.

Finding 35: The amendment to SDC 4.6.120(D)(1) requires that industrial, institutional, government, and office developments with at least 50 existing or proposed parking spaces to provide a minimum of five percent (5%) of the parking spaces as carpool or vanpool parking spaces.

OAR 660-012-0405(1)(b) requires a property owner to be allowed to redevelop any portion of existing off-street parking areas for bicycle oriented and transit-oriented facilities, including bicycle parking, bus stops and pullouts, bus shelters, park and ride station, and similar facilities.
Finding 36: The removal of parking minimums allows any portion of a site to be redeveloped to contain new uses for bicycle and transit-oriented facilities.

OAR 660-012-0405(1)(c) applying subsections (a) and (b) [above], land use regulations must allow property owners to go below existing mandated minimum parking supply, access for

emergency vehicles must be retained, and adequate parking for truck loading should be considered.

Finding 37: The removal of parking minimums allows property owners the flexibility to develop the site as they deem appropriate. However, access for emergency vehicles and vehicle loading will continue to be reviewed and must meet applicable sections of the Springfield Development Code.

OAR 660-012-0405(2) requires cities and counties to adopt policies for on-street parking and land use regulations for off-street parking that allow and encourage the conversion of existing underused parking areas to other uses.

Finding 38: The removal of parking minimums allows for the conversion of existing underused parking areas to be used for other purposes including new land uses. On-street parking is permitted with Springfield's Urban Growth boundary where the street design accommodates parking.

Finding 39: On-street parking conversion to parklets, bike corrals, or green-infrastructure is an existing City practice but must be evaluated and approved by the City Traffic Engineer on a case-by-case basis.

OAR 660-012-0405(3) requires cities and counties to adopt policies and land use regulations that allow and facilitate shared parking.

Finding 40: The SDC does not prohibit shared parking between land uses, however, SDC 4.6.125(D)(8) has been incorporated to specifically state that shared parking between land uses is permitted to comply with the OAR.

OAR 660-012-0405(4) cities and counties shall adopt land use regulations for any new development that includes more than one-half acre of new surface parking on a lot or parcel as provided below. The new surface parking area shall be measure based on the perimeter of all new parking spaces, maneuvering lanes, and maneuvering areas, including driveway and drive aisles.

OAR 660-012-0405(4)(a) developments not required to comply with OAR 330-130-0010 must provide a climate mitigation action. Climate mitigation actions shall include at least one of the following:

OAR 660-012-0405(4)(a)(A) installation of solar panels with a generation capacity of at least 0.5 kilowatt per new parking space. Panels may be located anywhere on the property.

OAR 660-012-0405(4)(a)(B) Payment of at least $1,500 per new parking space in the development into a city or county fund dedicated to equitable solar or wind energy development or a fund at the Oregon Department of Energy designated for such purpose.

OAR 660-012-0405(4)(a)(C) Tree canopy covering at least 40 percent of the new parking lot area at maturity but no more than 15 years after planting.

OAR 660-012-0405(4)(a)(D) A mixture of actions under paragraphs (A) through (C) the city or county deems to meet the purpose of this section.

OAR 660-012-0405(4)(b) Developments must provide tree canopy. Developments shall provide either trees along driveways or a minimum of 30 percent tree canopy coverage over new parking areas. Developments are not required to provide tree along drive aisles. The tree spacing and species planted must be designed to maintain a continuous canopy except when interrupted by driveways, drive aisles, and other site design considerations. Developments providing 40 percent tree canopy to comply with paragraph (a)(C) comply with this subsection.

OAR 660-012-0405(4)(c) Developments must provide pedestrian connections throughout the parking lot, connecting at minimum the following, except where not practical due to site-specific conditions:
(A) building entrances;
(B) Existing or planned pedestrian facilities in the adjacent public rights-of-way;
(C) Transit stops, and
(D) Accessible parking spaces.

OAR 660-012-0405(4)(d) Development of a tree canopy plan under this section shall be done in coordination with the local electric utility, including pre-design, design, building and maintenance phases.

OAR 660-012-0405(4)(e) In providing trees under subsections (a), the following standards shall be met. Trees must be planted and maintained to maximize their root health and chances for survival, including having ample high-quality soil, space for root growth, and reliable irrigation according to the needs of the species. Trees should be planted in continuous trenches where possible. The city or county shall have minimum standards for tree planting no lower than the 2021 American National Standards Institute A300 standards.

Finding 41: Amendments to the SDC 4.4.105(E)(4)(a-e) incorporate these requirements to comply with this section of the OARs. However, OAR 660-012-0405(a)(4)(D) allowing developer to provide a mixture of climate mitigation actions under OAR 660-012-0405(a)(4)(A-C) was deemed unclear and will lead to issues between the City of Springfield and developers. The

three options in paragraph A through C provide developers the clearest path when constructing new off-street parking lots over ½ acre in size.

Finding 42: Amendments to SDC 4.6.125(D)(7) incorporate OAR 660-01-0405(4)(c) to include pedestrian connections throughout large parking lots as well as connections to the public rights-of-way and transit stops.

Finding 43: Additionally, the language within OAR 660-012-0405(4)(c) is not clear and objective regarding large parking lots and residential development, "…except where not practical due to site-specific conditions." An addition to the Minor Variance, Applicability, SDC 5.21.110, was incorporated to require a Type 2 review when the minimum connections cannot be provided on-site.

OAR 660-012-0405(5) Cities and counties shall establish off-street parking maximums in appropriate locations, such as downtowns, designated regional or community centers, and transit-oriented developments.

Finding 44: SDC 4.6.125(C) established a citywide off-street parking maximum of 125 percent of the suggested parking table, Table 4.6.2. Additionally, a provision was added to authorize an alternative parking standard above the 125 percent based on the ITE Manual of Transportation Engineering Studies and prepare by a licensed engineer.

OAR 660-012-0410(2) Cities shall ensure new development supports electric vehicle charging pursuant to amendments to the state building code adopted pursuant to ORS 455.417.

Finding 45: The Building Code, updated in 2021, requires all commercial buildings under private ownership and multifamily residential and mixed-use buildings with five or more residential units to provide no less than 20 percent of the vehicle parking spaces with electric vehicle charging infrastructure.

OAR 660-012-0410(3) As authorized in ORS 455.417(4), for new multifamily residential buildings with five or more residential dwelling units, and new mixed-use buildings consisting of privately owned commercial space and five or more residential dwelling units, cities shall require the provision of electrical service capacity, as defined in ORS 455.417, to serve 40 percent of all vehicle parking spaces.

Finding 46: The provision to serve 40 percent of all vehicle parking was incorporated in SDC 4.6.125(D)(3).

VI. CONCLUSION

Based upon the evidence above and the criteria of SDC 5.6.115 for approving amendments to the Springfield Development Code, the text amendments to the Springfield Development code are consistent with these criteria.

CITY OF SPRINGFIELD, OREGON
ORDINANCE NO. 6466 (GENERAL)

AN ORDINANCE AMENDING THE SPRINGFIELD DEVELOPMENT CODE TO CORRECT MINOR ERRORS AND OMISSIONS IN ORDINANCE 6443, ADOPTING A SAVINGS CLAUSE AND A SEVERABILITY CLAUSE, AND PROVIDING AN EFFECTIVE DATE

WHEREAS, Springfield City Council adopted the Springfield Development Code (SDC) on May 5, 1986, and has subsequently adopted amendments thereto by ordinance;

WHEREAS, Springfield City Council adopted a significant update to the Springfield Development Code by Ordinance 6443 on May 16, 2022, for the purpose of resolving internal inconsistencies and outdated code provisions while implementing existing goals and policies in the Metro Plan and Springfield 2030 Comprehensive Plan;

WHEREAS, Ordinance 6443 included some unintentional omissions, inaccurate references, and errors, which require adoption of amendments to correct the Springfield Development Code;

WHEREAS, the Springfield and Lane County Planning Commissions conducted a joint public hearing on the Springfield Development Code amendments on August 1, 2023, and forwarded recommendations to the Springfield City Council and Lane County Board of Commissioners to approve the proposed amendments;

WHEREAS, the Springfield City Council held a joint public hearing with the Lane County Board of Commissioners on these amendments on November 6, 2023, and is now ready to act based upon the above recommendations and evidence and testimony already in the record and the evidence and testimony presented at the joint elected officials' public hearing;

WHEREAS, timely and sufficient notice of the public hearings have been provided according to SDC 5.1.615 and OAR 660-018-0020; and

WHEREAS, substantial evidence exists within the record to demonstrate that the Springfield Development Code amendments meet the requirements of the Springfield Comprehensive Plan, Metro Plan, Springfield Development Code, Lane Code, and applicable state and local law as described in the findings attached as Exhibit B,

NOW, THEREFORE, THE COMMON COUNCIL OF THE CITY OF SPRINGFIELD ORDAINS AS FOLLOWS:

Section 1. The Springfield Development Code is amended as provided in Exhibit A, which is attached hereto and incorporated herein by reference.

Section 2. The findings set forth in Exhibit B are adopted as findings in support of this Ordinance.

Section 3. Construction of Ordinance. In amending the Springfield Development Code, it is not the intent of the City of Springfield to create new land use regulations that give rise to Ballot Measure 49 claims or similar claims. In the event that a land use regulation amended as described herein is capable of two interpretations, one which may give rise to a claim for compensation pursuant

to ORS 195.300 to 195.336 or similar claims, and one which does not, the land use regulation must be interpreted in a way that does not give rise to said claim.

Section 4. Savings Clause. Except as specifically amended herein, the Springfield Development Code will continue in full force and effect. The prior code and land use regulations repealed or amended by this Ordinance remain in full force and effect to authorize prosecution of persons in violation thereof prior to the effective date of this ordinance.

Section 5. Severability Clause. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is, for any reason, held invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portion hereof.

Section 6. Effective Date. The effective date of this Ordinance is as provided in the Chapter IX of the Springfield Charter and Section 2.110 of the Springfield Municipal Code, 30 days from the date of passage by the Council and approval by the Mayor; or upon the date that an ordinance is enacted by the Lane County Board of Commissioners approving the same amendments as described in Section 1 of this Ordinance; or upon acknowledgment of this ordinance under ORS 197.625; whichever occurs last.

ADOPTED by the Common Council of the City of Springfield this **20** day of **November**, **2023**, by a vote of **5** for and **0** against. **(1 Absent - Blackwell)**

APPROVED by the Mayor of the City of Springfield this **20th** day of **November**, **2023**.

Mayor

ATTEST:

City Recorder

REVIEWED & APPROVED
AS TO FORM
Kristina Kraaz
DATE: 11/20/2023
SPRINGFIELD CITY ATTORNEY'S OFFICE

Legislative Version of Amendments to the Springfield Development Code to Correct Errors and Provide Clarification

AMENDMENTS
Various Sections of the Springfield Development Code (SDC) are amended to correct errors and provide clarification. The proposed amendments are shown in legislative format (deleted text with ~~strike-thru red~~ font and new text with double underline red font). For ease of review, this legislative format does not show where code language was moved from one place to another. Commentary is shown in *purple italics font*, preceding the text to which it is referring.

COMMENTARY: This change is to clarify this section.

3.2.225 Lot Coverage and Impervious Surface Standards.

(A) Lot Coverage and ~~the amount of~~ Impervious ~~s~~Surface, may not exceed the standards listed in SDC 3.2.225. Stormwater treatment facilities required under SDC 4.3.110 or other development standards may result in less impervious surface area than these maximums.

COMMENTARY: Correct the sentence to remove typographical error and clarify that a garage can also be off street parking.

3.2.255 Triplex and Fourplex.

(C) **Garages and Off-Street Parking Areas.** Garages and off-street parking areas must not be located between a building and a public street (other than an alley), except in compliance with the standards in subsections (C)(1) and (2) below.

(1) The garage ~~of~~ or other off-street parking area is separated from the street property line by a dwelling; or

(2) The combined width of all garages and outdoor on-site parking and maneuvering areas does not exceed a total of 50 percent of the street frontage.

COMMENTARY: Provide correct reference. Existing SDC section is incorrect/outdated.

3.2.275 Accessory Dwelling Unit (ADU).

(D) Review. An accessory dwelling unit is reviewed under Type 1 procedure except in some cases in the Historic Overlay District or except as provided in SDC ~~3.2.275(F) and SDC 3.2.275(H)(3)~~ 3.2.275(G)(3) when the accessory dwelling unit is reviewed under a Type 2 procedure.

COMMENTARY: Existing SDC section is incorrect/outdated and not necessary. Removed for clarification.

(G) Design Standards. An accessory dwelling unit within or attached to the main dwelling must either match the primary dwelling or meet the alternative standards. A newly constructed detached accessory dwelling unit must match the primary dwelling, meet clear and objective standards, or meet the alternative standards. Conversion of a structure ~~permitted under SDC 4.7.105(A)~~ to an accessory dwelling unit is not required to meet the design standards and may be approved under a Type 1 procedure; however, exterior alterations such as those necessary to meet building codes must meet relevant design standards below (match primary dwelling or meet clear and objective standards).

COMMENTARY: Table 3.2.320 for Permitted Uses, under the "Industrial" heading, for the use of "Manufacturing or assembly of goods or products to be sold on premises" the applicable code standard reference should be SDC 4.7.175.

SDC 3.2.300 – Commercial Districts. Table 3.2.320 Permitted Uses

Land Use	NC	CC	MRC	GO	Applicable code standards
Industrial					
Manufacture or assembly of goods or products to be sold on premises	N	P*	N	N	SDC ~~4.7.145~~ 4.7.175
Warehouse and Wholesale Sales	N	P*	N	N	SDC ~~4.7.245~~ 4.7.175

COMMENTARY: Table 3.2.320 for Permitted Uses. Instead of deleting this reference, it should be changed to "SDC 4.7.320" instead. This applicable code standard is only applicable to the GO land use district.

3.2.320 Permitted Uses.

Other					
Secondary Use (as defined)	P	D	D	P*	SDC ~~4.7.145~~ 4.7.320

* Permitted subject to cited code standards.

COMMENTARY: SDC 3.2.325(B)(3)(a)(i)(A) for building setbacks needs to be modified. The current code setback requirement is 10 feet for all setbacks (front, side, rear, etc.). In the code prior to the comprehensive update in 2022, this 10-foot setback requirement was only applicable to "front, street side yead, and through lot rear yard" setbacks. Also, language was left out for "interior side, rear yard setbacks when abutting residential or CI Districts", these setbacks should be 10 feet. This change will allow the previous zero setback for side and rear yards.

3.2.325 Development Standards.

(B) Setbacks.

(1) Setbacks provide separation between commercial and non-commercial uses for fire protection/security, building maintenance, sunlight and air circulation, noise buffering, and visual separation. All developments must meet applicable fire and building code standards, which may require greater setbacks than those listed in this section (e.g., for combustible materials, etc.).

(2) Required setbacks are measured from the special street setback in SDC 4.2.105(N), where applicable.

(3) The following setback standards apply to all structures, except as otherwise provided by this section.

(a) Front, Street Side Yard, and Through Lot Rear Building Setback.

(i) All commercial districts (NC, CC, MRC, and GO).

A. The minimum building setback is 10 feet.

(b) Interior Side, Rear Yard Building Setback.

(i) All commercial districts (NC, CC, MRC, and GO)

A. The building setback is zero, except when abutting residential or CI district, the building setback is 10 feet.

(c) Parking, Driveway, or Outdoor Storage Setback.

(i) Neighborhood Commercial. The minimum yard setback for parking, driveway, or outdoor storage is 7 feet from any property line.

(ii) Other commercial districts (CC, MRC, and GO). The minimum yard setback for parking, driveway, or outdoor storage is 5 feet from any property line.

(dc) Setback Exceptions.

(i) There are no setbacks required for buildings in the Downtown Exception Area.

(ii) Architectural extensions may extend into any 5-foot or larger setback by no more than 2 feet.

Table 3.2.325(B) summarizes the above setback standards.

Table 3.2.325(B) Setback Standards				
Development Standard	**NC**	**CC**	**MRC**	**GO**
Front, Street Side Yard, and Through Lot Rear				

Building Setback	10 feet	10 feet	10 feet	10 feet
Setback for parking, driveway, or outdoor storage	7 feet	5 feet	5 feet	5 feet
Interior Side, Rear Year Setbacks				
Building setback	0 feet	0 feet	0 feet	0 feet
Setback for parking, driveway, or outdoor storage	7 feet	5 feet	5 feet	5 feet
Interior Side, Rear Year Setbacks when abutting residential or CI district				
Building setback	10 feet	10 feet	10 feet	10 feet

COMMENTARY: Existing SDC reference is incorrect; removed for clarification. Provide correct zoning district at the end of the table.

3.2.420 Permitted Uses.

Other					
~~*~~Secondary Use (as defined)	P	D	D	D	~~SDC 4.7.240~~
~~*~~Accessory Use (as defined)	P	P	P	P	~~SDC 4.7.240~~

* Permitted subject to cited code standards; In the SH~~M~~I District, the standard is found in SDC 3.2.425(A)(1).

COMMENTARY: The Campus Industrial Code was inadvertently left out of the Development Code Update ordinance in 2022. The City Attorney's Office deemed the oversight a scriveners error that was not intended to repeal the CI provisions (see the editor's note in the existing online code), but recommends re-adopting these sections, to remove any doubt as to their effectiveness.

There are some changes that were not presented to the Planning Commission being shown for consistency with other changes and references, otherwise this is the same code language that is currently published as part of the development code.

3.2.430 CI District—Operational Performance Standards

The operational performance standards listed below apply to all uses permitted within the CI District. For permitted light industrial manufacturing uses, compliance with these operational performance standards shall be the determining factor. In all other cases, the use lists in SDC 3.2.420 are the determining factor.

(A) All manufacturing operations shall be entirely enclosed within a building.

EXCEPTION: The Director may allow an outdoor utility yard to store tanks containing gases and/or fluids that are essential to the operation of the permitted use that cannot otherwise be contained in an enclosed building for fire and life safety reasons, as determined by the Fire Marshall. The utility yard shall be screened from public view by a masonry or decorative concrete wall at least 8 feet in height that is an extension of the building, complements the façade of the building and meets the setback requirements specified in SDC 3.2.425.

(B) All applicable on-site design standards specified in SDC 3.2.450 shall be met

(C) The storage of raw materials and/or finished products shall occur entirely within enclosed buildings. The parking of trucks necessary for the operation of the facility shall also occur within enclosed buildings, unless permitted as specified in SDC 4.6.125 and SDC 3.2.450(C).

(D) Office and commercial uses shall not primarily serve the public.

(E) The movement of heavy equipment on or off the site shall not be permitted.

EXCEPTION: Truck deliveries and shipments are permitted;

(F) Proposed uses not listed as permitted uses in SDC 3.4.420 are not be permitted.

(G) Proposed uses shall also comply with the additional operational performance standards listed below. The intent is not to specifically deny a use, but ensure compliance with applicable local, State, and Federal regulations. Compliance with these operational performance standards are the continuing obligation of the property owner. Failure to comply with these operational performance standards shall be a violation of this Code and/or Chapter 5 of the Springfield Municipal Code, 1997.

(1) Air pollution. Air pollution includes, but is not limited to, emission of smoke, dust, fumes, vapors, odors, and gases. Air pollution shall not be discernable at the property line by a human observer relying on a person's senses without the aid of a device. The applicant shall obtain and maintain all applicable licenses and permits from the appropriate local, State, and Federal agencies.

EXCEPTION: Water vapor or other benign plumes from processes or pollution control equipment shall not be considered air pollution.

(2) Fire and explosive hazards. All activities involving the use, storage and/or disposal of flammable or explosive materials shall comply with the Uniform Fire Code as most recently adopted by the City.

(3) Glare.

(a) Glare resulting from exterior lighting, excluding low-intensity pedestrian-level lighting, shall be controlled by deflecting light away from abutting uses and from public rights-of-way as specified in SDC 4.5.100.

(b) Glare resulting from an industrial operation including welding or laser cutting shall not be visible from the outside of the building.

(4) Groundwater Protection. Proposed development utilizing hazardous materials that may impact groundwater quality shall be as specified in SDC 3.3.200.

(5) Hazardous Waste. Proposed development shall not utilize or produce hazardous waste unless permitted as specified in Oregon Administrative Rule (OAR) 340-102-0010 through 340-102-0065 or any applicable Federal regulation.

(6) Noise. These standards apply to noise generated by any machinery or equipment on the development site. The maximum permitted noise levels in decibels across lot/parcel lines and district boundaries shall be as specified in OAR 340-035-0035, Noise Control Standards for Industry and Commerce.

EXCEPTION: Excluded from these noise standards are background traffic on State highways and public streets and occasional sounds generated by temporary construction activities, truck deliveries, warning devices, or other similar temporary situations.

(7) Radiation. There are various sources of radiation, including, but not limited to ionizing radiation, electromagnetic radiation, and radiation from sonic, ultrasonic, or infrasonic waves. Uses that involve radiation shall comply with the regulations in OAR 333-100-0001 through 333-100-0080 and any applicable Federal regulation.

(8) Vibration. No use, other than a temporary construction operation, shall be operated in a manner that causes ground vibration that can be measured at the property line. Ground-transmitted vibration shall be measured with a seismograph or a complement of instruments capable of recording vibration displacement, particle velocity, or acceleration and frequency simultaneously in 3 mutually perpendicular directions.

(H) Warehousing is permitted only as a secondary use in the following circumstances:

(1) For the storage and regional wholesale distribution of products manufactured in the CI District;

(2) For products used in testing, design, technical training or experimental product research and development in the CI District; and/or

(3) In conjunction with permitted office-commercial uses in the CI District.

(4) The secondary use status of warehousing is typically determined by a square footage standard which is less than 50 percent of the gross floor area of the primary use. In the CI District, the number of employees at the time of occupancy may also be used to determine secondary use standards status. In this case, the primary use must have 20 or more employees and the warehousing use must have fewer employees than the primary use. If the employee standard is met, the warehousing use may have more square footage than the primary use.

3.2.435 CI District—Monitoring Uses

A. CI District uses shall be monitored by implementing a Pre-certification process. The purpose of Pre-certification is to determine whether a proposed use us, in fact, a permitted use within the CI District. Pre-certification applies to all new uses and any change of use in the CI District.

B. The Director shall review the proposed use prior to the submittal of a development application or in some cases, a building permit. The Director shall consider both the permitted uses and the operational performance standards specified in SDC 3.2.415 and SDC 3.2.425. If the Director does not approve the Pre-certification, the applicant may submit a request in writing to the Director to make a determination that the proposed use is similar to a permitted use. If the Director cannot make a determination that the proposed use is similar to a permitted use, the applicant may apply for an Interpretation as specified in SDC 5.11.100. After Pre-certification by the Director, the form will be kept on file in the Development and Public Works Department to be used for continued compliance with SDC 3.2.420.

3.2.440 CI District—Status of Existing Uses

Unless existing uses are on the prohibited use list specified in SDC 3.2.420 after July 6, 2004, existing uses have status as specified below. The intent is that the existing uses do not become non-conforming uses.

(A) Corporate headquarters that are located outside of a business park including, Pacific Source, Symantec, and Holt International are permitted primary uses. If these uses own or have options on adjacent property for future expansion, they may expand without the need to be located within a business park.

(B) Large-scale light industrial manufacturing buildings may be reused for permitted office/commercial uses as long as these uses do not exceed 50 percent of the gross floor area of the building. In addition, warehousing may occur as specified in SDC 3.2.420.

EXCEPTION: For SONY, reuse may include any permitted use in the CI District. If no large- or medium-scale light industrial manufacturing use is proposed, conversion to a business park is permitted. The SONY site may also use the excess facility capacity as a private utility to serve other properties in the vicinity.

(C) Stand-alone day care centers that primarily serve CI District businesses are a permitted secondary use.

(D) Permitted stand alone office/commercial uses outside of business parks are a permitted primary use.

(E) Significant Goal 5 historic resources, including the Brabham farm, the Koppe farm, and the Rice farm, may continue as a residential use or as any permitted commercial use. Any external modifications to these structures shall be as specified in SDC 3.3.900.

3.2.445 CI District—Conceptual Development Plans and Master Plans

A Conceptual Development Plan is required for all new CI Districts over 50 acres in size approved after July 6, 2004, unless a Site Plan or Master Plan is proposed for the entire CI District. A Master Plan may be submitted when phased developments exceeding 3 years in duration are proposed. A Master Plan shall comply with any applicable approved Conceptual Development Plan or upon approval of a Master Plan or Site Plan for the entire CI District, the Master Plan or Site Plan may supplant and take precedence over an approved Conceptual Development Plan. Master Plan approval for a CI District site shall be as specified in SDC 5.13.100.

3.2.450 CI District—Design Standards

In the CI District, new buildings; expansions of, or additions to existing buildings; or improvements to existing façades that require a building permit shall provide architectural designs that encourage flexibility and innovation in site planning by complying with the following on-site design standards:

(A) Building Exteriors. In order to break up vast expansions of single element building elevations applicable to both length and height, building design shall include a combination of architectural elements and features, including, but not limited to: offsets, windows, entrances, and roof treatments.

(1) Offsets. Offsets shall occur at a minimum of every 100 feet of lineal building wall by providing recesses or extensions with a minimum depth of 4 feet.

EXCEPTION: Variations in building wall materials, including, but not limited to: wood siding, brick, stucco, textured concrete block, tile, glass, stone, or other suitable materials may be used instead of offsets.

The Director, in consultation with the Building Official, may approve other suitable materials without the need for a Variance. Smooth-faced concrete panels or prefabricated steel panels may also be used as accents, but shall not dominate the building exterior. Exterior colors for buildings and fences shall be subdued or earth tones.

(2) Windows. Ground floor windows are required for all office and commercial uses, including those office and commercial uses that are contained within light industrial manufacturing uses. Ground floor windows for the remainder of a light industrial building are optional. All elevations of office and commercial buildings abutting any street shall provide at least 50 percent of their length (e.g., a 100-foot-wide building façade shall have a total of at least 50 linear feet of windows) and at least 25 percent of the ground floor wall area as windows and/or doors that allow views into lobbies, merchandise displays, or work areas. On corner lots/parcels this provision applies to both elevations. Where upper story windows are proposed, either awnings, canopies, or other similar treatments shall be required for ground floor windows or variations in window materials, trim, paint or ornamentation may be used.

EXCEPTIONS:

(a) A mural, that does not include any advertising, may be used to meet 50 percent of the ground floor window standard specified in Subsection 2., above. Murals are regulated under Chapter 8.234 of the Springfield Municipal Code, 1997.

(b) Building elevations adjacent to alleys or vehicle accessways used primarily for servicing and deliveries are exempt from this standard

(3) Entrances. To the greatest extent practicable, all new buildings in the CI District shall be oriented toward both exterior and internal streets.

(a) The primary entrance to all buildings in the CI District shall be visible from the street; and

(b) A weather-protected area, including, but not limited to: awnings or canopies, at least 6 feet wide, shall be provided at all public entrances.

(4) Roof Treatments. The following roof treatments are required.

(a) Sloped roofs and multiple roof elements shall be the primary methods for roof treatment. Variations within one architectural style; visible roof lines and roofs that project over the exterior wall of a building enough to cast a shadow on the ground and architectural methods used to conceal flat roof tops may also be used. Mansard style roofs shall not be permitted. If building wall offsets are used, offsets or breaks in roof elevation with a minimum of 3 feet or more in height may be used for every 100 feet of lineal building wall.

(b) The architectural design of the building roof shall also incorporate features which screen all heating, ventilation and air conditioning units

from adjacent R-1 and R-2 properties and the street. Mechanical equipment shall also be buffered so that noise emissions do not exceed the standards specified in SDC 3.2.430(G)(6). The City may require a noise study certified by a licensed acoustical engineer for compliance verification.

(B) Landscaping. The following landscaping standards are in addition to standards specified in SDC 4.4.105:

(1) A minimum of 35 percent of each development area shall be landscaped open space.

(2) Plants shall be sized to attain 90 percent coverage of required landscape areas (excluding tree canopies), within 3 years of installation. Plantings of native species and plant communities shall achieve 90 percent coverage within 5 years of installation.

(3) At least 10 percent of the interior of a parking lot having 20 or more parking spaces shall be landscaped. This standard is in addition to any landscaping setbacks required in SDC 3.2.425.

(4) Natural assets identified in the Gateway Refinement Plan, any other applicable refinement plan or elsewhere in this Code shall be included in the site design and protected. Where protection of these natural assets prevents the development of the site consistent with this Code, the functional equivalent of the natural assts may be substituted as may be allowed by the City.

(C) Screening. Screening shall be as specified in SDC 4.4.110. In addition, truck parking for vehicles necessary for the operation of the facility shall be screened by a masonry or concrete wall that is an extension of the building and complements the façade of the building. The wall shall have a minimum height of 8 feet. The wall shall totally conceal trucks from public view and shall meet the setback requirement specified in SDC 3.2.425.

EXCEPTION: The Director may consider proposed truck parking that is enclosed by buildings and complies with SDC 4.6.125.

(D) Pedestrian Walkways and River Access

(1) Walkways from a sidewalk to building entrances. A continuous pedestrian walkway shall be provided from the primary frontage sidewalk for pedestrians to access building entrances.

(2) Walkways from parking lots to building entrances. Internal pedestrian walkways shall be developed for persons who need access to the buildings from the parking lots. The walkways shall be located within the parking lots and designed to provide access from the parking lots to the entrances of the buildings. The

walkways shall be distinguished from the parking and driving areas by use of any of the following material: special pavers, brick, raised elevation, scored concrete or other materials as approved by the Director.

(3) In the Gateway CI District, access to the McKenzie River, both for pedestrians and bicycles, shall be addressed in the site design, where specified in the applicable refinement plan or Springfield Transportation System Plan.

(E) Transit Stations and Stops. When required, transit stations and stops shall conform to the standards of the Lane Transit District.

3.2.455 Business/Industrial Parks

(A) Development plans submitted as part of a Business/Industrial Park Site Plan Review application shall be prepared by a design team comprised of a project architect, engineer, and landscape architect, 1 of whom shall serve as the project coordinator. The design team shall certify that building, elevation, site, and landscape plans submitted in connection with the Site Plan Review application comply with the on-site design standards specified in SDC 3.2.450 and any other applicable CI District provisions.

(B) Subdivisions in the LMI District shall conform to Industrial Park standards

(1) Development plans submitted as part of an Industrial Park Site Plan Review application shall be prepared by a design team comprised of a project architect, engineer, and landscape architect, one of whom shall serve as coordinator. The design team shall certify that building, site, and landscape plans submitted in connection with the Site Plan Review and Building Permit applications comply with applicable SDC provisions and conditions of approval.

(2) Buildings and uses within an Industrial Park shall be approved as specified in the criteria specified below:

(a) The proposed development is of general design character, (including, but not limited to: anticipated building design, type, location, setback, bulk, height, signage, and distribution of landscaped area, parking, streets and access) which will not create problems for the appropriate development of neighboring properties.

(b) The proposed development will create an attractive, safe, efficient, and stable internal environment.

(C) Proposed buildings, streets and other uses will be designed and sited to ensure preservation of significant on-site vegetation, topographic features, and other unique or worthwhile natural features, and to prevent soil erosion or flood hazard.

COMMENTARY: Existing SDC references are incorrect; removed for clarification and corrected. Removed refence to Maximum Shade Point as the section is no longer in the development code. Provide correct reference to Zoning Code District following previous code change.

3.2.615 Base Zone Mixed-Use Development Standards.

The following base zone mixed-use development standards are established.

Development Standard	***MUC***	***MUE***	***MUR***
Minimum Area	6,000 square feet	10,000 square feet	See SDC 3.2.215
Minimum Street Frontage**(1)**	40 feet	75 feet	See SDC 3.2.215
Maximum Lot/Parcel Coverage	Lot/parcel coverage standards in the MUC and MUE Districts are limited only by standards (including, but not limited to: parking, landscaping) specified in SDC 4.4.105 and 4.6.100. Generally, there is no maximum lot/parcel coverage standard.		45%
Minimum Landscaping	Minimum requirements defined by standards in other sections of this code.		
Landscaped Setbacks(2), (3), (4) and (5)			
Front, Street Side Yard, and Through Lot/Parcel Rear Yard			
Building Setback	None	10 feet	See SDC ~~3.2.215~~ 3.2.220
Parking, driveway, and outdoor storage setback	5 feet	5 feet	See SDC ~~3.2.215~~ 3.2.220
Interior Side, Rear Yard Setbacks when Abutting Residential or CI Districts			
Building Setback	10 feet	10 feet	See SDC ~~3.2.215~~ 3.2.220
Parking, Driveway, Outdoor Storage Setback	5 feet	5 feet	See SDC ~~3.2.215~~ 3.2.220
Maximum Building Height(6**)**			
Maximum unless abutting residential districts (See below)	90 feet	60 feet	60 feet
~~When abutting an LDR, MDR, or MUR District to the north~~	~~Defined by the Maximum Shade Point Height requirement of SDC 3.2.225(A)(1)(b), or up to 50 feet south of a northern lot/parcel line a plane extending south with an angle of 23 degrees and originating from the top of~~		~~See SDC 3.2.225~~

Development Standard	***MUC***	***MUE***	***MUR***
	~~a 16 foot hypothetical fence located on the northern lot/parcel line.~~		
When abutting an ~~LDR~~R-1, ~~MDR~~R-2, or MUR District ~~to the east, west, or south~~	No greater than that permitted in the ~~LDR~~ R-1 or ~~MDR~~ R-2 Districts for a distance of 50 feet from the abutting R-1, R-2, or MUR District.		See SDC ~~3.2.225~~ 3.2.230

COMMENTARY: Modify existing language for clarification.

3.3.810 Applicability.

(B) EXCEPTIONS:

(2) The UF-10 Overlay District ~~shall~~ will cease to apply to a property upon annexation to the City.

COMMENTARY: Existing language is incorrect/outdated. Revised for clarification.

3.3.820 Review.

(A) The siting of single-unit dwelling detached, ~~dupleses~~ duplexes, and accessory dwelling units in the UF-10 Overlay District that require a Future Development Plan as specified in SDC 5.12.120(E) ~~shall be~~ is reviewed under Type 1 procedure.

COMMENTARY: The term "bed and breakfast" was removed from the code with the 2022 development code update project. The term was replaced with "Short Term Rental". This reference was missed and is being revised for clarification.

3.3.935 Schedule of Use Categories.

(B) The Washburne Historic Landmark District. To encourage investment in the historic restoration of existing homes, limited small-scale businesses shall be considered in residential districts. These businesses may operate out of a home, provided that the residential character of the neighborhood and the integrity of the Historic Landmark Site or Structure is not substantially altered. Therefore, in addition to uses permitted in the underlying residential district, the following additional uses may be permitted subject to the Specific Development standards

of subsection (C), below and the provisions, additional restrictions and exceptions specified in SDC 3.3.900—3.3.950.

(4) ~~Bed and breakfast facilities~~ Short Term Rental.

COMMENTARY: Correct the sentences to remove typographical errors. The 32 feet in SDC 4.2.120(2)(b) should read 30 feet to match the number in Table 4.2.2 below and the driveway separation in the Industrial district should read 18' instead of 8' in the table.

4.2.120 Site Access and Driveway Standards.

(A) Site Access and Driveways—General.

(2) Single-unit detached dwellings and middle housing with frontage on a local street may have 2 or more driveway accesses from the local street as follows:

(a) One driveway access that meets the~~at~~ standards in SDC Tables 4.2.2 through 4.2.5 is permitted per dwelling unit, including accessory dwelling units. These driveway accesses may be combined or consolidated.

(b) The lot or parcel may have 1 additional driveway serving an accessory structure, rear yard, or side yard that meets the standards in SDC Tables 4.2.2 through 4.2.5. The total driveway width across any frontage with 2 or more driveways must not exceed ~~32~~30 feet.

Table 4.2.2

Driveway Design Specifications					
Land Use	**Driveway Width**		**Transition Width**	**Driveway Separation**	**Paving Distance (2)(3)**
Single unit dwellings, duplexes and middle housing	12′ minimum if serving 1 dwelling unit; 18′ minimum if serving 2 or more dwelling units 30′ maximum or 50% property frontage maximum, whichever is less		3′ required	1′ minimum between outside edge of transitions No maximum	18′ from property line minimum
Land Use	**1-Way Driveway Width**	**2-Way Driveway Width**	**Transition Width**	**Driveway Throat Depth (1)**	**Paving Distance (2)**
Multiple Unit Housing and Manufactured Dwelling Parks	12′ min. 18′ max.	24′ min. 35′ max.	5′ min. 8′ max.	18′ min. No max.	Entire length of driveway

Commercial/Public Land	12′ min. 18′ max.	24′ min. 35′ max.	8′ min. No max.	18′ min. No max.	Entire length of driveway
Industrial	12′ min. 18′ max.	24′ min. 35′ max.	8′ min. No max.	18′ min. No max.	Up to employee or customer parking area at minimum

COMMENTARY: Existing citation is incorrect/outdated. Revised for clarification. Section 4.3.110(6) – Identification of Water Quality Limited Watercourses and (7) Protection of Riparian Area Functions was moved to 4.3.115(B) and (C) respectively with the Springfield Post-Construction Stormwater Requirements Update project. Therefore, the correct reference is 4.3.115(C).

4.3.115 Water Quality Protection.

(A) When addressing criterion (E) as specified in SDC 5.12.125, for Land Divisions, and SDC 5.17.125 for Site Plan Review to protect riparian areas along watercourses shown on the Water Quality Limited Watercourses (WQLW) Map, the following riparian area boundaries must be utilized:

(2) Along all watercourses shown on the WQLW Map with average annual stream flow less than 1,000 CFS the riparian area boundary is 50 feet landward from the top of the bank. Existing native vegetative ground cover and trees must be preserved, conserved, and maintained both between the ordinary low water line and the top of bank and 50 feet landward from the top of bank.

(a) For all watercourses subject to SDC 4.3.115(A)(2), other than the Mill Race or Cedar Creek, the 50-foot riparian area standard may be reduced to 35 feet, provided an equivalent amount and function of pervious land is established elsewhere on the property that utilizes water quality measures including, but not limited to: wetlands; bioswales; and additional trees, especially in parking areas, exclusive of otherwise required water quality measures and landscape areas. The applicant has the burden of proof to demonstrate, to the satisfaction of the Director, equivalency in relation to both the amount of pervious land (as specified above) and riparian area function (as specified in SDC ~~4.3.110(G)~~ 4.3.115(C)).

(C) For protection of water quality and protection of riparian area functions as specified in SDC ~~4.3.110~~ 4.3.115(C), the following standards apply:

COMMENTARY: Existing citation is incorrect/outdated; removed for clarification.

4.4.115 Fences.

(A) General. Fences must not exceed the height standards in Table 4.4.1 and must be located as provided in this SDC 4.4.115. In mixed use districts or any land use district not specified in Table 4.4.1, the applicable fence standards in Table 4.4.1 must be determined based on the primary use in the development area, unless another standard is specified elsewhere in this code.

(1) Fence height is measured from the average height of the grade adjacent to where the fence is to be located. If a fence is to be constructed on top of a berm, the height is measured from the top of the berm.

(2) Fences must be permitted as specified in the screening standards in SDC 4.4.110. Where permitted in the commercial, industrial, mixed use employment and the PLO Districts, outdoor storage of materials must be screened by a 100 percent sight obscuring fence when abutting residential districts along common property lines. Partial screening along rights-of-way and non-residential districts may be permitted when necessary for security reasons.

(B) Review Procedure.

(1) A construction permit is required for fences over 6 feet in height, in addition to any other permits or approvals required by this code.

(2) Fences within the Willamette Greenway Setback area are reviewed under Discretionary Use procedure for fences as specified in SDC 5.9.120 ~~and as required in SDC~~ 3.3.225.

COMMENTARY: Existing citation is incorrect/outdated; revised to be consistent with SDC 3.2.415(E) Warehouse and Wholesale Sales.

4.7.245 Warehouse ~~Commercial Retail~~ and Wholesale Sales.

COMMENTARY: Existing citation is incorrect. Revised for clarification to read 0.2 rather than 2 foot-candles.

4.7.380 Multiple Unit Housing (Clear and Objective Standards).

(C) **Development Standards for Multiple Unit Housing Developments in the R-2 and R-3 Districts.** The following standards apply to multiple unit housing developments unless otherwise stated. These standards do not apply to Cottage Cluster Housing developments.

(6) Pedestrian Circulation. Multiple unit housing developments with more than 20 units must provide pedestrian circulation as specified in the following standards.

(h) All on-site internal sidewalks must be lighted to a minimum of 0.2 foot-*candles*.

COMMENTARY: The Development Code Update project removed the Final Site Plan Equivalent process and added the term Short-Term Rental. The reference to Final Site Plan Equivalent has been removed and the applicable SDC section for Short Term Rentals has been added.

5.1.1300 Summary of Development Application Types.

There are 4 types of procedures: Type 1, 2, 3, and 4. Table 5.1.1300 lists the City's development applications and their required types of procedure(s).

Type of Application	*Decision Type*	*Applicable SDC Sections*
Accessory Dwelling Unit	Type 1 or Type 2	3.2.275
Amendment of Development Code Text	Type 4	5.6.100
Amendment of Refinement Plan Text or Diagram	Type 4	5.6.100
Annexation	Type 4	5.7.100
Appeal of a Type II Director's Decision	Type 3	5.1.800
Appeal of Type III Decision to City Council	Type 4	5.1.800
Appeal of an Expedited Land Division	Type 3	5.12.240
Conceptual Development Plan	Type 3	Applicable Section
Conceptual Development Plan Amendment	Type 3	Applicable Section
Demolition of Historic Landmark	Type 3	3.3.900
Determination of Nonconforming Use Status	Type 1	5.8.100
Development Initiation Meeting	Type 1	5.1.210
Discretionary Use	Type 3	5.9.100
Drinking Water Protection Overlay District Development	Type 1	3.3.200
Duplex and Detached Single-Family Dwelling Design Standards	Type 1	3.2.245
Emergency Medical Hardship	Type 2	5.10.100
Establishment of Historic Landmark Inventory	Type 3	3.3.900
Expansion/Modification of a Non-Conforming Use	Type 2	5.8.100
Expedited Land Division	Type 2	5.12.200
Extraterritorial Extension of Water or Sewer Service	Type 4	3.3.825
~~Final Site Plan *Equivalent*~~	~~Type 1~~	~~5.17.100~~

Type of Application	*Decision Type*	*Applicable SDC Sections*
Final Site Plan Review/Development Agreement	Type 1	5.17.100
Floodplain Development	Type 1	3.3.400
Hillside Development Overlay District	Type 2	3.3.500
Historic Commission Review—Major Alteration	Type 2	3.3.900
Historic Commission Review—Minor Alterations	Type 1	3.3.900
Home Business	Type 1	4.7.365
HS Hospital Support Overlay District	Type 2	3.3.1100
Interpretation involving policy	Type 4	5.11.100
Interpretation not involving policy	Type 3/no formal review	5.11.100/3.4.260
Land Use Compatibility Statement	Type 1	3.1.100
Major or Minor Replat Tentative Plan	Type 2	5.12.100
Major or Minor Replat Plat	Type 1	5.12.100
Major Variance	Type 3	5.21.100
Manufactured Dwelling Park	Type 2	4.7.345
Multiple Unit Housing Discretionary Review	Type 2 or Type 3	3.2.385
Multiple Unit Housing Variance	Type 2	3.2.390
Master Plan	Type 3	5.13.100
Master Plan Amendment	Various	5.13.100
Metro Plan Amendment Type 1 (text) or Type 2 (diagram)	Type 4	5.14.100
Middle Housing (Triplex, Fourplex, Cottage Cluster, Townhomes)	Type 3	3.2.250 to 3.2.265
Minimum Development Standards	Type 1	5.15.100
Minor Variance	Type 2	5.21.100
Partition Tentative Plan	Type 2	5.12.100
Pre-Application Report	Type 1	5.1.120
Property Line Adjustment—Single	Type 1	5.16.100
Property Line Adjustment—Serial	Type 2	5.16.100
Site Plan Modification—Minor	Type 1	5.17.100
Site Plan Review Modification—Major	Type 2	5.17.100
Site Plan Review	Type 2	5.17.100
Short Term Rental Type 1	Type 1	4.7.355
Short Term Rental Type 2	Type 3	4.7.355
Solar Access Protection	Type 2	5.18.100
Subdivision Tentative Plan	Type 2	5.12.100
Tree Felling Permit	Type 2	5.19.100
Vacation of Plats, Public Right-of-Way, or Other Public Property	Type 4	5.20.100
Vacation of Public Easements	Type 2	5.20.100

Type of Application	*Decision Type*	*Applicable SDC Sections*
Willamette Greenway Overlay District Development	Type 3	3.3.300/3.4.280
Wireless Telecommunications Systems Facilities	Type 1, 2, or 3	4.3.145
Land Use District Map Amendment	Type 3	5.22.100

COMMENTARY: Existing terminology is incorrect/outdated. Revised for clarification and to request that applicants attend Development Initiation Meetings.

5.7.120 Development ~~Issues~~ Initiation Meeting.

The applicant ~~shall~~ must schedule and attend a Development ~~Issues~~ Initiation Meeting prior to filing an annexation application where staff will inform the applicant of the annexation application submittal requirements and procedures specified in this section, unless waived by the Director.

COMMENTARY: Existing citation is incorrect/outdated. Revised for clarification.

5.7.125 Annexation Initiation and Application Submittal.

(A) An annexation application may be initiated by City Council resolution, or by written consents from electors and/or property owners as provided below.

(B) In addition to the provisions specified in SDC ~~5.4.105~~ 5.1.220, an annexation application ~~shall~~ must include the following:

COMMENTARY: Existing citation is incorrect/outdated. Revised for clarification.

5.12.225 Criteria of Approval—Middle Housing Land Division.

(A) The Director will approve a tentative plan for middle housing land division based on whether it satisfies the following criteria of approval:

(B) The application provides for the development of middle housing in compliance with SDC ~~4.7.315~~ 3.2.250 as applicable to the original lot or parcel.

COMMENTARY: The Development Code Update project removed the Final Site Plan Equivalent process, so this reference is being removed.

5.17.110 Applicability.

~~**(B)** Developed or partially developed industrial properties 5 acres or greater in size that have never obtained Final Site Plan Review approval prior to the adoption of this code may obtain Final Site Plan Equivalent Map approval as specified in SDC 5.17.135.~~

~~This approval is necessary to allow a property to complete a site plan modification process specified in subsection (C) below, or for future additions or expansions.~~

(B~~C~~) Existing lawfully developed sites that do not conform to the current standards of this code are only required to meet current standards on the portions of the site affected by the proposed alteration or expansion. Any alterations to the site must meet current code standards.

COMMENTARY: Update citations.

5.17.115 Submittal Standards.

(H) Phased Development Plan. The application must include a Phased Development Plan if phasing is proposed. The plan must indicate any proposed phases for development, including the boundaries and sequencing of each phase ~~as specified in SDC~~ 5.17.115. Phasing must progress in a sequence that promotes street connectivity between the various phases and accommodates other required public improvements, including but not limited to, sanitary sewer, stormwater management, water, and electricity. The Approval Authority may require the applicant to enter into an agreement for phased developments, and may require bonding or other assurances for improvements, in accordance with SDC 5.17.135(E)~~5.15.135, Bonding and Assurances for Development~~.

COMMENTARY: The definition of "Yard, Through-Lot/Parcel Rear Yard" has a minor typo in it that needs to be changed.

6.1.110 Definitions

> **Yard, Through-Lot/Parcel Rear Yard.** The first 10 feet of land paralleling street right-of-way ~~this~~ that is parallel to and most distant from the front yard property boundary used for address purposes.

STAFF REPORT and FINDINGS OF FACT

TYPE 4 – LEGISLATIVE AMENDMENT TO THE SPRINGFIELD DEVELOPMENT CODE

SPRINGFIELD CASE NUMBER:	811-23-000126-TYP4
PLANNING COMMISSIONS' HEARING DATE:	August 1, 2023
ELECTED OFFICIALS' HEARING DATE:	November 6, 2023
REPORT DATE:	September 20, 2023, revised November 9, 2023

PROJECT NAME:	Minor code changes to correct errors and provide clarification
AFFECTED AREA:	All property within Springfield's Urban Growth Boundary

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I. NATURE OF THE REQUEST

The City of Springfield seeks approval of amendments to the Springfield Development Code to make minor changes to correct errors and provide clarification.

II. BACKGROUND

The City of Springfield seeks approval of amendments to the Springfield Development Code to make minor changes to correct errors and provide clarification on code language that was adopted as part of the 2022 Development Code Update Project. These changes mostly correct missed internal code citations and references, typographical errors, and update naming conventions that were previously missed.

III. SITE INFORMATION

Affected properties are those which are located within the City of Springfield's Urban Growth Boundary (UGB).

IV. PROCEDURAL REQUIREMENTS AND CITIZEN INVOLVEMENT

Under SDC 5.6.110, amendments of the Development Code text are reviewed under a Type 4 procedure as a legislative action. Type 4 procedures, as defined in SDC 5.1.605, require a review and recommendation by the Planning Commission and adoption of ordinance by City Council.

The code updates include changes that apply within the urbanizable areas that are between the City limits and the Springfield urban growth boundary. Therefore, the code updates are subject to provisions of the City of Springfield and Lane County's urban transition agreement, which requires the City and County to jointly develop land use regulations to be applied to the urbanizable portion of the Springfield UGB. The Springfield Planning Commission and Lane County Planning Commission held a joint public hearing for the purpose of developing their recommendations to City Council and Board of Commissioners, respectively. The City Council and Board of County Commissioners held a joint public hearing to co-adopt the regulations applicable to the urbanizable area. The Director for the City of Springfield initiated these development code amendments as is allowed under SDC 5.6.105(B).

Finding: The amendments are not site-specific, they apply to a large area and a large number of properties, and they are not bound to result in a decision to adopt or not adopt the code updates, and therefore are a legislative action.

Finding: SDC 5.1.605 requires legislative land use decisions be advertised in a newspaper of general circulation, providing information about the legislative action and the time, place, and location of the hearing. Notice of the public hearing concerning this matter was published on July 6, 2023 in The Chronicle, advertising the first evidentiary hearing before the City of Springfield and Lane County Planning Commissions on August 1, 2023. Notice of the hearing before the Springfield City Council and Board of County Commissioners was published in the Chronicle on October 12, 2023 according to the requirements in SDC Section 5.1.615 for legislative actions.

Finding: The Director is required to send notice to the Department of Land Conservation and Development (DLCD) as specified in OAR 660-18-0020. A joint City-County "DLCD Notice of Proposed Amendment" was submitted in accordance with DLCD submission guidelines to the DLCD on June 26, 2023 alerting the agency to the City's proposal to amend the Springfield Development Code. The notice was submitted 35 days in advance of the first evidentiary hearing.

As of the date of this staff report, there were no inquiries about the proposed minor changes to the Springfield Development Code language. Additionally, no written comments were submitted in response to the information in the notices.

V. APPROVAL CRITERIA & FINDINGS

The request is subject to approval criteria in SDC 5.6.115, which covers adoption or amendment of refinement plans, plan districts and the development code. The following approval criteria are listed under SDC 5.6.115:

A. In reaching a decision on the adoption or amendment of refinement plans and this Code's text, the City Council shall adopt findings that demonstrate conformance to the following:

1. *The Metro Plan and Springfield Comprehensive Plan;*
2. *Applicable State statutes; and*
3. *Applicable State-wide Planning Goals and Administrative Rules.*

Findings showing that the amendments to the Development Code meet the applicable criteria of approval appear in regular text below. Direct citations or summaries of criteria appear in *italics* and precede or are contained within the relevant findings.

Conformance with the Metro Plan and Springfield Comprehensive Plan

Finding 1: There are no specific policies in the Metro Plan that are applicable to the minor changes. The minor changes do not change the meaning or application of the existing standards.

Finding 2: The Springfield Comprehensive Plan includes goals and policies that support the ongoing clarity from the edits. These goals and policies include:

Goal E-7 - Make development decisions predictable, fair and cost-effective. The policy supporting this goal is Policy E.47 - Enhance, maintain and market Springfield's reputation for: rapid processing of permits and applications, maintaining City agreements and commitments, and providing developers with certainty and flexibility in the development process. The applicable Implementing Strategy under this policy is 47.1 – Continually improve development permitting processes to remove regulatory impediments to redevelopment as practical, provide efficient streamlining of permitting processes, create incentives for redevelopment, and provide flexible design standards (clear and objective track plus discretionary track) to build on the community's strong reputation as a friendly, welcoming and business-friendly city.

Finding 3: The minor edits are in conformance with the above stated Goal, policy, and implementation strategy by proposing to continually make the code clearer which in turn will allow the process for reviewing applications more efficient.

Conformance with Applicable State Statutes

ORS 197.610 and OAR 660-018-0020 require local jurisdictions to submit proposed land use regulation changes to the Department of Land Conservation and Development.

Finding 4: SDC 2.1.130(D) allows the City Attorney to renumber sections and parts of sections of ordinances, change the wording of titles, rearrange sections, change reference numbers to agree with renumbered chapters, sections, or other parts, substitute the proper subsection, section, or chapter or other division numbers, strike out figures or words that are merely repetitious, change capitalization for the purpose of uniformity, and correct clerical or typographical errors. However, in preparing revisions of the code for publication and distribution, the City Attorney does not have authority to make changes that would alter the sense, meaning, effect, or substance of an ordinance. The minor code edits discussed herein may be interpreted to alter the meaning or effect of the development code, and therefore are being processed as an amendment to the Springfield Development Code that is subject to ORS 197.610 and OAR 660-018-0020.

Finding 5: The City provided notice of the proposed amendments to DLCD on June 26, 2023, 35 days in advance of the first evidentiary hearing in conformance with ORS 197.610(1) and OAR 660-018-0020.

ORS 197.301(4) requires clear and objective standards for housing.

Finding 6: The minor edits provide additional clarity to the standards for approving housing.

ORS 197.312(5) requires Accessory Dwelling Units (ADU's) to be allowed.

Finding 7: The minor edits provide additional clarity for allowing ADU's.

Conformance with Applicable State-wide Planning Goals and Administrative Rules

Planning Goals

Statewide Planning Goal 1 – Citizen Involvement: This goal outlines the citizen involvement requirement for adoption of Comprehensive Plans and changes to the Comprehensive Plan and implementing documents.

Finding 8: Notice was provided to DLCD on June 26, 2023. Additionally, notice of the Public Hearing was published in the Chronicle on June 29, 2023 and October 12, 2023. The proposed minor edits do not involve policy questions or changes. The minor edits are clarifying in nature and therefore there is no need to conduct extensive public outreach to shape the proposed minor edits.

Statewide Planning Goal 2 – Lane Use Planning: This goal requires a land use planning process and policy framework as a basis for all decision and action related to the use of land and to assure an adequate factual base for such decisions and actions.

Finding 9: This goal outlines the land use planning process and policy framework. The Metro Plan, Springfield Comprehensive Plan, and Springfield Development Code have been acknowledged by DLCD as being consistent with the statewide planning goals. The City has followed the land use planning process and policy framework established in the City's acknowledged comprehensive plan elements and Springfield Development Code as a basis for all decision and actions related to the use of land and to assure an adequate factual basis for such decisions and actions.

Finding 10: The amendments will be adopted by the City Council and Lane County Board of County Commissioners (as applicable outside city limits) after a public hearing. Opportunities have been provided for review and comment by citizens and affected governmental units during the process.

Statewide Planning Goal 3 & 4 – Agricultural Lands and Forest Lands:

Finding 11: These statewide planning goals relate to agricultural and forest land in Oregon and are not applicable to these amendments.

Statewide Planning Goal 5 – Natural Resources, Scenic and Historic Areas

Finding 12: The City is currently in compliance with this goal. The amendments do not alter the City's acknowledged Goal 5 inventories or land use programs and therefore is not applicable. None of the code changes impacting significant local resources, such as SDC 4.3.117, are substantive changes.

Statewide Planning Goal 6 – Air, Water, and Land Resources Quality

Finding 13: The City is currently in compliance with this goal. The amendments do not alter the City's acknowledged inventories or land use programs and therefore is not applicable.

Statewide Planning Goal 7 – Areas Subject to Natural Hazards Housing

Finding 14: The City is currently in compliance with this goal. The amendments do not alter the City's acknowledged inventories or land use programs and therefore is not applicable.

Statewide Planning Goal 8 – Recreational Needs

Finding 15: The provision of recreation services within Springfield is the responsibility of Willamalane Park & Recreation District. This goal is not applicable as the minor code updates have no effect on the availability of or access to recreational opportunities as planned in Willamalane's Comprehensive plan.

Statewide Planning Goal 9 – Economic Development

Finding 16: The City is currently in compliance with this goal. The amendments do not alter the City's acknowledged inventories or land use programs and therefore is not applicable.

Statewide Planning Goal 10 - Housing

Finding 17: The City is currently in compliance with this goal. The amendments do not alter the City's acknowledged inventories or land use programs and therefore is not applicable. The edits are intended to comply with Goal 10 regulations, many of which are providing more clarity on development of residential uses.

Statewide Planning Goal 11 – Public Facilities and Services

Finding 18: Goal 11 requires the City to plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. The amendments do not result in the need to adjust or amend existing policies or projects in the City's adopted facility plans; therefore, compliance with Goal 11 is maintained.

Statewide Planning Goal 12 – Transportation

Finding 19: Goal 12 requires the City to provide and encourage a safe and convenient and economic transportation system. The changes do not alter the transportation system plan policies. Therefore, this goal is not applicable.

Statewide Planning Goal 13 – Energy Conservation

Finding 20: Goal 13 requires land uses to be managed and controlled to maximize the conservation of energy, based upon sound economic principles. The minor amendments do not alter the existing policy framework in regard to energy conservation. Therefore, this goal is not applicable.

Statewide Planning Goal 14 – Urbanization

Finding 21: Goal 14 requires the City to provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities. This goal is unaffected by the amendments.

Statewide Planning Goal 15 – Willamette River Greenway

Finding 22: The amendments do not alter or adopt new regulations within the protect Willamette River Greenway; therefore, this goal is not applicable.

Statewide Planning Goal 16 - 19 – Estuarine Resources; Coastal Shorelands; Beaches and Dunes; and Ocean Resources

Finding 23: Goal 16 – 19 apply to jurisdictions along the Oregon coast and are not applicable to the City of Springfield.

VI. CONCLUSION

Based upon the evidence above and the criteria of SDC 5.6.605 for approving amendments to the Springfield Development Code, the minor text amendments are consistent with these criteria.

10.600-15 – Applicable Land Use Regulations.

Lane County has adopted the following land use regulations to be applied by Springfield on urbanizable land within the Springfield Urban Growth Boundary.

(1) The Springfield Development Code adopted by the Lane County Board of Commissioners as part of Ordinance No. 16-86, and amended by Ordinance Nos. 5-89, 18-90, 9-91, 13-91, 14-92, 5-93, 13-94, 3-97, 7-99, 10-00, 13-04, 2-05, 2-06, 16-07, 4-09, 7-11, 3-12, 13-05, 13-07, 14-13, 14-15, 16-05, 18-06, 19-05, 21-08, 22-03, and 23-08.

(2) Copies of these applicable land use regulations shall be on file at the Lane County Land Management Division.

(Ordinance 16-86, 11.24.86; Ordinance 5-89, 5.31.89; Ordinance 11-89, 11.21.89; Ordinance 18-90, 12.19.90; Ordinance 9-91, 9.20.91; Ordinance 13-91, 9.25.91; Ordinance 14-92, 1.8.93; Ordinance 5-93, 8.26.93; Ordinance 13-94, 1.11.95; Ordinance 3-97, 4.18.97; Ordinance 7-99, 12.8.99; Ordinance 10-00, 12.13.00; Ordinance 13-04, 7.1.04; Ordinance 2-05, 9.9.05; Ordinance 2-06, 4.14.06; Ordinance 16-07, 1.4.08; Ordinance 4-09, 10.15.09; Ordinance 7-11, 11.4.2011; Ordinance 3-12, 10.05.12; Ordinance 13-05, 11.19.13; Ordinance 13-07, 04.15.14; Ordinance 14-13, 11.25.14; Ordinance 14-15, 1.2.15; Ordinance 16-05, 1.5.17; Ordinance 18-06, 7.10.18; Ordinance 19-05, 4.9.2020; Ordinance 21-08, 3.10.22; Ordinance 22-03, 7.1.22)

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LANE CODE CRITERIA AND FINDINGS FOR CO-ADOPTION OF SPRINGFIELD DEVELOPMENT CODE AMENDMENTS

Lane Code 10.315-20

Zonings, rezonings, and changes in the requirements of this chapter shall be enacted to achieve the general purpose of this chapter and shall not be contrary to the public interest. In addition, zonings and rezonings shall be consistent with the specific purposes of the Zone District classification proposed, applicable Comprehensive Plan elements and components, and Statewide Planning Goals for any portion of Lane County which has not been acknowledged for compliance with the Statewide Planning Goals by the Land Conservation and Development Commission. Any zoning or rezoning may be effected by Ordinance or Order of the Board of County Commissioners, the Planning Commission or the Hearings Official in accordance with the procedures in this section.

Finding 1: Lane County co-adoption of these amendments will change the requirements for development in the urbanizable area as referenced in Chapter 10 and achieve the general purpose of this chapter for regulation of the urbanizable area between city limits and the urban growth boundary of Springfield. The applicable Comprehensive Plan for the Springfield Development Code Amendments is the Eugene-Springfield Metropolitan Area General Plan (Metro Plan).

Having consistent development regulations applicable to the urbanizable areas of Springfield provides consistent and clear development guidelines for property owners as land uses transition from rural to urban uses in the Metro Home City of Springfield.

Lane Code 10.600-10 references adoption of these implementing regulations for application by Springfield on urbanizable lands, which is consistent with the Metro Plan and is not contrary to the public interest.

Lane Code 12.300.030 Metro Plan Amendment Criteria.

The following criteria will be applied by the Board of Commissioners and other applicable governing body or bodies in approving or denying a Metro Plan amendment application:

> ***A. The proposed amendment is consistent with the relevant Statewide Planning Goals; and***

Finding 2: The proposal is to amend the Springfield Development Code, which implements the Metro Plan. The Findings document within the City's staff report to amend the development code address and find compliance with the applicable Statewide Planning Goals. These findings are incorporated herein by reference.

> ***B. The proposed amendment does not make the Metro Plan internally inconsistent.***

Finding 3: The proposal is not to amend the Metro Plan itself, but to update Lane Code Ch. 10.600. Therefore, the proposal will not make the Metro Plan internally inconsistent. Conformance with the Metro Plan policies have been evaluated in the City's Staff Report. These findings are incorporated herein by reference.