



PLANNING COMMISSION AGENDA
August 24, 2016, 7:00 p.m.
Multipurpose Room/Council Chamber
Burien City Hall, 400 SW 152nd Street
Burien, Washington 98166

This meeting can be watched live on Burien Cable Channel 21 or on www.burienmedia.org

1. ROLL CALL

2. AGENDA CONFIRMATION

3. APPROVAL OF MINUTES

A. July 27, 2016

4. PUBLIC COMMENT

Public comment will be accepted on topics not scheduled for a public hearing.

5. NEW BUSINESS

A. Low Impact Development (LID) Zoning Code Amendments

6. OLD BUSINESS

A. None

7. PLANNING COMMISSION COMMUNICATIONS

8. DIRECTOR'S REPORT

9. ADJOURNMENT

Future Agendas (Tentative)

September 14, 2016

- Low Impact Development (LID) Zoning Code Amendments – Public Hearing
- Minor Zoning Code Amendments – Introduction and Discussion

September 28, 2016

- Short Course In Local Planning

Planning Commission meetings are accessible to people with disabilities. Please phone (206) 248-5517 at least 48 hours prior to the meeting to request assistance. American Sign Language (ASL) interpretation and assisted listening devices are available upon request.

Planning Commissioners

Curtis Olsen (Chair)

Kim Davis
Anna Markee

Amy Rosenfield (Vice-Chair)
Kaelene Nobis

Butch Henderson
Douglas Weber

City of Burien

BURIEN PLANNING COMMISSION
August 10, 2016
7:00 p.m.
Multipurpose Room/Council Chambers
MINUTES

To hear the Planning Commission's full discussion of a specific topic or the complete meeting, the following resources are available:

- Watch the video-stream available on the City website, www.burienwa.gov
- Check out a DVD of the Council Meeting from the Burien Library
- Order a DVD of the meeting from the City Clerk, (206) 241-4647

CALL TO ORDER

Chair Curtis Olsen called the August 10, 2016, meeting of the Burien Planning Commission to order at 7:00 p.m.

ROLL CALL

Present: Butch Henderson, Anna Markee, Curtis Olsen, and Amy Rosenfield

Absent: Kim Davis, Kaelene Nobis, and Douglas Weber, excused

Administrative staff present: David Johanson, senior planner; Brandi Eyerly, planner

AGENDA CONFIRMATION

Direction/Action

Motion was made by Commissioner Henderson and seconded by Commissioner Rosenfield to confirm the agenda. Motion passed 4-0.

APPROVAL OF MINUTES

Direction/Action

Motion was made by Commissioner Henderson, seconded by Commissioner Rosenfield, and passed 4-0 to approve the minutes of the July 27, 2016, meeting.

PUBLIC COMMENT

Chestine Edgar, 1811 SW 152nd St., commented on the draft significant tree retention Zoning Code amendments. She presented a list of concerns she has about the draft amendments.

OLD BUSINESS

A. Significant Tree Retention Zoning Code Amendments – Discussion and Recommendation

Brandi Eyerly, planner, reviewed the changes and clarifications made to the proposed code as requested by the commissioners at the last meeting.

Commissioner Rosenfield asked why trees on the prohibited list could still fall under the “significant” designation. Other commissioners responded that while the trees on the prohibited list are not suitable for urban settings for one reason or another existing healthy specimens of the trees are a part of the tree canopy and do their part in surface water management, and if one must be removed it should be replaced with a more suitable species of tree.

The commissioners discussed whether there needs to be language in the code specifically addressing the prohibition of trespassing on private property where a designated heritage tree is located. Rather than include it in the code, it was agreed to put that information on a map or website identifying the heritage trees.

The commissioners agreed to change the second sentence in proposed definition 19.10.267 Heritage tree, in Attachment 1, to read "...written consent of the property owner is required before the nomination may be considered."

Vice Chair Amy Rosenfield moved that the Planning Commission recommend to the City Council approval of amendments with the change identified to BMC 19.10 Definitions, 19.25 Tree Retention and Landscaping, and 19.85 Protection and Preservation of Landmarks as set forth in the July 27, 2016, staff memo and associated attachments. Commissioners Henderson seconded the motion. Motion carried 4-0.

NEW BUSINESS

None.

PLANNING COMMISSION COMMUNICATIONS

None.

DIRECTOR'S REPORT

None.

ADJOURNMENT

Direction/Action

Commissioner Henderson moved for adjournment; Commissioner Markee seconded. Motion carried unanimously. The meeting adjourned at 7:59 p.m.

APPROVED: _____

Curtis Olsen, chair
Planning Commission

CITY OF BURIEN, WASHINGTON MEMORANDUM

DATE: August 19, 2016

TO: Burien Planning Commission

FROM: Charles W. “Chip” Davis, AICP, Community Development Director

SUBJECT: Proposed Low Impact Development (LID) Amendments to the Burien Zoning Code

PURPOSE

At this meeting the Commission will receive a presentation on proposed amendments to BMC Title 19, Burien Zoning Code, to incorporate low impact development (LID) principles in conformance with Burien’s National Pollutant Discharge Elimination Systems (NPDES) Western Washington Phase II Municipal Stormwater Permit. The Planning Commission is scheduled to conduct a public hearing on the proposed amendments at their September 14, 2016 meeting.

BACKGROUND

Permit Condition S5.C.4.f of the Western Washington Phase II Municipal Permit, requires permittees to incorporate and require low impact development (LID) principles and BMPs in local development-related codes, rules, and standards by December 31, 2016. The Permit requires permittees to engage in a process of review and revision of local codes similar to the process outlined in *Integrating LID into Local Codes: A Guidebook for Local Governments* (Puget Sound Partnership, 2012).

In 2014, the consulting firm Otak was retained to facilitate the code review and revision process and in September 2014, they issued a detailed investigation of the barriers or gaps in implementation of LID in Burien’s development codes. In August 2015, Otak and City staff initiated the public involvement process for code revision to incorporate LID principles. In October 2015, Otak issued a report providing City decision-makers with basic concepts for code updates and requesting direction for going forward with those updates. Consultant recommendations are focused on:

- Measures to encourage reduction of impervious surfaces on development sites.
- Measures to encourage restoration of soils in landscaped areas.
- Measures to ensure that Burien’s development codes do not prohibit or restrict the use of LID on development sites.

Otak’s comprehensive evaluation of Burien’s development regulations included a review of the 2008 Burien Road Design and Construction Standards, BMC Title 17 Subdivisions, BMC Title 13 Waters and Sewer, Burien Comprehensive Plan and BMC Title 19 Burien Zoning Code. The

primary focus for Planning Commission consideration will be on Otak's recommended amendments to the Zoning Code to incorporate LID concepts in the development review process.

At the August 24th Commission meeting, Trista Kobluskie, Stormwater Planner with Otak will be making a presentation introducing the proposed LID amendments. Attachment 1 is a copy of the July 14, 2016 Otak memorandum outlining proposed LID Code Updates for BMC Title 19, the Burien Zoning Code.

ACTION

Staff is requesting that the Planning Commission review proposed amendments to BMC Title 19 in preparation for the September 14th Public Hearing.

Attachment:

1. July 14, 2016 Otak Memorandum re: LID Code Updates for Title 19 – Zoning

Memorandum



700 Washington Street
Suite 401
Vancouver, WA 98660
Phone (360) 737-9613
Fax (360) 737-9651

To: Dan O'Brien, Maiya Andrews, Chip Davis

From: Trista Kobluskie

Prepared By: Trista Kobluskie

Copies: File

Date: July 14, 2016

Subject: LID Code Updates for Title 19 - Zoning

Project No.: 31235G

Otak provided recommendations for update of various titles of the Burien Municipal Code (BMC) in the *City-Wide LID Code Development Code Update Concepts Report* dated October 1, 2015. In June 2016, we updated the recommendations in response to public involvement.

Title 19 is Burien's zoning code. Recommendations included concepts for amending sections 19.10 – Definitions, 19.20 – Parking and Circulation, and 19.25 – Tree Retention and Landscaping. The City asked Otak to provide specific language for amending section 19.10, 19.20 and the landscaping elements of 19.25 and to provide more detailed recommendations for updating the tree retention elements of 19.25.

Recommendations are repeated below, followed by proposed language or more highly developed concepts.

Proposed Amendments

19.10 – Definitions

Recommendations were to:

- Update the definition of “impervious surface coverage” to: The percentage of the area of a lot that is covered by impervious surface, including a building with a green roof, or a permeable pavement.

- Update the definition of “structure” in 19.10.525 to specifically exclude LID BMPs that can store up to 600 gallons of water, thus allowing LID practices serving small drainages to be placed in the front setback.

In addition, because the terms “bioretention facility” and “permeable pavement” will be used in Title 19, definitions need to be added for those terms.

Proposed Amendments to 19.10

19.10.285 Impervious surface coverage

– The percentage of the area of a *lot* that is covered by *impervious surface*, including a building with a green roof, or a permeable pavement.

19.10.038.9 Bioretention facility

– A Low Impact Development BMP consisting of a shallow landscaped depression designed in accordance with BMC Title 13 to temporarily store and infiltrate stormwater runoff.

19.10.329.1 Low Impact Development best management practice (LID BMP)

– A small scale drainage facility or feature designed in accordance with BMC Title 13 that is part of a development site strategy to use processes such as infiltration, dispersion, storage, evaporation, transpiration, forest retention, and reduced impervious surface footprint to mimic pre-developed hydrology and minimize stormwater runoff.

19.10.396.1 Permeable Pavement

– An area of pavement constructed of pervious concrete, porous asphalt, permeable interlocking pavers, pervious vegetated grids or other forms of porous or pervious paving material intended to allow passage of water through the pavement section.

19.10.525 Structure

– Anything permanently constructed in or on the ground, or over the water; excluding *fences* less than six feet in height, decks less than 18 inches above grade, bioretention facilities with wall height less than four feet from the top of footing to the top of the wall, and paved areas.

19.20 – Parking and Circulation

Recommendations were to:

- Provide an illustration showing a telescoping bioretention swale connected to row-end bioretention islands.
- Establish a minimum number of compact parking stalls for new parking lots that provide more than 80 spaces while maintaining the current maximum of 50% for lots providing more than 20 spaces.
- Update the requirement for parking at single detached dwellings to be in a garage, carport, or on an approved impervious surface to “on an approved paved surface.”
- Update the requirement in 19.20.110 for all parking areas to be enclosed by curbs to specify that curbs can be cut to allow runoff to enter LID drainage facilities, and concrete wheel stops may be used in lieu of curbs adjacent to LID drainage facilities.
- Insert a construction standard requiring bicycle parking, where provided, to be located on a pervious surface (e.g. permeable pavers) where allowed in accordance with the King County Surface Water Design Manual 2016.
- As parking lots constructed of permeable materials will be considered stormwater facilities, in addition to parking lots, insert a requirement in 10.20.130, Maintenance, for any permeable surfaces to be maintained in accordance with the applicable section(s) of KCSWDM2016.
- Reduce dimensional requirements for the 90 degree standard space. The requirements for this space type appear to exceed the comparable requirement in similar cities in the region. Other standard spaces appear to be in alignment with the comparable requirements.

Proposed Amendments to 19.20

19.20.100 Off-street parking plan design standards.

1. Parking Area Location: Off-street parking shall be located on the same *site* as the development served by the parking. The *Director* may approve off-site parking for *uses* located in zones other than RS or RM, if
 - A. The *applicant* provides an acceptable alternative plan in the event that the off-site parking does not work, and
 - B. Appropriate legal documents establishing the off-site parking area are submitted for *Director* approval pursuant to BMC 19.20.050, and
 - C. Off-street parking for a *use* must be located in a zone that allows that *use*. For example, off-street parking for a *retail use* is not allowed in an RS zone.
2. Driveway Location, Design and Construction. Access between off-street parking areas and abutting public *streets* shall be designed, located and constructed in accordance with City of Burien development standards.
3. Dead End Alley Access to Parking. No dead-end alley may provide access to more than eight required off-street parking spaces.
4. Driveways and Parking Areas in *Setbacks*.
 - A. Driveways and parking areas for *single detached dwelling units* and *townhouse* or *apartment dwelling units* with individual garages or carports shall not exceed 20 feet in width in any required *setback*, except if:

- i. The driveway/parking area serves a 3-car or larger garage; and
- ii. No more than 15 percent of the required *setback* area is displaced by the driveway.

B. Driveways for all other developments may cross required *setbacks* or landscaped areas abutting a public *right-of-way* in order to provide access between the off-street parking areas and the *street*. Maximum width within the *setback* or landscaped area is 12 feet for one-way traffic and 24 feet for two-way traffic. A wider encroachment may be allowed, provided no more than 20 percent of the required *landscaping* or *setback* area is displaced by the driveway.

5. Minimum Parking Space and Parking Lot Aisle Dimensions. The minimum *parking space* and *parking lot aisle* dimensions for the most common parking angles are shown on Table 19.20-1. For parking angles other than those shown on the chart, the minimum *parking space* and *parking lot aisle* dimensions shall be determined by the Director.

6. Compact Parking Spaces. In any development containing more than 20 *parking spaces*, up to 50 percent of the total number of required *parking spaces* may be sized to accommodate compact cars. In any development containing more than 80 parking spaces, at least 20 percent of the total number of parking spaces provided shall be sized to accommodate compact cars. Each space shall be clearly identified as a compact car space by painting the word "COMPACT" in capital letters, a minimum of eight inches high, on the pavement at the base of the *parking space* and centered between the striping.

7. Landscaping Requirements. Parking lots shall be landscaped in accordance with BMC 19.25.070.

8. Additional Width Abutting Landscaped Area. Any *parking spaces* abutting a landscaped area on the driver or passenger side of the vehicle shall provide an additional 18 inches above the minimum space width requirement to provide a place to step other than in the landscaped area.

9. Reduction of Parking Space Depth. The *parking space* depth may be reduced up to 18 inches when vehicles overhang a walkway if the remaining walkway provides a minimum of 60 inches of unimpeded passageway for pedestrians.

10. Parking for Single Detached Dwelling Units.

A. *Dwelling units* may have tandem or end to end *parking spaces* for each *dwelling unit* but shall not combine parking for separate *dwelling units* in tandem parking areas.

B. All vehicle parking and storage must be in a garage, carport or on an approved paved surface impervious surface. Any *impervious surface* used for vehicle parking or storage must have direct and unobstructed driveway access. *Parking spaces* for a *single detached dwelling unit* shall be adequately sized and located to accommodate a standard-sized vehicle without the vehicle extending into the public *right-of-way* or *vehicular access easement* or *tract*.

11. Vanpool and Carpool Parking Design Standards. Vanpool/carpool parking areas shall meet the following minimum design standards:

A. A minimum vertical clearance of 7 feet 3 inches shall be provided to accommodate van vehicles if designated vanpool/carpool *parking spaces* are located in a parking structure; and

B. A minimum turning radius of 26 feet 4 inches with a minimum turning diameter (curb to curb) of 52 feet 5 inches shall be provided from *parking lot aisles* to adjacent carpool/vanpool *parking spaces*.

12. Parking Area Lighting. Lighting shall be provided for safety of traffic and pedestrian circulation on the *site*, as required by the Uniform Building Code. It shall be designed to minimize direct illumination of abutting properties and adjacent *streets*. The *Director* shall have the authority to waive the requirement to provide lighting.

19.20.110 Off-street parking construction standards.

1. Surfacing. Off-*street* parking areas shall have dust-free, all-weather surfacing. Off-*street* parking areas shall conform to City of Burien development standards.
2. Grading. *Grading* work for access and parking areas shall comply with City of Burien development standards.
3. Drainage. Drainage and erosion/sedimentation control facilities shall be provided in accordance with City of Burien development standards.
4. Parking Space Markings. Asphalt or concrete surfaced parking areas shall have *parking spaces* marked by surface paint lines or suitable substitute traffic marking material in accordance with the Washington State Department of Transportation Standards. Wheel stops or curbing are required where a parked vehicle would encroach on adjacent property, pedestrian access or circulation areas, *right-of-way* or landscaped areas.
5. Curbing. All access and parking areas shall be enclosed with cast in place vertical curbs or functionally equivalent structural barriers. Curbs may be cut to allow surface water runoff to enter low impact development best management practices (LID BMPs).
6. Bicycle Parking. Where bicycle parking is provided, locate the bicycle parking over a permeable pavement where allowed in accordance with BMC Title 13.

19.20.130 Maintenance.

The property owner shall maintain all off-*street* access and parking areas. Maintenance shall include removal and replacement of dead and dying trees, grass and shrubs, removal of trash and weeds, and repair and maintenance of traffic control devices, *parking space* striping, signs, light standards, *fences*, walls, surfacing materials, curbs, railings and *landscaping*. Parking area stormwater facilities, including permeable pavements, shall be maintained in accordance with BMC Title 13.

TABLE 19.20-1

MINIMUM PARKING SPACE DIMENSIONS

A	B	C	D		E	
Parking Space Angle	Minimum Parking Space Width	Minimum Parking Space Length	Minimum Parking Lot Aisle Width		Minimum Unit Width	
			1-Way	2-Way	1-Way	2-Way
0	Compact 7.5	18.0	10.0	20.0	25.0	35.0
	Standard 8.5	24.0	12.0	20.0	29.0	37.0
30	Compact 7.5	15.0	10.0	20.0	38.0	48.0

A	B	C	D		E	
Parking Space Angle	Minimum Parking Space Width	Minimum Parking Space Length	Minimum Parking Lot Aisle Width		Minimum Unit Width	
			1-Way	2-Way	1-Way	2-Way
	Standard 8.5	16.5	10.0	20.0	42.0	52.0
45	Compact 7.5	15.0	11.0	20.0	42.82	51.82
	Standard 8.5	19.0	13.0	20.0	51.88	58.88
60	Compact 7.5	15.0	13.0	20.0	46.48	53.48
	Standard 8.5	19.0	17.5	20.0	58.9	61.4
75	Compact 7.5	15.0	16.5	20.0	49.36	52.86
	Standard 8.5	19.0	20.0	20.0	61.1	61.1
90	Compact 7.5	15.0	20.0	20.0	50.0	50.0
	Standard 8.5	19.0 <u>18.0</u>	24.0 <u>23.0</u>	24.0	62.0 <u>59.0</u>	62.0 <u>60.0</u>

19.25 – Tree Retention and Landscaping – Landscaping Elements

Recommendations were to:

- Allow retained native vegetation and trees to act as parking lot perimeter landscaping.
- Allow bioretention to be used in Types 3 and 4 landscaping.
- Update 19.25.060 with an exception to spacing and species requirements, if approved by the Director, for retained native vegetation.
- Allow Types 1 and 2 perimeter landscaping and interior landscaping requirements to be met with bioretention facilities.
- Require all landscaped areas developed as part of a project requiring a drainage review in accordance with BMC Title 13 to meet soil composition and depth requirements given in BMC Title 13. Other projects can meet the amendment requirements given in Title 19.
- Provide an exception to protecting landscaped areas with concrete curbing when stormwater from adjacent impervious surfaces will be directed to a stormwater management facility in the landscaped area, such as bioretention or dispersion, via sheet flow or concentrated surface flow through curb cuts.

Proposed Amendments to 19.25

19.25.050 Landscaping – Types and description.

3. Type III Landscaping.

A. Type III *landscaping* is a “see-through screen” that functions as a partial visual separator to soften the appearance of parking areas and *building* elevations.

B. Type III *landscaping* shall consist of:

- i. A mix of *evergreen* and *deciduous* trees spaced to create a continuous canopy;
- ii. At least 70 percent *deciduous* trees;
- i. *Evergreen* trees spaced no more than 25 feet on center;
- ii. *Deciduous* trees spaced no more than 30 feet on center;
- v. Shrubs, that do not exceed a height of four feet, spaced no more than four feet apart; and
- vi. *Ground cover* pursuant to BMC 19.25.070;

C. Type III landscaping areas may contain bioretention facilities where feasible in accordance with BMC Title 13. Where a bioretention facility is proposed to meet all or part of the Type III landscaping area:

- i. The bioretention facility shall be landscaped in accordance with BMC Title 13; and
- ii. The total Type III landscaping areas on the site shall be planted with at least 90% of the total number of required trees as calculated above.

4. Type IV Landscaping.

A. Type IV *landscaping* is “parking area *landscaping*” and “*building facade landscaping*” that provides shade and visual relief while maintaining clear sight lines within parking areas;

B. Type IV *landscaping* shall consist of:

- i. Canopy-type *deciduous* trees spaced no more than 30 feet on center, or *evergreen* trees spaced no more than 25 feet on-center. At least 70 percent of the trees shall be *deciduous*.
- ii. Shrubs that do not exceed a height of four feet;
- iii. Plantings contained in planting islands or strips having an area of at least 75 square feet and with a narrow dimension of no less than four feet;

iv. *Ground cover* pursuant to BMC 19.25.090.

C. Type IV landscaping areas may contain bioretention facilities where feasible in accordance with BMC Title 13. Where a bioretention facility is proposed to meet all or part of the Type IV landscaping area:

i. The bioretention facility shall be landscaped in accordance with BMC Title 13; and

ii. The total Type IV landscaping areas on the site shall be planted with 100% of the total number of required trees as calculated above.

19.25.060 Landscaping – Street frontages.

Perimeter *landscaping* along *street frontages* shall be provided as follows:

1. For single detached subdivisions:

A. Trees shall be planted at the rate of one tree for every:

i. Fifty feet of *frontage* along a neighborhood collector *street*; and

ii. Forty feet of *frontage* along an *arterial street*.

B. The trees shall be:

i. Located within the *right-of-way* if permitted by the custodial state or local agency;

ii. No more than 20 feet from the *right-of-way* line when located within a *lot*;

iii. Maintained by the adjacent landowner unless part of a city maintenance program; and

iv. A species approved by the city.

C. The trees may be spaced at irregular intervals in order to accommodate sight distance requirements for driveways and intersections.

D. Mature and healthy native trees retained within the right-of-way or no more than 20 feet from the right-of-way line within a lot may substitute for the required street trees at a one-to-one ratio and may be spaced at irregular intervals.

19.25.070 Landscaping – Surface parking areas.

1. Where feasible in accordance with BMC Title 13, perimeter and interior landscaping areas shall contain bioretention facilities to manage on-site stormwater runoff. A conceptual illustration is shown in Figure XXX.

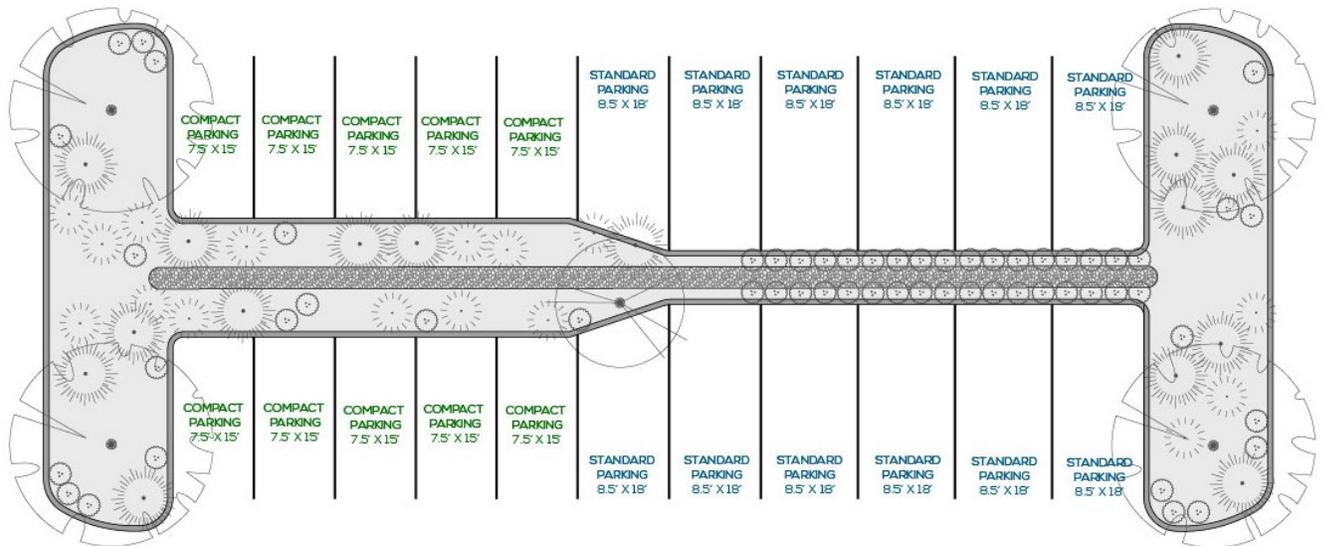


Figure XXX

12. *Perimeter Landscaping.* A minimum 5' wide Type IV landscape strip shall be provided on private property along the perimeter of a parking area. The width of the landscape strip shall be increased to 7' if vehicle overhangs into the landscape strip are allowed. Where bioretention is used, the facility shall be landscaped in accordance with BMC Title 13.

23. *Interior Landscaping.* The following requirements apply to any surface parking area with 10 or more parking stalls. The interior landscape requirement is in addition to the perimeter landscape area required in BMC 19.25.070. **12**, and the *landscaping* required by BMC 19.25.040.

A. *Uses* requiring landscape category B shall provide interior planting areas at the rate of 20 square feet per parking stall;

B. *Uses* requiring landscape category C, D or F shall provide interior planting areas at a rate of:

i. Twenty square feet per parking stall when 10 to 30 parking stalls are provided; and

ii. Twenty-five square feet per parking stall when 31 or more parking stalls are provided;

C. Each interior planting area shall contain at least 75 square feet, with a narrow dimension of no less than four feet (six feet if vehicles are allowed to overhang into the landscaped area);

D. *Evergreen* or canopy-type *deciduous* trees shall be provided and distributed throughout the parking area at a rate of:

- i. One tree for every 10 parking stalls for a *use* requiring landscape category C, D or F; or
- ii. One tree for every five parking stalls for a *use* requiring landscape category B.

E. *Groundcover* shall be provided pursuant to BMC 19.25.080.

F. *Landscaping* islands shall be provided at the ends of each row of parking, except ends of rows that abut required perimeter *landscaping*.

G. The maximum distance between any parking stall and required interior parking area *landscaping* shall be no more than 65 feet.

H. Where bioretention is used to meet the interior landscaping requirement, the facility shall be landscaped in accordance with BMC Title 13 and the total interior landscaping areas on the site shall achieve at least 90% of the total number of trees required as calculated in 19.25.070(3)(D).

19.25.080 Landscaping – General requirements.

1. A *landscaping* and irrigation plan shall be submitted for review and approval by the *Director*. Written requirements for the *landscaping* and irrigation plan shall be established by the *Director*. The *landscaping* and irrigation plan shall be prepared by a Washington State registered landscape architect, Washington Certified Nurseryman/Landscaper, or other qualified landscape designer as authorized by the *Director*. The irrigation plan may be prepared by a certified irrigation designer.
2. New *landscaping* materials shall include species native to the Pacific Northwest or non-native noninvasive species that have adapted to the climatic conditions of the coastal region of the Pacific Northwest in the following minimum amounts:
 - A. Seventy-five percent of *groundcover* and shrubs, and
 - B. Fifty percent of trees;
3. At least 60 percent of new *landscaping* materials shall consist of drought-tolerant species, except where *site* conditions within the required landscape areas assure adequate moisture for growth;
4. With approval of the Director, species and spacing requirements may be relaxed when Eexisting native vegetation ~~may be used to~~ augment~~s~~ new plantings to meet the standards of this chapter;
5. *Deciduous* trees shall have a caliper of at least 1.75 inches at the time of planting. The caliper may be averaged, but no individual tree shall have a caliper of less than 1.5 inches;
6. *Evergreen* trees shall be at least six feet in height measured from treetop to the ground at the time of planting;
7. When the width of any landscape strip is 20 feet or greater, the required trees shall be staggered in two or more rows;

8. Shrubs shall be:

- A. Two-gallon size at time of planting in Type II, III and IV *landscaping*,
- B. At least 24 inches in height at the time of planting for Type I *landscaping*, and
- C. Maintained at a height not exceeding four feet when located in Type III or IV *landscaping*;

9. *Groundcovers* shall be planted and spaced to result in total coverage of the required landscape area within three years as follows:

- A. Four-inch pots at 18 inches on center, or
- B. One-gallon or greater sized containers at 24 inches on center;

10. Turf grass may be used as *groundcover* only in Type III and IV landscape areas provided that the grass area:

- A. Constitutes no more than 30 percent of such landscape areas; and
- B. Is at least five feet wide at the smallest dimension;

11. Turf grass and *groundcover* areas shall contain at least two inches of composted organic material at finish grade;

12. All fences shall be placed on the inward side of any required perimeter landscaping.

13. Berms shall not exceed a slope of two horizontal feet to one vertical foot (2:1);

14. Existing soils shall be augmented as follows:

A. For sites subject to drainage review in accordance with BMC Title 13, soil amendments shall follow the standards for restoring the soil moisture holding capacity of BMC Title 13, or

B. For sites not subject to drainage review in accordance with BMC Title 13, amend existing soils with a two-inch layer of fully composted organic material rototilled a minimum of six inches deep;

15. Landscape areas shall be covered with ~~at least two inches of~~ mulch to minimize evaporation as follows:

A. For sites subject to drainage review in accordance with BMC Title 13, mulching shall follow the standards for restoring the soil moisture holding capacity of BMC Title 13, or

B. For sites not subject to drainage review in accordance with BMC Title 13, ~~Ma~~ a minimum two-inch layer of mulch shall consist of materials such as yard waste, sawdust and/or manure that is fully composted;

16. Drought-tolerant and nondrought-tolerant species shall be grouped separately and be served by separate irrigation systems, zones or controls;

17. Permanent cast in place concrete curbs, concrete wheel stops, or structural barriers shall be provided to protect landscape areas from damage by vehicles. [Ord. 293 § 1, 2000]

Additional Guidance for Tree Retention

19.25 – Tree Retention and Landscaping – Tree Retention Elements

The City is currently in the process of updating the “tree code”, or the tree retention portions of BMC 19.25 to meet several goals. Staff and Otak discussed the City’s goals on 8/28/15:

There is a desire to strengthen the connection between stormwater and tree retention and planting. Currently Burien is making targeted changes to the tree retention-related code which will include a tree heritage program, addressing ancient, unique, or native trees. This issue has generated some controversy. The code currently protects trees on public lands and critical areas but does not address trees on private land. Current standards need stronger oversight. Updated language needs to incorporate homeowner protections (e.g. if a homeowner plants a tree they may not have rights to remove it decades in the future).

Given the flow control credits available in the Western Washington Hydrology Model (WWHM) for tree retention and planting, developers may voluntarily choose to retain or plant trees on development and redevelopment sites to reduce the sizes of required downstream flow control facilities. The city will need to ensure that legal protections are available for preserved and planted areas so that site developers can make use of flow control credits. (Otak, 2015)

Otak has been asked to provide additional guidance on tree retention from an LID perspective. The *LID Technical Guidance Manual* suggests that in LID site planning, retention or restoration of trees, native vegetation, and soil is considered one of the most effective techniques to reduce storm flows (Puget Sound Partnership, 2012).

To develop recommendations for updates to Burien’s tree conservation code to incorporate LID principles, Otak reviewed the *LID Technical Guidance Manual*, *Integrating LID into Local Codes: a Guidebook for Local Governments*, literature on developing tree ordinances, and the tree retention codes of several cities and counties in western Washington and Oregon.

The American Public Works Association (APWA) describes the potential goals of tree retention ordinances as “reducing tree loss during development, reducing damage to standing trees during construction, providing for replacement of trees lost during construction, providing for planting trees where none occurred previously, and providing for the maintenance of preserved trees after

construction is completed” (APWA, undated). In this memorandum, we focus on the goal of reducing tree loss during development. The City may wish to address other goals as well.

Our recommendations focus on minimum standards for retention, flexible standards, and exemptions, and will also list other types of standards (e.g. establishment, enforcement) that the City should develop for an effective tree retention code.

Findings

The *LID Technical Guidance Manual* lists objectives for coverage of native vegetation on development sites. These objectives are: 65% coverage for large lot development, 50% for medium density (4-6 dwelling units/acre), and to the greatest extent possible for high density residential (PSP, 2012).

Furthermore, LID principles would favor native species over non-native and coniferous species over deciduous.

City of Burien requires landscaping of various types for commercial, industrial, multifamily, and civic uses. However, no landscaping is required for single-family residential developments, which are designated as Landscape Category A in BMC 19.15, Use Zone Charts. In BMC 19.25, Table 19.25.040-1, Landscape Category A requires no landscaping.

Our proposed code amendments for the landscaping elements of BMC 19.25, described above, encourage or allow preserved native vegetation to substitute for new vegetation in required landscaping and provide some flexibility for retained trees to be used as frontage trees when they are not strictly in the frontage. These proposed amendments will encourage some tree retention and will ensure that portions of all non-residential development sites are covered in vegetative materials. Single-family development sites are likely the only sites where tree retention will not be encouraged through any mechanism.

In order to encourage or require tree retention and landscaping on single-family residential sites, Burien could either develop a landscaping requirement for Landscape Category A or require tree retention on single-family sites in BMC 19.25. Below, we explore the option of developing a tree retention requirement.

We reviewed city codes from various jurisdictions in Washington and Oregon to determine their strategies and minimum standards for tree retention on residential development sites. Where a jurisdiction varies its minimum standards by zone or district, we have selected the basic or default minimum requirement for residential zones and have omitted any unique requirements for special districts or overlays.

Jurisdiction	Code Citation	Strategy	Minimum Requirement, Residential
Olympia, WA	Chapter 16.60	Tree Density	30 tree units/acre
Tigard, OR	Chapter 18.790	Effective Tree Canopy Cover	Between 33% and 40% for residential zones
Vancouver, WA	Chapter 20.770	Tree Density	30 tree units/acre
Pierce County, WA	Chapter 18J.15	Tree Density	30 tree units/acre
Seattle, WA	Chapter 25.11	Canopy Cover	No Net Loss (off-site planting approvable)

Most jurisdictions we reviewed, including Vancouver and Pierce County, exempt residential development on sites less than an acre from the minimum standards. All jurisdictions we reviewed allow sites to achieve the minimum requirement through a combination of retention and new plantings. Seattle allows off-site plantings if the minimum standard is not achievable on the site.

Each code we reviewed gives a method for calculating density or cover achieved on the site. We do not review these methods in detail, but we make the following observations. The method of tree density calculation is uniform across codes and is based upon a tree's characteristics that do not require an arborist to determine, such as diameter at breast height (d.b.h.) and whether the tree is existing (retained) or a replacement tree. The values assigned to different trees in the tree density method do vary across the jurisdictions. The methods for tree canopy cover calculation, on the other hand, seem to vary and likely would require professional evaluation to calculate.

Ease of calculation appears to be a benefit of the tree density strategy.

Recommendations

Recommendation 1: Continue to develop the heritage tree program discussed in August 2015 applicable to all properties, including public and private trees on all sites.

Recommendation 2: Begin to require retention or replacement of trees on single-family residential development sites of one-half acre or greater.

- 1) Exempt the following:
 - a) Development in designated airport safety area or object-free area;
 - b) Remodel and maintenance of existing structures, not including redevelopment as defined in BMC Title 13.
- 2) Using the Tree Density method, establish a minimum requirement of 30 tree units/acre of existing or replacement trees.
- 3) Develop a tree unit credit calculation based on those used in Olympia and Vancouver and:

- a) To encourage retention of native and coniferous trees, provide fractionally higher credit for conifers of equal d.b.h. to deciduous or to any native tree;
 - b) Allow retained or replacement trees, if any, meeting requirements for the heritage tree program, critical areas regulations, required landscaping, LID and stormwater management facilities, or required street trees to count toward the minimum tree density.
- 4) Develop flexible standards that allow modifications to bulk and dimensional requirements to accommodate tree retention, such as:
 - a) Adjustments to setbacks to support tree retention;
 - b) Adjustments to sidewalk location to support tree retention.
 - 5) Develop design standards for tree retention selection and health. For example, trees to be retained must be:
 - a) Healthy;
 - b) Wind-firm;
 - c) Appropriate to the site at their mature size;
 - d) Identified by an arborist, landscape architect, or landscape designer.
 - 6) Develop standards for selection and planting of replacement trees.
 - 7) Develop language in 19.25.050 that requires trees meeting the minimum density requirement on residential development sites to be maintained, or replaced if dead, diseased, or damaged, for the life of the project. [Note: this language is already present in 19.25.050 applicable to required landscaping.] Allow some flexibility, if authorized by the Director, if the owner shows that a tree or trees planted voluntarily after site development (i.e. by the homeowner) can substitute for the regulated tree(s).

Recommendation 3: Consider regulating removal of trees on private property, regardless of development activity.

- 1) Exempt the following:
 - a) Removal of small trees less than 6" d.b.h., unless otherwise regulated;
 - b) Abatement of hazardous tree as approved by the Director;
 - c) Emergency activities necessary to remedy an immediate threat to public health, safety, or welfare;
 - d) Removal of up to six trees per year that are not classified as heritage or that were not otherwise regulated (e.g. required as part of a development condition or building permit).

Recommendation 4: To promote uniformity of requirements, and to reduce reliance on landscaping standards to encourage tree retention, consider requiring retention or replacement of trees on commercial, industrial, multi-family and civic development sites, similar to Recommendation 2.

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