

ENVIRONMENT COMMITTEE AGENDA

August 18, 2016 – North Conference Room

21630 11th Avenue South – Des Moines 98198

6:00P – 6:50P

1. Approval of the minutes of the 6.16.2016 meeting

2. Update on the CMP Pipe Replacement Inventory

(Informational Item – 5 min)

Staff will brief the Committee on the status of the CMP Pipe Replacement Inventory work.

3. Draft LID Code Revisions

(Informational Item – 45 min)

Parametrix will be presenting the proposed municipal code revisions for integrating low impact development. A summary table of these revisions is attached.

DRAFT MINUTES - ENVIRONMENTAL COUNCIL COMMITTEE MEETING 6.16.2016

The meeting was called to order @ 6:00 PM, Thursday, June 16, 2016, in the North Conference room @ 21630 11th Avenue South, Des Moines with the following in attendance:

Council Members

Robert Back, Chair

Melissa Musser

Matt Pina

City Staff

Michael Matthias, Asst. City Manager

Dan Brewer, PBPW Director

Loren Reinhold, SWM Utility Manager

Tyler Beekley, Water Quality Specialist

Dunyele Mason, Finance Director

Matt Hutchins, Acting Asst City Attorney

Peggy Volin, Admin Asst II

AGENDA:

1. Approve minutes of the 4.21.2016 meeting
2. Draft 2017-2022 SWM CIP Budget
3. NPDES Program Update
4. Project Updates

MEETING:

1. Approve the minutes of the April 21, 2016 meeting: Unanimously approved.
2. Draft 2017-2022 SWM CIP Budget: SWM Engineering Manager Loren Reinhold and Finance Director Dunyele Mason briefed the Committee on the current and projected project list for the years 2017-2022.
3. NPDES Program Update: Water Quality Specialist Tyler Beekley updated the Committee on the various program activities and requirements associated with the City's Municipal Stormwater Permit.
4. Project Updates: SWM Engineering Manager Loren Reinhold gave a status update to the Committee on current projects which include the Lower Massey Creek Improvements; the 251st Storm Outfall Project; and the Barnes Creek/Kent-Des Moines Road Culvert Replacement Project.

Meeting adjourned at 7:05 pm

Minutes respectfully Submitted by: Peggy Volin, Admin Asst II

INTEGRATING LOW IMPACT DEVELOPMENT DRAFT CODE REVISIONS

Purpose

The City of Des Moines is integrating low impact development (LID) into their local development-related codes, rules, standards, and other enforceable documents (collectively referred to as the “code and policies”) pursuant to the 2013-2018 Western Washington Phase II Municipal Stormwater Permit (Permit), Section S5.C4 (f). According to the Permit directive, the code and policies will be updated with language that supports minimization of impervious surfaces, retention of native vegetation, and reduction of stormwater runoff in all types of development situations.

Packet Contents

This packet contains recommended revisions to the City’s current municipal code based on a preliminary assessment. Code revisions focus on removing barriers to LID. The following Code sections were included in the review:

- Title 11 Utilities
- Title 12 Streets, Sidewalks, and Public Places
- Title 14 Buildings and Construction
- Title 16 Environment
- Title 17 Subdivisions
- Title 18 Zoning

Requested Input from the Committee

- *In your review of the code including the recommended revisions, do you believe there are additional barriers to LID that should be addressed?*

Next Steps

1. General Public Meeting(s) – *Is one meeting sufficient? What location would the committee recommend?*
2. Future Environment Committee Meeting – we will update the committee following the public meetings and prepare for presentation to the Council
3. Present the DRAFT code revisions to the Council

City Code Revisions Summary Table

Low Impact Development Integration into City Code and Design Guidelines | 213-1792-015

Prepared for
City of Des Moines Public Works
21650 11th Ave S, Des Moines, WA 98198



May 2016

Prepared by
Parametrix
719 2nd Ave, Suite 200, Seattle, WA 98104

City Code Revisions Summary Table

Low Impact Development Integration into City Code and Design Guidelines | 213-1792-015

Section	Existing Text	Proposed Revision	Purpose
11.08 SURFACE WATER MANAGEMENT PROGRAM	11.08.060 Stormwater Pollution Prevention Manual – Adopted by reference. The King County Stormwater Pollution Prevention Manual is adopted by reference pursuant to RCW 35A.12.140 as though fully set forth in this chapter, as presently constituted or as it may be subsequently amended. Not less than one copy of this manual, suitably marked to indicate amendments and additions, is filed in the office of the Des Moines City Clerk for public inspection. [Ord. 1593 § 1, 2014.]	11.08.060 Stormwater Pollution Prevention Manuals – Adopted by reference. <u>(1)</u> The King County Stormwater Pollution Prevention Manual is adopted by reference pursuant to RCW 35A.12.140 as though fully set forth in this chapter, as presently constituted or as it may be subsequently amended. Not less than one copy of this manual, suitably marked to indicate amendments and additions, is filed in the office of the Des Moines City Clerk for public inspection. [Ord. 1593 § 1, 2014.] <u>(2)</u> The King County Surface Water Design Manual is adopted by reference pursuant to RCW 35.21.180 as though fully set forth in this chapter, as presently constituted or as it may be subsequently amended. Not less than one copy of this manual, suitably marked to indicate amendments and additions, is filed in the office of the Des Moines City Clerk for public inspection. [Ord. 1583 § 83, 2013.]	- LID flow control standard and subsequent preferred use of LID approaches and BMPs included in King County manual requirements. - King Co Surface Water Design Manual currently adopted by reference in Title 16 SEPA. - Move reference to this section to Improve clarity. All stormwater management manuals referenced in same section. - Clarify proper RCW reference.
11.08.070 UTILITIES, Supplemental storm water standards.	(2) Impervious Surface Percentage Exemption. Under Core Requirement No. 3 for Flow Control of the King County Surface Water Design Manual, the impervious surface percentage exemption exempting threshold drainage areas that result in no more than four percent total impervious surface and no more than 15 percent pervious surface is not allowed.	(2) Impervious Surface Percentage Exemption. Under Core Requirement No. 3 for Flow Control of the King County Surface Water Design Manual, the impervious surface percentage exemption exempting threshold drainage areas that result in no more than four percent total impervious surface and no more than 15 percent pervious surface is not allowed.	Exemption removed from 2016 King Co SWDM

Section	Existing Text	Proposed Revision	Purpose
11.08.070(5) UTILITIES, Supplemental storm water standards, Storm Water Discharges to Wetlands.	(b) Discharges to wetlands shall maintain the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated uses. The hydrologic analysis shall use the existing land cover condition to determine the existing hydrologic conditions unless directed other-wise by a regulatory agency with jurisdiction. A wetland can be considered for hydrologic modification and/or storm water treatment in accordance with Guide Sheets 1B and 2B in Appendix I-D of the Department of Ecology Stormwater Management Manual for Western Washington (2005). Guide Sheets 1B and 2B of Appendix I-D of the Department of Ecology Stormwater Management Manual for Western Washington (2005) are adopted by reference in subsection (6) of this section and are for wet-land protection in accordance to this chapter. (6) Department of Ecology Stormwater Management Manual for Western Washington Guide Sheets 1B and 2B – Adopted by reference. (a) The Department of Ecology Stormwater Management Manual for Western Washington (2005) Guide Sheets 1B and 2B are adopted by reference pursuant to RCW 35A.12.140 as though fully set forth in this chapter, and as presently constituted or as may be subsequently amended. (b) Not less than one copy of each such regulation as written, and suitably marked to indicate amendments and additions, is filed in the office of the Des Moines City Clerk and is available for use and examination by the public. [Ord. 1593 § 2, 2014.]	(b) Discharges to wetlands shall maintain the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated uses. The hydrologic analysis shall use the existing land cover condition to determine the existing hydrologic conditions unless directed other-wise by a regulatory agency with jurisdiction. A wetland can be considered for hydrologic modification and/or storm water treatment in accordance with Guide Sheets 1B and 2B in Appendix I-D of the Department of Ecology Stormwater Management Manual for Western Washington (2005). Guide Sheets 1B and 2B of Appendix I-D of the Department of Ecology Stormwater Management Manual for Western Washington (2005) are adopted by reference in subsection (6) of this section and are for wet-land protection in accordance to this chapter. (6) Department of Ecology Stormwater Management Manual for Western Washington Guide Sheets 1B and 2B – Adopted by reference. (a) The Department of Ecology Stormwater Management Manual for Western Washington (2005) Guide Sheets 1B and 2B are adopted by reference pursuant to RCW 35A.12.140 as though fully set forth in this chapter, and as presently constituted or as may be subsequently amended. (b) Not less than one copy of each such regulation as written, and suitably marked to indicate amendments and additions, is filed in the office of the Des Moines City Clerk and is available for use and examination by the public. [Ord. 1593 § 2, 2014.]	Update to most recent version of manual to provide up-to-date guidance, including most recent LID requirements

Section	Existing Text	Proposed Revision	Purpose
11.12.020(8) UTILITIES, Surface Water Utility Rates, Definitions	“Impervious surface” or “area” means a hard surface area which either prevents or retards the entry of water into the soil mantle as it entered under natural conditions prior to development, and/or a hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roofs, walk-ways, patios, driveways, parking lots, storage areas, areas which are paved, graveled or made of packed or oiled earthen materials, or other surfaces which similarly impede the natural infiltration of surface and storm water. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purpose of this chapter.	“Impervious surface” or “area” means a hard surface area which that either prevents or retards the entry of water into the soil mantle as it entered under natural conditions prior to development, and/or a hard surface area which that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roofs, walk-ways, patios, driveways, parking lots, storage areas, areas which are paved, graveled or made of packed or oiled earthen materials, or other surfaces which similarly impede the natural infiltration of surface and storm water. <u>For the purposes of applying impervious surface thresholds and exemptions contained in this surface water design manual, permeable pavement, vegetated roofs, and pervious surfaces with underdrains designed to collect stormwater runoff are considered impervious surface while open Open, uncovered retention/detention facilities shall are not be considered as impervious surfaces for the purpose of this chapter. However, for the purposes of computing runoff, uncovered flow control or water quality facilities shall be modeled as impervious surfaces as specified in the surface water design manual.</u>	Minimize impervious surfaces Minimize stormwater runoff

Section	Existing Text	Proposed Revision	Purpose
11.12.020 UTILITIES, Surface Water Utility Rates, Definitions	(No current definition)	<u>“Permeable pavement” means pervious concrete, porous asphalt, permeable pavers, or other forms of pervious or porous paving material intended to allow passage of water through the pavement section. Permeable pavement includes an aggregate base or natural soil base that provides structural support and acts as a stormwater reservoir. Surfaces referred to as “paved” shall include those covered by permeable pavement.</u>	Definition based on King Co SWDM.
11.12.020(12) UTILITIES, Surface Water Utility Rates, Definitions	(19) “Storm water drainage system” means constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat or filter storm water. (20) “Storm water facility” means a constructed component of a storm water drainage system designed or constructed to perform a particular function, or multiple functions. Storm water facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment basins and modular pavement. Storm water facilities are described in the King County Surface Water Design Manual as previously adopted in DMMC 18.86.330.	(19) “Storm water drainage system” means constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat or filter storm water. (20) “Storm water facility” means a constructed component of a storm water drainage system designed or constructed to perform a particular function, or multiple functions. Storm water facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment basins and modular pavement. Storm water facilities are described in the King County Surface Water Design Manual as previously adopted in DMMC 18.86.330.	Shown for comparison with 12.01.050 “Surface water drainage facilities”, no change recommended
12.01.050 STREETS, SIDEWALKS, AND PUBLIC PLACES, Definitions – Use of words and phrases.	“Nonconforming paved street surface” means asphaltic concrete or cement concrete street surface that does not conform with the current “City of Des Moines Street Development Standards,” but that the Planning, Building and Public Works Director finds to be adequate for projected vehicular traffic.	“Nonconforming paved street surface” means asphaltic concrete, or cement concrete, <u>or permeable pavement</u> street surface <u>(as defined in DMMC 11.12.010(8))</u> that does not conform with the current “City of Des Moines Street Development Standards,” but that the Planning, Building and Public Works Director finds to be adequate for projected vehicular traffic.	Minimize impervious surfaces Minimize stormwater runoff

Section	Existing Text	Proposed Revision	Purpose
12.01.050 STREETS, SIDEWALKS, AND PUBLIC PLACES, Definitions – Use of words and phrases.	“Standard street surface” means street surface that is paved in accordance with current “City of Des Moines Street Development Standards.”	<u>[Street Development Standards to be updated to include permeable pavement as a standard option.]</u>	- Minimize impervious surfaces - Minimize stormwater runoff
12.01.050 STREETS, SIDEWALKS, AND PUBLIC PLACES, Definitions – Use of words and phrases.	“Street system improvements” include a half street section of street pavement (including appropriate subpaving preparation), surface water drainage facilities, sidewalks where required, curbs, gutters, street lighting, right-of-way landscaping (including street trees where required), and other similar improvements as required by the “City of Des Moines Street Development Standards.”	“Street system improvements” include a half street section of street pavement (including appropriate subpaving preparation), surface water drainage facilities, sidewalks where required, curbs, and gutters if used , street lighting, right-of-way landscaping (including street trees where required), and other similar improvements as required by the “City of Des Moines Street Development Standards.”	Remove barriers to LID BMPs
12.01.050 STREETS, SIDEWALKS, AND PUBLIC PLACES, Definitions – Use of words and phrases.	“Surface water drainage facilities” means piped and covered surface water drainage, including catch basins, and such detention, retention, and biofiltration as the Planning, Building and Public Works Director shall require in accordance with sound engineering principles and the adopted ordinances and policies of the City.	“Surface water drainage facilities” means piped and covered surface water drainage, including catch basins, and such detention, retention, and biofiltration as the Planning, Building and Public Works Director shall require in accordance with sound engineering principles and the adopted ordinances and policies of the City. is as defined in Title 11 DMMC.	- Refers to broader definition that removes barriers to LID and provides more consistency in the code. - Term used to identify systems developer is required to construct
12.05.250 USE AND MAINTENANCE OF PUBLIC RIGHTS-OF-WAY, Duty to maintain clean rights-of-way.	No person shall willfully or negligently cause or allow dirt, mud, rocks, vegetation, grease, oil, or other foreign material or substance to be deposited, stored, abandoned, discharged, or spread on a public street, alley, sidewalk, walkway, trail, shoulder, or drainage ditch; provided, however, nothing contained in this chapter shall require an adjacent property owner to maintain any drainage ditch. [Ord. 1578 § 40, 2013.]	No person shall willfully or negligently cause or allow dirt, mud, rocks, vegetation, grease, oil, or other foreign material or substance to be deposited, stored, abandoned, discharged, or spread on a public street, alley, sidewalk, walkway, trail, shoulder, or drainage ditch facility ; provided, however, nothing contained in this chapter shall require an adjacent property owner to maintain any drainage ditch. [Ord. 1578 § 40, 2013.]	Broaden section to include protection of LID facilities

Section	Existing Text	Proposed Revision	Purpose
12.15.050 Street Development Standards.	Streets and sidewalks in the City shall be constructed in accordance with the provisions of a document entitled "City of Des Moines Street Development Standards." The Street Development Standards shall be approved by the City Council and amended as is necessary by approval of the City Council. [Ord. 1578 § 58, 2013.]	Streets and sidewalks in the City shall be constructed in accordance with the provisions of a document entitled "City of Des Moines Street Development Standards." The Street Development Standards shall be approved by the City Council and amended as is necessary by approval of the City Council. [Ord. 1578 § 58, 2013.]	• <u>Minimize</u> impervious surfaces • Minimize stormwater runoff • Street Development Standards to be updated: - Reduce required road widths - Redefine/ reassign road classifications - Pavement structural layer requirements to include permeable pavements - Street tree standards to include those compatible with LID facilities - Reduce requirements for sidewalks on both sides for some roads - Set required road widths at minimum fire code widths - Road standards to minimize the amount of curb required - Curb standards to allow flow-through curbs - Planting standards to allow recessed planting strips

Section	Existing Text	Proposed Revision	Purpose
12.20.060 STREET SYSTEM IMPROVEMENT REQUIREMENTS	All development sites shall be served by paved streets. All development sites shall be served by a paved street surface which connects to an existing paved street surface. [Ord. 1578 § 65, 2013.]	All development sites shall be served by paved streets. All development sites shall be served by a paved street surface which connects to an existing paved street surface. [Ord. 1578 § 65, 2013.]	Consider eliminating this requirement per directive to minimize impervious surface
12.20.080 Development sites fronting paved street surface.	If the development site fronts a paved street surface, the developer shall construct street system improvements along the right-of-way frontage of the development site in accordance with this section. (1) The developer shall construct surface water drainage facilities.	If the development site fronts a paved street surface, the developer shall construct street system improvements along the right-of-way frontage of the development site in accordance with this section. (1) The developer shall construct surface storm water drainage facilities.	Update definition for consistency and clarity
12.20.080 Development sites fronting paved street surface.	(2) The developer shall construct side-walks if the development site fronts a sidewalk route. (3) The developer shall construct curb, gutter, and right-of-way landscaping. 12.20.085 (4) If the developer is required to construct either curb, gutter, and sidewalk or solely curb and gutter, the developer is required to construct such street pavement as is necessary to provide continuity between the sidewalk, curb, and gutter or curb and gutter and the paved street surface. [Ord. 1578 § 67, 2013.]	(2) The developer shall construct side-walks if the development site fronts a sidewalk route. (3) The developer shall construct curb, gutter, and right-of-way landscaping. 12.20.085 (4) If the developer is required to construct either curb, gutter, and sidewalk or solely curb and gutter, the developer is required to construct such street pavement as is necessary to provide continuity between the sidewalk, curb, and gutter or curb and gutter and the paved street surface. [Ord. 1578 § 67, 2013.]	Consider eliminating this requirement per directive to minimize impervious surface

Section	Existing Text	Proposed Revision	Purpose
14.05.120(4) BUILDING CODE, ADDITIONAL REQUIREMENTS AND AMENDMENTS, International Property Maintenance Code (IPMC) amended.	The IPMC shall read as follows: All premises and exterior property shall be maintained free from weeds or plant growth in excess of twelve (12") inches. All noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs, provided; however, this term shall not include cultivated flowers and gardens.	The IPMC shall read as follows: All premises and exterior property shall be maintained free from weeds or plant growth in excess of twelve (12") inches. All noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs, provided; however, this term shall not include cultivated flowers and gardens, <u>or vegetation within drainage facilities. Vegetation within drainage facilities shall be maintained in accordance with the surface water design manual and any site-specific drainage facility maintenance plan.</u>	Remove barriers to LID
14.20.030 LAND FILLING, CLEARING AND GRADING CODE, Purpose.	(g) To acknowledge that trees and ground cover reduce air pollution by producing pure oxygen from carbon dioxide;	(g) To acknowledge that trees and ground cover reduce air pollution by producing pure oxygen from carbon dioxide; <u>and reduce stormwater runoff by intercepting, evapotranspiring, and retaining rainwater in the soils surrounding their root systems;</u>	- Minimize native vegetation loss - Minimize stormwater runoff
14.20.080 LAND FILLING, CLEARING AND GRADING CODE, Permit – Plans and specifications.	(2) Site Plan. An accurate plan for the entire site illustrating the existing conditions shall be submitted to the City containing the following information: (d) The location of all existing drainage facilities, natural and manmade, which transport surface water onto, across, or from the site including: streams and surface waters, artificial channels, drainpipe, or culverts;	(2) Site Plan. An accurate plan for the entire site illustrating the existing conditions shall be submitted to the City containing the following information: (d) The location of all existing drainage facilities, natural and manmade, which transport surface water onto <u>the site, into site soils through infiltration, across the site, or from the site including: streams and surface waters, artificial channels, drainpipe, or culverts;</u>	- Remove barriers to LID - Broaden definitions to encompass more features, including LID-type facilities

Section	Existing Text	Proposed Revision	Purpose
16.01.050 ENVIRONMENT, Definitions.	“Drainage facility” means the system of collecting, conveying, and storing surface and storm water runoff. Drainage facilities shall include but not be limited to all surface and storm water runoff conveyance and containment facilities including streams, pipelines, channels, ditches, wetlands, closed depressions, infiltration facilities, retention/detention facilities, erosion/sedimentation control facilities, and other drainage structures and appurtenances, both natural and manmade.	“Drainage facility” means the system of collecting, conveying, and storing surface and storm water runoff. Drainage facilities shall include but not be limited to all surface and storm water runoff conveyance and containment facilities including streams, pipelines, channels, ditches, wetlands, closed depressions, infiltration facilities, retention/detention facilities, erosion/sedimentation control facilities, and other drainage structures and appurtenances, both natural and manmade.	• Shown for comparison with 12.01.050 “Surface water drainage facilities”, no change recommended • Refers to both natural and constructed features • Requirement to show drainage facilities on development permit application
16.05.310 SEPA, Substantive authority – Conditions – Denial – Policies.	(d) The City formally designates the following regulations, plans, studies, reports or codes as possible bases for the exercise of authority pursuant to the State Environmental Policy Act of 1971 as amended: (xvii) King County Stormwater Pollution Control Manual, Best Management Practices for Businesses, July 1995;	(d) The City formally designates the following regulations, plans, studies, reports or codes as possible bases for the exercise of authority pursuant to the State Environmental Policy Act of 1971 as amended: (xvii) King County Stormwater Pollution Control Manual, Best Management Practices for Businesses, July 1995;	• Update to most recent version of manual to provide up-to-date guidance, including most recent LID requirements

Section	Existing Text	Proposed Revision	Purpose
16.10.090 ENVIRONMENTALLY CRITICAL AREAS, Best management practices required.	All allowed activities under this chapter shall be conducted using the best management practices, adopted pursuant to the King County Surface Water Design Manual which is adopted by this provision and implemented herein as set forth in DMMC 16.10.050, that result in the least amount of impact to the critical areas. Best management practices shall be used for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and regulation of chemical applications. The City shall observe the use of best management practices to ensure that the activity does not result in degradation to the critical area. Any incidental damage to, or alteration of, a critical area shall be restored, rehabilitated, or replaced at the responsible party's expense. [Ord. 1583 § 57, 2013.]	All allowed activities under this chapter shall be conducted using the best management practices, adopted pursuant to the King County Surface Water Design Manual which is adopted by this provision and implemented herein as set forth in DMMC 16.10.050, that result in the least amount of impact to the critical areas. Best management practices shall be used for tree, soil, and -vegetation protection, construction management, erosion and sedimentation control, water quality protection, and regulation of chemical applications. The City shall observe the use of best management practices to ensure that the activity does not result in degradation to the critical area. Any incidental damage to, or alteration of, a critical area shall be restored, rehabilitated, or replaced at the responsible party's expense. [Ord. 1583 § 57, 2013.]	Allow use of LID through soil protection
16.10.350 SEPA, Surface Water Design Manual.	Pursuant to RCW 35.21.180, the King County, Washington "Surface Water Design Manual," including all subsequent revisions, is adopted by reference as the "Surface Water Design Manual for the City of Des Moines." A current copy of the King County, Washington "Surface Water Design Manual" adopted by reference in this section shall be maintained on file in the office of the City Clerk and shall be available for public inspection. [Ord. 1583 § 83, 2013.]	[Delete section. Move to 11.08 Surface Water Management Program]	
17.35.070 LAYOUT AND DESIGN OF SUBDIVISIONS AND SIMILAR REQUIREMENTS, Access – General.	(2) An owned vehicular access having a minimum width of 20 feet shall be permitted to serve one lot only (e.g., panhandle or flag lot). The area of the vehicular access strip shall not be included in the computation of lot area.	(2) An owned vehicular access having a minimum width of 20-9 feet shall be permitted to serve one lot only (e.g., panhandle or flag lot). The area of the vehicular access strip shall not be included in the computation of lot area.	- Minimize impervious surfaces - Minimize stormwater runoff - Suggested lane width based on FHWA recommendation for local roads

Section	Existing Text	Proposed Revision	Purpose
17.35.090 LAYOUT AND DESIGN OF SUBDIVISIONS AND SIMILAR REQUIREMENTS, Access – Private streets within vehicular access tracts.	(1) General. If vehicular access within the subdivision will be provided by means other than rights-of-way, the subdivision shall establish tracts which provide the legal right of access to each of the lots served and establish joint maintenance responsibilities. The City may require that the legal right of access be granted to other adjoining properties in order to provide a safe and efficient circulation system within the City. The ownership of vehicular access tracts is shared by owners of all lots having the right to access through the tracts. (2) Private Streets. All private streets within the subdivision shall be improved in accordance with the standards set forth in chapter 12.15 DMMC.	(1) General. If vehicular access within the subdivision will be provided by means other than rights-of-way, the subdivision shall establish tracts which provide the legal right of access to each of the lots served and establish joint maintenance responsibilities. The City may require that the legal right of access be granted to other adjoining properties in order to provide a safe and efficient circulation system within the City. The ownership of vehicular access tracts is shared by owners of all lots having the right to access through the tracts. (2) Private Streets. All private streets within the subdivision shall be improved in accordance with the standards set forth in chapter 12.15 DMMC.	Consider updating or eliminating these requirements per directive to minimize impervious surface
17.35.130 LAYOUT AND DESIGN OF SUBDIVISIONS AND SIMILAR REQUIREMENTS, Utilities and related improvements – Surface water.	(1) General. The subdivision shall be served by a permanent surface water control system designed to accommodate runoff from all land within the subdivision and convey any runoff which passes through the subdivision in accordance with the surface water management program requirements of Titles 11 and 18 DMMC	(1) General. The subdivision shall be served by a permanent surface water control drainage system designed to accommodate runoff from all land within the subdivision and collect, convey, treat, detain, or infiltrate any runoff which passes through from the subdivision in accordance with the surface water management program requirements of Titles 11, 16 , and 18 DMMC	- Remove barriers to LID - Broaden definitions to encompass more features, including LID-type facilities
17.35.130 LAYOUT AND DESIGN OF SUBDIVISIONS AND SIMILAR REQUIREMENTS, Utilities and related improvements – Surface water.	(2) Tracts Required. All surface water detention and above-ground conveyance improvements shall be located in separate tracts which provide for surface water functions. The area dedicated under this section shall become the property of the City, which shall thereafter assume all maintenance and other ownership responsibilities. (3) Lot Area. The area of surface water tracts shall not be included in the compilation of lot area for any lot. [Ord. 1585 § 108, 108, 2013.].	(2) Tracts Required. All surface water detention and above-ground conveyance improvements shall be located in separate tracts which provide for surface water functions. The area dedicated under this section shall become the property of the City, which shall thereafter assume all maintenance and other ownership responsibilities. (3) Lot Area. The area of surface water tracts shall not be included in the compilation of lot area for any lot. [Ord. 1585 § 108, 2013.].	- Discussion for City: - How to handle single-unit stormwater facilities? - Single-family rain gardens? - Multi-family rain gardens?

Section	Existing Text	Proposed Revision	Purpose
17.35.190 LAYOUT AND DESIGN OF SUBDIVISIONS AND SIMILAR REQUIREMENTS, Natural features – General.	(1) General. The proposed subdivision shall demonstrate sensitivity to the natural features of the property including, but not limited to, topography, streams, lakes, wetlands, habitat, geologic features, and vegetation. Any division of land shall be designed to preserve and enhance as many of these valuable features as possible. In addition to the specific provisions of this chapter, the subdivision shall comply with all applicable provisions of Title 18 DMMC and other specific requirements regarding development restrictions due to natural features.	(1) General. The proposed subdivision shall demonstrate sensitivity to the natural features of the property including, but not limited to, topography, streams, lakes, wetlands, habitat, <u>soils</u> and other geologic features, and vegetation. Any division of land shall be designed to preserve and enhance as many of these valuable features as possible. In addition to the specific provisions of this chapter, the subdivision shall comply with all applicable provisions of Titles <u>11</u> , <u>16</u> , and <u>18</u> DMMC and other specific requirements regarding development restrictions due to natural features.	Allow use of LID through soil protection

Section	Existing Text	Proposed Revision	Purpose
17.35.210 LAYOUT AND DESIGN OF SUBDIVISIONS AND SIMILAR REQUIREMENTS, Natural features – Significant vegetation.	(3) Lots. Removal of vegetation in the remainder of the subdivision shall occur on a lot-by-lot basis. No vegetation removal shall occur on any lot until and unless a complete building permit application has been submitted and a land grading, clearing, and filling permit has been issued for that lot in compliance with chapter 14.20 DMMC. On each lot, all significant trees as defined in DMMC 17.01.050, shall be retained except: (c) No more than one tree for each 2,400 square feet of lot area shall be required to be preserved on any lot. On lots which contain more than three significant trees, the planning official shall indicate which of the trees shall be retained. In making this decision, the planning official shall give preference to retaining large healthy trees or trees which are of an unusual species. (4) Replacement. Any tree identified to be retained that is destroyed or damaged during construction shall be replaced by the applicant with five trees on the subject property or within a street planting strip near the subject property. Replacement trees shall be a minimum size of eight feet in height for evergreen trees and two inches in caliper for deciduous and shall be approved by the planning official. These street trees shall be provided in addition to any street trees required under chapter 12.15 DMMC. The exact location for and type of street trees shall be determined by the planning official. [Ord. 1585 § 116, 2013.]	(3) Lots. Removal of vegetation in the remainder of the subdivision shall occur on a lot-by-lot basis. No vegetation removal shall occur on any lot until and unless a complete building permit application has been submitted and a land grading, clearing, and filling permit has been issued for that lot in compliance with chapter 14.20 DMMC. On each lot, all significant trees as defined in DMMC 17.01.050, shall be retained except: (c) No more than one tree for each 2,400 square feet of lot area shall be required to be preserved on any lot. On lots which contain more than three significant trees, the planning official shall indicate which of the trees shall be retained. In making this decision, the planning official shall give preference to retaining large healthy trees or trees which are of an unusual species. (4) Replacement. Any tree identified to be retained that is destroyed or damaged during construction shall be replaced by the applicant with five trees on the subject property or within a street planting strip near the subject property. Replacement trees shall be a minimum size of eight feet in height for evergreen trees and two inches in caliper for deciduous and shall be approved by the planning official. These street trees shall be provided in addition to any street trees required under chapter 12.15 DMMC. The exact location for and type of street trees shall be determined by the planning official. [Ord. 1585 § 116, 2013.]	• Discussion for City: Consider changes to tree removal allowances to minimize vegetation loss and minimize stormwater runoff • Consideration: City could reserve the right to retain more trees, yet still continue approach as currently written

Section	Existing Text	Proposed Revision	Purpose
18.01.050 ZONING, General Provisions, Definitions.	“Public utility” means a private business organization such as a public service corporation performing some public service and subject to special governmental regulations, or a governmental agency performing similar public services, the services by either of which are paid for directly by the recipients thereof. Such services shall include, but are not limited to, water supply, electric power, gas, and transportation for persons and freight. “Public utility facilities” means a building or complex that facilitates an action or process associated with a public utility which can be a private business or governmental agency performing some public service, such as, but not limited to, water supply, electric power, gas, sewer, or transportation.	“Public utility” means a private business organization such as a public service corporation performing some public service and subject to special governmental regulations, or a governmental agency performing similar public services, the services by either of which are paid for directly by the recipients thereof. Such services shall include, but are not limited to, <u>stormwater management</u>, water supply, electric power, gas, and transportation for persons and freight. “Public utility facilities” means a building, or complex, <u>or installation</u> that facilitates an action or process associated with a public utility which can be a private business or governmental agency performing some public service, such as, but not limited to, <u>stormwater management</u>, water supply, electric power, gas, sewer, or transportation.	- Remove barriers to LID - Broaden definitions to encompass more features, including LID-type facilities - Minimize native vegetation loss - Minimize stormwater runoff
18.01.050 ZONING, General Provisions, Definitions.	“Required open space” means a portion of the area of a lot or building site, other than required yards, which area is required by this Title, as set forth in the different zones contained in this Title, to be maintained between buildings, between wings of a building, and between buildings and any portion of a property boundary line not contiguous to a required front or side yard. Such open spaces, as in the case of required yards, are required to be free and clear of buildings and unobstructed from the ground to the sky.	“Required open space” means a portion of the area of a lot or building site, other than required yards, which area is required by this Title, as set forth in the different zones contained in this Title, to be maintained between buildings, between wings of a building, and between buildings and any portion of a property boundary line not contiguous to a required front or side yard. Such open spaces, as in the case of required yards, are required to be free and clear of buildings and structures and to remain open and unobstructed from the ground to the sky, <u>but may contain vegetation preservation areas and drainage facilities.</u>	- Allow LID - Open spaces related to off-street parking, loading areas, convenient and safe circulation of vehicles and pedestrians, ingress and egress as related to the marginal traffic pattern, vision clearance (traffic), drainage, and lighting.

Section	Existing Text	Proposed Revision	Purpose
18.05.180 COMPREHENSIVE PLAN AND MAP; ZONING CLASSIFICATIONS, USES PERMITTED, AND PROVISIONS APPLICABLE TO ALL ZONES	(No current text)	<u>18.05.180 Impervious lot coverage shall be minimized. With the exception of detached single-family structures, understructure parking and multilevel structures shall be incorporated where feasible.</u>	• Copied from 16.10.220 Critical Area hillside requirements. • Add new section 18.05.180 to make applicable to all development • Minimize impervious surface
18.55.120 SINGLE-FAMILY RESIDENTIAL ZONE, Permissible lot coverage.	(1) In a Single-Family Residential Zone all buildings and structures shall not cover more of the lot than the maximum lot coverage requirements provided in this section. (2) The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site parking and private swimming pools.	(1) In a Single-Family Residential Zone all buildings and structures shall not cover more of the lot than the maximum lot coverage requirements provided in this section. (2) The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site parking and private swimming pools <u>provided that the stormwater management requirements of Titles 11 and 16 DMMC and the surface water design manual are met.</u>	• Minimize impervious surfaces • Minimize stormwater runoff
18.60.060 RA-3,600 RESIDENTIAL: ATTACHED TOWNHOUSE AND DUPLEX 3,600 ZONE, Dimensional standards.	(a) Except as provided below and for churches and schools which shall conform to the lot coverage limitations provided by DMMC 18.52.010A, all buildings, including accessory buildings and structures but not including any open areas used to provide parking spaces and private swimming pools on residential lots, shall not cover more than 35 percent of the area on the lot.	(a) Except as provided below and for churches and schools which shall conform to the lot coverage limitations provided by DMMC 18.52.010A, all buildings, including accessory buildings and structures but not including any open areas used to provide parking spaces and private swimming pools on residential lots, shall not cover more than 35 percent of the area on the lot. <u>The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site parking and private swimming pools provided that the stormwater management requirements of Titles 11 and 16 DMMC and the surface water design manual are met.</u>	• Minimize impervious surfaces • Minimize stormwater runoff

Section	Existing Text	Proposed Revision	Purpose
18.65.120 RM-2,400 RESIDENTIAL: MULTIFAMILY 2,400 ZONE, Permissible lot coverage.	All buildings, including accessory buildings and structures but not including private swimming pools or any open areas used to pro-vide parking on residential lots, shall not cover more than 50 percent of the area of the lot. [Ord. 1591 § 167, 2014.]	All buildings, including accessory buildings and structures but not including private swimming pools or any open areas used to pro-vide parking on residential lots , shall not cover more than 50 percent of the area of the lot. [Ord. 1591 § 167, 2014.] <u>The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site residential parking and private swimming pools provided that the stormwater management requirements of Titles 11 and 16 DMMC and the surface water design manual are met.</u>	- Minimize impervious surfaces - Minimize stormwater runoff
18.70.120 RM-1,800 RESIDENTIAL: MULTIFAMILY 1,800 ZONE, Permissible lot coverage	If a dwelling, rest home, nursing home, or convalescent home is involved, all buildings, including accessory buildings and structures but not including private swimming pools on residential lots or any open areas used to pro-vide parking space, shall not cover more than 50 percent of the area of the lot. If a dwelling or rest home, nursing home, or convalescent home is not involved, then the maximum permissible lot coverage shall not apply. [Ord. 1591 § 181, 2014.]	If a dwelling, rest home, nursing home, or convalescent home is involved, all buildings, including accessory buildings and structures but not including private swimming pools on residential lots or any open areas used to pro-vide parking space , shall not cover more than 50 percent of the area of the lot. <u>The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site parking and private swimming pools provided that the stormwater management requirements of Titles 11 and 16 DMMC and the surface water design manual are met.</u> If a dwelling or rest home, nursing home, or convalescent home is not involved, then the maximum permissible lot coverage shall not apply. [Ord. 1591 § 181, 2014.]	- Minimize impervious surfaces - Minimize stormwater runoff

Section	Existing Text	Proposed Revision	Purpose
18.75.130 RM-900 RESIDENTIAL: MULTIFAMILY 900 ZONE, Permissible lot coverage.	If a dwelling, rest home, nursing home, or convalescent home is involved, all buildings, including accessory buildings and structures, but not including private swimming pools on residential lots or open areas used to provide parking space, shall not cover more than 60 percent of the area of the lot. If a dwelling, rest home, nursing home, or convalescent home is not involved, then the maximum permissible lot coverage shall not apply. [Ord. 1591 § 196, 2014.]	If a dwelling, rest home, nursing home, or convalescent home is involved, all buildings, including accessory buildings and structures, but not including private swimming pools on residential lots or open areas used to provide parking space, shall not cover more than 60 percent of the area of the lot. <u>The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site parking and private swimming pools provided that the stormwater management requirements of Titles 11 and 16 DMMC and the surface water design manual are met.</u> If a dwelling, rest home, nursing home, or convalescent home is not involved, then the maximum permissible lot coverage shall not apply. [Ord. 1591 § 196, 2014.]	• Minimize impervious surfaces • Minimize stormwater runoff
18.80.150 RM-900A AND RM-900B RESIDENTIAL: MULTIFAMILY ZONE, Permissible lot coverage.	In an RM-900B Zone all buildings, including accessory buildings and structures, but not including private swimming pools on residential lots or open areas used to provide parking space, shall not cover more than 60 percent of the area of the lot. [Ord. 1591 § 214, 2014.]	In an RM-900B Zone all buildings, including accessory buildings and structures, but not including private swimming pools on residential lots or open areas used to provide parking space, shall not cover more than 60 percent of the area of the lot. <u>The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site parking and private swimming pools provided that the stormwater management requirements of Titles 11 and 16 DMMC and the surface water design manual are met.</u> [Ord. 1591 § 214, 2014.]	• Minimize impervious surfaces • Minimize stormwater runoff

Section	Existing Text	Proposed Revision	Purpose
18.130.100 R-SR RESIDENTIAL: SUBURBAN RESIDENTIAL ZONE, Permissible lot coverage.	In an R-SR Zone all buildings and structures, including accessory buildings and structures, but not including any open areas used to provide parking spaces or private swimming pools, shall not cover more than 35 percent of the area of the lot. In the case of churches and schools the limitation of lot coverage shall pertain to buildings and structures only, and does not include open air parking areas. [Ord. 1591 § 309, 2014.]	In an R-SR Zone all buildings and structures, including accessory buildings and structures, but not including any open areas used to provide parking spaces or private swimming pools, shall not cover more than 35 percent of the area of the lot. <u>The maximum lot coverage requirements provided in this section shall not apply to open areas for on-site parking and private swimming pools provided that the stormwater management requirements of Titles 11 and 16 DMMC and the surface water design manual are met.</u> In the case of churches and schools the limitation of lot coverage shall pertain to buildings and structures only, and does not include open air parking areas. [Ord. 1591 § 309, 2014.]	- Minimize impervious surfaces - Minimize stormwater runoff
18.195.200 LANDSCAPING AND SCREENING, Curbing.	In order to protect the landscaping materials planted and to ensure proper growth, all planter areas shall be separated from parking areas and streets by vertical curbing. Curbing shall be of Portland cement or as approved by the Planning, Building and Public Works Director. [Ord. 1591 § 431, 2014.]	<u>In order to protect the landscaping materials planted and to ensure proper growth, all planter areas shall be separated from parking areas and streets by vertical curbing. Curbing shall be of Portland cement or as approved by the Planning, Building and Public Works Director. [Ord. 1591 § 431, 2014.]</u>	Consider updating or eliminating these requirements to allow LID approaches