

Chapter 1

GENERAL REQUIREMENTS AND ADMINISTRATIVE PROVISIONS

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Chapter 1

GENERAL REQUIREMENTS AND ADMINISTRATIVE PROVISIONS

1.01 Purpose

The purpose of these Standards is to outline design requirements for sanitary sewer, storm sewer, and surface water management. The provisions of this Chapter are intended to prevent or reduce adverse impacts to the drainage system and water resources of the Tualatin River Basin. In combination with other state, federal, and local laws and ordinances, these requirements are intended to protect the beneficial uses of waters within the Tualatin River Basin and within the District. These standards are designed to protect public health, safety, and the general welfare, and to comply with Federal law, including meeting the requirements of the District's NPDES Watershed-Based Waste Discharge Permit (Permit) and other regulations relating to surface water quality and quantity.

In addition, these standards are intended to ensure the long-term viability of the sanitary sewer, storm sewer, and surface water management system and avoid unnecessary and excessive maintenance and replacement costs.

1.02 Applicability

1.02.1 Application of These Regulations

Except as provided otherwise in a specific section of these rules, these standards and regulations shall apply to all territory within the District. A city within the District may adopt more restrictive standards within the scope of this Resolution and Order, but may not adopt less restrictive standards.

1.02.2 Application of This Chapter

The requirements and administrative provisions of this Chapter shall apply to the construction of all components of the public sanitary sewer and storm and surface water systems. Additionally, all requirements and provisions of this Chapter except Sections 1.07.1, Plan Submittal Requirements and 1.08.2, Easements shall apply to the construction of any building sewer or side sewer within the District boundaries.

1.03 Definitions

As used in this Resolution and Order, the words or abbreviations set forth below shall have the indicated meanings unless the context requires otherwise. The definitions set forth in Ordinance 27, as amended, shall also apply.

1.03.1 AASHTO

American Association of State Highway and Transportation Officials

1.03.2 ANSI

American National Standard Institute

1.03.3 Approved by District or City

The phrase "Approved by District or City" is intended to allow the District or City to interpret the provisions in question in a manner consistent with the purposes stated in Section 1.01 and other applicable laws and standards of the District, and to preserve the safe and reliable operation of the public sanitary sewer and storm and surface water systems. The phrase "as approved by District or City" shall allow a City to make the interpretation. Where the context provides for approval by the District or City of an alternative or a waiver to the standards provided in this Resolution and Order, the term shall mean approval of an alternative method, material, or design which, based on an engineering judgment, meets the purpose of the standard, for the specific application and as provided in Section 1.06.

1.03.4 ASTM

American Society of Testing and Materials

1.03.5 AWWA

American Water Works Association

1.03.6 BMP

Best Management Practice

1.03.7 Break in Slope

The transition point where a valley or river bank slope flattens and represents an historic geologic terrace of a stream or river. The point at which the grade extending from a break in slope, away from the stream or river, is less than 25%. Break in slope is also commonly referred to as top of ravine in steeply sloped headwater environments. Break in slope does not include minor surface anomalies that result from localized landslide slumps or site grading.

1.03.8 Building Sewer

That portion of the private sanitary or storm sewer extending from a point five

feet outside the established line of the building or structure (including any structural projection except eaves) to the public right of way or boundary of a conveyance easement dedicated to the District or City.

1.03.9 Capital Improvement Plan

The Capital Improvement Plan adopted by the Clean Water Services Board of Directors, and any updates of the plan.

1.03.10 Construction Permit Agreement

An agreement signed by the owner containing all assurances deemed necessary by the District that all public improvements will be constructed in accordance with these standards and the approved project plans.

1.03.11 Contractor

The person designated by the District, City, or Owner to do the work in question.

1.03.12 Conveyance System

The conveyance system consists of the surface water conveyance system and the sanitary sewer system. The surface water conveyance system includes all portions of the surface water system, either natural or man-made, that transport storm and surface water runoff. The purpose of the surface water conveyance system is to drain surface water from properties so as to provide protection to property and the environment. The sanitary sewer system includes all interceptor and main sewer pipe lines, force mains, pump stations, manholes and related facilities.

1.03.13 Culvert

A surface water drainage pipe crossing a road, driveway, or pathway which has no attached structures.

1.03.14 Designee

The entity designated by the District to conduct alternatives analysis activities, per District/City Inter-Governmental Agreement (IGA), and/or co-implementer status on the National Pollution Discharge Elimination System (NPDES) Permit.

1.03.15 Development

- a. All human-induced changes to improved or unimproved real property, including:
 1. Construction of structures requiring a building permit if such structures increase or modify the impervious surface footprint on the real property;
 2. Land division, including subdivisions, lot line adjustments, expedited land partitions and minor land partitions. "Land Division" does not include plats for the sole purpose of converting existing buildings to condominiums;
 3. Drilling;
 4. Site alterations resulting from surface mining or dredging;
 5. Grading that would require an erosion control permit;
 6. Construction of earthen berms;
 7. Paving and roadway construction;
 8. Excavating that would require an erosion control permit;
 9. Clearing when it results in the removal of trees or native vegetation that would require a permit from the City/County or notification to the Oregon Department of Forestry;
 10. Redevelopment; and
 11. Construction of utility infrastructure.

- b. The following activities are not included in the definition of development:
 1. Farming activities when conducted in accordance with accepted farming practices as defined in ORS 30.930 or under the Tualatin River Subbasin Agricultural Water Quality Management Area Plan.
 2. Construction on lots in subdivisions meeting the criteria of ORS 92.040(2).
 3. Any development activity for which land use approvals have been issued pursuant to a land use application submitted to a land use authority on or before February 4, 2000 and deemed complete by the land use authority on or before March 15, 2000. Renewals or modifications of such land use approvals shall be required to conform to these regulations.
 4. When not proposed in conjunction with other development, measures to repair, maintain, or remove existing structures, facilities, roadways, driveways, accessory uses, or other impervious surfaces, provided such measures are consistent with District/City/County regulations, and do not encroach further into the Vegetated Corridor or Sensitive Area.
 5. Interior modifications and vertical additions (additional stories) that do not modify the existing structure footprint or increase the building footprint impervious area of the site, provided such

modifications or additions are consistent with District/City/County regulations and do not encroach further into the Vegetated Corridor or Sensitive Area.

6. Measures to replace within the existing footprint a structure(s) lost due to a catastrophic event such as fire, provided that such measures are consistent with District/ City/County regulations. Structures that are partly or wholly within a FEMA designated 100-year floodplain that are damaged beyond more than 50% of the value or proposed to be improved by more than 50% of their value, must be elevated or flood-proofed consistent with the National Flood Insurance Program participation requirements.

1.03.16 Development Class

One of the project conditions determining the Hydromodification Approach, based on the land use at the project site. There are two Development Classes: Developed Area and Expansion Area. For the purposes of these standards, Developed Areas are those areas that were added to the Metro Urban Growth Boundary prior to 2002, and Expansion Areas are areas added to the Metro Urban Growth Boundary after 2002 that remain largely undeveloped.

1.03.17 District or CWS

"District" or "CWS" means Clean Water Services and includes any representative or employee of the District authorized to act in its behalf.

1.03.18 District or City

- a. When the term "District or City" is used in this Resolution and Order, either the District or a City, including its authorized representatives, may perform a task or duty specified within this Resolution and Order, provided that, a City may perform such task or duty only when:
 1. There is an intergovernmental agreement in effect between the District and City assigning such authority to the City, and
 2. The City action is within the boundary of that City, and
 3. The action is subject to the terms of such agreement and to the provisions of this Resolution and Order.
- b. Where the term "District or City" is used, the District shall retain the ability to carry out a task or duty.

1.03.19 Drainage Ditch

- a. Drainage ditches include:

1. Roadside ditches that carry only stormwater runoff from the adjacent road which may be mixed with unconcentrated flow from adjacent lots;
2. Constructed channels designed as part of the stormwater infrastructure and drain directly from stormwater facilities or storm pipe systems; and
3. Agricultural or other manmade ditches that divert water away from the natural stream for the purpose of irrigation or livestock watering.

b. Drainage ditches do not include historically altered streams or channels that convey surface water flows.

1.03.20 Easement or Right-of-Way

A right of use on real property of another, entitling the District or City to construct, own and maintain a public sanitary sewer, pump station, storm system, and related facilities on, under and through the subject real property.

1.03.21 Edge of Sensitive Area

The Edge of Sensitive Area is defined based on the type of sensitive area as detailed below:

- a. The top of the channel bank;
- b. The two-year 24 hour design storm elevation for the Tualatin River;
- c. The delineated boundary of the wetland, per DSL / Corps procedures for wetland delineation;
- d. The outside edge of spring emergence (measured as the area of saturation, hydric soil conditions, or channel formation, whichever is greatest);
- e. The average high water mark for lakes, ponds, and in-stream impoundments;
- f. For streams draining 10 or more acres where no defined channel exists, and where there are no other sensitive areas such as wetlands, the edge of the sensitive area shall be the centerline of the natural drainage swale.

1.03.22 Engineer

The person, firm, corporation, partnership, or association duly registered by the State of Oregon providing engineering work on a project or construction

covered by this Resolution and Order. If the person providing the engineering for the project is a District or City employee, then "engineer" expressly includes such employee.

1.03.23 Enhancement

Modification of a Sensitive Area or Vegetated Corridor to improve its ecological functions and values, improve its ability to protect the water resources, and improve surface water quality.

1.03.24 Erosion

The movement of soil particles resulting from the flow or pressure from water, or wind, or from tracking by vehicles or foot traffic.

1.03.25 Floodplain

The land area identified and designated by the United States Army Corps of Engineers, the Oregon Division of State Lands, FEMA, or Washington County that has been or may be covered temporarily by water as a result of a storm event of identified frequency.

1.03.26 Floodway

The portion of a watercourse required for the passage or conveyance of a given storm event as identified and designated by the District pursuant to this Resolution and Order. The floodway shall include the channel of the watercourse and the adjacent floodplain that must be reserved in an unobstructed condition in order to discharge the base flood without increasing flood levels by more than one foot.

1.03.27 Floodway Fringe

The area of the flood plain lying outside the floodway which does not contribute appreciably to the passage of flood water but serves as a retention area.

1.03.28 Frontage Length

A linear measure of the length of the development front, which is directly adjacent to the vegetated corridor.

1.03.29 General Processing Fee

A fee established in the District's Rates and Charges Resolution and Order.

1.03.30 Governmental Unit

Governmental Unit includes:

- a. The federal government and any of its departments, agencies, boards or commissions;
- b. The government of the State of Oregon and any of its departments, agencies, boards or commissions;
- c. Any city within the District's service district boundaries;
- d. The cities of Portland and Lake Oswego;
- e. Washington County;
- f. Any school district;
- g. Any municipal or public corporation or special district, as defined by ORS Chapter 198, which is created for the administration of public affairs, supported by public funds and governed by managers which derive their authority from a federal, state, or local governing body; and
- h. Any intergovernmental agency, department, council, or like entity created under ORS Chapter 190.

1.03.31 Hazardous Material(s)

"Hazardous material(s)" or "hazardous substance(s)" means any element or compound that, when it enters in or upon the water, presents an imminent and substantial danger to the public health or welfare or the environment, including but not limited to fish, animals, vegetation or any part of the natural habitat in which they are found. "Hazardous material or substance" includes but is not limited to a substance designated under 33 U.S.C. §1321 (b)(2)(A), any element, compound, mixture, solution or substance designated under 42 U.S.C. §9602, any hazardous waste having characteristics identified under or listed under 42 U.S.C. §6921, any toxic pollutant listed under 33 U.S.C. §1317 (a), any imminently hazardous chemical substance or mixture with respect to which the Administrator of the United States Environmental Protection Agency has taken action under 15 U.S.C. §2606, and any residue classified as a hazardous waste pursuant to ORS 466.020(3).

1.03.32 Hydromodification

Alteration of runoff volumes, rates, and timing resulting from increased impervious surface. This typically occurs with conversion of land uses from non-urban to urban, or within urban land uses, with a change in development density or type.

1.03.33 Hydromodification Approach

An engineered or natural feature designed or protected to provide stormwater management and offset impacts to natural resources from the effects of hydromodification.

1.03.34 ICEA

Insulated Cable Engineers' Association

1.03.35 Impervious Surface

Pavement, maintained gravel areas, structures, public and private roadways, roofs, and other hard surfaces which are not specifically designed to allow water to infiltrate.

1.03.36 Infill Exemption

An allowance for Fee-In-Lieu for projects where drainage from the project site is relatively small compared to the drainage basin of the receiving stream, the basin for the receiving stream is mostly developed, and the Risk Level is low or moderate as described in these Standards.

1.03.37 Inspector/District Inspector

The person designated by the District or City to inspect the work.

1.03.38 Intermittent Streams and Springs

Streams and springs that consistently do not have year-round water or saturated soil within their channel or swale in a year with wet to average precipitation patterns. Intermittent flow must occur with some degree of regularity and must be in a definite direction. Section 3.14.3 provides the methodology for determining intermittent status.

1.03.39 Lateral

That portion of the private sanitary or storm sewer extending from a point five feet outside the established line of the building or structure (including any structural projection except eaves) to the public sanitary sewer or storm

system main, including the fittings or connection to the mainline. The lateral includes both the “building sewer” and the “side sewer.”

1.03.40 LIDA

Low Impact Development Approaches (LIDA) mitigate the impacts of increased runoff and stormwater pollution using a set of planning, design, construction techniques and stormwater management approaches that promote the use of natural systems for infiltration, evapotranspiration and reuse of rainwater. LIDA can occur at a wide range of landscape scales (i.e., regional, neighborhood and site) and include, but are not limited to, green roofs, porous pavement, and vegetated stormwater management approaches.

1.03.41 Linear Development Project

Linear development projects include but are not limited to roads, trails, paths, and utility lines where development is taking place within a right-of-way or an easement on a parcel that is not owned or controlled by the applicant. Linear development projects also include linear projects such as trails where the project is occurring on only a small part of a large parcel owned by the applicant.

1.03.42 Local Program

The portion of the sanitary sewerage system, or storm and surface water system, program of construction, operation, maintenance, and regulation within the District's service area which may be performed by the District or by a City, County, or by intergovernmental agreement.

1.03.43 Mitigation

The reduction of adverse effects of a proposed project by considering, in the following order:

- a. Avoid the impact altogether by not taking a certain action or parts of an action;
- b. Minimize impacts by limiting the degree or magnitude of the action and its implementation;
- c. Rectify the impact by repairing, rehabilitating or restoring the affected environment;
- d. Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action by monitoring and taking appropriate corrective measures; and

- e. Compensate for the impact by replacing or providing comparable sensitive areas or vegetated corridors.

1.03.44 Modify or Modification (as related to impervious surface)

The removal of an impervious surface that exposes gravels, aggregates or soil followed by the placement of impervious or pervious surfaces when not a repair, maintenance activity, or associated with the placement of underground utilities.

1.03.45 NEMA

National Electrical Manufacturers Association

1.03.46 "Or Equal," "Or Approved Equal," "Or Equivalent"

These terms indicate that the "equal" product is the same or better than the product or standard named or prescribed in function, performance, reliability, quality, and general configuration.

Determination of the quality in reference to the project design requirements will be made by the District. Contractor shall not use such "equal" products without prior written approval of the District.

1.03.47 ORS

Oregon Revised Statutes

1.03.48 Outfall

A point where collected and concentrated surface and stormwater runoff is discharged.

1.03.49 Owner or Property Owner

The person who is the legal record owner of the real property, or where there is a recorded land sale contract, the purchaser thereunder.

1.03.50 Path

A developed route primarily for use by pedestrians and non-motorized vehicles.

1.03.51 Perennial Streams and Springs

Streams and springs that have year-round water or saturated soil within the channel in a year with wet to average precipitation patterns. A stream will be considered perennial unless determined to be intermittent using one of the criteria outlined in Section 3.14.3.

1.03.52 Person

Any individual, firm, partnership, joint venture, association, social, fraternal, educational, religious or charitable organization, fraternity, sorority, joint stock company, corporation, estate, trust, business trust, receiver, trustee, syndicate, municipal corporation, district or political subdivision or any legal entity whatsoever.

1.03.53 Plans

The drawings and designs that specify construction details as prepared by the Engineer.

1.03.54 Point of Discharge

Location where stormwater runoff from a project site discharges to the Receiving Reach. This may be a direct discharge to the Receiving Reach on-site or a discharge through conveyances systems, such as pipes and roadside ditches, to an off-site Receiving Reach.

1.03.55 Post Construction Erosion Control

Re-establishing groundcover or landscaping prior to the removal of temporary erosion control measures.

1.03.56 Pre-Development

A Project Site's surface condition prior to the proposed development.

1.03.57 Property or Project or Site

The subject real property on which development or permitted activity takes or is proposed to take place. For activity occurring on property other than that which the applicant owns or controls, the property or the site shall mean the land within limits of the permanent and temporary construction easements or right-of-way.

1.03.58 Project Size Category

One of the project conditions used to determine the Hydromodification Approach for a project site that is based on the amount of impervious surface within the project site. There are three Project Size Categories: Small, Medium, and Large.

1.03.59 Public Sanitary Sewer(s) and Storm and Surface Water System

The sanitary sewer and storm and surface water collection systems, within easements or right-of-way dedicated to the public or District/City, which are operated and under the jurisdiction of and maintained by the District and/or City.

1.03.60 Redevelopment

Redevelopment includes only those activities that alter existing improved impervious surfaces on the subject property. Redevelopment does not include the addition of impervious surfaces to areas that were previously pervious. Redevelopment includes but is not limited to: the expansion of or change to an existing building footprint or structure, provided such expansion only impacts already impervious surfaces; reconfiguration of existing roadways, driveways, or parking lots; and land disturbing activities related to structural or impervious surface modifications.

1.03.61 Receiving Reach

Used to determine Hydromodification Risk Level for a project, the stream reach extending from the Point of Discharge to one quarter mile downstream.

1.03.62 Replacement Area

The mitigation area required to compensate for an encroachment into the Vegetated Corridor or Sensitive Area.

1.03.63 Risk Level

One of the receiving reach conditions used to determine the Hydromodification Approach for a development, based on the likely risk of physical or biological degradation of the stream corridor. There are three Hydromodification Risk Levels: High, Moderate, and Low.

1.03.64 Roadways

Roadways include the driving surface, the structural embankment of the road surface, and associated drainage ditches. Roadways may or may not correspond to the road right-of-way.

1.03.65 Sensitive Area

a. Includes:

1. Existing and created wetlands;
2. Rivers, streams, and springs, whether flow is perennial or intermittent; or
3. Natural lakes, ponds, and in-stream impoundments.

b. Does not include:

1. Stormwater infrastructure;
2. A Vegetated Corridor (a buffer) adjacent to the Sensitive Area;
3. An off-stream recreational lake, wastewater treatment lagoon, fire pond or reservoir; or
4. Drainage Ditches.

1.03.66 Side Sewer

That portion of the private sanitary sewer or storm system extending from the public sanitary sewer or storm system main to the edge of the public right-of-way or boundary of a conveyance easement dedicated to the District or City.

1.03.67 Spring

The point at which groundwater emerges and forms a channel or swale.

1.03.68 Stream

A surface concentration of flow in a channel or swale in which a flow of water occurs either perennially or intermittently.

1.03.69 Stormwater

Stormwater is water that runs off only from impervious surfaces during rain events.

1.03.70 Stormwater Infrastructure

Any structure, feature, or drainage ditch that is designed, constructed, and maintained to collect and filter, convey, retain, or detain stormwater runoff during and after a storm event for the purpose of water quality improvement

or quantity management. It includes, but is not limited to, features such as constructed wetlands, water quality swales, landscaped retention areas, and detention ponds that are maintained as stormwater quality or quantity control facilities.

1.03.71 Surface Water

Water that drains from the landscape via overland flow or ground water resurgence. Surface water flows can and often do include stormwater runoff.

1.03.72 This Resolution and Order

"This Resolution and Order," "These Standards and Regulations" and similar terms mean this entire Resolution and Order adopted by the CWS Board of Directors, this Exhibit A, Chapters 1-10 and Appendices A and B.

1.03.73 UL

Underwriters Laboratories, Inc.

1.03.74 User

The person responsible for discharge of stormwater or wastewater into the public system, as further defined in Ordinance 27.

1.03.75 Vegetated Corridor

A corridor adjacent to a Sensitive Area that is preserved and maintained to protect the water quality functions of the Sensitive Area.

1.03.76 Visible or Measurable Erosion

Visible or measurable erosion includes but is not limited to:

- a. Deposits of mud, dirt, sediment or similar material exceeding one-half cubic foot in volume on public or private streets, adjacent property, or into the storm and surface water system, either by direct deposit, dropping, discharge, or as a result of the action of erosion.
- b. Evidence of concentrated flows of water over bare soils; turbid or sediment laden flows; or evidence of on site erosion such as rivulets on bare soil slopes, where the flow of water is not filtered or captured on the site using the techniques in Chapter 6.
- c. Earth slides, mudflows, earth sloughing, or other earth movement, which leaves the property.

1.03.77 Water Quality or Quantity Approach

An engineered or natural feature designed or protected to provide stormwater management. Approaches consist of water quality and quantity facilities, natural systems and other low impact development approaches.

1.03.78 Water Quality Sensitive Area, or Sensitive Area

See “Sensitive Area” definition.

1.03.79 Watercourse

A watercourse is a:

- a. channel
- b. creek
- c. stream
- d. river
- e. swale, or
- f. storm drain pipe in which a flow of water occurs either perennially or intermittently.

1.03.80 Wetlands

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Categories of wetlands include:

- a. Created Wetlands
Those wetlands developed in an area previously identified as a non wetland to replace, or mitigate wetland destruction or displacement. A created wetland shall be regulated and managed the same as an existing wetland.
- b. Constructed Wetlands
Those wetlands developed as a stormwater facility, subject to change and maintenance as such. These areas must be clearly defined or separated from existing or created wetlands. Constructed wetlands shall be regulated as created wetlands only if they serve as wetland mitigation.

- c. Jurisdictional Wetlands
Jurisdictional wetlands as determined by the Division of State Lands (DSL) or the US Army Corps of Engineers (COE).
- d. Isolated Wetlands
Wetlands not connected to streams or other surface water bodies.

1.03.81 Work

All labor necessary to produce the construction required by the approved construction plans, and all materials and equipment incorporated to complete construction.

1.04 Prohibited Activities

In addition to the restrictions of Ordinance 27, Section 3.B, the following activities are prohibited, except as expressly allowed or approved by District / City/ County permit:

- a. The discharge, placement, deposit, dumping or otherwise contributing a solid or liquid material into the public storm and surface water system, either directly or indirectly, which may obstruct flow or otherwise interfere with the operation or function of a public storm and surface water facility. This shall include but is not limited to placing of soil or rock without an approved fill permit, or the dumping of debris, yard waste, rubbish, trash, or other waste material.
- b. The operation of a motor vehicle on native ground in a Sensitive Area or Vegetated Corridor.
- c. The removal of native vegetation in a Sensitive Area or Vegetated Corridor.
- d. The interruption of a natural water source to a Sensitive Area.
- e. The removal of non-native invasive vegetation from a Sensitive Area, Vegetated Corridor, or Stormwater facility other than with an integrated vegetation management approach.
- f. The use of pesticides on property, including easements, owned by a city, county or other political subdivision, including the District, unless the use is permitted by property owner, or in the case of District easements, the District.

1.05 Enforcement

Failure to comply with any provision of these Standards or with a permit issued under these rules shall be deemed a violation of this ordinance and subject to enforcement action pursuant to applicable District and City Ordinances and Resolutions and Orders, including all implementing rules and regulations.

1.06 Alternate Methods

Alternate methods or materials not explicitly approved in these Standards will be considered for approval on the basis of the intent, objectives, and applications set forth in this Resolution and Order and other District rules and regulations. Any alternative shall meet or exceed the minimum requirements set forth in these Standards. Those seeking such approvals shall make application in writing. Approval of any major or significant deviation or waiver from these Standards, as determined by the District, will be in written form.

The written application is to include the manufacturer's specifications, testing results, design drawings, calculations, maintenance and operation requirements, and other pertinent information. Request for approval of alternatives or waiver of a standard may be submitted with initial or subsequent plan submittals and shall include a written report with all pertinent information necessary to review, evaluate and approve the request. All requests will be reviewed and evaluated on a case-by-case basis.

1.07 Provisions Within Cities Operating the Local Program

1.07.1 Plan Submittal Requirements

Construction plans for any proposed public sanitary or storm system or water quality or quantity facility to be located within a City operating a local program shall be prepared by an Engineer registered in Oregon and submitted to the appropriate City for review. The City shall submit one set of construction plans to CWS for review and approval. If the proposed public sanitary/storm system connects to a CWS-maintained system, the City shall submit two sets of plans to the District. (Plans can be submitted to CWS in electronic format). CWS shall review the plans to ensure conformance to these construction standards and return one set to the City. The City shall incorporate CWS's comments into the final approval of the construction plans.

1.07.2 Inspection

Except as provided within intergovernmental agreements, the inspection of sanitary and storm sewer systems and water quality and quantity facilities within a City which operates a local program is the responsibility of that City. The City shall ensure compliance with these construction standards. The District may inspect such facilities at its discretion in addition to the City inspection.

1.08 Other Provisions

1.08.1 Responsibilities of Property Owner

In addition to all requirements placed upon the Owner herein, whenever any

requirement or obligation is imposed upon the Engineer, the Contractor or any other individual employed or supplied by the Owner in this Resolution and Order, such requirement or obligation is also expressly imposed upon the Owner of the property. The Owner's indemnification, contained in Section 1.08.4 below, expressly includes indemnification for any failure on the part of the Engineer, the Contractor or any other employee to comply with this Resolution and Order.

All costs associated with the sanitary sewer or storm system construction, vegetated corridors, and erosion control pursuant to a Construction Permit Agreement including, but not limited to, repairs of defective work, shall be borne by the Property Owner.

1.08.2 Easements

Facilities which are part of the publicly owned sanitary and surface water management system shall require an easement or dedication. The publicly owned facilities shall include sanitary sewers, pump stations, storm sewer systems, and water quality or quantity facilities serving more than one property. Facilities shall also include sensitive areas and associated vegetated corridors and created and constructed wetlands. Access easements are required to all public water quality and quantity facilities that include outlet control structures and to manholes where required by the District or City. The Owner shall provide the District or City with the documents necessary to grant such easements.

1.08.3 Right of Entry to Work

Representatives of the District and any federal, state, or local agencies having jurisdiction over any sanitary or storm and surface water work site, shall have right of entry to any and all portions of the work at reasonable times, and the Contractor shall cooperate in all respects with such agencies and shall provide proper facilities for access and inspection.

1.08.4 Indemnification

The Owner and other parties to a construction permit agreement shall indemnify and hold harmless the District and/or City, its officers and employees from and against all claims, demands, penalties, damages, losses, expenses, including attorneys' fees, and causes of action of any kind or character, including the cost of defense thereof, arising or alleged to have arisen in favor of any person on account of personal injury, death or damage to property arising out of or resulting from or alleged to have arisen out of or resulted from, in whole or in part, any act or omission of the Owner, its Engineer, its Contractor, its Safety Manager or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

1.08.5 Guarantee

The Owner shall furnish high quality equipment, supplies, and materials, and perform the work in accordance with these specifications. Any failure or omission of any District or City inspector to reject any defective equipment, supplies, materials, or work shall not be construed as an acceptance thereof nor release the Owner from his obligations hereunder. Upon notification of any deficiency by District or City, the Owner shall properly reconstruct or replace any defective equipment, supplies, materials, or work at its own expense at any time upon discovery of the defect during the period of construction and for the full guarantee period following acceptance of the work and indemnify District and City from any claims resulting therefrom. The Owner shall guarantee all materials and equipment furnished and work performed for a minimum period of one year from the date of formal written acceptance by the District or City. The Owner further warrants and guarantees for a minimum period of one year from the date of final acceptance of the system that the completed system is free from all defects due to faulty materials or workmanship and the Owner shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects.

1.08.6 Traffic Maintenance and Safety

The Contractor shall comply with all rules and regulations of the City, County, or State authorities regarding the closures of public streets or highways to use of public traffic. No public road shall be closed to the public except by express permission of the public agency responsible for the road. The Contractor shall conduct its operations so as to ensure the least possible obstruction to traffic and normal commercial pursuits. The Contractor may be required to submit a traffic control plan to the appropriate jurisdiction for review and approval prior to beginning construction.

1.08.7 Protection of Property

The Contractor shall protect stored materials, cultivated trees and crops, and other items located adjacent to the proposed construction limits. Property Owners affected by the construction shall be notified at least 48 hours in advance of the time construction begins. During construction, no person shall be without vehicular access to their residence or place of business for a period exceeding eight hours, unless the Contractor has made special arrangements in writing with the affected person.

1.08.8 Safety Requirements

The Owner and Contractor are responsible for the safety of the work and of all persons and property coming into contact with the work. The Contractor shall

conduct the work in such a manner as to comply with all requirements of Occupational Safety and Health Administration, the Oregon Safe Employment Act and any other agency having authority over such matters. The Contractor shall minimize the possibility of accident or injury to workers and the general public. The Contractor shall conduct the work to provide all reasonable safeguards so as to protect public and private property. If the District or City inspector observes a violation of safety practices, the District or City inspector will inform the Contractor of the inspector's observation. The Contractor shall then immediately correct the violation. If the Contractor does not do so, the District or City shall notify the appropriate agency having jurisdiction. If, in the opinion of the District or City inspector, the safety violation is of a nature to present imminent danger to Contractor's workers or the general public, the District or City inspector may cause the construction work to stop until the safety violation is corrected. The District and City inspector's role is not one of supervision or safety management, but is one of overview only. Nothing contained in this section or elsewhere in this Resolution and Order shall be interpreted to obligate the District or City to act in any situation nor to shift the Owner's responsibility for safety compliance to the District or City. No responsibility for the safety or the work or for construction means, methods, techniques, sequences or procedures shall attach to the District or City by virtue of its action or inaction under this section.

1.08.9 Compliance with Applicable Laws

The Contractor shall keep fully informed of all local ordinances, as well as state and federal laws, which in any manner affect the work herein specified. The Contractor shall at all times comply with said ordinances, laws, and regulations, and protect and indemnify the District and/or City and its officers and agents against any claim or liability arising from or based on the violation of any such laws, ordinances, or regulations. All permits, licenses, and inspection fees necessary for execution and completion of the work shall be secured by the Owner or Contractor, except where specifically provided by the District or City.

1.08.10 Interference with Public Sanitary Sewer or Storm System Prohibited

No person shall block, obstruct or interfere with any portion of the public sanitary sewer or storm system without approval of the District or City. This prohibition includes, but is not limited to, the obstruction of the flows from and to any point within the public sanitary sewer or storm system.

1.08.11 Inspection Warrants

The District or a City may apply to a court of competent jurisdiction for an inspection warrant pursuant to this section. The District or City may apply for such warrants whenever the District or City has requested of the property

owner or his/her apparent agent access to any premises to ascertain information necessary to carry out the provisions of this Resolution and Order and such request has been denied. Information necessary to carry out these provisions shall include, but not be limited to, verification of Owner supplied data. An inspection warrant issued pursuant to this section is an order authorizing an inspection or investigation to be conducted at a designated place or property for the purpose of obtaining the above described information.

1.08.12 Professional Engineering Submittals

The District requires strict compliance with ORS 672 for Professional Engineers.

When required by this Resolution and Order all engineering plans, reports, calculations, and other technical submittals shall be prepared, sealed, and signed by a Professional Engineer currently registered in the State of Oregon. It is the Engineer's responsibility to become familiar with, and comply with all design and construction Standards as contained within this Resolution and Order and to review any proposed changes with the District prior to design, permit approval, or construction. District approval of engineered plans and other submittals does not in any way relieve the Engineer of responsibility to meet all requirements of the District or obligation to protect the life, health, safety, and property of the public. Except where alternative methods, materials or designs have been approved by the District under Section 1.06, the Engineer shall be required to revise or supplement the design if the District determines that the full requirements of these Standards have not been met.