# **Plan Preparation Guidance**

## **TABLE OF CONTENTS**

1.0	INTRODUCTION	1
	1.1 How to Use this Manual	1
2.0	OVERVIEW OF THE STORMWATER PLANNING PROCESS	1
	2.1 Relevant Local Government Agencies	
	2.2 Site Planning Process Flowcharts	2
3.0	STORMWATER PLANS SUBMITTED IN THE PLATTING PROCESS	2
	3.1 The Drainage Concept	
	3.2 The Drainage Plan	
	3.2.1 Covenants for Stormwater Management Facilities	3
4.0	STORMWATER PLANS SUBMITTED IN THE SITE CONSTRUCTION PROCESS	3
	4.1 The Stormwater Permit Application	
	4.1.1 The Construction Plan	4
	4.1.2 The Operations & Maintenance Plan	5
	4.1.3 Stormwater Pollution Prevention Plan	
	4.1.4 Supplemental Drainage Calculations	
	4.1.5 ERU Plan Sheet (City of Wichita only)	
	4.1.6 Sewer Permit Application (City of Wichita only)	
	4.2 The As-built Plan	
5.0	POLICIES FOR THE SUBMITTAL OF STORMWATER DESIGN INFORMATION	9
6.0	THE PRE-DESIGN CONSULTATION	11
7.0	PERFORMANCE BONDS	12
8.0	LOCAL JURISDICTION STORMWATER WEBSITES	13

## **LIST OF FIGURES**

#### LIST OF APPENDICIES

**APPENDIX A – Stormwater Manual Navigational Aide** 

APPENDIX B – Wichita/Sedgwick County Development Process Flowcharts

**APPENDIX C – Drainage Concept Checklist** 

**APPENDIX D – Drainage Plan Checklist** 

**APPENDIX E – Restrictive Covenants Template** 

**APPENDIX F – Stormwater Permit Application** 

APPENDIX G – Construction Plan Checklist

**APPENDIX H – Operations & Maintenance Checklists** 

H0 - Operations & Maintenance Plan Submittal Checklist

H1 – Inspection & Maintenance Guidance for Stormwater (Wet) Ponds

H2 – Inspection & Maintenance Guidance for Vegetative Filter Strips

**H3 – Inspection & Maintenance Guidance for Grassed Channels** 

H4 – Inspection & Maintenance Guidance for Extended Dry Ponds

**H5 – Inspection & Maintenance Guidance for Enhanced Swales** 

**H6 – Inspection & Maintenance Guidance for Infiltration Trenches** 

H7 – Inspection & Maintenance Guidance for Soakage Trenches

H8 – Inspection & Maintenance Guidance for Sand Filters (Surface and Underground)

**H9 – Inspection & Maintenance Guidance for Bioretention Areas** 

H10 – Inspection & Maintenance Guidance for Stormwater Wetlands

H11 - Inspection & Maintenance Guidance for Gravity (Oil-Water) Separators

H12 – Inspection & Maintenance Guidance for Alum Treatment

H13 – Inspection & Maintenance Guidance for Organic Filters

H14 - Inspection & Maintenance Guidance for Conventional Dry Detention Ponds

H15 - Inspection & Maintenance Guidance for Underground Dry Detention Facilities

H16 – Inspection & Maintenance Guidance for Porous Pavement Systems

H17 – Inspection & Maintenance Guidance for Modular Porous Pavement Systems

### **APPENDIX I – SWPPP Template**

**APPENDIX J – Sewer Permit Application** 

**APPENDIX K – Stormwater Design Certification Form** 

APPENDIX L – As-Built Plan Checklist

APPENDIX M - As-Built Certification Form

**APPENDIX N – Acronym List** 

#### 1.0 INTRODUCTION

The City of Wichita and Sedgwick County Stormwater Manual is primarily intended to provide policy and guidance for the portions of the land development process that pertain to stormwater management. The purpose of Volume 3 is to define the policies and procedures for the site plan review process, which falls largely under the public works and codes enforcement arms within both jurisdictions. Detailed information about the requirements or procedures of other agencies in this process, such as the Metropolitan Area Planning Commission (MAPC) and various utilities, is not presented in this manual and the reader is referred to the agency of interest for further information.

## 1.1 How to Use this Manual

A graphical stormwater manual navigation aide is provided in Volume 3, Appendix A to assist the user in the application of this Manual to the specific local development processes. This aide depicts the general steps for land development in the City of Wichita and Sedgwick County. The appropriate corresponding chapters/sections/appendices for each development process step are also shown.

#### 2.0 OVERVIEW OF THE STORMWATER PLANNING PROCESS

## 2.1 Relevant Local Government Agencies

The following figure displays the organizational structure of the entities involved in local stormwater management for the City of Wichita and Sedgwick County.

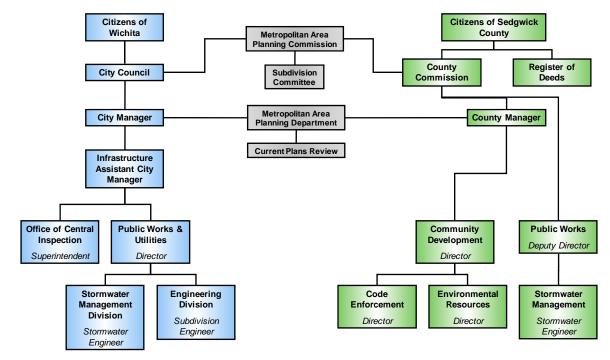


Figure 1-1 Wichita and Sedgwick County Entities Involved with Stormwater Management

To avoid confusion in the following text "Codes Department" shall mean the Office of Central Inspection for Wichita, and the Codes Enforcement Department for Sedgwick County.

## 2.2 Site Planning Process Flowcharts

The flow charts presented in Volume 3, Appendix B present the sequence of events that comprise the site development processes in the City of Wichita and Sedgwick County.

- Appendix B-1 depicts the subdivision drainage plan and platting process for both jurisdictions;
- Appendix B-2 presents the construction planning and inspection process for subdivisions after platting and for single lot developments in the City of Wichita; and,
- Appendix B-3 presents the construction planning and inspection process for subdivisions after platting and for single lot developments in Sedgwick County.

#### 3.0 STORMWATER PLANS SUBMITTED IN THE PLATTING PROCESS

## 3.1 The Drainage Concept

The drainage concept is the first stormwater plan that is encountered in the subdivision planning/platting process, and is submitted with the preliminary plat application. Submission of a drainage concept is not mandatory except when specifically requested by the local jurisdiction, but it is highly recommended for all sites. When required, preliminary plat applications will be denied if the drainage concept plan is not approved.

The purpose of the drainage concept is to provide an understanding of the anticipated stormwater management system/facilities on the site to the local jurisdiction. Ideally, preparation of a drainage concept will aide the site developer and site design engineer in the determination of the most feasible approach for site stormwater management. The drainage concept presents general stormwater management information and does not include detailed design calculations. A complete checklist of stormwater information elements that must be included in the drainage concept can be found in Appendix C.

The drainage concept must be submitted to the local jurisdiction's Stormwater Management Division by 4 PM on the Thursday two weeks prior to the Subdivision Committee hearing on the preliminary plat. The concept will be reviewed and comments will be returned to the applicant within one week. The drainage concept will be approved only after all comments have been resolved prior to the hearing on the preliminary plat.

## 3.2 The Drainage Plan

The drainage plan builds on the information provided in the drainage concept by including detailed calculations used to locate, size, and design the proposed stormwater management

facilities. Submittal of a drainage plan to the local jurisdiction is mandatory with the final plat application. Final plat applications will be denied if the drainage plan is not approved.

The drainage plan must include all items found in the checklist of Appendix D. Some highlights include:

- Pre- and post-development hydrology calculations to prevent against peak flow increases for the 2 through 100 year storms;
- 1-year storm calculations to protect against downstream channel erosion;
- Small storm hydrology calculations to determine the volume of water that must be treated to the 80% TSS removal standard, including any adjustments for WQ<sub>v</sub> reduction areas;
- TSS removal calculations proving the removal of at least 80% of the site TSS load;
- Detailed hydraulic calculations to ensure proper inlet design, proper protection of structures from flooding, protection of ditches from erosion, etc.;
- Floodplain modelling and documentation where required for sites that propose to fill in the floodplain; and,
- A Restrictive Covenants for Stormwater Management Facilities document executed by the Owner(s) of the facilities and the local government.

The drainage plan must be submitted to the local jurisdiction's Stormwater Management Division by 4 PM on the Thursday two weeks prior to the Subdivision Committee hearing on the final plat. The concept will be reviewed and comments will be returned to the applicant within one week. The drainage plan will be approved only after all comments have been resolved prior to the hearing on the final plat.

### 3.2.1 Covenants for Stormwater Management Facilities

Templates for Restrictive Covenants for Stormwater Management Facilities for both the City of Wichita and Sedgwick County are provided in Appendix E. The covenants bind the property owner (and subsequent property owners) to the long-term proper operation and maintenance of stormwater facilities and any optional WQ<sub>v</sub> reduction areas that are located on the development/redevelopment. Approval of the final plat by the local jurisdiction cannot be obtained until the covenant for the property has been executed by the property owner(s) and the local jurisdiction.

#### 4.0 STORMWATER PLANS SUBMITTED IN THE SITE CONSTRUCTION PROCESS

### 4.1 The Stormwater Permit Application

For developments in both the City of Wichita and Sedgwick County, a Wichita/Sedgwick County Stormwater Permit must be issued by the local jurisdiction's Stormwater Management Division prior to the commencement of land disturbance/construction activities and/or

issuance of a building permit. The Stormwater Permit Application is provided in Appendix F of this Volume.

As indicated on the Stormwater Permit Application, the stormwater-related items listed below must be on-file with the Stormwater Management Division or attached with the application. These items are discussed as indicated in the list below.

- The subdivision drainage plan, if available for the proposed development (discussed in Section 3.2);
- The construction plan (discussed in Section 4.1.1);
- The Stormwater Pollution Prevention Plan and Authorized Notice of Intent (discussed in Section 4.1.2);
- The draft O&M Plan (discussed in section 4.1.3)
- Supplemental drainage calculations, if required (discussed in Section 4.1.4);
- The ERU plan sheet (discussed in Section 4.1.5);
- Sewer Permit Application (discussed in Section 4.1.6); and,
- A completed Stormwater Design Certification Form (discussed in section 4.1.7).

#### 4.1.1 The Construction Plan

The construction plan can be created once the final plat has been approved and when site improvements are imminently planned. The plan includes construction related information for stormwater management, erosion prevention and sediment control (EPSC), non-stormwater related public infrastructure, and other building codes related issues. In both the City of Wichita and Sedgwick County, the plan is reviewed/approved by staffs in engineering, stormwater management and codes enforcement.

Note: In the City of Wichita, the proper name or identifier for the stormwater portion of the construction plan varies depending upon the source of funding (private or public) for the project and the improvement type. For privately funded projects, the stormwater portion of the construction plan is also referred to as a Private Project Drainage (PPD) plan. For publicly funded improvements, the stormwater information can be termed a stormwater drain (SWD), storm sewer (SWS), or can even be referred to as paving improvement that includes incidental drainage.

Relevant to site stormwater management, the plan provides specifications for the construction of the stormwater management facilities, as designed in the drainage plan. The construction plan must include all items found in the checklist of Appendix G.

Construction plans must be created according to the local jurisdiction's construction standards. The following documents must be incorporated into the construction plan:

Local Standard Specifications (per template specification file);

- Local Plan Sheet Information (per template CAD files);
- Local EPSC Plan View Standards (per template CAD files);
- Local Bid Items (per standard bid tabs);
- Local Notes for Stormwater Projects (per template CAD files); and,
- Local Standard Stormwater Construction Details (per template CAD files).

Templates for all of these documents can be found at Wichita's stormwater management website.

The applicant is responsible for obtaining all relevant and required Federal, State and local permits associated with the development. These are discussed in Volume 1, Chapter 2 of this Manual. Proof that all applicable permits have been obtained is required with the construction plan.

The construction plans must be submitted to the appropriate Stormwater Management Division for review. A review of the construction plans will be performed by staff and comments will be returned to the applicant within two weeks. Construction plans will not be approved until all required local, State and Federal permits have been obtained by the applicant and presented to the local Stormwater Management Division, and all comments provided by Stormwater Management Division staff have been resolved.

#### 4.1.2 The Operations & Maintenance Plan

Stormwater design information that is submitted with the drainage plan will include a draft Operations & Maintenance (O&M) Plan. A checklist for the O&M Plan contents is provided in Appendix H0. The O&M plan is linked to the Restrictive Covenants for Stormwater Management Facilities, as indicated in the covenants language. Both documents are used to ensure the long term, proper operation and maintenance of stormwater management facilities located on the development. Long-term maintenance of water quality treatment facilities is a requirement that the State of Kansas imposes on both the City of Wichita and Sedgwick County through their municipal separate storm sewer system (MS4) permits.

While the covenants bind the property owner (and subsequent property owners) to the maintenance of stormwater facilities, the O&M plan provides information to accurately identify and locate the stormwater feature/facilities and WQv reduction areas on the property, and guidance to adequately inspect and maintain the facilities. The draft O&M Plan must be submitted and approved as part of the construction plan. A final O&M Plan is provided with the As-Built Plan (discussed in section 4.2) and is recorded with the Sedgwick County Registrar of Deeds.

Two of the required elements of the O&M plan are the Inspection and Maintenance Guidance and the Inspection Checklist. Both of these sheets (8.5" x 11" paper) must be provided in the O&M plan for each stormwater management facility that is located on the development site. These sheets are provided in Appendices H1 through H18 of this volume for each stormwater

management facility included in this manual, with the exception of proprietary stormwater controls for which maintenance guidance should be provided by the control's vendor. The Guidance includes information what to inspect/maintain and the expected frequency of inspections and routine maintenance activities. The Checklist provides a list of inspection items with spaces for an indication of inspection result (satisfactory or unsatisfactory) and notation for any corrective actions/maintenance activities undertaken.

After development is complete, property owners are strongly encouraged to use the Guidance and Checklists that are provided in the O&M plan to perform and document their facility inspections and maintenance, as is required by the stormwater management regulations in the City of Wichita and Sedgwick County.

#### 4.1.3 Stormwater Pollution Prevention Plan

The stormwater pollution prevention plan (SWPPP) that was submitted to the State of Kansas for coverage under the Kansas Water Pollution Control General Permit and Authorization to Discharge Stormwater Runoff from Construction Activities Under the National Pollutant Discharge Elimination System (also called the Kansas Construction General Permit) must be submitted with the Stormwater Permit Application. The SWPPP must be accompanied by the Authorized Notice of Intent (NOI). An authorized NOI indicates to the local jurisdiction that the Kansas Department of Health and Environment (KDHE) has received and approved the SWPPP and issued coverage under the Kansas Construction General Permit.

A template for preparation of a SWPPP is provided in Appendix I. This template is based on SWPPP preparation guidance developed by EPA.

#### 4.1.4 Supplemental Drainage Calculations

The local jurisdiction may require submittal of supplemental drainage calculations. This occurs when the plat on file does not reflect the development being proposed (making the original drainage plans no longer applicable), or when the local jurisdiction does not have a current drainage plan on file. These situations sometimes arise when platting occurs many years prior to actual construction. When planning such a development, the site developer is strongly encouraged to check with the local jurisdiction's Stormwater Management Division to determine whether supplemental drainage calculations are going to be required. The supplemental design calculations must be reviewed and approved by the division prior to issuance of a Stormwater Permit (discussed in the next section).

The purpose of providing supplemental drainage calculations is to either confirm that the stormwater designs in the previous drainage plan are sufficient to meet current stormwater regulations, or to present the re-design of stormwater management facilities for water quality treatment, channel protection and peak discharge control. When required, the calculations will include:

 a short narrative of the proposed improvements, which describes the need for drainage calculations and other special conditions;

- a Professional Engineer's certification;
- stormwater design specifications and calculations for all water quality treatment, channel
  protection and peak discharge control facilities. The calculations must indicate that
  stormwater designs meet the requirements of the stormwater management regulations of
  the local jurisdiction;
- a revised draft O&M Plan for the stormwater management facilities located on the property.

#### 4.1.5 ERU Plan Sheet (City of Wichita only)

When submitting a Stormwater Permit Application to the Wichita Office of Central Inspection (OCI), the Stormwater Management Division requires a separate ERU plan sheet that includes the following:

- the project name and address and/or legal description of property;
- the building permit number (if known);
- a map showing a delineation of project limits with:
  - the project area (in acres) clearly indicated;
  - property lot lines clearly marked and lot number labels;
  - proposed improvements shown as a background (note: the site grading plan and/or landscape plan is often used as a base drawing background);
  - impervious areas located within the project's property limits shown in cross-hatch.
     Impervious areas include the driveways from the city street right-of-way. Public streets and sidewalks located in street right-of-way should not be included in the impervious area calculations;
  - a map legend;
- area measurements for total pervious and total impervious surfaces, in square feet.

Per Chapter 16.30.010(p) of the City Code, "impervious area" is defined as the number of square feet of hard surface areas which either prevent or retard the entry of water into soil mantle, as it entered under natural conditions as undisturbed property, and/or causes water to run off the surface in greater quantities or at an increased rate of flow from that present under natural conditions as undisturbed property, including, but not limited to, roofs, roof extensions, patios, porches, driveways, sidewalks, pavement, athletic courts, and compacted dirt or graveled areas.

The ERU plan sheet shall be submitted to Stormwater Management electronically in PDF format and as a half-scale (11"x17") hard copy with the above referenced information included.

Directions for submittal of the City's ERU plan sheet can be found at the following link: <a href="http://www.wichita.gov/CityOffices/PublicWorks/StormWater/Regulatory+Documents.htm">http://www.wichita.gov/CityOffices/PublicWorks/StormWater/Regulatory+Documents.htm</a>.

## 4.1.6 Sewer Permit Application (City of Wichita only)

For proposed developments in the City of Wichita that will connect a roof drain, sump pump discharge, or storm sewer (and the discharge pipe is 10-inches in diameter or smaller), the applicant must submit a Sewer Permit Application. The application is provided in Appendix J. A complete Sewer Permit Application must be submitted to the City of Wichita Office of Central Inspection's Sewer Department desk prior to obtaining a City Stormwater Permit.

The Sewer Permit Application shall include a site specific map that depicts the following items:

- the location, type, material, flowline and slope of all storm sewer pipes; and,
- the location and type of all drainage structures (e.g., catchbasins, headwalls, etc.).

### 4.1.7 Stormwater Design Certification Form

Construction plans must be accompanied by a Stormwater Design Certification form. The form must be completed and stamped by the Professional Engineer overseeing the design of the stormwater facilities at the development site. A blank form is provided in Appendix K.

#### 4.2 The As-built Plan

The As-built plan are submitted to the local Stormwater Management Division for review and approval after construction of the facilities is compete. The as-built plan must include all items found in the checklist of Appendix L. A complete as-built plan must be reviewed and approved by the local jurisdiction prior to obtaining a Certificate of Occupancy.

Policies associated with as-built plans are as follows:

• The as-built plans shall reflect the "as-constructed" condition of the development, and shall include sufficient information to demonstrate substantial conformance with the approved plans. Significant deviations from the approved plans shall be considered violations of the local jurisdictions stormwater management regulation and are grounds for the invocation of the injunctions and penalties defined therein, and/or withholding the release of a bond or letter of credit pending the completion of corrective action(s), and/or requiring a submittal of a revised drainage plan. In the event that the local jurisdiction requires submittal of a revised plan, the revision shall include a description of the discrepancies between the site conditions and the prior approved plans, along with design calculations that demonstrate that the as-built conditions comply with local requirements. Should the as-built conditions be shown to have a negative impact with regards to flooding, maintenance, erosion or water quality; the local jurisdiction may require other mitigation measures and proposed design plans to mitigate any potential impacts from the development.

• The final O&M plan must be included with the as-built plan. Plats, reserves, easements and stormwater management facility locations shown in the O&M Plan must be field checked by the property owner or developer prior to submitting the as-built plan to ensure that the field locations are approximately correct. The final O&M Plan must be recorded in the Sedgwick County Register of Deeds' office. Copies of the recorded documents or other verification of the recording must be included with the as-built drawings.

#### 4.2.1 As-Built Certification Form

As-built plans must be accompanied by an As-Built Certification form. The form must be completed and stamped by the appropriate design professional as required to stamp the original plan, and/or a registered land surveyor licensed to practice in the State of Kansas. A blank form is provided in Appendix K.

#### 5.0 POLICIES FOR THE SUBMITTAL OF STORMWATER DESIGN INFORMATION

The reader is referred to the local jurisdiction's stormwater management regulation for provisions pertaining to the submittal of stormwater-related design information on plats and plans. These regulations are provided in Volume 1, Appendix A (City of Wichita Code Chapter 16.32) and Volume 1, Appendix C (Sedgwick County Code 196-10). Beyond the provisions of the regulation, the policies that shall apply to stormwater-related submittals are listed below.

- Stormwater design information for the new development or redevelopment must be submitted as part of, and at the same time as, the preliminary plat, final plat, construction plan, or as-built plan, as appropriate for the stage of the development/redevelopment project. The stormwater design information will be reviewed for compliance with local stormwater and floodplain management regulations, this Manual, and any other applicable local requirements.
- The required elements for each stormwater design plan are provided in a series of checklists that provide a complete inventory of the required stormwater design information at each stage of the site development process. These checklists are listed below and are provided in the Appendices to this volume.
  - a. The Drainage Concept checklist (Appendix C);
  - b. The Drainage Plan checklist (Appendix D);
  - c. The Construction Plan checklist (Appendix G); and,
  - d. The As-built Plan checklist (Appendix L).
- The use of the appropriate checklist is required for each plat/plan submittal, to ensure that the portion of the plat/plan that contains the required stormwater design information is complete. A completed checklist MUST be submitted with the plan. When a plat/plan is submitted, the applicant must attach a signed copy of the checklist to indicate his/her understanding of what is to be included with the submitted plan.

- At a minimum, the stormwater design information portion of each plat/plan shall include all of the elements listed in the appropriate checklist, unless the element is not applicable to the site development. The checklist must included an indication of what elements are submitted/excluded. An explanation must be provided for all elements not included in the plan. Omission of any of the plan elements that are applicable to the site development shall render the plat/plan incomplete and it will be returned to the applicant, or their engineer, for completion.
- In general, drainage plans shall be prepared and stamped by an engineer, landscape
  architect, or architect competent in civil and site design and licensed to practice in the
  State of Kansas. However, the elements of a drainage plan that are listed below must be
  prepared and stamped by a professional engineer competent in civil and site design and
  licensed to practice in the State of Kansas.
  - a. Any portions of the drainage plan that require hydraulic or hydrologic calculations and design, including those temporary best management practices designed for purposes of erosion prevention and sediment control.
  - b. Any portions of the erosion prevention and sediment control plan that require hydraulic or hydrologic calculations and design.
  - c. All public roads.
- A stormwater design certification statement signed by the professional engineer of record performing (or overseeing) hydraulic and hydrologic calculations and designs must be included with all construction plan submittals. A blank copy of the certification statement that must be used is included in Appendix K.
- Site development projects that do not require the subdivision of land will not undergo
  platting with MAPC. In this case, a combined drainage plan and construction plan can be
  submitted.
- The stormwater management regulation gives the local jurisdiction the authority to request the submittal of additional stormwater design information with the plat/plan as necessary to allow a thorough review of the intended design or the as-constructed conditions.
- Approval of the preliminary plat, final plat, stormwater permit application, construction plan, as-built plan, or grading or building permits may be contingent on approval of the stormwater design information, as appropriate for the stage of the development/redevelopment. The reader is referred to other applicable regulations or policies for information on the plat/plan review and approval process.

The applicant may also be required to meet local, State and Federal regulations for construction activities that will have an impact on Waters of the State, wetlands, environmentally-sensitive features, and threatened or endangered species. It is the responsibility of the applicant to thoroughly review, understand and adhere to all applicable local, State and Federal laws and regulations with regard to site development and property regulations when submitting plats/plans.

• The majority of subdivision projects constructed in the City of Wichita are built under the public project process, wherein the City constructs the public infrastructure and bills the construction cost over a 15-year to 20-year repayment period to the landowners that are served by the infrastructure. However, some subdivisions are built under the private project process, in which the developer funds the site improvements. This difference in project funding affects the bonding, inspection and legal aspects of the project, but has little impact on how the stormwater facilities are designed. Each phase of plan submittal and review, construction inspection and as-built certification proceeds in the same manner regardless of whether a project is publicly or privately funded.

#### 6.0 THE PRE-DESIGN CONSULTATION

City of Wichita and Sedgwick County Stormwater Management staffs are available to meet with the property owner and site design engineer to discuss stormwater management options prior to submittal of a plat or plan. A pre-design consultation is not mandatory; however, it is highly encouraged and strongly recommended that owners and/or design engineers of new subdivision developments request such a consultation to review the preliminary site drainage concept.

The pre-design consultation provides an opportunity to quickly assess most factors that will influence the design of stormwater facilities for the site. Probable design difficulties can be identified and solutions found much easier when projects are discussed with the appropriate Stormwater Division staff early in the design process. Early consultation also provides an opportunity to consider preferred site design practices. From the perspective of the local jurisdiction, the objectives of the pre-design consultation are:

- review the site topography, existing vegetative condition, and preliminary development layout (if determined);
- identify the natural drainage conditions (for new development) and existing drainage conditions (for redevelopments);
- identify any features, such as streams, wetlands and floodplains that must be considered and/or avoided when designing the development or redevelopment;
- discuss preliminary strategies for stormwater and floodplain management;
- discuss preliminary strategies for site clearing, grading, erosion and sediment control
  practices and construction practices to ensure that construction activities that may impact
  the effectiveness of stormwater controls are understood and being considered;
- discuss opportunities for preferred site design practices and water quality volume (WQ<sub>v</sub>) reductions; and,
- determine how the technical guidelines and criteria presented in this manual should be applied to the site.

It is important to note that local jurisdiction staff will not be responsible for development of a plat or plan for the site. Further, the pre-design consultation should not be considered by the property owner or site design engineer as an endorsement or pre-approval of any plat or plan that will be submitted to the local jurisdiction later in the development process. The property owner is responsible for requesting and scheduling the pre-design consultation, and for inviting others as appropriate for his/her needs (e.g., the site design engineer or representatives of other agencies).

#### 7.0 PERFORMANCE BONDS

Where necessary for the reasonable implementation of local stormwater management regulations, the local jurisdiction may, by written notice, order any owner of a property affected by the ordinance to file a satisfactory bond, payable to the local government, in a sum not to exceed a value determined by the local jurisdiction to be necessary to achieve consistent compliance with this volume. The local government may deny approval of any building permit, grading permit, subdivision plat, site development plan, or any other City/County permit or approval necessary to commence or continue construction or industrial activity at the site, or to assume occupancy, until such a performance bond has been filed.

The purpose of the performance bond is to ensure that the person(s) responsible for completing the land disturbing activities and/or construction work that has the potential to impact the public interest if performed improperly is completed in an appropriate manner. The performance bond provides assurance that the local government will be reimbursed if it must assume the costs of corrective measures and/or work not completed by the responsible person(s) according to the required specifications and approved plans. A performance bond can be used to cover costs for the remediation or demolition of roadways, stormwater management facilities and related appurtenances, the installation and maintenance of EPSC measures and EPSC corrective actions, final soil stabilization of a site, and the establishment, protection, and maintenance of water quality buffers.

In the City of Wichita, performance bonds are authorized in the Stormwater Management Ordinance and are administered by the Public Works & Utilities Department's Engineering Division. The dollar amount of the performance bond will be determined by the Public Works & Utilities Department, based on the information presented in the approved SWPPP and/or drainage and construction plans.

General policies regarding release of a performance bond are as follows:

- An accurate as-built plan must be completed for the property; and,
- The O&M plan must be recorded with the Sedgwick County Registrar of Deeds.

If found within the boundaries of the development, any one of the following items could keep areas or activities from being released from the performance bond: areas of erosion or unstabilized areas that require vegetation; less than 70% perennial vegetation coverage of non-paved areas. There may be additional requirements for sites that are considered a

priority construction activity or have caused past damages off-site due to sediment discharges; potential for discharges of sediment, or construction-related and other wastes;

- engineering or structural deficiencies or maintenance issues associated with constructed roadways, the stormwater system, or stormwater management best management practices;
- unsafe conditions;
- WQ<sub>v</sub> reduction areas not meeting specified requirements; and,
- O&M Plan not complete and/or recorded with the Sedgwick County Registrar of Deeds.

#### 8.0 LOCAL JURISDICTION STORMWATER WEBSITES

Relevant web-links for the City of Wichita and Sedgwick County are below:

City of Wichita Stormwater Management Division: <a href="https://www.wichita.gov/stormwater">www.wichita.gov/stormwater</a>

Sedgwick County Stormwater Management: <a href="https://www.sedgwickcounty.org/Public Works/stormwater management.html">www.sedgwickcounty.org/Public Works/stormwater management.html</a>.

This manual, along with all supporting documentation, forms, CAD drawings, online tools and supporting data can be found at the following link:

http://www.wichita.gov/StormWaterManual.htm.

